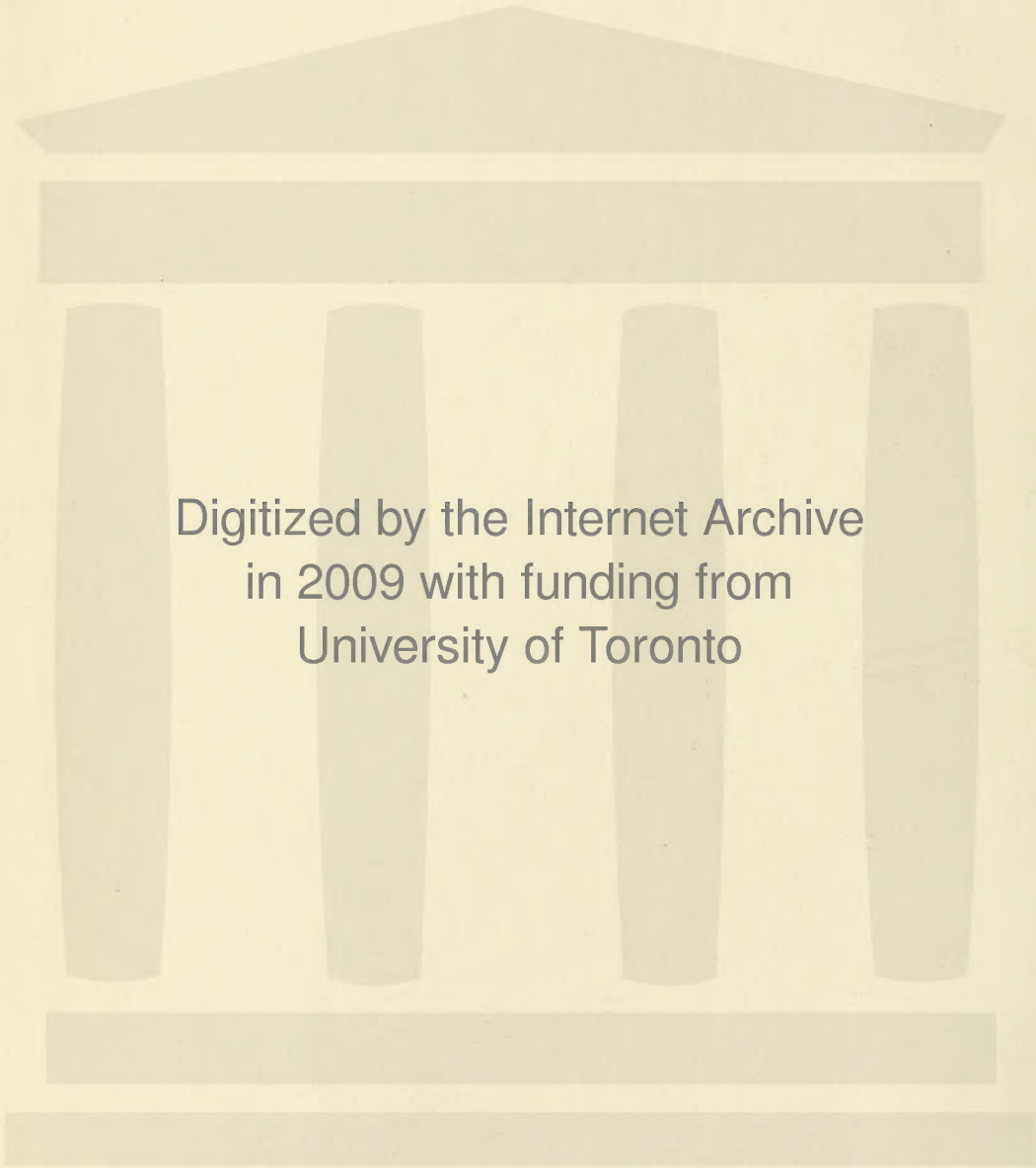

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Aitken, J., M.D. .. .. Govan, Glasgow (dead)
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Hollings, Robert, M.D.	Grove House, Wakefield
Hood, William, Esq.	Castlegate, York
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Horsfall, John, Esq.	Leeds
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Husband, W. D., Esq.	May Bank, Bournemouth
Hutchinson, C. F., M.D.	19, Esplanade, Scarborough
Hutchinson, R. S., M.D.	Scarborough (dead)
Ikin, J. I., Esq.	Park Place, Leeds
Inkster, S. M., M.D.	Fulwood Road, Sheffield
Jackson, Arthur, Esq.	Wilkinson Street, Sheffield
Jackson, Edward, M.B.	Glossop Road, Sheffield
Jacob, Ernest Henry, M.D.	12, Park Street, Leeds
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Jessop, T. R., Esq.	Park Square, Leeds
Johnson, T., Esq.	Knottingley
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Leach, Matthew, Esq.	26, Surrey Street, Sheffield
Leak, Thomas Mallorie, Esq.	Hemsworth, Pontefract
Lee, F. B., Esq.	The Elms, Heckmondwike
Leeson, J. F., Esq.	Ilkley Wells, Wharfedale
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McDowall, John Greig, M.B.	Wadsley, near Sheffield
McFadden, John, M.D.	Leslie House, St. Clement's, Oxford
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Matterson, Wm. M.D.	York
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Meade, Richard, H., Esq.	Bradford
Merryweather, H., M.D.	17, Howard Street, Sheffield (resigned)
Merryweather, James, Esq.	Guisborough
Miall, P. E., Esq.	Bradford
Mickle, David, Esq.	Kirklington, Ripon
Mitchell, S., M.D.	South Yorks Asylum, Wadsley, near Sheffield
Mossop, Isaac, Esq.	34, Victor Road, Manningham, Bradford
Muil, William, M.D.	Kirkby-Moorside
Murray, J. Ivor, M.D.	8, Huntriss Row, Scarborough
Murray, W., M.D.	Burley-in-Wharfedale
Muscroft, Henry, M.D.	Pontefract
Myrtle, A. S., M.D.	Harrogate
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Packman, A. T. V., Esq.	South Street, Sheffield
Payne, Henry, Esq.	Loxley, near Sheffield
Pickles, J. J., Esq.	68, Camp Road, Leeds (resigned)
Pinder, W. M., Esq.	Horsforth, Leeds
Price, W. N., Esq.	East Parade, Leeds
Pritchett, Henry, Esq.	Brighouse
Procter, W., M.D.	Petergate, York (dea)
Pye-Smith, R. J., Esq.	Sheffield
Rabagliati, A. C. Francisco, M.D.	9, Walmer Villas, Bradford
Ramsay, James, M.D.	90, Minster Yard, York
Ramsden, W. T., Esq.	Raventhorpe, Mirfield
Ramskill, Josiah, Esq.	29, Meadow Lane, Leeds
Reckitt, Edward Bass, Esq.	Boston, Lincolnshire
Rhodes, G. W., Esq.	Huddersfield
Richardson, Charles, Esq.	Brunswick Place, North Street, Leeds
Roberts, Arthur, Esq.	Albert Street, Keighley
Robinson, Edmund, Esq.	42, Park Square, Leeds
Robinson, George, Esq.	Burngreave Road, Sheffield
Robson, A. W. Mayo, Esq.	Leeds
Rowley, C. O., Esq.	Barnsley
Russell, J. W. L., Esq.	Montgomery Terrace Road, Sheffield
Saville, William, Esq.	Bridlington Quay (resigned)
Scattergood, Thomas, Esq.	Park Square, Leeds
Scott, Thomas, M.D.	Ilkley
Scott, William, Esq.	Holbeck, Leeds (dead)
Scott, W., M.D.	Waverley House, Huddersfield
Scougal, E. Fowler, M.B.	Newmill, near Huddersfield
Seaton, James, Esq.	North Street, Leeds (dead)
Shann, F., Esq.	Blossom Street, York
Shann, George, M.D.	Petergate, York
Shaw, Geo. H., Esq.	Attercliffe, near Sheffield
Shera, Henry A., Esq.	Glossop Road, Sheffield
Skinner, E., Esq.	Red Hill, Sheffield
Sloan, John, M.B.	Bramley, Leeds
Smailes, Thomas, Esq.	Honley, near Huddersfield
Smith, Charles, M.D.	Surrey Street, Sheffield
Smith, S. C., Esq.	St. John's House, Halifax
Snell, S., Esq.	17, Eyre Street, Sheffield
Smith, W. J., Esq.	Park Gate, Rotherham
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Spencer, H. M. Esq.	Peel Street, Bradford
Spowart, Thomas, Esq.	77, Montgomery Terrace Road, Sheffield
Stanger, William, Esq.	Wakefield
Statter, W. A., Esq.	Wakefield
Stawman, W., Esq.	Regent Street, Barnsley (dead)
Swanson, George Isles, M.D.	Lawrence House, York
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Sykes, Wm., Esq.	Mexborough, Rotherham
Tacey, W. G., Esq.	18, North Parade, Bradford
Tait, Lawson, Esq.	7, Great Charles Street, Birmingham
Taylor, C. Henry, Esq.	18, Manor Row, Bradford
Taylor, G. Stamp, Esq.	Meadow Lane, Leeds
Taylor, G. Stopford, Esq.	2, Eyre Street, Sheffield
Taylor, Joseph, Esq.	Hathersage, Sheffield
Taylor, John William, M D	34, Queen Street, Scarborough
Taylor, Thomas, Esq.	Methley, Leeds (resigned)
Taylor, William, Esq.	South Cliff, Scarborough, (resigned)
Teale, J. W., Esq.	2, Belvoir Terrace, Scarborough
Teale, Thomas Pridgin, M.B.	38, Cookridge Street, Leeds
Thomas, G. H. W., Esq.	Pocklington, York
Thomas, Robert, Esq.	Rawdon, Leeds (dead)
Thomas, W. R., M.D.	Glossop Road, Sheffield
Thomson, Edward W., Esq.	Sheffield
Thornton, W. H., M.B.	Scarborough (resigned)
Thorpe, George E. K., Esq.	221, Glossop Road, Sheffield (resigned)
Tibbits, Edward Thomas, M.D.	44, Manningham Lane, Bradford
Tordoff, Hardy, Esq.	68, Great Horton Road, Bradford
Trotter, C. J., Esq.	Holmfirth, Huddersfield
Walker, J. B., M.D.	Prospect House, Golcar, Huddersfield
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Wheelhouse, C. G., Esq.	Hillary Place, Leeds
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Wigin, George William, Esq.	Methley, Leeds
Wilkinson, W., Esq.	Sharrow, Sheffield (dead)
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Wilmot, Alfred E., Esq.	Maidenhead, Berks
Wilmot, Thomas, Esq.	Infirmary, Bradford
Wilson, W. J., Esq.	Clay Cross, Chesterfield (dead)
Wimpenny, J., Esq.	Holmfirth
Wood, Arthur, Esq.	Kirkby-Moorside
Woolhouse, F., Esq.	Brook Hill, Sheffield
Wright, C. J., Esq.	Park Square, Leeds
Wright, E. A., M.B.	Huddersfield
Wright, F., Esq.	Stamford Bridge
Wright, J. H., Esq.	Halifax
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Allbutt, Henry A., Esq.	Sheepscar Street, Leeds
Anderson, A., M.D.	Mirfield
Arbuckle, H. W., M.D.	Thorne, near Doncaster

Armistead, J. W., Esq.	85, Meanwood Road, Leeds
Atkinson, Edward Tweddell, Esq.	Richmond, Yorks
Atkinson, G. P., Esq.	Pontefract
Bacon, A. T., Esq.	Kirkstall Road, Leeds
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Barber, Jonathan, Esq. ..	Brookhill, Sheffield
Barker, Elijah, Esq.	Pitsmoor, Sheffield
Behrendt, M. R. J., Esq. ..	Barrington, Doncaster
Bell, Rev. David, M.D. ..	Goole
Bennett, H. J. L., Esq. ..	Infirmary, Dewsbury
Beverley, W. H., Esq.	5, Woodsley Terrace, Leeds
Blythman, Clement S., M.B. ..	Swinton, Rotherham
Brewer, T., Esq.	New North Road, Huddersfield
Brown, H., Esq.	Northallerton
Brown, S., M.B.	Manor Row, Bradford
Browne, Andrew, Esq.	Mold Green, Huddersfield
Buck, C. W., Esq.	Settle
Buncle, A., M.B.	Purstone, Pontefract
Cameron, J. A., M.D.	Bawtry
Campbell, C. McI., M.B. ..	Friends' Retreat, York
Carter, T., Esq.	Richmond
Cass, Wm. E., Esq.	Goole
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Clarke, John C., Esq.	Bank House, Morley, near Leeds
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Colby, G., Esq.	New Malton
Connon, Charles James, M.B. ..	Gunnerside, Richmond
Connon, W., M.D	Dewsbury
Craig, J. W., M.D.	Bingley
Deighton, Christopher, M.D. ..	Clapham (dead)
Denning, John Vere C., Esq. ..	West Vale, Greetland, Halifax
Denning, R. N., M.B.	Elland
Denton, A. H., Esq.	St. Philip's Road, Sheffield
Diamond, James, M.D.	Lindley, Huddersfield
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Dobson, J., Esq.	Burley Lawn, Leeds
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Drake, F. H., Esq.	Headingley, Leeds
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Ford, Alexander, Esq.	Harrogate
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Gill, W., Esq.	Somerset House, St. Philip's Road, Sheffield
Gray, A. C., M.D.	Selby (dead)
Green, T. B., Esq.	Sedburgh
Haley, William Henry, Esq. ..	Garden Street, Wakefield
Hallilay, John, Esq.	Burley Road, Leeds
Hanks, James, Esq.	Snaith, near Selby (dead)
Hargreaves, J. B., Esq. ..	Armley, Leeds
Harrison, H. B., Esq.	Kettlewell, near Shipton
Hartley, Joshua, Esq.	New Malton
Hartley, Reginald, Esq. ..	Thirsk
Hatfield, W. H., Esq.	Thornhill, Dewsbury
Heaton, John D., M.D. ..	Claremont, Leeds (dead)
Hebblethwaite, James E., M.D. ..	Lancaster Villa, Lower Harrogate
Hepworth, Wm., Esq.	Guiseley
Hillier, J. B., Esq.	Grey Terrace, Leeds
Hinchliffe, Matthew, M.D. ..	Wellington Road, Dewsbury
Hindle, F. J., Esq.	Askern, Doncaster
Holmes, F., Esq.	Leeds
Horden, J. O., M.B.	Dispensary, York
Hunt, H. J., Esq.	Beech Lodge, Harrogate
Hunt, Lewis G., M.D.	5, Eyre Street, Sheffield
Hunt, R., Esq.	Brunswick Place, Leeds
Hunter, W. L., M.B.	Pudsey
Ingham, Amos, M.D.	Haworth, near Keighley
Irving, J., M.B.	23, New North Road, Huddersfield
Jackson, Alfred, Esq.	Market Weighton
Jackson, T., Esq.	Welton, near Brough
James, H. G., Esq.	East Riding Asylum, Beverley (dead)
Jewell, C. C., Esq.	Dispensary and Accident Hosp., Scarborough
Johnson, W. J., Esq.	Bawtry
Johnston, J. Somerville, Esq. ..	69, Spital Hill, Sheffield
Kebbell, A., Esq.	Elvaston
Keighley, Robert D., Esq. ..	Batley
Kemp, B., Esq.	Westgate End House, Wakefield
Keith, A. E., M.D.	Kirkleatham, Redcar
Kenny, Maurice A., Esq. ..	Selby
Kermot, Abraham B., Esq. ..	Reeth, Richmond, Yorks.
Lambert, John, Esq.	Bradford
Lascelles, R. M., Esq.	Slingsby, near York
Laverick, John V., Esq. ..	Poplar House, Hinderwell
Law, Edward, M.D.	1, Brocco Bank, Sheffield
Law, Joseph D., M.D.	Devonshire Street, Sheffield
Leadman, A. D. H., Esq. ..	Borough Bridge
Lees, F. A., Esq.	Wetherby (resigned)
Le Tall, F. T., Esq.	Woodhouse, Sheffield
Locke, Thomas W. S., Esq. ..	Coatham, Redcar
McGregor, A. G., M.D. ..	Milden, Bingley, near Leeds
Maclachlan, J. C., Esq. ..	Halifax
Ma Master, James, M.B. ..	Castleford
McSheehy, E. L., M.D. ..	Thornville, Knaresborough
McWilliams, J. McC., Esq. ..	London House, Halifax
Margetson, W. E., Esq. ..	Dewsbury
Marshall, T. H., Esq.	17, Hampton Place, Bradford
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Morton, T. H., M.D.	Don House, Brightside, Sheffield
Munro, A. B., M.D.	Bradford
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Nowell, J., Esq.	Woodlesford, Leeds
Nunneley, John A., M.B. ..	22, Park Place, Leeds
O'Callaghan, G. H. K., Esq. ..	Military Hospital, York
Oglesby, R. P., Esq.	Park Square, Leeds
Oldroyd, J. H., Esq.	Armley, Leeds
Oliver, G., M.D.	West End Park, Harrogate
Ormsby, G. H., Esq.	Aberford
Peirson, G. B., Esq.	Sydenham Place, Holbeck, Leeds
Pogson, W., Esq.	Seacroft, Leeds
Petch, R., M.B.	Micklegate, York
Porritt, N., Esq.	Infirmary, Huddersfield
Ramsay, W., Esq.	Hutton Buscel
Reckless, Alfred, Esq.	Shalesmoor, Sheffield
Rhodes, G. S., Esq.	Saltburn-by-the-Sea
Richmond, Sylvester, M.D. ..	Northallerton
Ritchie, Thomas, Esq.	Otley
Roberts, J. G., Esq.	Walkley, Sheffield
Robinson, Edward, Esq. ..	Rotherham
Rose, R. D., Esq.	St. Leonard's House, York
Rutherford, J. J., Esq.	Shipley, Leeds
Ryott, W. H., Esq.	Thirsk (dead)
Sadler, Michael T., M.D. ..	Church Street, Barnsley
Scatchard, T. E., Esq.	Boston, Tadcaster
Scholefield, Wm. S., M.D. ..	Pickering, near York
Scott, Robert, M.D.	Infirmary, Halifax
Sedgwick, James, M.D. ..	Ladywell House, Borough Bridge
Sime, Robert, Esq.	Ecclesfield, Sheffield
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Smith, J. W., Esq.	Hallgate, Doncaster
Steele, S. T., Esq.	Morley, Leeds
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Storrs, Robert, Esq.	Hallgate, Doncaster
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Sykes, Richard, Esq.	Drighlington, Leeds
Sykes, W. A., Esq.	Golcar, Huddersfield
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Watson, T. H., M.B.	Westbourne Road, Sheffield
Westbrook, Charles, Esq. ..	St. Philip's Road, Sheffield
Williams, Josiah, Esq.	St. Philip's Road, Sheffield
Williams, Neville, Esq.	Harrogate
Wilson, J. M., M.B.	Thorne Road, Doncaster

(Several Members in the North of Yorkshire are included in the North of England Branch. See also East York and North Lincoln Branch.)

*** Several of the "Unattached" Members in the preceding Lists have joined the Branches of their respective Districts since the beginning of the year: and some have ceased to belong to Branches, though remaining in the Association.

ARMY AND NAVY.

MEMBERS. (374.)

Adcock, John, M.D., Brig.-Surg. A.M.D.	31st Brig. Depot, Great Yarmouth
Adsetts, J., M.D., Surg.-Maj. ..	Lincoln
Alcock, N., Esq., Surg. A.M.D. ..	Ballybrack, co. Dublin
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Allen, Robert Marshall, Esq., Dep. Insp.-Gen. (R.P.)	Welbourn Hall, Grantham (*M. Fr.*)
Allen, William H., Esq., Surg.-Maj. A.M.D	Sea View, Queenstown, Cork
Anderson, Alexander, Esq., Surg. A.M.D	Bombay
Anderson, D. H. B., M.D., Surg. A.M.D	Charisville, Portobello
Anderson, J., Esq., Surg.-Maj. R.H.A.	6, Campden Hill, Kensington
Anderson, J. Albert, M.D., Surg.-Maj. A.M.D.	Care of Principal Medical Officer, Barbadoes
Anderson, W., Esq., Fleet Surg. ..	Royal Marine Batallion, Kinsale
Andrew, G., M.B., Surg. Maj. A.M.D.	Silapur, Oude
Archer, S., Esq., Surg.-Maj. A.M.D.	Singapore, Straits Settlements
Atkinson, G., Esq., M.B., Surg. Maj. A.M.D.	Umritsur, Punjab (dead)
Bambridge, G., Esq., Surg. A.M.D.	11, Radnor Place, Oxford Square, W.
Barclay, A., M.B., Surg. Bengal Army	Care of Messrs. Grindlay & Co., Calcutta
Barnes, R. W., Esq., Surg.-Maj. A.M.D.	Fort Pitt, Chatham
Barrow, H. J. W., Surg. A.M.D. ..	Herbert Terrace, Shooter's Hill
Bartley, A. G., M.D., Surg.-Maj.	The Fort, Agra
Bathe, R., Esq., Surg. Maj. A.M.D.	4, Alfred Street, Plymouth (*S.W. D.*)
Beamish, R. F., M.D., Surg. A.M.D.	Cannanore, Madras
Beattie, J. F., M.D., Surg.-Maj. A.M.D.	Kurrachee, Bombay
Beaumont, R. W., Esq., Fleet Surg. R.N.	Royal Naval Hospital, Haulbowline, Ireland
Becher, E., M.D., Surg.-Maj. ..	Gravesend

Beelmore, Alfred J., Esq., Surg.-Maj., R.A.	Pembroke Dock
Bennett, W. R., M.D., Fleet Surg. R.N.	31, Springfield Road, N.W.
Berkeley, R. W., Surg.-Maj. A.M.D.	Meerut, India
Bernard, J., Esq., Dep. Insp.-Gen. R.N.	Melville Hospital, Chatham
Black, W T., Esq., Surg.-Maj. A.M.D.	Edinburgh (*E. Br.*)
Blair-Brown, Dugald, Esq., Surg. A.M.D.	14, Guildford Terrace, Dover
Boileau, J. P. H., M.D., Staff Surg.-Maj.	Woolston, Hants (*S. Br.*)
Bookey, W. J. B., Esq., Surg. R.N.	H.M.S. "Curacoa," China
Boult, E. F., Esq., Surg.-Maj. A.M.D.	Barbadoes
Boulton, E. J., Esq., Surg.-Maj. A.M.D.	Allahabad
Bourke, I., M.B., Surg.-Maj. ..	Station Hospital. Colchester
Bourke, U. J., Esq., Surg. A.M.D.	U.S. Club, St. Stephen's Green, Dublin
Bowen, R., Esq., Surg.-Gen. A.M.D.	Ridgway, Gloucestershire (*B. and B. Br.*)
Brown, W., Esq., Surg. R.N. ..	Royal Naval Hospital, Plymouth
Browne, C. H., Esq., Surg.-Maj. A.M.D.	Peshawur
Browne, W. R., M.D., Surg. 3rd Hyderabad Contingent ..	Bolarum, India
Buckle, Fleetwood, M.D., Staff-Surg. R.N.	Care of Joseph Matts, Esq., Isleworth
Burgess, P., M.B., Staff-Surg. R.N.	H.M.S. "Pelican," Pacific
Burges, W. A., M.D., Surg. A.M.D.	Fethard, Clonmel (dead)
Burke, John R., M.D., Staff-Surg. R.N.	H.M.S. "Emerald," Australia
Campbell, J. A. Esq. Surg.-Maj. A.M.D.	Jamaica (*Jamaica Br.*)
Candy, John, M.D., Surg.-Maj. A.M.D.	c.o. Watson & Co., 27, Leadenhall Street, E.C
Carolan, G. Mc G., Esq. Surg.-Maj. A.M.D.	15, Daly Mount, Phibston, Dublin
Carter, S. H., M.B. Surg.-Maj. A.M.D.	Candahar
Chapple, R.A., Esq., Brig.-Surg. R.A.	Garrison Hotel, Cork
Charlesworth, H., Esq., Surg.-Maj. A.M.D.	Chakata, India
Charlton, W. J., Surg. A.M.D. ..	Baklow, Punjab
Chesnaye, G. C., Esq., Surg.-Maj. A.M.D.	Lower Queen's Terrace, Southampton
Close, H. A., Esq., Staff-Surg. R.N.	H.M.S "Encounter," China
Coates, Matthew, Esq., Staff-Surg. R.N.	42, Leamington Road Villas, W. (*Met. Co. Br.*)
Cockburn, Robert, Esq., Dep. Surg.-Gen. A.M.D.	Bombay
Codrington O., M.D., Surg.-Maj., A.M.D.	Gibraltar
Cogan, Thomas S., Esq., Surg. Maj. A.M.D.	Cork (resigned)
Colan, H. A., Esq., Surg.-Maj. A.M.D.	Gibraltar (resigned)
Collier, H. Currie, Esq., Surg.-Maj. A.M.D.	Meean Meer, Moultan
Collis, William, Esq., Surg.-Maj. A.M.D.	H.M.S. "Pembroke," Chatham (*S.W. Br.*)
Colquhoun, A. G., Esq., Staff-Surg. R.N.	Peshawur
Conolly, J. V. J., M.B., Surg. A.M.D.	Gibraltar
Corban, L., M.D., Surg.-Major, A.M.D.	Gosport (dead)
Corbett, A. P., Esq., Surg.-Maj. A.M.D.	Jhansi, India (*S. of I. Br.*)
Corbett, Robert de la Cour, M.D., Surg.-Maj. A.M.D.	Stoke, Devonport (*S.W. Br.*)
Corbett, W. H., Esq., Brig.-Surg. A.M.D.	Care of Prin. Med. Officer, Allahabad
Corker, T. M., M.D., Surg. A.M.D.	Hospital, Isle of Ascension (*S. Br.*)
Corrie, A. T., Esq., Surg. R.N. ..	Royal Hospital, Plymouth
Cotton, J., M.D., Dep. Insp. Gn. R.N.	Forton, Gosport
Cowan, Michael W., M.D., Fleet Surg. R.N.	Cyprus
Craig, R. M., Esq., Surg.-Maj. A.M.D.	Care of King & Co., Cornhill, E.C.
Crane, Samuel L., M.D., Surg.-Gen.	Simla
Crawford, Thomas, M.D., Surg.-Gen. A.M.D.	Wylde Green, Birmingham
Creagh, William, Esq., Brig.-Surg. A.M.D. ..	Bengal
Creyk, W., M.B., Surg. Maj. A.M.D.	23, Headlands Park, Plymouth
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Crofts, James, M.D., Surg. Madras Army	Gibraltar
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HARVEIAN LECTURES

ON THE

PROGNOSIS AND TREATMENT OF CHRONIC DISEASES OF THE CHEST IN RELATION TO MODERN PATHOLOGY.

Delivered at the Harveian Society of London.

BY JAMES E. POLLOCK, M.D., F.R.C.P.,

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LECTURE I.

MR. PRESIDENT AND GENTLEMEN,—To the student of disease, whose own period of observation becomes somewhat prolonged, two questions ever arise afresh: Do we advance in our knowledge? Do we improve in our treatment? To such of us as are actively engaged in practice, these are difficult questions to answer. We are immersed in the details of individual cases, hourly pressing on our notice; we are embarrassed by the multitude of minute facts; and our judgment of the whole is obscured by the very nearness of our contact. For large views, and general deductions, we should like to retire to an elevation; and survey, as from a distance, the collected observations of which our knowledge is composed. From such a height, the relation of events to each other becomes more truly estimated; their value sinks or rises to its proper level; and their very colour and form assume a more or less certain aspect. That which seemed all-important and typical in individual cases, was often found to be but a segment of a larger sphere—a fragment of a greater truth; or, possibly, to belong to quite another category of knowledge.

Again: our private records of cases have possibly, as years pass by, become an accumulation, which, for want of time, of opportunity, or of the master power of organisation and arrangement, has lost its value as a whole, and is as purposeless to the student as a museum without catalogue or classification. Loaded, as we are, by the public with the grave responsibility of life and death, we are taxed to the last hour of our day. We are careful observers; but we are scarcely left the time for a faithful fleeting record of the natural phenomena we witness hourly. We would fain organise the knowledge which is passing under our hand. We would fain deduce general conclusions from our multitude of facts; but to few, indeed, is granted the leisure, or the opportunity, for thus fashioning our knowledge into a form from which others shall learn; or which shall become, even to ourselves, a store on which we may draw.

The mind, so occupied, is not reposing; nor are its powers stationary; nor does its development flag: for judgment improves, vision and appreciation of truth become clearer, and individual cultivation reaches a high level. There are many such men among us, who are practical, cultivated, and whose opinions on individual cases are of the highest value. But their knowledge too often dies with them; and, though they may have advanced the cultivation of the individual mind to the highest point possible, they may leave little or nothing behind to add to the ever progressive accumulation of knowledge. How much is lost here! Who can appreciate the depreciation which medical science undergoes by the silence of such men? Their experience has been the honey on which they have themselves fattened; but it has been lost to those who are to follow them.

I will not stop to inquire whether such men, if placed on the mental elevation which they covet, and with the leisure accorded which seems now ever to elude them, would become revolutionisers of old theories, or light up the old paths with such genius as to entitle them to be called discoverers. Believing, as I do, that knowledge is ever progressing, anon with great loud-sounding discoveries, but ever with a silent sure advance, to which many forces contribute, I rather class such men as among the invisible builders who, by precept and contact with others, spread and increase the seed which is to ripen at a harvest-time where they may not personally assist. As the Coliseum of Rome was built by a hundred thousand captive Jews, yet is said to have been raised by Titus, so science achieves colossal products; but the units who contribute are lost in the great name which one man only may be permitted to inscribe on the summit.

But, I will remark of this class of practical men, that, while they are scrupulously minute workers, and the most careful of observers, they are slow to change the names which their teachers gave to phenomena, or diseases; they cling somewhat tenaciously to ancient doctrines, and respect, to an extreme degree, that which they believe to be a *form of sound words*. Thus, though diseases and facts remain the same, while nomenclature has altered, your entirely practical man is often puzzled by the latter; and thinks that a new fact is announced if the language used for its description be changed.

Again: there are plenty of youthful students, hard-workers with the scalpel and microscope—and, above all, diligent students of modern German writings—who, instinct with the zeal of discoverers, hail every novelty, and have already changed their pathological nomenclature more than once for *most* structural affections. They represent the onward current—the apex of the advancing wedge, which is to cleave all mysteries, and dissipate all ignorance. Unquestionably, we owe much to them; but much more to a whole army of observers, not wedded to any school, unbiassed by any master, *nullius addicti jurare in verba magistri*, who are the faithful chroniclers of our pathological facts, and the heralds of all our advances.

I have thus introduced you to the statement that there have been, and still are, progressing among us, great changes in our views of disease, founded on our advancing knowledge—sometimes on our ancient wisdom or errors—but always manifested in the current literature of the day, and in our intercourse with the inquiring minds of the best men in our profession; and I propose to occupy these three lectures, commemorative of one of the great fathers of our knowledge, in an inquiry into the changes which modern pathology, and especially our views of treatment, have undergone regarding diseases affecting the lung.

The task which I have assigned to myself is to consider the changes which have in our time occurred in the pathology of chronic chest-diseases, and, if possible, to reconcile these changes with facts of clinical observation.

By an easy advance, we shall be led to consider their treatment. Our question is, Has modern pathology thrown light—more light than we had previously—on living phenomena and vital questions, and have we benefited by it so as to have more than a mere change of nomenclature?

Of course, as we advance in this inquiry, we shall become more practical, and our subject less dry; but it is a matter of very grave inquiry whether we have made real improvement, and have come to know more than we did some years ago of the real nature of structural changes in the lung; and I must ask your indulgent patience while I consider, in the first place, some anatomical and histological points. Of theories, I shall have little to say; of facts, much. Such questions as the definition of tubercle I must leave untouched; and I would remark that it is especially noticeable that our greatest modern authorities decline to pin themselves to a definition.

But I wish to bring modern knowledge to the front, and, irrespectively of theories, inquire if we can so divide our cases clinically, that their vital phenomena shall correspond to certain known changes in the lung, so that our anatomical and histological knowledge shall guide us to a more correct appreciation of the living case, its events, and its future. I shall not, of course, advocate the views of any individual, but, out of the great mass of recent knowledge added by many observers, select those facts on which all have pretty well agreed regarding the changes in diseased structures. We shall then inquire whether it is possible to arrange our living cases into corresponding groups. If we find certain points of agreement among all observers, although there may be differ-

ences in detail, we may, I think, safely conclude that we are near the truth.

I shall first state generally and briefly the leading change which has taken place in our time in the pathology of chronic lung-disease. We may say that, up to the time of Bayle, and Louis, and Laennec (that is, within the present century), there was no definite theory of the morbid condition of lung constituting consumption. It is, perhaps, to Laennec, more than to any other, that we owe definite ideas regarding what he called tubercle. His well-known theory was that, owing to a depraved state of constitution, an exudation took place into the structure of the lung, which, in time, underwent certain changes of caseation and softening, ending in ulcerative destruction of all the lung-structures. In studying Laennec, I fail to find—plainly for want of microscopic knowledge of the minute structures of the lung—any information as to the part primarily invaded. We are not told whether the so-called exudation was within or without the air-vesicles, or in the interlobular or perivascular structures. The miliary tubercle of Bayle, which was supposed subsequently to pass into a yellow caseation, and finally to undergo degenerative changes, is open to the same remark; and I am not here interested to say whether this theory is susceptible of support.

It remained for Addison in this country, and for Niemeyer more recently in Germany, to express their conviction, that the disease which is called consumption is mainly due to inflammatory changes; and that the resulting exudation-product in the lung undergoes degenerative alterations, which ulcerate all its structures. Virchow showed that the yellow caseation so resulting may be the product of the fatty degeneration of various morbid matters, as pus and cancer, and that much of what is called tubercle is of inflammatory origin, chiefly epithelial. The adoption of these views of inflammation in this country has given the stamp to the modern doctrines regarding lung-disease. Following the German view, inflammations of the lung are now divided into two leading forms, croupous and catarrhal; and it requires a very able practical physician to separate clinically the latter form from consumption. We must ask whether phthisis is an inflammation? and is the lung-exudation, or that morbid material which is found in the lung in chronic ulcerative diseases, identical with the product of acute inflammation? Are the structures of the lung so invaded or infiltrated (if I may use the term) identical in both cases? It is plain that I mean entire identity, not a mere histological sameness, the same cells or the same nuclei, but a real conformity of the structure invaded and altered, and of subsequent history; for these products of which we are speaking are short-lived, and undergo certain chemical changes dependent on their diminished vitality. They lose their blood-supply, become cheesy, disintegrate, undergo fatty degeneration, and may be absorbed; or they may become changed into fibrous structures of low vitality but contractile, which alter the whole structure of the lung. Again, Is the anatomical portion of the lung primarily affected the same in the acute inflammatory attack and in the so-called tubercular phthisis?

In the answers to these two questions, viz., Is the product in the lung identical histologically and chemically in the two affections, and are the structures first invaded actually the same? I hope to show that the key will be found to many important practical problems in the history of chronic lung-diseases, and also in their treatment; for not only is the nature of the affection involved in this inquiry, but also the progress and ultimate event of these diseases implied.

I proceed, therefore, briefly to consider the phenomena of acute inflammatory disease of the lung, and compare them with those of chronic forms. The divisions of pneumonia are now-a-days into the croupous and catarrhal. In the first, which is the old sthenic acute form, we have high febrile symptoms, ushered in by chills, a temperature rapidly rising to 105-108, and all the signs of intense consolidation of the lung; the vesicular structures of the organ being obliterated, and only the larger bronchi remaining pervious. The result, as is well known, is a fibrinous exudation into the alveolar cells, which, after an interval of eight to twenty days, undergoes rapid degenerative fatty changes, and is absorbed, leaving the walls of the air-cells unimpaired and elastic as before. Recovery is perfect, the breathing being mechanically and physiologically performed as in health. Neither is the interlobular structure altered, and there is no permanent thickening around the ultimate vessels or bronchi in the interalveolar cellular tissue.

When opportunity is given of examining such products in acute pneumonia, they are found to consist mainly of an exudation of fibrin with white and red corpuscles, and the bronchioles are filled with coagula, even up to those of fifth magnitude. As regards their site, they are strictly intra-alveolar, that is, they are confined to the air-cells, and the walls are not engaged, unless indeed by pressure from within. We have all no doubt admired during life the perfect recovery which takes place after pneumonia, and how speedily vesicular breath-sounds succeed to the blocked dumb condition of lung, which prevailed in the first stage. This is due to the fact that the walls of the air-cells have never been impaired nor disintegrated in the degenerative process of clearing up the cells.

But sometimes these pneumonias, however acute at first, do not clear up and resolve. At the end of about the second month, the patient, who has expected convalescence, but whose leading symptoms have subsided, becomes again somewhat feverish. His temperature rises, say, to 103° in the evening; and he has slight sweatings, and does not recover flesh, and begins to cough. The physical signs tell that the lung, although less solid, has not recovered sonoriety; and air does not penetrate the remotest vesicles; or there may be patches of dulness and bronchial breath-sounds, showing consolidations, partial, and somewhat insulated by tracts of lung more pervious. If opportunity be given of examining the morbid portion, you will find not only the air-cells blocked, but the alveolar walls themselves thickened, and invaded by a small cell-formation, with some fibrillated structure; so that their elasticity is lost; while the interalveolar structures are thickened, and the terminal vessels, pulmonary capillaries, and minutest bronchioles are beginning to be strangled by a new growth. These changes precede those of softening, in which all these structures are broken down and ulcerated. The case now looks very like phthisis.

I take now the description of catarrhal pneumonia from the latest German authorities, for it is to them we owe its definition. First, we have catarrh of the minute bronchi, with its fine mucous *râles*, gradually becoming of a character impossible to discriminate from crepitation, except that they are heard on expiration as well as on inspiration; next, signs of consolidation, beginning at the base and spreading rapidly upwards, and usually bilateral. These signs are often difficult of recognition. Above all, there is an indefinite limitation of disease, as judged by its physical signs. The evidence of infiltration is often doubtful. Certain tracts of lung become of diminished volume; or, again, an increase of volume may occur. The pathological conditions represented by these two opposite states are, collapse of a tract of lung, and infiltration of a similar tract, causing induration. A simple deficiency of breath-sounds accompanies the former; the latter will, of course, be indicated by bronchial breathing and voice. With the loss of such respiratory space, there is a proportional dyspnœa and lividity. The fever is of varied type—102.4°, with remissions. It is not typical, because it does not reach the height of croupous pneumonia, nor fall to that of ordinary phthisis; and, on the whole, there is a want of relation between the local and the general symptoms. Often there is fever before physical signs, and fever with waste; for one is the measure of the other. It is held, indeed, that fever is caused by the presence in the blood of septic material—in this instance, probably the detritus of local degenerations. Have not, then, the degenerations preceded the fever?

The pathological results of catarrhal pneumonia are, sero-sanguineous exudation into the alveoli; desquamative epithelial products, which block the air-cells; and, if the attack proceed long enough to cause infiltrations, the walls of the cells are thickened; numerous lymphoid cells appear in the blood-vessels and in the interstitial connective tissues, having escaped from the blood-vessels. Later, degenerative changes occur of the caseous kind. Isolated nodules, from the size of a pea to that of a hazel-nut, are found within the collapsed portions of lung; and these often become confluent, so that an entire pulmonary lobe may be so occupied. These nodules degenerate, and may form cavities. Examined in a later stage than this, the lung is found contracted; its connective tissue increased, so that a section presents thick whitish-gray bands of fibres. There is pigmentation in patches, and dilated bronchi are not uncommon. Albuminuria is a not unfrequent complication. This form of pneumonia has received the names of desquamative, catarrhal-cheesy. It is distinctly held to be a *non-tubercular* disease. Tubercle may be developed in the later stages; but the disorder is held to be inflammatory; and hence the new doctrine and the old stand in opposition. Laennec and his school would have taken such lungs as I have described to be tuberculous. The cheesy masses would have been ascribed to the secondary changes undergone by grey tubercle, which should have certainly preceded the caseation. There seems, however, no doubt whatever that such changes may occur; and such patients may die without the development of a single tubercle. It is true that groups of tubercles are almost always found; but they are secondary, of recent formation, and short-lived, often not sharing in the softening degenerative changes undergone by the other indurations in the lung. "The differential diagnosis between a catarrhal pneumonia", says Jürgensen, 'developed from an acute bronchitis, and one developed from a tubercular bronchitis, must depend chiefly on the history and on the course of the disease before the occurrence of consolidation." "Whenever groups of tubercles in the lungs

are associated with catarrh of the finer bronchi, it is very difficult to distinguish them from catarrhal pneumonia." To you, gentlemen, who have kindly followed me, and who have compared these descriptions with your clinical experience, it will be evident that I have been describing to you a phthisis. In such a case, it is not "very difficult", but impossible, to distinguish the two affections.

I have dwelt on this description, however, for a clinical purpose. Names change; but diseases remain the same. If these lung-changes are due to an inflammation, and not to a constitution or innate depraved process of blood-making, may we not be more hopeful about some of their forms, and predicate with some certainty how some may rise from the hopeless into the remediable class of affections?

I desire to contrast with this description of catarrhal pneumonia that which the same German school (and, following in their track, the English) have accepted pretty generally as applicable to chronic phthisis. The affection is characterised by "waste", as its name implies; and it is applicable to several forms of disease different in character, but all possessing, as common features, a constantly increasing emaciation and gradual destruction of life. Phthisis is multiform, but has family features connecting all its varieties, and a widely differing progress, and an infinite variation in duration. Some die of it in weeks or months; others survive its structural changes for years. We shall inquire into the causes of such diversity, and endeavour to select living features which shall enable us to detect them when brought before us.

Tubercle is, then, not an essential element in the disease; but, when found, is a secondary superadded result, arising from infection, or the resorption of inflammatory results in the individuals themselves. Tubercle is a short-lived product, arising from inflammatory residua which have undergone degeneration—caseation—and been conveyed into the system, or to distant parts of the lung or other organs, by the blood-vessels and lymphatics, or even directly by the air-tubes. Tubercle probably lives but some weeks or months; but the changes in the lung formerly ascribed to tubercle may last for years. But how does this self-infection arise? What is the origin of the disease which furnished the infecting source? For there is no such thing, according to this school, as chronic miliary tuberculosis. Phthisis is anatomically a chronic inflammatory disease. It is a specific variety of inflammation, with characteristic caseous secondary changes, which are, indeed, only the death of the product. It undergoes a necrosis. Not being provided with vessels, and its vascular supply being cut off by the thickened and altered perivascular tissue, the vessels are strangled. Of course, pathologists of this school are forced back on a primary cause, as were the preceding generations; and, if lung-changes do not arise spontaneously, it is necessary to account for them. A catarrh of the minute bronchi will not, in a healthy person, originate a phthisis; but a neglected catarrhal bronchitis in a scrofulous person will do so. Scrofula, then, is the key to the whole sequence of changes. In a scrofulous person, inflammatory changes are slow; they cause permanent infiltrations of the cellular connective tissues of organs, which caseate and die. An exudation of large cells occurs, which swell up, and undergo necrosis; and the detritus passes into the lymphatics, and is thus transported into the subepithelial connective tissue. The exudation is hard, dense, grey, and unprovided with blood-vessels; so that necrotic changes soon begin, and in those changes the walls of the air-cells and the surrounding perivascular and peribronchial tissues participate. Such indurations know of no recovery. They may degenerate and be removed, leaving a hole in the lung; but they are never organised and absorbed. The first step, indeed, in the history of a restoration to health in such tissues, must necessarily be a restoration of a healthy circulation; and this does occur around all cavities which may close and cicatrise.

But how does phthisis arise? how does scrofula become tubercle? or how does the lung-affection, with all its changes of structure which we have been considering, and call phthisis, commence from an infection? If it be a result of infection—a self-poisoning—the poison must have originated somewhere else, and this argues an antecedent disease of a part, for it is no longer pretended that the blood or humours elaborate a septic material to be deposited in the meshes of the lung-tissues. The reply is, that a scrofulous disease of mucous membrane, or of joints, or of a lymphatic gland, has furnished the detritus of a caseation which was afterwards carried by vessels or lymphatics into the lung, and originated the destructive changes in question. You see, those holding this doctrine have abandoned the theory of a general disorder of the blood or system reflecting itself in a local disease, and come to the conclusion that a local disease of some distant part has originated another local disease by infection; thus the mind is carried to *localisation* of disease as a primary factor and an originating cause in an affection hitherto considered constitutional. It is the tendency of the matter-of-fact mind of the day to believe only in influences which we can test and handle and examine with the scalpel and the microscope! And yet—as a sage observer has remarked—"at bottom, we are all believers in the theory of humours". I see, in this recognition of the vast importance of structural change in all vital disorders, although it may surpass our means of proof, a key to much that is of value in prognosis and treatment. For it does, indeed, depend on the nature, the limit, and the proclivities of diseased products whether structures can be repaired, indurations dispersed, or changes tending to life and organisation, or to death and degeneration shall take place. And, in treatment, if the fever and wasting be a measure of the inflammation in a part, we can hope to moderate *both* by checking it in the affected organ; but if these formidable symptoms be a blood-dyscrasis only, we are lost in the search for blood-remedies which shall meet and modify or reverse them.

[*To be continued.*]

ABSTRACTS OF LECTURES

ON

FURTHER INVESTIGATIONS ON ANTHRAX AND ALLIED DISEASES IN MAN AND ANIMALS.

Delivered at the University of London, December 1880.

By W. S. GREENFIELD, M.D., F.R.C.P.,
Professor Superintendent of the Brown Institution.

Lecture III.

Dr. Greenfield discussed the various forms of anthrax affecting man. The two external forms—typical malignant pustule and its modification of "anthrax œdema"—have long been known; but the internal forms, unattended by external lesion, have only been investigated of late years; and, until recent investigations on woolsorters' disease, the form of intestinal anthrax was the only one scientifically established. Now, however, he was able to bring conclusive evidence that the disease affected man internally in other ways; and it was to these forms of the disease that he would especially refer in this and subsequent lectures.

Malignant Pustule, long known to affect persons dressing the carcases, or working in factories with the wool, hair, or hides of animals which have died of splenic fever, was first described, and typical cases related. The principal symptoms are briefly as follows. At the local seat of inoculation, a small pimple forms, which soon passes into a papule, and then changes to a flat vesicle, which gradually enlarges and bursts, discharging a clear or bloody fluid. The base of the ulcer dries, leaving a dark brown or black spot. Around this smaller vesicles appear, which soon undergo the same changes; and in this way the ulcer enlarges to the size of a shilling or more. The surrounding tissue is swollen, red, and inflamed; so that the ulcer is seated on a hard raised red base; and there is a kind of erysipelatous blush or swelling extending for a considerable distance around. The lymphatic glands connected with the part are frequently greatly swollen. If the patient survive, the central black eschar may become detached by sloughing, and the wound granulates; the œdema and lymphangitis gradually subsiding. The constitutional symptoms vary greatly, and do not in all cases at all correspond in severity to the local symptoms, and in some cases are entirely absent. The temperature is usually high when any fever is present; the pulse and respirations accelerated; the latter frequently oppressed. Great prostration, anxiety, delirium, profuse perspirations, and sometimes convulsions, precede death, which may occur in thirty or forty hours, or within five or six days, but rarely later.

Passing next to internal anthrax, Dr. Greenfield reviewed the history of the recorded cases of real or supposed internal anthrax in man, contracted by eating diseased flesh, or in other ways. Most important amongst them was the form described by Wagner, and subsequently by Leydig, Monck, and others, as *mycosis intestinalis*. In this form, which, in the cases described by Wagner, arose in persons employed in working Russian horsehair, the lesions were chiefly confined to the gastro-intestinal tract. The symptoms were, extreme prostration; vomiting; sometimes dysphagia; slight pain and uneasiness in the abdomen, or colic; diarrhœa, usually bloody, and, it might be, accompanied by profuse hæmorrhage. Bleeding also sometimes occurred from the mouth and pharynx. Cyanosis and collapse usually ended the case, and death might occur very rapidly. Very often there was

no elevation of temperature. In the intestines, in these cases, were found intense injection, ecchymoses, and sometimes pustules analogous to those seen in the skin in malignant pustule; and anthrax bacilli were found in these positions, and elsewhere in the body. The condition of other organs was also described.

Other cases and outbreaks of disease, supposed to be due to anthrax, were then discussed; amongst them, a disease known as rag-disease (*Haderkrankheit*). The clinical and experimental observations of Dr. A. Frisch led him to believe that some cases were of anthracoid nature; but Dr. Greenfield thought, from the description of the organism found in the blood, and its behaviour on inoculation, that the evidence was inconclusive; and that probably the disease was a form of septicæmia, although he had obtained analogous results from putrid blood of horses dying of Cape horse-fever, which he described in his lectures last year. Similar observations on the rag-disease by Reitbock, Schlemmer, Klob, and Herschel were also referred to; and an outbreak of disease reported on by Drs. Huber and Butter, supposed to be traced to eating the flesh of a cow which had died of anthrax. After quoting various other authorities, Dr. Greenfield stated that he was not aware of any other thoroughly investigated cases of the form of disease which he was about to describe than those which had been called woolsorters' disease, which he had recently been investigating, together with Mr. John Spear, one of the medical inspectors of the Local Government Board. He did not propose to enter into any of the general questions connected with that investigation, or to anticipate the results of the inquiry, which would be fully detailed in their report to the Local Government Board; but simply to bring forward some of the clinical, pathological, and experimental facts on which their conclusions were based.

After giving a general account of the facts relating to the cases of woolsorters' disease, especially as to incidence on a particular class of workmen employed in dealing with a certain kind of hair—Van mohair—and describing the origin and conditions of working of this hair, Dr. Greenfield alluded in high eulogy to the part played by Dr. Bell of Bradford in investigating the causes of the disease and bringing it before the notice of the profession, and thus leading to the present inquiry. At first, it was thought that the deaths were due to a form of pneumonia caused by the irritating particles gaining access to the lungs; but, on comparing it with the forms of pneumonia and phthisis prevalent in other dusty occupations, it was thought that something else must be present; and a septic element, due to the presence of putrefying materials, was suggested. This view was entertained until it was suggested that it might be anthrax; and further investigation proved this to be correct.

It is also interesting and important to notice that the dust and refuse materials from these wools are used for manuring land, and may, therefore, prove a source for the spread of the malady. The water which is used for washing the wool also passes into the sewers, and may become distributed on the land of sewage-farms. Dr. Greenfield, in a former lecture, detailed cases of anthrax in cows and sheep which were pretty clearly traced to such a cause.

From the fact that woolsorters' disease does not always run the same course, Dr. Greenfield thinks we might with propriety provisionally divide it into three classes: 1. That in which the symptoms are intense and rapidly fatal; 2. Where death is delayed to three, four, or five days; and, 3. Where the disease extends over a week, and is fatal, if at all, from complications.

The symptoms of the disease in its most rapid form may come on very suddenly, with faintness, nausea, and great prostration, laboured respiration, cyanosis, and collapse, and be fatal, without any other symptoms, in fourteen or fifteen hours. More commonly, the onset is more gradual, and there are sometimes premonitory symptoms lasting over a day or two. When premonitory symptoms are present, they may consist of malaise, a sense of depression and exhaustion, restlessness, loss of sleep, vague sensations of aching and numbness in the limbs, and sometimes cold perspirations; in fact, all the various general symptoms which are apt to usher in other acute febrile diseases may be present. These may last a day or two, or longer, or the attack come on suddenly.

Of the declared symptoms, the earlier are usually great prostration and a sense of oppression of breathing. Distinct rigor is rare. Initial vomiting, though occasional, is not constant or frequent. Headache may be present and severe, or entirely absent. The appetite may be good throughout, or nausea and vomiting, which may be repeated and urgent, may be present; but all the definite symptoms may be wanting, and the sole evidence of illness be prostration, cold perspiration, and some dyspnœa. The patient may be unconscious of danger till the disease has made fatal progress, and may attempt to go to work six or seven hours before death.

The respiratory symptoms—laboured breathing, sense of constriction, without actual pain, in the chest—are often early well marked; duskiness of the lips may be noticed early, going on to marked cyanosis. Cough is not usually marked; there is rarely rusty sputum, if any; the sputa may be blood-stained or mixed with blood. Physical examination in the earlier stages usually reveals nothing but some general rhonchus; later, there may be coarse crepitation all over, and dulness at the bases of the lungs, which may be extensive. Pulse usually rapid, weak, and occasionally irregular. Extremities cold. The surface temperature subnormal; rectal temperature usually 2° or 3° Fahr. higher than the axillary. The appetite may be good, but vomiting is not uncommon, and occasionally there is diarrhœa. In the late stages, not unfrequently convulsions occur, accompanied with coma in the intervals; but death may occur from collapse, or apparent asphyxia.

The *post mortem* appearances vary considerably, and apparently depend partly upon the duration of the disease, and partly upon the point of entrance of the poison. In those cases where death occurs rapidly (thirty-six to forty-eight hours), the lesions appear to be very similar to those found in bovine splenic fever, or in the lower animals inoculated with the most intense virus. The thoracic viscera may appear quite healthy, or the lungs may be congested, and the pleural and pericardial sacs contain a small amount of effusion, and sometimes ecchymosed spots. The abdominal viscera may be healthy, with the exception of slight cloudy swelling and some enlargement of the liver and kidneys, or there may be hæmorrhages in the lungs, heart, kidneys, and other organs. These cases, however, are much more rare than those where marked lesions occur. The principal lesions found are serous or gelatinous effusions (sometimes stained with blood) in the tissues around pharynx, roots of the lungs, mediastinum, subperitoneal tissue, and, less common, along the retroperitoneal glands; great enlargement of the bronchial glands, with ecchymoses and hæmorrhages within and around them; large pleural effusions, sometimes three to five pints in each, usually serous and not bloody; a smaller degree of pericardial effusion. Hæmorrhagic spots (varying from minute ecchymoses to large extravasations) in the subpleural tissue, lung-substance, bronchial glands, mucous membrane of the trachea and bronchi, visceral pericardium, subendocardium, cardiac muscle, submucous tissue of the pharynx—and in one case, of the stomach, beneath the capsule of the kidney, and sometimes in the cortex, and in the pia mater. The spleen is sometimes, but not constantly, enlarged, soft, and congested. The bronchi contain a blood-stained frothy mucous. In protracted cases, there may be hæmorrhagic infarctions in the lungs with superficial pleurisy, and, still less frequently, patches of bronchopneumonic consolidation, accompanied, though rarely, by softening and excavation; and this only in some protracted cases.

Dr. Greenfield then related seven very interesting and instructive cases, in order to give his hearers some of the evidence upon which the views concerning the nature of the disease are based. One of the most typical of these may be mentioned—a man employed in sorting inferior mohair, which had been roughly washed. For four days before the onset of definite symptoms—viz., from Sunday—he had complained of feeling chilly, and of aching in the limbs; but it was not till midday on Thursday that he came home from work feeling thoroughly cold; towards night, he was very restless, breathing hurriedly and with difficulty, perspiring profusely, and some cyanosis being observed. Next morning (Friday), he was found to be in much the same condition; still conscious: the temperature 102.5; *râles* all over the chest: and he died at twelve noon, less than twenty-four hours after leaving work.

At the *post mortem* examination, made nine hours after death, there were found very extensive semi-gelatinous infiltration of the mediastinal tissues; large serous effusions in both pleuræ; and semigelatinous œdema of the subpleural connective tissue. The bronchial glands were swollen, soft, and there were ecchymoses within their tissue and around them. There were small submucous hæmorrhages in the trachea and larger bronchi, and these contained frothy blood-stained mucus.

Blood received by Dr. Greenfield twenty-six hours after death—which had been taken from the arm shortly after death—contained a few typical anthrax bacilli. Inoculation of a guinea-pig produced death in thirty hours with typical anthrax.

In the blood from the heart and spleen, and the juice expressed from a bronchial gland, a very few bacilli were also found; and inoculation with them caused typical anthrax. The pleural serum, taken from the body nine hours after death, contained numerous bacilli, measuring from ten to forty-five micro-millimètres in length, and some as much as one hundred and fifty micro-millimètres. There were also, in one of the tubes, very long bacilli, some forming convoluted masses and bundles.

In like manner, Dr. Greenfield gave an account of six typical cases of the disease, from which he had obtained material, and on which his conclusions were based; and exhibited drawings illustrative of the

organisms found in the blood and other fluids of the body in these cases, at the same time giving the results obtained by inoculation with them.

In concluding his lecture, Dr. Greenfield said that out of the eleven cases at which he had worked, four were of malignant pustule, two of which were fatal, and six of fatal internal anthrax. Rodents were inoculated from eight, but results were only obtained in four instances, although the presence of bacilli was microscopically demonstrated in the fluids and tissues of all the fatal cases. This apparent discrepancy—which might tend to throw discredit on the diagnostic value of microscopic examination—is at once explained, when the length of time which elapsed between the death and the inoculation experiment is considered. For it is well known that when decomposition has set in before the *post mortem* examination is made, it is exceptional to obtain positive results by inoculation with the blood or other fluids. From this fact, and the delay which necessarily attends *post mortem* examinations, he was not at all surprised at the negative results he obtained from his earlier experiments; and consequently urged strongly the necessity of making early examinations of the body. The consequence of this was, that the inoculations made from later cases were all successful. In all cases, the intensity of the poison was proportional to the shortness of the interval between death and the examination of the body.

ON THE QUANTITATIVE ANALYSIS OF DIPLOPIC STRABISMUS.*

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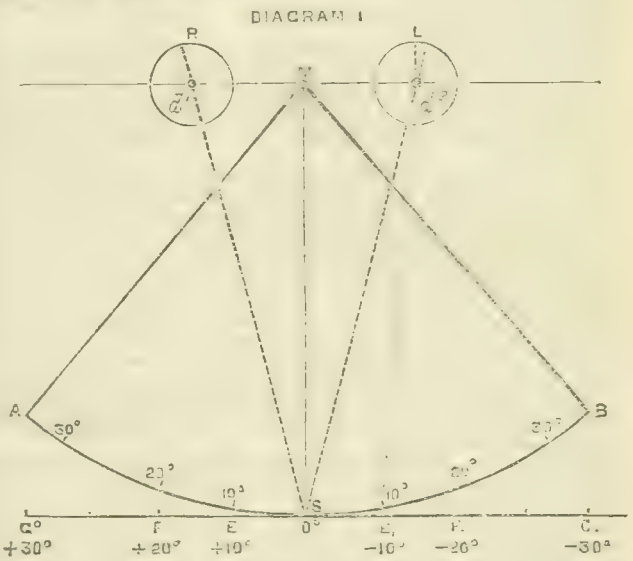
THE operation for strabismus is very easy to perform; but the indications for operative interference, as well as the accurate determination and adjustment of the effect required, present very great difficulties. In order to avoid mistakes, a quantitative analysis of strabismus, before and after operation, seems to be required.

The basis of such an analysis is contained in Albrecht von Gräfe's first and classical paper on the Paralysis of the Obliquus (Gräfe's *Archiv*, vol. i, 1854). The method adopted now by all observers for cases of binocular diplopia (in concomitant and paralytic strabismus), is well known. One of the patient's eyes is covered with a red glass; both eyes being open, the patient is ordered to look steadily at the flame of a candle, and to indicate the respective positions of both the subjective images of the flame, and that for various positions of the object in the field of fixation. The method is based upon the patient's subjective measurement of the reciprocal distances of the images. To render the results more apparent, some authors have introduced diagrams or divisions. I quote first from Mr. Bader's Text-book (1868, p. 440): "We place the patient, with the head fixed, facing a black board. The latter stands parallel with the patient's face, about five feet, and is divided into squares which are numbered. The flame of the candle is then moved in horizontal, vertical, and oblique directions from the median line; and the two images of the flame, the one of the properly directed, and the one of the deviated eye, are perceived opposite different squares of the board."

A similar division of a wall into squares of 0.25 mètres in length was adopted by Heiberg of Christiania, in 1872 (*Ophthalmological Methods*, Christiania, 1875; also, *Centralblatt f. Augenheilkunde*, 1880, p. 132).

This method was improved at the same time by Dr. E. Landolt of Paris (*Annales d'Oculistique*, July, 1875. See also, *Leçons sur le Diagnostic des Maladies des Yeux*, Paris, 1877); and by myself (*Verhandlungen der Physiologischen Gesellschaft*, July, 1875; Knapp's *Archives*, vol. iv; *Beiträge zur Privat. Augenheilkunde*, i, ii, iii); and instead of longitudinal distances an angular division was introduced. This innovation is not a trifling one, as it may at first appear, but rather essential for our purposes, as in the perimetry of the visual field (Diagram 1). For a normal pair of eyes the common field of fixation is a portion of a spherical surface, A, S, B. The central point, M, of the sphere coincides with the middle of the base line, which joins the centres of rotation, D_1 and D_2, of both eyes; the radius, M. S., of the sphere may have any length desired. V. We chose a radius of two *mètres*. The plane, D_1, D_2, S, coincides with that of the primary position of the eyes, viz., horizontal; the head being upright. S is the pole of the common field of fixation. Only that part as A, B, of this field which corresponds to an angular aperture of 2 × 40 = 80°, is generally touched by the point of intersection of both visual axes. For that part alone, Listing's law of rotation is valid. Patients with binocular diplopia are always satisfied if you succeed in obtaining for them single vision over a normal space of perhaps 2 × 30° = 60°. For that part of the common field of fixation, you must examine in every pathological case the character of the diplopia. Diplopia is practically less troublesome in reading than in walking; I therefore preferred to test the binocular diplopia for a greater distance of the fixed point or object, viz., at the distance of two mètres, and projected, according to a simple calculation, which may be found in my paper in Knapp's *Archives*, the division of the field of fixation in degrees upon a wall of my consulting-room, by a system of crossed co-ordinate lines. The middle point of the system has an elevation from the bottom of 1.6 mètre. By a simple chin-holder the head of the patient may be fixed at such a height, that the base line has almost the same elevation of 1.6 mètres. The patient's head may be held gently by an assistant, so that his frontal plane is vertical. Both eyes being open, the right eye is covered with a thin red glass plate, the patient is ordered to fix the flame of a small wax candle, held at the middle point of the system of co-ordinates, and to determine both the horizontal and the vertical distances of the images, the yellow one and the red one. The algorithm for quoting the result is very simple: 0, 0 : −3° − 1 signifies that there is for the primary position of the eyes homonymous diplopia, the horizontal distance of the two images being 3°, the depression of the red image being 1°; 0, 0 : −3° + 1° indicates that there is for the primary position of the eyes a crossed diplopia, the horizontal distance between the two images being 3°, the elevation of the red image being 1°.

DIAGRAM 1



Half a degree is very easily estimated by intelligent patients. But the practical unity concerned in squint operations is of ten degrees; that is to say, if the horizontal strabismus is less than ten degrees, *generally* you may avoid operating. Now a rotation of the visual axis of ten degrees is equal to a dislocation of the corneal centre of 1 millimètre, scarcely visible to the naked eye of the observer. Ten degrees seen at a distance of two (or one) mètres corresponds to the linear quantity of 175 (or 352) millimètres. The distance between both eyes, or the length of the base line (equal to two inches), gives rise to but a trifling parallax, which may be neglected for a distance of six feet. That is the mathematical basis for our arrangement.

The same measurement is made for some principal points of our angular division. You move the candle flame 20° to the right hand, in a horizontal direction; then 20° to the left; 20° directly upwards; 20° downwards; and, finally, in diagonal directions to the points, + xx + 20; xx 20; xx −20; −xx−20. For every one of these nine points the degree of diplopia is tested and noted (the head of the patient being gently held, and only the eyes allowed to move). Noting all results upon a card, you see at a glance the various positions of the visual axis of the fixing eye. You thus obtain a certain result in degrees, and have the opportunity of comparing the results obtained in the same case at different times or phases of the disease; or in different cases of the same kind (viz., of myopic convergence, which is generally associated with binocular diplopia). We may thus establish some definite rules; such as, what degree of homonymous diplopia is corrected by simple tenotomy of the internal muscle; or of crossed diplopia by an advancement of the internal muscle. One important point is to avoid tiring the eyes (that is, increasing diplopia), in cases of fresh paralysis,

* Read in the Section of Ophthalmology at the Annual Meeting of the British Medical Association in Cambridge, August 1880.

by interrupting the examination, shutting the patient's eyes for half a minute, or renewing the test in the opposite direction.

You may ask, Why do you not test the degree of diplopia by the correcting prism? By the use of prisms two sources of error are introduced. The first is a faulty position of the prism; the second and more important is the tendency to the fusion of the two images. I have published in Knapp's *Archives* a large series of experiments with prisms, and will submit to your judgment only a few instances. I recede from the wall eighteen inches, and cover one eye with a prism of six degrees, the angle being upwards. At first the deviation of the image is equal to 3°, after a few seconds it is equal to 2°, and shortly it becomes zero. That is to say, single vision is obtained by the tendency to the fusion of both the images.

I have shown my arrangement to a great number of distinguished colleagues, who have visited my clinic during the last four years. They have all approved of it, but have not introduced it in their practice, because it seemed to be hard work to draw with one's own hands such an angular division upon a wall. Last year, I ordered my divisions to be made in the shape of a map, which may easily be hung in a consulting room. For that purpose, the visual distance is now reduced to one *mètre*. But if you prefer two *mètres*, you have only to take the half of every number; as for instance for 40° which is written, you take 20°. I have made some hundreds of measurements with my diagram, and submit for your consideration some illustrative cases, firstly, of paralytic diplopia (Cases 1 and 2).

After this theoretical and naturally tedious introduction, I may proceed to the practical part, stating the advantages of a more particular measuring of the degree of binocular vision in different cases.

1. Such a systematic and numerical examination of diplopia helps us to detect the slightest degree of paresis of an ocular muscle, and make a sure diagnosis.

2. You may superintend the results of the treatment of the paralysis of the muscles of the eye. Electricity is, for instance, considered by some authors to be a strong remedy in such cases. Immediately after every application of the galvanic current, the distance of the two images is said to be lessened. In the same manner some recommend the mechanical rotation of the paralysed eye, with a pair of forceps, outwards in a case of paralysis of the rectus externus, for instance; I cannot state any advantages of such proceedings; the degree of diplopia being the same before and after the application. I treat of course the simple, or so-called rheumatic paralysis of the eye muscles, with electricity, because the treatment is harmless, and patients will be treated; but success is not visible nor very credible, because it is impossible to irritate a single muscle of the eye by the common apparatus with the constant or induced current.

3. In a great number of common hypermetropic squints, with amblyopia of the squinting eye, the operation is rather a cosmetic one. There is generally no diplopia.* There is generally no fear of over-correcting by a single and simple tenotomy. But you must be careful before performing the *second* operation, so as to avoid secondary divergence. In several cases of ordinary convergence, I could elicit diplopia after the first operation, and measure the degree; so I had a certain basis for the second operation, better than may be obtained by simple inspection of the eyes (Case 3).

4. In cases of myopic squint, binocular diplopia is generally present. The correction must be not only cosmetic, but rather physiological. The task is not very easy without a careful examination. *a.* Myopic convergence is a less frequent form of squint, but well known to every colleague. The patients come for the diplopia: the squint begins in youth, not in childhood (Case 4). In other cases of myopic convergence, it is better to avoid operation (Case 5). *b.* Myopic divergence is, after the common hyperopic convergence, the most frequent form of strabismus, and generally associated with diplopia. As I have seen several cases of that kind operated on by the most experienced surgeons, and, notwithstanding, followed by artificial convergence, I insist upon a careful examination of the diplopia before and after operating, in order to avoid over-action (Cases 6, 7, and 8).

5. Secondary strabismus, for instance divergence following an operation for convergence, is a very interesting form, particularly if you are not the author of it, but the corrector. The enormous divergence after the old Dieffenbach's myotomy, now met with only in old people of course, is to be left alone, or corrected only by re-adjustment of the divided muscle, if possible. The divergence sometimes occurring after the modern tenotomy is so strong that you may consider an advancement necessary, but sometimes a simple tenotomy of the antagonist may suffice. That is naturally a great advantage, acquired by a careful examination during all steps of the proposed operation (Case 9).

7. Every case of paralytic strabismus is associated with diplopia, unless one eye becomes amaurotic or amblyopic. [I remember a case of reputed cure of diplopia by electricity, but the neurologist physician had overseen the monocular amaurosis which had meanwhile crept in. A few weeks ago, I saw a similar case. A man, aged 40, was attacked, fourteen years ago, by paralysis of the left externus, with diplopia and headache; the diplopia decreased, but not the squint. I found the right eye normal; in the left paresis of the externus muscle, central scotoma with high amblyopia, partial atrophy of the optic disc; and naturally no diplopia.] The patients come rather for the correction of diplopia than for cosmetic purposes. Of course, you do not operate on such a case before all internal remedies have failed, and the time (from three to nine months), during which a paresis may disappear spontaneously, has entirely elapsed. Then, if you proceed to an operative correction, every precaution is necessary in order to avoid mistakes. Muscular power cannot be created by any squint operation, but only distributed in another and more satisfactory manner. For instance, in a paresis of the left externus muscle, when in the middle part of the field there is troublesome double vision, and only towards the boundary of the field is single vision, you may transfer the area of the single vision to the middle of the field, either by tenotomy of the antagonist (viz., internus of the left eye), or by advancement of the paralysed externus, or by a combined method. But in these operations, a very peculiar correction is required; otherwise, you may introduce in a case with mere lateral diplopia, a more annoying form with vertical distance of the double images, which is much more dangerous in walking, particularly up and down stairs. Now we cannot make a mathematically correct advancement of a muscle, though some authors believe that they can cut with mathematical exactness. But we can test what we have done with mathematical accuracy, if we make use of an angular division, and abstain in such operations from anæsthetics. This is quite possible, because generally the paresis of the eye-muscle (except the congenital form) is found in adults. I can submit you an interesting case, in which the advancement of a paralysed rectuo externus had introduced a slight, but annoying, vertical distance of the images, and this mistake was immediately shown by the examinations, and removed by renewing the stitches (Case 10).

8. Finally, I may allude to the slight, but troublesome, diplopia, remaining in some cases after paralysis of the upper obliquus muscle. Some authors have succeeded in correcting this diplopia by a combined operation of tenotomy; but sometimes it seems to be wiser to make this difficult correction with prisms. Measuring the angular deviation of the paralysed eye with the apparatus, you have immediately the deviation and the strength of the correcting prisms, if you consider that the angular deflection of the ray caused by a prism is the half of the degree of the prismatic angle. The correction must be perfect for the middle part of the field. Then the patients are very much satisfied if they acquire simple vision, simply by a pair of spectacles; and if they can abandon the exclusion of one eye, by means of a black glass, and its disfigurement (Case 11).

If I have submitted to you a paper, sent from abroad, in which some of you are perhaps unable to find anything new in examinations, indications, or operations, your indulgence will attribute it to the highly cultivated state of ophthalmological science, both in England and in other civilised countries, which renders it difficult to introduce perfectly new matter. But I dare believe that one point has been elucidated by my paper; and this is: the high importance of a more particular examination of diplopia, with an improved apparatus of angular division, and its advantages for ophthalmological science and practice.

Appendix of Illustrative Cases.

Case 1.—*Paralysis of the Superior Oblique Muscle of the Left Eye.*—The character of the diplopia in a case of paralysis of the superior oblique muscle of the left eye is as follows (after Albrecht von Graefe's *Augenmuskellähmungen*: Berlin, 1867, p. 144).—The image of the left eye is lower.* In the median line, the two images are distinctly homonymous,† and slightly oblique (convergent upwards). If the object in the lower part of the field of vision be moved from the median plane to the left hand, both the lateral and the level distances decrease, but the obliquity increases. If, on the other hand, the object in the lower part of the field of vision be moved from the median plane to the right hand, the distance in height is very distinctly increased.

* Von Graefe has found that binocular vision is absent in about seventy per cent. of cases of concomitant squint; that we can produce diplopia by prisms in about twenty five per cent.; and that after the operation, binocular vision is found to exist in about fifty per cent. (see Snellen's excellent text-book, p. 222).

* Or that of the right eye is higher. In the diagrams, the second number always denotes the difference of height, and has in case 1. the sign +; *i.e.*, the image of the right eye is higher.

† Every first number gives the lateral distance of the two images, and has, in case 1, the sign ×; indicating always that the diplopia is homonymous. For some points of the field of vision, to the left hand, there is no lateral distance; the first number is then zero.

	−30°	−25	−20	−15	−10	−5°	0	+5°	+10	+15	+20°	+25	+30
−XX	..	..	**0**	..	..	..	**0**	..	−½, −1	..	−1½, −3	..	..
+XV	..	..	..	0	..	..	0, +1	..	..	0, +5°	..	..	..
+X	..	..	..	0	0	0	0, +1	..	−½, −4	..	+1, +0	..	..
+V	..	0	0	**0, +1**	**0, +2**	**0, +2**	**0**, −1	..	..	..	..	..	..
0	0	−½, +½	+½, −½	..	+½, −1	..	−1, −6	..	−1, −7	..	**2, −12**	..	−1, −15
−V	**0, +1**	**0, −2**	**0, +2**	**0, +2**	**0, +1°**	**0, −1**	+1, −2	..	..	..	..	..	..
−X	..	..	..	..	+1°, +6	..	..	..	+2, −11	..	−2, −13	..	..
−XV	..	..	..	+2, +6°	..	..	+3, −10	..	..	+5, −14	..	..	..
−XX	..	..	−2, −5	..	−4, −5	..	−3, −10	..	−7, −11	..	**−6, +11**	..	+10°, −15

[The numbers for some principal points of the field of vision are printed in thick figures.]

CASE II. *Paralysis of the Right Superior Oblique Muscle.*—A young lieutenant, who was treated by his surgeon, some years ago, for syphilitic patches of the lips and mouth, first complained, in May, 1879, of diplopia, with convergence of the left eye. The diplopia ceased in September, but returned, with headache, in January, 1880. The first examination of the diplopia, on March 12th, 1880, gave the following result:

	−20°	0	−20°
−XX	−1, −2	0	0
0	0, −11	+2.5, −3	0
−XX	V. −15	+4°, −9	—

Résumé.—Single vision towards the upper right quadrant of the field; largest distance of double images in the lower left quadrant; slight convergence; depression of the image of the right eye. Diagnosis: Paralysis of the right trochlearis. The patient was treated by iodide of potassium in full doses. The headache had diminished on March 18th. A second examination was made on April 1st.

	−20°	0	+20°
−XX	−2, 0	−3, 0	0, +1
+X	—	—	0, +1
0	+1°, −1°	+1°, −2½	−1, −2
−X	—	—	+3°, −3
−XX	+5, −7	+7°, 9	+3, −5

Résumé.—Area of single vision diminished; convergence increased, but vertical distance diminished. The treatment was continued; from June 5th, biniodide of mercury was added to a smaller dose of iodide of potassium. A third examination was made on June 5th.

	−20°	0	+20
+XX	›	0	›
0	0, +2°	›	0
−XX	+3, −5	+5, −½	+5°, −½

Résumé.—Single vision in the midst of the field and in the upper part; double vision only downwards remaining; the troublesome vertical distance only towards the lower left boundary of the field. The patient could do his work with at exclusion-spectacles.

CASE III. *Paresis of the External Rectus Muscle of the Right Eye.*—Mr. M., aged 25, was taken ill on February 20th, 1875, with headache, giddiness, nausea, and diplopia. He came under my care on March 31st. I found neuro-retinitis of the right eye (Snellen CC at 20 feet; with +1″, Snellen 2½ at 7″), and paresis of the external rectus of the same eye. At first, both affections, and the headache, increased (with +1½″ Snellen 5). Under the application of Heurteloups, and the internal administration of mercury, the symptoms decreased. He was discharged on June 3rd, 1875. The subjoined diagram shows the results of three examinations:

		−20	−10	0	+10	+20°
−XX	March 11	—	—	+10°, 0	—	—
	April 12	—	—	−10°, +1°	—	—
	May 15	—	—	−½	—	—
0	March 11	+5, 0	—	+8°, −1	—	+10, 0
	April 12	+3, 0	—	+10, −1	—	+15, −1°
	May 15	0	—	0, 0	—	−1°
−XX	March 11	—	—	+9°, 0	—	—
	April 12	—	—	+10, +1	—	—
	May 15	—	—	0	—	—

CASE IV. *Common Hypermetropia: Convergent Squint.*—Alwine N., a girl, aged 17, had squinted with the right eye for twelve years. Hypermetropia = 1/10; vision = 1 with the left eye, ⅓ with the right. On October 8th, 1875, tenotomy of the internal rectus muscle of the right eye was performed, with compensating suture. On October 13th, the convergence had increased, in spite of convex glasses; and on the 18th it measured five degrees at two mètres distance, in the primary position. On the 21st, tenotomy of the internal rectus muscle of the left eye was done, with compensating suture. On November 19th, the convergence was very slight. There was spontaneous diplopia only towards the left boundary of the field of vision. With a red glass, the diplopia was, in January, 1876, only +1 for the primary position; the height distance remaining.

The first examination was made on October 18th, 1875, after the first operation.

	−20°	−15	−10	−5	0	+5°	+10	+15	+20
+XX	—	—	—	—	—	—	—	—	—
+XV	—	—	—	—	4, —	—	—	—	—
+X	—	—	+4°, −9°	—	—	—	4, −2	—	—
+V	—	—	—	—	—	—	—	—	—
0	—	+5, −2	—	—	5, −3	—	—	+5, −2	—
−V	—	—	—	—	—	—	—	—	—
−X	—	—	−1, −4	—	—	—	1, −2	—	—
−XV	—	—	—	—	−1, —	—	—	—	—
−XX	—	—	—	—	—	—	—	—	—

The second examination was made on January 4th, 1876, after the second operation.

	−20	−15	−10	−5	0	+5°	+10	+15	+20	+25
+XX	—	—	—	—	—	—	—	—	—	—
+XV	—	—	−8, −13	—	—	0, −5°	—	—	−2, −1	—
+X	—	—	—	—	—	—	—	—	—	—
+V	—	—	—	—	—	—	—	—	—	—
0	−3°, −15°	—	−2, −7	0, −7°	−1	−2	+½°	—	−1	—
−V	—	—	—	—	—	—	—	—	—	—
−X	—	—	—	—	—	—	—	—	—	—
−XV	—	—	−2, −5	—	—	—	—	—	−½, —	—
−XX	—	—	—	—	—	—	—	—	—	—

CASE V. *Myopic Diplopic Convergence cured by Simple Tenotomy.*—Anna P., aged 25, had been myopic from infancy; but, for the last six years, had been also troubled with diplopia both in walking and in reading. She had been ordered to wear, in walking, prism 7° (base outwards) before the right eye; and, in reading, concave glasses; but without any benefit. In March, 1875, I found: myopia 1/6 − 1/5″; with the right and left eyes she could read Jäger 1 at five inches, with −5″, Snellen XXX, at twenty feet; but not also Jäger 2; with −6″, Snellen XL at twenty feet, and Jäger 1 at six inches. There was concomitant convergence, stronger for distant objects, less for nearer, ceasing at five inches distance from the eye. If the flame of the candle were brought (without red glass) in the horizontal median line, to the distance of ten inches and nearer, the double images became confluent. At the reading distance, equilibrium was found under a prism refracting upward. The patient had some adducting power in reserve. Tenotomy of the internal rectus muscle of the right eye was performed on March 10th, 1875. Examinations were made before the operation, immediately after operation, on the following day, and on March 13th, April 26th, July 10th, and December 8th, with the following results. The examinations before and immediately after operation were made at a distance of two mètres from the object, without the red glass; afterwards, at the same distance, with red glass.

On March 11th (the day after the operation), in the horizontal median line, the candle-flame was seen single at distances varying from one hundred to five inches. The patient reads at six inches without diplopia. With the naked eye, there was no diplopia after April 26th; a faint trace of dynamic divergence at the reading distance remained, but without any asthenopia.

Position of Object.	Before Operation.	March 11.	March 13.	April [illegible]	July 10.	Dec. 8.
[illegible]	—	[illegible]	[illegible]	—	[illegible]	—
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	—
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	−11, [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

A really convergent convergence. † Single vision.

In this case, convergent myopic strabismus (11°), with troublesome diplopia, was lessened by simple tenotomy and protracted rest of the eye. It finally became imperceptible with the free use of the eyes, and was only demonstrable with a red glass in the most excentric parts of the field of vision.

CASE VI. *Myopic Convergence cured by Glasses.*—A young lady, aged 18, complained of myopia and diplopia. Snellen 1½ was read at nine inches. The diplopia was examined with a red glass, the object being one metre distant.

	−8D	0	+2D
+XX	—	[illegible]	—
0	15°, −2°	+15°, +2°	−14°, +2°
−XX	—	+17°, 0	—

Without a red glass, 0, 0: −3°, 0. Without a red glass, but with −14' (concave), 0, 0: 0. (*i.e.*, single vision). For near sight was given, concave thirty inches: for far sight, concave, fourteen inches. After a few weeks, the diplopia was diminished; and the patient's complaints were relieved.

CASE VII. *Myopic Divergent Squint, with Diplopia, cured by One Tenotomy.*—A lad, aged 14, came for myopia of both eyes and divergent squint of the right eye (1876). The left eye saw Snellen 1½ at 4 inches, and with concave glass 8 inches Snellen XXX at 15 feet. The right eye saw Snellen 2 at 4 inches, and, with −8", Snellen C at 15 feet. For the primary position, there was divergence of 14° 10, 0: 14° + 1°; the object being two metres distant). If the object were removed to 20 feet, there was crossed diplopia, not corrected by a prism of 20°. On July 14th, 1876, tenotomy of the right external rectus muscle was performed. Examinations after the operation, with a red glass, the object being two metres distant, gave the following results:

	July 5.	July [illegible]	July 14.	July [illegible]
[illegible]	[illegible]	[illegible]	0	[illegible]
[illegible]	[illegible]	—	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	—	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	

With a red glass, there was no diplopia at all, neither for near nor for far distance.

In this case, the convergence, after the operation, in the primary position, first increased, and then decreased, finally to zero. About 10° the left eye [illegible], there was no diplopia at all immediately after the operation.

CASE VIII. *Myopic Divergent Squint with High Degree of Hypermetropia in the Antagonist Eye: Advancement of the Internal Rectus and Tenotomy of the Internal.*—Hermann S., aged 23, a clerk, came, June 20th, 1879, for divergence of the right eye. The latter was measured to about six millimetres (¼ in.) out in the median line, at the distance of two feet, with glasses. There was no diplopia; perhaps because the image fell on a very excentric part of the squinting retina. The right eye saw Snellen 1½ at 3 inches; the left at 12 inches. On June 26th, advancement of the right internal rectus muscle was practised. On the 30th, the diplopia was measured: 0, 0: −15, −6°. On July 1st, tenotomy of the right externus muscle, with compensating suture, was performed. A slight degree of divergence remained, but disappeared as soon as the compensating suture and the superior stitch of the advancement were taken off. The following results were obtained from examinations made after operation.

	July 2.	July 7.	July 10.	July 15.
−30, 0	0	—	—	—
−20, 0	−2, 0	+3°, 0	0	0
−[illegible]	−[illegible], −5	−[illegible], −3	0	0
−[illegible]	−11, −12	−7, −3	−3, −3	0

The result was binocular vision through the whole field of vision, and also for reading. The same condition remained at the end of three years.

CASE IX. *Myopic Divergence, with troublesome Diplopia, cured by Tenotomy.*—A young man came in August 1875 with divergent squint of the right eye, diplopia (−15°) with lower position of the second image, and asthenopia. Examination before operation gave the following results:

	−15	0	−15
+XV	−14°, +10°	−15°, +10	−12, +6
−X	—	—	—
0	−11, +10	−15, +10	−12, −6
−X	—	—	—
−XV	−10°, +6°	−11, −6½	−8°, −6

On August 4th, tenotomy of the right external rectus muscle was performed. Examinations after operation gave the following results:

	1879. August 5.	August 7.	August 12.	Aug. 17.	Nov. 3.	1880. Jan. 4.*	1880. Jan. 4.†
+20, 0	−10, −6	−15, +1½	+2°, +3°	−3°, +3°	—	−0°, +6	0
−3, 0	−1, −0	−1	−2½, +2°	−0, +4	−5°, +4	−5, −5	0
−20, 0	−5°, 0	−1°, +1	−3°, +3	−1°, +1°	—	−4°, +2½	−4, +2½
0, +XV	−3, +2	0, +1	−5, +5	−10°, +6°	−12°, +5	−12°, +6	−½, −½
0, −XV	−4½, −2	7, 0	−½, −½	−5, +2°	−3°, +1	−3, +1	0
+10°, +X	—	—	−2, −4	—	—	—	—
+10, −X	—	—	3, 0	—	—	—	—
−10°, +X	—	—	−5, −4	—	—	—	—
−10, −X	—	—	−1½, 0	—	—	—	—

* When the object was fixed by the right (the operated) eye.
† When the object was fixed by the left eye.

Meanwhile, without a red glass, there was no double vision in the greatest part of the field. In reading, both eyes fixed the object; under a prism refracting upwards, there was a slight dynamic divergence.

Résumé.—A divergence of 15°, with depression of the second image (10°), and with troublesome diplopia, was diminished, by simple tenotomy of the external rectus, to −5, +5°, and the remaining diplopia was subdued without fatigue by fusion.

CASE X. *Secondary Divergence after Division of the Internal Rectus, cured by Tenotomy of the Antagonist Muscle.*—Mrs. E., aged 25, had been operated on in the country fifteen years ago, for convergent squint of the right eye, by simple tenotomy of the right internal rectus muscle. For the last five years, she had complained of asthenopia and diplopia, and of increasing divergence of the operated eye. All these symptoms had increased during the last year, and had become very troublesome. The right eye was amblyopic (it counted fingers at 5 feet, and scarcely read Snellen XII at 6 inches). The ophthalmoscope showed hypermetropia of about 13" (=3 D). The left eye was emmetropic (tested by glasses and by the ophthalmoscope), with normal vision. There was a high degree of divergence of the right eye, decreasing for farther distances. Examination before operation with a red glass, the distance of the candle being one metre, gave 0, 0: 14, 3°; 20, 0: 17, 2. After the first examination, advancement of the divided rectus internus, with tenotomy of the antagonist muscle, was proposed. In such circumstances, I generally begin with the latter; but, in this case, I was surprised by the strong action of the tenotomy of the rectus internus muscle: and, proceeding immediately to the examination of the diplopia, I found it decreased from 14° to zero (June 6th, 1880). I naturally abstained from all further steps, and bandaged the eye. The next day, I found single vision in the middle part of the field from −30, 0 through 0, 0 to −30, 0; only towards the boundaries of the field there was a slight degree of diplopia, crossed to the left hand naturally, and homonymous to the right hand: it was not observed by the patient without special

attention, and was seen distinctly only with a red glass. The patient was discharged a week after operation, with a satisfactory state of single vision. Examinations after operation gave the following results:

	July 27.	August 8.	August 12.
−40	−10, 0	—	−6, −2
−30	—	−6, 0	—
−20	—	0	−5, 1
−10	—	—	—
0	0	0	0
+10	—	—	0
+20	—	0	0
+30	+5, −9°	+5°, −5°	+5, 0

Without a red glass there was single vision, if the candle-flame were in the median line and approached from 3 feet to 6 inches. At the ordinary reading distance (8 to 12 inches), both eyes fixed the object.

CASE XI. *Paralytic Diplopia (Paralysis of the Rectus Externus) treated by Advancement of the Paretic and Tenotomy of the Antagonist Muscle.*—Mr. C., aged 37, came on 5th April, 1875, with complete paralysis of the external rectus muscle of the right eye. The diplopia was typical, as follows:

	−30	−20	−10	0	+10	+20
−XX	—	−12	—	+25	—	+40
+X	—	—	+18	—	+29	—
0	—	+15, −1	+18½, −1	+20, −1	+30	+39
−X	—	—	+20	+31		
−XX	—	+15	—	+27	—	+45

The paralysis ceased slowly and spontaneously. The resolvents, Heurteloups, and electricity, which were ordered, had no remarkable influence on the disease. There was no defect of motility remaining; but a strong convergence, in consequence of contraction of the antagonist muscle. Examinations made half a year after the commencement of the paralysis showed, on October 9th, +10°, 0: +35°; 0, 0: +32°; −10°, 0: +30°; and on November 27th, 0, 0: +29°. On December 27th, 1875, I proceeded to operative correction, and first performed tenotomy of the right internal rectus muscle, with suture. Examinations gave the following results:

	Immediately before Operation.	Immediately after Operation.	After taking off the suture.	Dec. 22, 1875: Day after operation.	Dec. 30, 1875.	Dec. 30, 1875.	Jan. 2, 1876.
+20, 0	+35	—	—	—	—	—	—
0, 0	+29	+25°	+20	+26°, −2°	+26°, −2°	+26°	+26°
−20, 0	+25°	—	—	+10	+4	+15	+19
−30, 0	—	—	—	0	0	+10	+7
0, +XV	—	—	—	—	—	—	+24, +2
0, −XV	—	—	—	—	—	—	+30, +4

On January 3rd, 1876, strong advancement of the rectus externus was done. Subsequent examinations gave the following results:

	January 3, 1876.		January 4, 1876.		January 5.
	Immediately after Operation.	After Loosening upper of 3 Stitches.	Without Red Glass.	With Red Glass.	With Red Glass.
+20, 0	+10, −2	+10, −5	+10, −1	+11, −3	+11, −3
+10, 0	—	—	+10, −2	+11, −1	—
0, 0	+5, −5	+4, 0	0	−1	−6, −1
−10, 0	—	0	0	0	—
−20, 0	0	−10	−5, 0	−5	−5, −1
0, −XV	—	—	+8°, −1	−6, −3	−5, +1
0, −XV	—	—	+8°, −3	—	+2, −2

Meanwhile, the adductor power of the diseased (right) eye had become even a little stronger than that of the other. Without a red glass, an object in the median line, slowly approached from 70 to 5 inches, is seen singly. Without a red glass and with Pour apparatus, the area of single vision reaches from 0 (or −5°, 0) to −20°, 0, and is larger in the superior part of the field. The case has been under observation from 1875 to the present time, and the good effect of the operation has been established. The patient, a lawyer's clerk, has been able to work at writing and reading, without asthenopia. His troubles, however, were not yet finished. Last year, paresis of the external rectus muscle of the *left* eye had appeared, and was cured by iodide of potassium. He now has single vision.

CASE XII. *Syphilitic Paralysis of the Left Obliquus Superior Muscle, with Myopic Divergence. Diplopia diminished by Antisyphilitic Treatment, and the remainder corrected by Prismatic Spectacles.*—Mr. M., aged 48, with an old history of syphilitic infection, had an attack of diplopia, lasting for two days, about a year ago; and came with a fresh diplopia in February, 1880. He had been myopic from childhood (Snellen 1½ at 8 inches; with −8″, Snellen XXX at 15 feet). On February 11th, there was rather concomitant divergence, increasing upwards, combined with slight and recent paresis of the left obliquus superior. There was diplopia, crossed upwards, slightly homonymous downwards; the vertical distance increasing to the right lower part of the field. He was treated by mercury, iodide of potassium, and covering one eye by a dark glass. On May 28th, single vision was obtained in the upper part of the field; only a vertical distance of 3 to 4 in the middle part. It was now possible to take off the dark glass from the left eye, and to correct the remaining diplopia by means of a pair of concavo-prismatic spectacles. As the diplopia showed a vertical distance of about 3 degrees, and as a prism of 3 degrees (angle) gives a deflection of 1½ degrees, it was necessary to choose two prisms, each of 3 degrees; the angle of the prism before the right eye being turned downwards, and the other upwards. The prisms were combined with concave glasses of 12 inches, which the patient had usually previously worn. With these glasses he had single vision (including the lower part of the field, free use of the eyes in walking, etc.) After some weeks' single vision without prismatic glasses, the following table shows the results of the examinations:

	Feb. 13.	Feb. 20.	March ...	April 13.	May 1.	May 28.
+20°, 0	−2°, +4°	−5, +4°	−2, +4°	−2, +4	0, +5°	−1, +4
−0, 0	−2, +3	−4°, +3°	−3, +5°	−1½°, +4	−1, +5	0, +3°
−20, 0	−2, +2	−5, +1	−4, +1	−1, +3	−3, +4	0, +3°
0, +XX	−6°, +2°	−0, +1	−5, +4	−2½, +3°	−3, +5	0
0, −XX	−1,	0, +1	−1,	+3°, +4°	−1, +4	+2°, +4°
+20°, +XX	−5°, +3°	−5, +1	−1,	, +1	−3, +5	0
+20, −XX	−0, +4°	0, +1	+1°, +5	−1, +4	−1, +5	+3°, +5°
−20°, +XX	−5°, +1°	−7, +2°	−6°, +4°	−4°, +4°	−1, +4	−2, +4
−20°, −XX	−2, 0	0, +1°	−1	—	−1, +4	+2°, +4

CHART FOR MEASURING THE FIELD OF VISION.*

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THE medical aspect of ophthalmology has so rapidly developed during the last few years, especially in relation to cerebral diseases, that it is now deemed necessary to accurately test the field of vision in numerous cases where that course would not formerly have been adopted. In order to facilitate this process, and to enable clinical records to be taken with ease and accuracy, I have introduced a chart sixty centimètres square, which is divided into small squares of five centimètres each, a portion of these being tinted a pale grey colour. It is intended that each eye should be tested separately, at a distance of thirty centimètres from the chart, the patient being directed to keep the eye and the attention fixed upon a central spot coloured black, and one centimètre in diameter. From the latter, fine circles radiate with regularity, being separated from each other by a distance of two and a half degrees. The person who makes the examination is provided with a small metal pointer, the apex of which is precisely similar in size and colour to the central spot on the chart. This pointer should be placed upon the extreme margin of the chart, and slowly directed towards the centre till it is brought within the patient's range of vision. This should be done vertically, horizontally, and obliquely in each quarter of the chart, and the field should be carefully noted upon a smaller but similar chart, of which a good supply must be kept, so that one may be devoted to each patient. An accurate map of each individual field can thus be obtained, which should be retested at subsequent visits, when the slightest loss or gain in any direction will be at once noted. The chief merit of this method is its simplicity, so that a student can easily accomplish with it a considerable amount of useful and accurate work; and the reports which I have already received from several of my colleagues who hold ophthalmic appointments in large metropolitan hospitals, lead me to hope that clinical work may, in this direction, be much facilitated. It is not pretended that this chart can compete, in point of delicacy or range, with any of the admirable metal perimeters which have already been introduced, since these latter must of necessity include the extreme circumference of each field which cannot be gauged upon any flat surface; but perimeters are both cumbersome and costly, and, as this chart will be found sufficient for all practical purposes, I trust that it may meet a want which was, I think, very generally felt.

* The charts are published by Pickard and Curry, 195, Gr... rtland Street, W.

ON THE DIRECT MEASUREMENT OF OPHTHALMOSCOPIC OBJECTS.

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In a lecture on the enlargement of ophthalmoscopic images, by Dr. Landolt, which appeared in the number of the BRITISH MEDICAL JOURNAL for January 3rd, 1880, the author says that the results obtained by the direct method are only relatively exact; "for, unfortunately, the fundus oculi does not present any object of constant size, or directly measurable". Now, it so happens that, by a particular application of the "law of Bravais", an image of known magnitude and constant size (say of a grating) can be projected on the fundus oculi, and seen by the direct method, simultaneously with any object there which it may be required to measure. The "law of Bravais", shortly stated, is as follows. When the distance between two dioptric systems is equal to the sum of their principal foci, parallel incident rays emerge from the compound dioptric system parallel; and the ratio of the size of an image to its object is constant, whatever may be their relative distances from the system—viz., that of their adjacent principal foci. In the case of the eye, when the convex lens used in the indirect method is so held that its principal focus coincides with the anterior principal focus of the eye—which is about 12 millimetres in front of the cornea—the conditions of the "law of Bravais" are fulfilled, and the ratio of the size of an object in the fundus to its aerial image is constant, viz., $\frac{\varphi}{f}$; φ being the anterior principal focus of the eye, and f the principal focus of the lens.

The late Dr. George Rainy, shortly before his death in 1869, had a compound ophthalmoscope constructed on this principle, with which he proposed to measure the absolute size of objects in the fundus oculi, in all cases of axial ametropia, as well as in emmetropia; and, at the same time, to determine the refraction. The instrument consisted essentially of two plano-convex lenses, of 2¼ inches focus; one fixed in the anterior part of the tube, in the position required by the "law of Bravais" (the objective); the other (the ocular), at the other extremity, in a draw-tube, with a micrometer in its focus, to measure the absolute size of the aërial image. This having been found, the size of the object in the fundus was easily deduced from the formula, $\frac{\beta}{\beta_1} = \frac{\varphi}{f}$, in which β represents the size of the object, and β_1 that of its image on the micrometer. To avoid reflected images from the surfaces of the lens, the illumination was effected by three plane parallel plates set obliquely in front of the objective. When the instrument is in position, an image of the micrometer can be projected on the retina by transmitting the light sent to the eye directly through the tube. The ratio of the size of the divisions of the image to that of the micrometer is as before, $\frac{\varphi}{f}$. But this arrangement, which, to a certain extent, resembles that of the Epkens' and Donders' instrument, is not very convenient in practice.

Fortunately, the ophthalmoscope of Coccius furnishes the required optical conditions. This instrument consists of a plane mirror with a condensing lens of short focus between it and the lamp. If, when the instrument is held in the position for direct examination of the eye (and corrected, if necessary, for refraction), the principal focus of the lens coincides with the anterior focus of the eye, the conditions of the "law of Bravais" are fulfilled; and if a micrometer screen be held between the lens and the eye, in the conjugate focus of the retina with the compound system of the eye and the ophthalmoscope, its image will be seen along with the object in the fundus.

In practice, it suffices to attach a graduated rod perpendicularly to the handle of any ophthalmoscope with a plane mirror (a Jäger's in the present instance), to carry the lens and screen, which should be accurately centred with the mirror. The inclination of the supporting rod to the plane of vision may vary from 60° to 90°: the mirror, in any case, being directed by its usual handle. The requisite adjustments are simple and easily executed. The anterior focus of the lens in front of the mirror, and the principal focal distance of the screen, are determined experimentally. The positions of the screen for different degrees of ametropia are readily found: for that of the principal focus of the lens coincides with the anterior focus of the emmetropic eye, and marks the zero point of the graduated rod: the other positions ranged from

* [illegible] by Dr. Adolph Zander, p. 44.

the formula of Newton: $l l^1 = f^2$, in which, if l is taken equal to one dioptric, $l^1 = f^2$ a constant quantity which is the size of the divisions, each being equal to one dioptric. For example, with a lens of 75 millimètres, $l^1 = 75^2 = 5.6$ millimètres, the amount of displacement of the screen for each dioptric of ametropia. The degree of refinement to which the measurements can be carried depends on the size of the divisions on the screen whose image can be seen on the fundus under the low magnifying power of the eye itself. With a lens of 75 millimètres, divisions of .5 millimètre, whose image is $\frac{1}{75} \times .5 = .1$ millimètre, or about $\frac{1}{250}$ inch, can be distinctly seen. Measurements of the normal optic disc in emmetropic and slightly ametropic eyes gave, with remarkable uniformity, 1.6 millimètres for the vertical diameter; the horizontal, in some cases, being rather less. Well marked atrophy, with filling in of the margin, consequent on embolism of the retinal artery, measured 1.5 millimètres in the vertical and horizontal diameters.

In a case of amblyopia, with atrophy of the choroid, but without staphyloma, the diameter of the optic disc was two millimètres. The diameter of the superior and inferior branches of the retinal veins over the disc in the normal eye was found to be not more than $\frac{1}{150}$ inch, and the corresponding arteries about $\frac{1}{250}$ inch. In congestion of the veins, the diameter varied from $\frac{1}{150}$ to $\frac{1}{100}$ inch.

To check the accuracy of the measurements, plano-convex lenses of 4.5, 6, 7.5, and 15 centimètres were employed, which gave images of the screens of $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$, and $\frac{1}{10}$ respectively; the results obtained were practically the same. When the translucency of the disc is such that it cannot retain the image of the screen, there is some difficulty in measuring accurately the size of the vessels. For more accurate measurements and demonstration, it is necessary to fix the instrument on a stand. An arrangement,* similar to that of Follin's stationary simple ophthalmoscope, with a micrometer screen added, answers perfectly.

Plano-convex lenses were invariably used, because the first principal plane and optic centre lie on the vertex of the convex surface, and therefore admit of a more accurate determination of the focal length than is possible with biconvex lenses of short focus. Screens of different form and sizes, with divisions of from .5 millimètre to 2 millimètres, on the model recommended by Dr. Gowers, were employed. The screen should be moved by rack and pinion, so as to admit of the conjugate focus of the part examined being found, while the eye is under examination. The distance of the lamp should be so arranged that its conjugate focus coincides, as nearly as possible, with the optic centre of the eye—a position which gives the best illumination.

A lens of 75 millimètres was found to be the most convenient, giving as it does an image of $\frac{1}{5}$, which, either in its vulgar or in its decimal form, adapts itself perfectly to the metric system. For example: if the image of four of the 2 millimètres divisions of the screen measure exactly the diameter of the optic disc, its real size will be $\frac{8}{5} = 1\frac{3}{5} = 1.6$ millimètres, and with decimals, $8 \times .2 = 1.6$ millimètres.

It will be obvious, from the preceding, that this method is not applicable either to cases of refraction, of ametropia, or to the eyes of animals unless the optical constants have been previously determined.

ON COLOTOMY.†

By CHRISTOPHER HEATH, F.R.C.S.,
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No operation has probably undergone greater change of estimation of late years than colotomy. Confined originally to cases of obstructive disease of the sigmoid flexure or rectum, recourse was had to it only as a last resource, and when the patient was *in extremis*. I have, on several occasions, been called upon to operate under these circumstances, and the result has too often been disappointing. Not only is the risk of death from exhaustion very great, but there is also the great liability for the bowel to give way before, or soon after, the operation, either just above the stricture or at the cæcum, which latter seems to be especially liable to perforation by ulcer when much overdistended. At the same time, I have seen so many recoveries, with considerable prolongation of life, after colotomy, in apparently desperate circumstances, that I should not feel justified in refusing to operate, unless the symptoms pointed distinctly to perforation, and consequent peritonitis. Death from overdistension of the bowels is one of the most painful and distressing terminations of life we can have to witness; and, to obviate this alone, colotomy will be justifiable, even under circumstances of the greatest gravity.

But it is as a means of relieving the suffering caused by cancer of the rectum, or incurable ulceration, or recto-vesical fistula, and of thus pro-

† Read at the East Surrey District of the South-Eastern Branch.

longing life in comparative comfort, that the operation of colotomy has been proved so advantageous. Six months, twelve months, or more, may thus be added to the life of a patient suffering from cancer; and one patient of mine survived the operation two years and nine months in great comfort, although latterly the disease had encroached upon and perforated the vagina—a complication most offensive under ordinary conditions. To show how little a lumbar colotomy interferes with the health or comfort of a patient, I may mention that, in January 1872, I performed colotomy on a lady (a patient of Dr. Grigg), who was suffering constant torture from a recto-vesical fistula, following and connected with a pelvic abscess. She is perfectly well at the present time; has no pain or trouble; and is able to attend to her domestic and social duties without inconvenience. Another female patient, whose colon I opened, in 1873, for intractable syphilitic ulceration of the rectum, is living and well; but the rectum is completely closed by the cicatrisation of the ulcers.

Recto-vesical fistula in the female must be very rare; but the distress caused by the escape of fæces into the bladder, and frequent blocking of the urethra, is very great. In the male, recto-vesical fistula is more common, both as the result of abscess and of cancerous perforation. The operation of colotomy could, of course, be of service only in the cases in which fæces passed into the bladder: for it could afford no relief to the irritation of the lower rectum, caused by the passage of urine into the bowel. In one case, however, of an old clergyman, with cancerous perforation, on whom I performed colotomy, with great relief to the escape of fæces, I found that, as the patient lay in bed, the urine flowed backwards to the opening in the colon, where it escaped, with little or no irritation compared to that excited in the sensitive sphincter ani.

It is remarkable how insidious the symptoms of cancer of the rectum are—so that patients complain of dyspepsia, diarrhœa, and vague uneasiness about the pelvis, for some time before their attention is specially directed to any alteration in the size of the motion, or any difficulty in defæcating. I know that one of our leading physicians, who very properly insists upon making a rectal examination, when the symptoms of dyspeptic diarrhœa cannot be otherwise explained, has, on several occasions, thus detected unsuspected cancer of the rectum; and it has happened to myself, in explaining the case of a patient suffering from early cancer of the rectum to her friend, to light up a suspicion of the presence of the same disease in the friend, which turned out to be only too true. Cancer may have attained very considerable proportions without producing the small fæces, which are erroneously thought to be characteristic of the disease; and the tendency to diarrhœa, which is so often present, prevents, for the most part, any just estimation of the calibre of the bowel.

Epithelioma not unfrequently invades the anal portion of the rectum, and, possibly, but one side of it; and such a case is, no doubt, well suited for the removal of the lower end of the rectum—an operation which has of late been revived with some success. But when, as often happens, the cancer, whether scirrhus or the columnar epithelioma, involves the whole circumference of the bowel, as far as the finger can reach, with possibly a ring of cicatrisation at the upper part; or, when the lower part of the rectum is quite healthy, and the finger comes upon a structure, so like the os and cervix uteri that one is almost doubtful of being in the bowel at all, then removal is quite impossible, and colotomy is the only operation available.

I do not, of course, mean that colotomy is desirable in every case of cancer: for the progress of some cases is slow; and much may be done to relieve pain and promote comfort by the use of morphia suppositories, or of starch and opium enemata, and the careful selection of bland and unirritating food and drink.

As regards the operation itself, I would say that, though it often is extremely easy and simple, yet, in some cases, it is of the greatest difficulty. In a case of obstructive disease, the colon is often distended and easy to reach; but, again, when distension is great, the colon may be contracted, and the small intestines overlap it completely, and cause great difficulty; or the peritoneum, distended with air, may closely simulate the bowel. Again: the anatomical arrangement of the meso-colon may be such as to render it impossible to reach the bowel without opening the peritoneum. Should the peritoneum be opened, I believe the best mode of proceeding is to bring up the colon to the opening, and stitch it carefully before opening the bowel—so that the two peritoneal surfaces may be well in contact and rapidly adhere, when a good result may be anticipated. It is said, by a distinguished lithotomist of the day, that every case of lithotomy has its own peculiarities; and the same may, I think, fairly be said of colotomy. Although my experience of the operation is now not inconsiderable, I must confess to a feeling of relief when I have fairly opened the colon without misadventure.

In the after-treatment of cases of colotomy, some little care is required in washing out, periodically, the diseased piece of bowel below the artificial anus: for, if this be neglected, the mucous secretion collects, and is apt to irritate. It is undoubtedly the fact, though it is difficult to explain it, that fæcal matter does occasionally find its way into the rectum, in some cases; but the bulk of the fæces is, of course, discharged at the loin, and with great regularity, and singularly little discomfort. A simple bandage, with a pad of tow or wool, applied over the anus, is sufficient to prevent injurious friction of the part; but if, as sometimes happens, there be a tendency to prolapse of the mucous membrane, another air-pad may be added.

THE NOMENCLATURE OF PNEUMONIA AND OTHER ALLIED LUNG-INFLAMMATIONS.*

By OCTAVIUS STURGES, M.D., F.R.C.P.,
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It seems worth discussing whether the present names for pneumonia and other allied affections are the best that can be devised for expressing the actual facts of the case. The present nomenclature has not been deliberately planned, but has grown up by degrees as knowledge advanced or opinions altered. It bears marks of this mode of construction in its want of symmetry, complexity, and incongruity. At first, when the term pneumonia had a very loose signification, and was not even distinguishable from acute pleurisy, there was hardly room for any classification at all; but so soon as auscultation had taught us to recognise clinically many conditions of lung having an inflammatory origin, not only did each of these require a distinguishing name, but it became necessary to define pneumonia itself afresh in some stricter phrase, which should express this later and fuller knowledge of its particular phenomena. Thus pneumonia became known as "false" and "true", "active" and "passive", "croupous" and "catarrhal", until, in our own day, the condition that we all have in our minds in using the single word is found to need the company of no fewer than three attendants, and is spoken of as acute, sthenic exudative pneumonia.

It is easy to see that a system of classification thus contrived, and which gives currency to such complicated expressions, is not perfect. But there are other faults besides complexity. I need not now allude to our official nomenclature (that of the College of Physicians of 1869), for this is about to be superseded. I take rather the common nomenclature of the books. We have there—(1) *lobar* (or *croupous*) *pneumonia;* and (2) *lobular* (or *catarrhal*) *pneumonia;* or otherwise, as Dr. Bristowe would prefer, we have "diffused" and "patchy" pneumonia. There is then (3) "chronic pneumonia", with its synonyms "cirrhosis of lung" and "fibroid phthisis"; while for the other varieties of phthisis there is the adjective "pneumonic".

Dr. Walshe's nomenclature is somewhat different. "Chronic pneumonia" is by him defined as "the local attendant on adventitious products in the lung", but is reckoned a second time amongst "tissue-destroying diseases" (Walshe *On the Lungs*, p. 379). Acute pneumonia is distinguished, as I have said, as "acute sthenic exudative pneumonia", with topographical, subjective, and intercurrent varieties.

The chief objections to the mode of classification thus generally indicated seem to be these.

1. It draws a distinction between *croupous* and *catarrhal* pneumonia which cannot always be recognised clinically; while, by the introduction of such a term as *croupous*, it suggests a likeness which few would admit, and needlessly entangles together two diseases, croup and pneumonia, each of which has difficulties enough of its own to contend with.

2. It employs the term "lobular pneumonia" in a variety of ways, using it both for the secondary lung-consolidation which succeeds to acute bronchitis, especially in childhood, and is a fairly definite affection; and also to that disseminated patchy, lung-inflammation of adults which occurs with many and various associations, sometimes nearly resembling and sometimes not resembling at all simple pneumonia.

3. It employs the words "chronic pneumonia" in two separate senses, neither of which is free from objection. It is a local alveolar catarrh attendant upon tubercle and other adventitious products (Walshe, *loc. cit.*), and it is also a fibrosis or induration of lung-tissue. These two conditions are totally distinct, and the relation of either to the proper pneumonic process is doubtful and remote. The word "chronic pneumonia" carries a theory along with it; it also takes possession of a term for which there is other and legitimate use. The name would fitly describe that temporary delay or arrest of pneu-

* Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Cambridge, August [illegible].

monic resolution which occurs when the inflammation-products are retained, wholly or in part, and the acute disease becomes for a while, in a true sense, a chronic pneumonia.

4. It makes use of the adjective "pneumonic" to describe forms of phthisis which in fact arise, not out of pneumonia, but (even in the contention of those who use that word most freely) out of "chronic pulmonary catarrh" (Niemeyer, *On Phthisis*, p. 6 of Syd. Soc. ed.): the proper signification of the word pneumonia becoming obscured by such extension.

5. Many of the terms made use of are in themselves cumbrous, ambiguous, and inexact. "Catarrhal" is liable to be confused with "lobular", and with "bronchopneumonia". "Pleuropneumonia" is all one with "pneumonia". Words like "pure", "genuine", "false", "insidious", apply to morals rather than to physic. Words like "acute sthenic exudative pneumonia carry their own condemnation. No one could find time to use them.

There are many other terms and modes of classification freely in use, but which have no high sanction, and to which, therefore, I need not particularly refer. Pneumonia has been named after certain organs which are prominently involved, as "cerebral" and "renal"; after the supposed vigour or feebleness of its symptoms, as "sthenic" and "asthenic"; after the distinctness or the obscurity of its objective phenomena, as "latent" and "frank". It is obviously impossible to frame any nomenclature having a claim to exactness, if expressions like these are admitted.

The real aim of nomenclature must always be to present in correct perspective some preliminary picture of the actual facts, as these will presently appear when the subject is further investigated. While avoiding hypothesis in the main, words must yet be so used as to give prominence to that form of the disease which is regarded as furnishing the central pattern, the subordinations of the rest being marked by such qualifying expressions as shall best indicate the particular manner of the declension. It is within the province of a nomenclature to indicate, by the repetition of a word through several of its terms, that the same or some similar morbid condition is being named under as many modifications; while, by the change of such word, it is signified that all intimate likeness ceases. In so far as the classification is anatomical, it must make choice of descriptions which are not open to question, and which refer to the living patient rather than to the dead subject. In a word, it is required of a nomenclature that it should be simple, descriptive, and catholic, not so intricate as to demand a more intimate knowledge than common men possess, nor yet so inexpressive as to leave out of view all indication of the mutual relations of the several conditions that are named; above all, avoiding the use of any expression that shall seem to make those that are to employ it the disciples of a particular school. "Words are wise men's counters, but they are the money of fools"; so these words of ours need serve only to enable us to indicate to one another certain conditions of disease, without carrying anyone's mint-stamp, or requiring of anyone that he should accept them at a particular valuation.

Following these general principles in the nomenclature I am now about to attempt, and remembering as well the importance of retaining the old names in something like their old signification, I would propose, in the first place, to set up the single term *pneumonia* as expressing, in one word instead of four, that form of lung-inflammation which, whatever questions there may be about it, is very distinctly formulated as to its clinical characters and morbid anatomy. It is very desirable, for statistical purposes, that this form of disease should be prominently recognised and compendiously expressed. It is, moreover, convenient and fitting that, as forming the type or pleasure of lung-inflammation from which the other forms are modifications or declensions, it should be known by a single word. The proper characters of *pneumonia*, regarded as a definite affection running an uniform course, and tending, within a certain time, to spontaneous recovery, are supposed to be included in its name, descriptive adjectives being reserved for expressing the several ways in which this pattern is departed from. Thus, for example, pleurisy is an almost constant (if it be not a constant) attendant of ordinary lobar pneumonia. There is no need to signify as much in the name, there being no means, indeed, very often of discovering during life by any notable sign whether there be pleurisy or not. It happens, however, sometimes that there is not merely pleurisy, but fluid effusion. In such case, the disease, although at first conforming to the usual pattern, is lengthened and otherwise modified. Such variety might suitably be called *pleuropneumonia*, this compound word (now almost synonymous with pneumonia) being reserved for such use. Similarly, the word *bronchopneumonia* fitly describes that form of the simple disease which arises in the course of bronchitis. How the two affections are connected is matter for question—matter, therefore, which should be carefully excluded from any nomenclature. There is the obvious clinical fact, however, of the antecedency of bronchitis and of the origin of such pneumonia, after a manner which is seen to be quite different from the sudden, and as it were spontaneous, origin of the simple disease.

With these three varieties, *pneumonia*, *pleuropneumonia*, *bronchopneumonia*, all expressive of an active orderly process of lung-inflammation, I would propose to relieve that word from further service. Yet, for the better guarding of the term *bronchopneumonia*, which is apt to be put to very general use, as well as in justice to a morbid condition, fairly definite in itself, and having some features of likeness to pneumonia, I would employ, for once, the adjective "pneumonic". The patchy consolidation of lung which ensues often upon bronchitis (in young children more especially), sometimes openly and sometimes insidiously, and with symptoms nearly or remotely resembling lobar pneumonia, well deserves a term of recognition. It might be called *secondary pneumonic consolidation*; not "*lobular*", because the lobular arrangement is not strictly preserved, and because auscultation cannot, in fact, distinguish between contiguous patches of consolidation and one large patch; and our terms are wanted for the wards, and not merely for the dead-house. I would restrict the word "pneumonic" to this single use, and adopt henceforth a separate category of terms for a separate, or in large measure separate, series of phenomena.

For, in fact, the several forms of lung-inflammation which yet remain for description are, for the most part, associated with chronic and permanent tissue-changes, such as are included in the general term *phthisis*. We pass from an acute and short-lived inflammation, to one that is chronic and abiding, and often destructive. The same histological elements that we have seen hitherto as the factors in an active, orderly, and commonly innocuous process (to which the words "pneumonia" and "pneumonic" have been applied), become now the agents of degeneration. What is wanted of nomenclature is, that it should express this identity of histological elements, while it indicates at the same time the diversity of operation in the two cases respectively. I would submit that the term *pulmonary catarrh* fitly describes that local inflammation attendant upon adventitious growths which Dr. Walshe calls "chronic pneumonia". Such an expression applies accurately to the condition of lung which Niemeyer and his followers intimately associate with phthisis, and describe as "originating, with rare exceptions, in the extension to the finest ramifications of the bronchi, and from them to the alveoli themselves, of a chronic bronchial catarrh".

It is far from my intention to intrude upon the vexed question of classification in phthisis, but I would ask those who employ themselves in this way whether the word *catarrhal* might not take the place of *pneumonic*, as best expressing the actual character of the lung-inflammation with which phthisis is connected. "Pneumonic phthisis" would then cease to be applied as at present, and be understood to refer exclusively to that form of lung-destruction (be it a rare or a common event) which arises out of true pneumonia. *Pulmonary* or, if you will, *alveolar*, *catarrh* is the obvious anatomical expression for the condition of occupied air-sacs surrounding tumours and adventitious growths, and which is sometimes stationary, and sometimes makes slow progress to destruction. If, then, we apply the term *fibroid phthisis* to induration of lung, where the alveolar walls exhibit (consecutively, it may be, upon this catarrhal occupation) fibroid overgrowth, we avoid the use of the equivocal word *chronic pneumonia* altogether; or at least reserve it for those comparatively rare cases where the ordinary course of pneumonia becomes suddenly arrested for a while, owing to the retention within the lung beyond their proper time of the inflammatory products.

And while the term *alveolar or pulmonary catarrh* correctly describes the condition of those isolated patches of lung surrounding tubercle and other growths, a condition which for the most part only comes into view *post mortem*, the same word is suitable for *clinical* use. That variety of crepitant rhonchus which is just coarser than fine crepitation, and of which the precise significance varies with the locality, may be often interpreted by *pulmonary catarrh*. Such an expression has many advantages of convenience and simplicity. It coincides with the views of Niemeyer and others as to the extension of bronchial catarrh to the vesicular region of the lung; it names without further designating a condition which is often spoken of as though it were presumptive evidence of phthisis; and it supplies a term applicable to that more or less chronic state of lung (affecting the bases, or occurring in isolated patches, especially in childhood) to which the word *capillary bronchitis*, owing to its accepted meaning and associations, does not apply.

There still remains to be named a form of pulmonary consolidation not included in any of the foregoing categories, and which can only be described for clinical purposes by its physical characters. I allude to the secondary consolidation, which is apt to occur insidiously, and to our view capriciously, towards the close of lingering diseases, giving rise to no new symptoms, and often remaining undiscovered until after death, which, in fact, it only anticipates by a little. The actual advent

of such consolidation is frequently overlooked, even although the antecedent pulmonary congestion has been duly noted. This is the case, for example, in chronic phthisis, in obstructive heart-disease, in many of the deaths after surgical injury, or after long lingering in whatever disease. Apart from the mere question of terms, many would probably object to regarding this condition, in the words of Dr. Bristowe, as "a pneumonia of which pulmonary congestion was the predisposing cause". We are quite ignorant, indeed, of the reason why, with precisely the same antecedents, this consolidation is sometimes present and sometimes absent. We say, in fact, all that we know of it when we call it *secondary pulmonary consolidation*, a term which correctly indicates the actual difference between a passive and unperceived process of doubtful origin, and that more or less active lung-inflammation which we describe under the name *pneumonia*.

The following are some of the advantages which I think would ensue from this new arrangement.

1. It would distinguish by a cardinal term, *pneumonia*, a disease having well recognised phenomena, and one which it is important to identify and separate in order the better to observe and record the many points of interest in its natural history, as regards especially its varying frequency and mortality, epidemic prevalence, and response to treatment.

2. It would group together, along with pneumonia, and apart from other lung-inflammations, certain allied conditions—*pleuropneumonia*, *bronchopneumonia*—wherein the essential features of the primary disease are maintained with such modification as the names express.

3. It would separate from the aforesaid group, by the use of the word *catarrh*, other pulmonary inflammations which have no definite or uniform clinical course, but arise in such various associations that no name can be rightly applied to them save one that merely describes an anatomical condition.

4. It would abolish, or at least restrict, to a single and definite use, the ambiguous expression "*chronic pneumonia*".

5. By excluding the word "pneumonic" from the description of phthisis (except of such phthisis, be it rare or common, that has its origin in true pneumonia), and substituting the word "catarrhal", it would correctly indicate the relationship between lung-inflammation and the several forms of lung-tissue degeneration.

6. It would introduce no new terms, and dispense with some that are objectionable.

Old Arrangement.	New Arrangement.
1. Pneumonia: acute, lobar, croupous; or acute sthenic exudative pleuro-pneumonia.	1. Pneumonia. Pleuro-pneumonia. Broncho-pneumonia.
2. Broncho, catarrhal, lobular, pneumonia; secondary pneumonia.	2. Secondary pneumonic consolidation.
3. Chronic pneumonia.	3. Pulmonary (alveolar) catarrh.
4. Acute (pneumonic) } phthisis.	4. Fibroid phthisis (fibrosis).
5. Chronic (pneumonic) }	5. (Secondary) pulmonary consolidation.

CLINICAL MEMORANDA.

GOUT.

I HAVE read with much interest Mr. Hoare's criticisms on my theory. In my short article, I quoted Chrzonszczewsky's experiment, and from it I drew my own deductions. This physiologist found that, if he tied the ureters, urates accumulated in connective tissue corpuscles, and in the lymphatic rootlets springing from them. Hence he concluded that urates originate in connective tissues, and are habitually carried away by the lymphatic stream. A little reasoning will show that this deduction is an error; for, if urates so originate, and are normally so removed, how can tying the ureters inhibit their removal? The lymphatic circulation will continue as before, sweeping away the urates as they are formed, and pouring such as survive the selective activity of the lymphatic glands into the blood-vessels at the root of the neck. If the lymphatic circulation habitually removes urates from their sources of origin, urates cannot accumulate at those sources unless the circulation be in some way inhibited. Tying the ureters has no such inhibitory effect, and will merely negative the removal of urates from the blood. Chrzonszczewsky, I think, failed to perceive that fibrous tissues, containing as they do the entrances to the lymphatic system, are, upon this account, eliminative centres; and my own conclusion, that, when the kidneys fail in their elimination of urates, the lymphatic system takes on compensatory activity, seems to me a very fair one. Mr. Hoare asks, "How is it that other noxious material circulating in the blood, and requiring elimination, does not produce the same train of symptoms?" To this I can give a very satisfactory answer. In blood-poisoning of many kinds, congestion of fibrous tissues around joints is a very prominent symptom. This congestion, associated as it very often is with swelling of the lymphatic glands and large lymph-sacs, is neither more nor less than excited activity of this eliminative system. Fibrous tissues are the passages between the blood and the lymphatic systems, and liquid containing effete matters is passing through those passages in excessive quantity. A recognition of the fact that these fibrous tissues are really eliminative centres enables us to elucidate in a very beautiful manner the otherwise obscure pathology of blood-diseases. But there is one great difference between these acute blood-poisonings and the condition known as gout. In the latter, the kidneys are slowly strangled, year by year; and the elimination of uric acid *gradually* devolves upon the lymphatic system; and as that system in turn as gradually fails, from its undesigned and excessive labours, failure first supervenes at its periphery—in other words, it withers—uneliminated urates accumulate, and congestion ensues. But in acute poisoning there is no such gradual failure; and congestions occur haphazard about the joints, in regions where there happens to exist an excess of uneliminated matters. But there is a form of chronic and slow poisoning which we very often meet with. I mean lead-poisoning; and I quote it as a very remarkable piece of evidence in support of my theory, that in that condition the phenomena of gout are accurately imitated.

In conclusion, it is evident that, before we attempt to comprehend the phenomena which tissues exhibit in disease, we should first ascertain the duties they perform in health. This principle is generally recognised. Why, then, should fibrous tissues form an exception to the rule? In no writings upon rheumatism and gout have I ever seen the very important functions which these tissues subserve as eliminative media even hinted at; and it is not, therefore, a matter of surprise that our knowledge of these diseases should have remained a constant quantity.

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THE USE OF "CORRIGAN'S BUTTON" IN RESTORING THE HEART'S ACTION.

IN the recent numbers of the BRITISH MEDICAL JOURNAL, the articles appearing under Clinical Memoranda in reference to the restoration of the heart's action, have attracted my attention. The importance of the subject leads me to presume upon offering a suggestion. The simple and efficient instrument known as "Corrigan's button", invented by the late eminent Irish physician whose name it bears, might be used with success as a means of arousing a non-working heart to action. The method of its application for the purpose under consideration might consist as follows: holding the instrument so that the tip of the index finger would rest on the metal portion one inch from the bend of the shaft, and placing the disc in the flame of a spirit-lamp until the metal is so warmed that the finger can just bear the heat; then, over the region of the heart, quickly give a few taps—short, sharp, and decisive, imitative of a postman's knock. By this method, two incentives for action are combined: the effects of the tapping itself, and the shock of quickly applied heat—more potent, perhaps, than electricity. Whilst believing that the best and neatest method of acting is by using a heated "Corrigan's button", yet, in an emergency, an ordinary metal spoon or iron key, warmed in the flame of a candle or gas-jet, might be used instead, as has been before suggested by many distinguished physicians for sciatica.

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THERAPEUTIC MEMORANDA.

ASTHMA TREATED BY LOCAL APPLICATION OF IODINE.

I WISH to record the following case in connection with Dr. Saundby's letter, published in the BRITISH MEDICAL JOURNAL of November 20th.

A lady, aged 40, had suffered from asthma for ten years. The attacks had been much more frequent for the last year and a half, and longer in duration. For six months, no single week had been passed without three attacks or more, which, whilst not always severe, were sufficiently so to prevent sleep for three or four hours. Occasionally, this state of things became worse, the paroxysms being of more severity. On November 26th, I painted over the line of both pneumogastric nerves with iodine liniment, full strength; but this rendering the surface too tender, an application of half strength was substituted for it, and applied for the next two days at night. Alternate nights were then considered sufficient, and ultimately once in three. The lady's condition, from the date given above up to the present time, has much improved in every way, she having suffered slight discomfort only on three or four evenings, rest being at no time interfered with. Moreover, she has been able to

sleep on an ordinary pillow, with her head low, a thing never admissible before. Twice, attacks of indigestion have occurred, and passed away without inducing asthma, as has usually been the case. Owing to this complete rest at night, and freedom from distress, she has returned to a more active mode of life, and "enjoyed herself" as she "has not for months or more".

I simply state the facts of this case, because much benefit has apparently resulted from the use of the remedy suggested by Dr. Faulkner. No medicine, I should say, has been used at all besides the iodine locally.

LEWIS W. MARSHALL, M.D., Nottingham.

SURGICAL MEMORANDA.

COMPOUND FRACTURE OF THE FRONTAL BONE: PROTRUSION OF BRAIN-SUBSTANCE: RECOVERY.

On August 7th last, I was called to see Thomas Smith, aged 10, who was said to have "fallen with his head on some broken glass, and cut it badly". When I saw him, the boy was standing and vomiting, and from his forehead blood was flowing freely. He made an attempt to run out at the door as I entered, and I stopped him. I found that the blood issued from a wound in the left half of the frontal region, out of which there was hanging brain-substance. My little finger, very gently inserted into the wound, entered with the point into a gap in the bone, the edges of the gap being very sharp. The wound was contused; it was curved in outline, with the hollow turned upwards, and near its left extremity there were two small apertures in the soft parts, through which brain-substance oozed when the slightest pressure was made. The frontal bone, between the outer angular process, on the left side, and the nose, but on a level rather above the line connecting those points, seemed quite "smashed up".

There being no indications for interference instrumentally, the case was treated with cold water compresses, which were ordered to be changed as often as they got heated. The prognosis was, of course, unfavourable. The case progressed as follows. Vomiting continued four days. The pulse never was bad; on the fourth day, however, it was hard and bounding. On the sixth day, the patient was doing very well; and on the seventeenth day, contrary to my orders, he had gone out. After that time, I was only able to "get a view of him" at long and rare intervals. A few days after the last-named date, a large scab was found covering the site of the wound; and, in the beginning of October, that scab came off, leaving a cicatrix. At the latter date, I observed a sharp process near the right frontal eminence, due to the end of a fragment of bone projecting under the soft parts. The frontal bone, on the left side, was also very irregular in surface, and did not feel very firm. Very recently, I saw the boy again, when the parts were of the same appearance as before, only the bone seemed quite firm when pressed on.

The injury, I need scarcely say, was not due to a fall on broken glass, but must have been due to the kick of a horse. Mr. T. S. Chambers, of Fakenham, who saw the case with me, accompanied me on the search for the place and cause of the accident. It was found to have taken place in the middle of a grass field, where there was neither broken glass nor yet a stone. There could be no mistake about the exact spot on which the accident took place, as we found the boy's cap, and large blood-stains upon the grass close to it. There were also newly made hoof-marks, which had been violently stamped into the ground; the marks were not distinct further away from the cap. In the field were some cows and horses, and among the latter a mare and foal. The boy was able, when he recovered the use of his faculties, to walk out of the field by himself, and was then taken home by a passing cart. The distance from the field to the boy's home is about a mile and a quarter.

M. R. J. BEHRENDT.

FRACTURE OF THE SKULL FROM A KICK OF A HORSE: REMOVAL OF A LARGE PORTION OF BONE: RECOVERY.

On September 12th, I was called to see John S., a child four years of age, who was said to have been kicked by a horse. Upon arrival at his home—a distance of two miles—I found the child perfectly insensible, nearly pulseless, with very shallow and slow respirations, surface of body pale and cold, and pupils contracted. He had a wound over the right eye, which extended two inches upwards and towards the left side of the forehead. There had evidently been free hemorrhage, which had ceased. Upon examination, a large part of the frontal bone was found to be smashed and driven up between the remaining sound portion and the dura mater, of course causing a great amount of pressure. I at once proceeded to remove the fractured pieces of bone, which was done with a considerable amount of difficulty, after having enlarged the wound. Upon removing the last piece of bone, the child commenced to cry, having remained hitherto perfectly insensible. The exposed dura mater was carefully sponged, and, after a minute examination, it was found to be uninjured. The edges of the wound were brought together with wire sutures, and covered with water dressing. The child was removed to bed, and ordered to be given small quantities of new milk only, to which diet he was restricted until recovery. On the 13th, the temperature was 97.2°. Respiration was normal. He had passed urine twice freely. The bowels had not acted. He could answer questions when spoken to in a loud voice; but at once again passed into a drowsy state. The pupils were sensible to light. The dressings were not removed, no discharge appearing upon them. On the 14th, the temperature was 98°. Respiration was normal. He had passed urine several times. The bowels had not acted. He was more sensible. The dressings were removed. The wound was looking healthy, a great part having healed by first intention. There was very slight discharge, and only where the skin was much contused, evidently by the heel of the horse's shoe. He was ordered an aperient (calomel and sugar). The wound was dressed with weak sulphurous acid lotion. On the 15th, the temperature was 99.1°. The bowels acted freely. He laughed in a peculiar manner when spoken to, or upon hearing any noise. On September 16th, the temperature was normal. The bowels had acted freely twice. He still laughed when spoken to. The wound was healed, except the contused portion. On the 17th, he was perfectly rational. The tendency to laugh had disappeared. From this date, he progressed in every way satisfactorily; the wound healed soundly by the 22nd. Pulsation could be easily seen beneath the skin where the bone had been removed. He wears a gutta-percha shield over the forehead, and is allowed to play about as usual. Up to the present date, he remains perfectly well, none of his faculties being impaired. The bone removed, after being dried, weighs ninety-six grains.

C. E. HOBBES, M.R.C.S., L.R.C.P., and L.S.A., Bidford.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

LEEDS INFIRMARY.

ADMINISTRATION OF ETHER DURING REMOVAL OF A LARGE TUMOUR ON CHEST: DEATH.

By THOMAS CHURTON, M.D., Physician to the Infirmary.

I REGRET to have to report the following case. It is doubtful whether the ether had much to do with the patient's death; but I send the report at the request of my friend Mr. Jessop. The way in which the respiratory process continued, giving no alarm, while the radial pulsations became slowly but steadily fainter, was remarkable, and even misleading—being opposed to my own former experience, and being also the reverse of what recent experiments would make one expect.

A white-haired man, aged 53, consulted Mr. Jessop, on November 3rd last, for a large, widely spreading tumour on the right side of his chest. Two years ago, when first discovered, it was two or three inches in diameter; it grew slowly until four months ago, and then much more rapidly, to the size of fifteen inches by eight inches. It was found to be painless, not immovable upon the ribs; the skin was not adherent; it was apparently a sarcoma. After careful examination of the patient, and after consultation with his surgical colleagues at the infirmary, Mr. Jessop, while explaining to him the serious nature of the operation, offered, nevertheless, to remove the tumour if he wished; and, upon his expressing this wish, strongly urged him to enter the hospital. This he would not do; but, after a month spent in hesitation, he resolved to have the tumour removed at his own house, at a considerable distance from Leeds. On December 5th, therefore, Mr. Jessop, assisted by Dr. Scott and Mr. W. H. Brown, proceeded to operate (using the antiseptic spray and full Listerian precautions). During the month of delay, however, the mass had become more firmly fixed to the chest-wall, and the patient's condition was in other respects not so good. He was said to suffer to some extent from winter-cough; but it was in no way obvious, and at first glance he merely looked an

eldish man, and he walked briskly enough for his apparent age to the operating-table. An ounce and a half of ether was placed in Clover's smaller apparatus, and was administered to him by myself. He very readily became insensible, the index not going beyond 2. The pulse was not very good, and it was noticed that the ether did not, as it so generally does, cause it to improve. The room had been made rather oppressively warm. The respiration was not in the slightest degree embarrassed; he did not snore; except just at the outset, he did not become blue; the ether-index was kept at 1—never beyond 2, even when he (once only) appeared to be sensitive; when once fairly under, he was allowed one or two breaths of fresh air after every four inhalations; often the inhaler was removed altogether for a short time; the ether was renewed twice only, half an ounce being added each time, the index being moved slowly from 0 to 1 after each renewal; the breathing remained undisturbed in rhythm, though the inspirations were rather (not very) short; the pulse, however, became, during the operation, fainter and fainter, until, towards the end, it was barely perceptible. The omission of ether, and the administration of brandy, lowering the head, etc., had no effect. There had been very little hæmorrhage; but the operation itself was a severe one. The mass had become fixed to the ribs, and even in some places to the external intercostal muscles; considerable force was required to detach it from some of its adhesions, the periosteum of the ribs being stripped off in some places; in other parts, much caution was necessary; and thus, though not a moment was lost, the mere extrication of the tumour occupied about five-and-twenty minutes. He did not become conscious; a livid pallor gradually overspread his face, and he drew his last breath ten or twelve minutes after the completion of the operation, the failure of the respiratory process being very gradual, just as was the failure of the heart which preceded it.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, DECEMBER 1ST, 1880.

W. S. PLAYFAIR, M.D., President, in the Chair.

Pygopagi Twins.—The PRESIDENT exhibited the conjoint twins, Rosalie and Josepha Blazet, born in Bohemia, in January 1878. They belonged to the second of the four classes into which he had divided cases of double monstrosity, viz., "two nearly separate bodies united back to back by the sacrum and lower part of the spiral column". There is a broad and firm bony junction at the lower part of the lumbar region, the pelvis being obviously completely fused. There are two labia magna, a common urethral and anal aperture, and a double vaginal orifice, the septum separating the two canals being apparent. Sensation is quite distinct, except where the pelves are joined. Delivery was very easy, the mother not having been more than a quarter-of-an-hour in labour. The head and shoulders of one twin were born first. The midwife now used strong traction, and thus delivered the feet of both children, the head and shoulders of the second twin passing last. This was the usual mechanism of delivery in such cases. Delivery is probably easier in this class of monstrosity; and hence, although this class is comparatively rare, a large proportion of the living monsters have been of this type, as for example, the Hungarian twins, Judith and Helen, and the so-called Two-headed Nightingale, Milly-Christine, exhibited some years ago in this country, and still living.

Eczema of the Nipple in Pregnancy.—Dr. THOMAS CHAMBERS exhibited a drawing from a case of eczema of the nipple in both breasts in a woman, aged 21, married six months, and five months advanced in her first pregnancy. The disease commenced when she was two months pregnant; after confinement, it began to disappear, and no trace remained after six weeks. In two cases of long standing, apart from pregnancy, under his care, the eczema had been cured by treatment directed to the uterus, uterine symptoms having also existed.

Follicular Hypertrophy of the Cervix Uteri.—Dr. HERMAN showed a specimen of pedunculated growth from the cervix uteri, removed by the *écraseur* at the fifth month of pregnancy. No ill result followed the operation, and the patient went to full term. When she came for treatment, she had been suffering from hæmorrhoids for three or four months; and for about a week the tumour had been outside the vulva. The tumour measured $1\frac{2}{3}$ by $1\frac{1}{3}$ by $\frac{2}{3}$ inch. It consisted of the normal tissues of the cervix, and contained glandular cavities from the size of a marble downwards, lined with cylindrical ciliated epithelium.

On the Induction of Abortion as a Therapeutic Measure.—Dr. PRIESTLEY considered that the indications for the induction of abortion, as distinct from the induction of premature labour, had never been laid down with sufficient precision in this country. It was usual to say that each case must be judged on its merits, and this lack of rule might unfortunately lead to serious abuse. Examples had repeatedly come within his knowledge, where abortion had been provoked for reasons which seemed to him quite inadequate. Though the medical man was no doubt acting in entire good faith in these cases, it would have been very difficult to sustain his action in a court of law. For instance, in one case abortion was induced at the fourth or fifth month, on account of a bad rupture of the perinæum at the last confinement; in a succeeding pregnancy, a sound was introduced with a similar object at the end of a month. This, however, had no effect, and she went to full term, and had an easy and natural labour. In a second instance, an attempt was made to induce abortion at the second month, because the patient had aborted not long before, and it was feared that pregnancy had recurred too speedily, while a much desired journey would have to be postponed if miscarriage recurred at the same period as before. Fortunately the attempt failed, and the patient went to her full term. It was often necessary to remind wives and mothers that even spontaneous abortion was often more damaging by health than natural parturition; more frequently laid the foundations of disease, and, if repeated, abridged the period of youth and comeliness. These risks were necessarily greater if abortion was induced. The reasons which might be adduced as justifying the inductions of abortion were the following: 1. Pelvic deformity so great as to preclude the birth of a viable child; 2. Narrowing of the genital canal by tumours, cicatrices, or cancer, so as to prevent the passage of a viable child. Great care was here necessary not to over-estimate the amount of obstruction. If a series of cases of Cæsarean sections with fair success should occur, the reasons for inducing abortion in such instances would be undermined. In cases of cancer there was fair ground for this operation, since the woman had but a short time to live in any case; 3. In obstinate vomiting of pregnancy, when all other expedients were fruitless, and a fatal result was anticipated, if relief could not be afforded; 4. In eclampsia, abortion should only be induced as a last resort to save life; 5. In irreducible retroversion or retroflexion of the gravid uterus, but only when life was seriously threatened; not merely because the displacement was irreducible; 6. In severe hæmorrhage; 7. In certain other diseases where the complication of pregnancy was undoubtedly endangering life. The responsibility of inducing abortion should never be undertaken without a consultation of two or more medical men, and M. Tarnier had even suggested that a legal declaration should be made to the public prosecutor in every case. He would lay it down that the induction of abortion was only legitimate when the life of the mother was so imperilled by the continuance of pregnancy, that emptying the uterus presented itself as the only alternative to save the mother. In insanity, chorea, and the like, the proper treatment was probably to treat the morbid conditions, and leave the pregnancy to take care of itself.—The PRESIDENT said that it was somewhat curious that this important subject had not previously been brought under the notice of the Society. In one respect we could congratulate ourselves; namely, that, so far as his experience went, the induction of criminal abortion was by no means so prevalent as in other countries.—Dr. BARNES agreed as to the importance of never undertaking the operation without a consultation. Two men would not be likely to conspire in error or crime, and the consultation would be an effective safeguard against censure. He repudiated the proposition of Simpson, that it might be right to deny to a woman the privilege of repeated delivery by craniotomy, as she was not a free agent. In albuminuria with retinal hæmorrhage, he thought that the motive for induction of labour was adequate, and in the vomiting of pregnancy he could not assent to the author's indications for the operation. If we waited for grumous vomiting, and the other extreme symptoms, we should wait too late. He also emphatically dissented from the author's proposition that in such cases as insanity we should treat the disease, and let the pregnancy take care of itself. The disease depended upon the pregnancy.—Dr. HICKINBOTHAM asked what the author's experience was as to the danger of inducing abortion in the early months of pregnancy.—Dr. MURRAY thought that in the case of early conception, preceded by secondary or even tertiary syphilis in the husband, it might be a question whether early induction of abortion might not prevent the poison from being thoroughly absorbed by the wife.—Dr. GRAILY HEWITT agreed in the main with the principles laid down by the author. He mentioned a case in which it was feared that reason would give way, where it was evident that the condition depended on want of food; and attention to this point caused amelioration of symptoms.—Dr. ROPER had never met with a case, either of disease consequent upon pregnancy, or seriously complicated by pregnancy, in which he thought it necessary to induce abortion; and he had never seen a patient die in any such case. He believed that criminal abortion was not uncommon.—Dr.

EDIS said that many an obstinate case of vomiting in pregnancy, for which abortion was often regarded as the only cure, might be relieved by attending to the condition of the cervix. In irreducible retroflexion pregnancy might go on to term. In urgent cases of heart-disease he thought it might be essential to empty the uterus.—Dr. CLEVELAND said that it was not uncommon for a husband to request the medical attendant to induce abortion, on the alleged ground that his wife could never survive such a pregnancy or delivery as the last. He mentioned several such cases in which induction of premature labour had proved sufficient, or the patient had gone to full term.—Dr. MALINS thought that the production of abortion was not in some instances an easy matter, even in skilled hands; nor always without risk to the patient. In some acute cases, it even substituted a greater evil. Thus he had seen septic symptoms follow when active kidney-mischief was present.—Dr. HAYES thought that Dr. Priestley had done good service in pointing out the legitimacy of the operation in certain cases. He asked his opinion as to the best method. He would himself prefer preliminary dilatation by sea-tangle tents.—Dr. PRIESTLEY, in reply, said that it was no part of his purpose to extend his paper to the method of inducing abortion. In some cases it was only too easy; in others, nothing short of fully dilating the cervix by sponge tents and removing the ovum sufficed. He believed the operation not free from risk, even when all due care was exercised. He feared that the necessity for it was more frequent than Dr. Roper and Dr. Edis would seem to indicate, but was glad to enlist these authorities on the conservative side. He thought that there was force in the statement of Dr. Barnes, that one might in some cases wait too long for the safety of the patient.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

MONDAY, DECEMBER 6TH, 1880.

ALFRED WOODHOUSE, Esq., President, in the Chair.

Apparent Insusceptibility to the Influence of Nitrous Oxide.—Mr. GEORGE LYDDON read a communication on the behaviour of patients during the administration of nitrous oxide gas. Of the half-dozen cases related, the following were the most remarkable. A clergyman, apparently healthy, though he suffered severely from dyspepsia, and engaged in the active duties of his profession, took the gas; he exhibited no signs of nervousness whatever, but inhaled it freely and well. After taking a considerable quantity, he declared it was having no effect upon him; and, as this was evidently the case, the attempt was abandoned, and the teeth were extracted without the use of any anæsthetic. Mr. Lyddon estimated that the patient had inhaled about twenty gallons of the gas, but it had no more effect upon him than if it had been common air. The apparatus appeared to be in perfect order; it acted quite satisfactorily with the next patient operated on, and Mr. Lyddon could not give any satisfactory explanation of the failure. The same thing happened on another occasion, the patient being a lady; in this case, also, anæsthesia could not be induced by nitrous oxide, so chloroform was substituted with complete success.—An animated discussion followed, in which Dr. Walker, Mr. Coleman, Mr. Hunt (Yeovil), and Mr. W. E. Harding (Shrewsbury), urged that the experience gained from the very large number of cases in which the gas had been given, pointed strongly to the probability that the failure arose from some defect in the apparatus, and pointed out various sources of fallacy. On the other hand, Mr. Stocken said he had met with one similar case which he could not explain; he tested the gas and examined the apparatus carefully, and could find nothing wrong. Mr. Dennant (Brighton) mentioned the case of a lady who came to him, somewhat tired and excited, one afternoon. She took a considerable quantity of gas without the slightest effect; at his request, she came again next morning, and then took it quietly and well.

First Permanent Molars.—The PRESIDENT opened a discussion on the advisability of extracting or retaining the first permanent molars, by reading a short explanation of his own rules of practice. He considered that these teeth were not really as hard to save as some had asserted; the chief difficulty arose from the fact that the child was frequently not seen until the caries had reached the pulp-cavity, and the nerve was exposed. If the child were brought for periodical inspection, and the caries were detected early, the teeth could, in the majority of cases, be saved. For the relief of overcrowding, he would always prefer to remove a bicuspid rather than the first molar, if possible; and, even if these teeth were too bad to admit of being permanently stopped, it was of great importance to retain them until the second molars were erupted, *i.e.*, till the age of thirteen. If the front teeth were not crowded, it was better to remove the six-year old molars rather earlier—at about twelve years of age—as then the second molars would advance, and close up the vacant space. As a general rule, especially when crowding existed, he thought it best to extract the teeth on both sides; but to this there were some exceptions.—A discussion followed, in which Messrs. Thomas Rogers, Stocken, F. Canton, Hutchinson, Ashley Gibbings, Dr. Walker, and others took part. The President then briefly replied, and the meeting terminated.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, NOVEMBER 27TH, 1880.

A. W. FOOT, M.D., President, in the Chair.

Surgical Kidney.—Dr. BOYD exhibited the bladder and kidneys of a man, aged 55, who was admitted to hospital with retention of urine. For some months previously, the patient had been complaining of emaciation, diuresis, and thirst. The urine was dark-coloured. It contained albumen, blood, and pus, with large quantities of mucus. Enlargement of the prostate was detected, but there was no evidence of a vesical calculus. Sudden death occurred from syncope, induced by fatty heart. The kidneys were much enlarged; they were gorged with blood, mottled, and fatty. Cysts existed in places throughout the cortical substance. The capsules were thickened and adherent. The pelves were dilated, and contained pus; the ureters were dilated and tortuous. The bladder was very much dilated; its walls were thickened and friable. The muscular structure was in ridges, resembling carneæ columnæ, and between them the vesical wall showed commencing pouching or sacculation. The middle lobe of the prostate was enlarged. In the case, the symptoms of stone in the bladder, with enlarged prostate, masked a very grave form of surgical kidney.

Carcinoma of Stomach.—Dr. W. G. SMITH showed several of the viscera of a coachman aged 55, addicted to "nipping", whose kidneys had been affected six years before his fatal illness. After *malaise* lasting for some weeks, hæmatemesis and melæna suddenly occurred. Pain and soreness across the epigastrium were prominent symptoms. On testing the urine by Jaffé's method, indigo-producing substances were found to be present in marked excess. After death, there were traces of recent peritonitis; the anterior wall of the stomach was studded with carcinomatous nodules. The stomach, pancreas, omentum, and duodenum were matted together by a mass of cancer. The stomach was the seat of extensive cancerous disease; there was no obstruction of the pylorus; and the left portion of the stomach, from the cardiac end to within five inches of the pylorus, was tolerably free from disease. Fungoid ulcerations were proved to consist of encephaloid carcinoma; the remainder of the new growth was scirrhus. The liver was enlarged, soft, and of a light yellow tinge. It was the seat of slight cirrhosis. The kidneys were normal. A few small infarctions were found in the spleen. The under surface of the lungs was also studded with small nodules of carcinoma.

Fracture of Base of Skull from Direct Injury.—Dr. E. H. BENNETT exhibited an example of injury of the skull, interesting, as it presented fractures of the petrous portion of the temporal bone and of the occipital, with projection of the fragment into the cavity of the cranium, which had resulted from direct injury—the kick of a horse; and also of interest as showing the difficulty which attends the diagnosis and treatment of such injuries, when the immediate cause of death is the presence of intracranial hæmorrhage. The man was standing erect, when a vicious horse, which was being harnessed near him, lashed out and struck him on the back of the head: a transverse wound, below and rather behind the mastoid process, alone marked the seat of injury; and throughout it the bone could be touched, bare, but not depressed. The man died, without ever recovering consciousness, on the day after the injury; his symptoms being at first those of concussion of the brain, subsequently developing into those of compression. The fractures of the base corresponded to the toe of the shoe, and to each limb of its crescent, but were distinct from each other, and were depressed deeply into the brain; while a simple fissure passed from a point corresponding to the stroke of the inner concave border of the horseshoe to the vertex, and further into the parietal bone of the opposite side; beneath the centre of this fissure, which was quite remote from the wound of the surface, a great blood-clot had formed, from laceration of the posterior branch of the middle meningeal artery. Had it been possible to apply a trephine in the region involved by the depressed fractures, and indicated by the wound, no relief would have been obtained, as the chief compressing agent, the blood-clot, and its cause, the simple fissure of the skull, were entirely remote, and not indicated by any external sign.

Cancer of Mamma.—Mr. KILGARRIFF presented a small recurrent tumour of the mamma, which he had removed from the cicatrix of an excised breast a year and four months after the primary operation for carcinoma of the mamma. Three and a half years previously, a small

kernel was detected in the left breast, and pain radiated from the nipple towards the left shoulder.

Enteric Fever without Lesion of Peyer's Patches.—Dr. J. W. MOORE showed the lungs and intestines of a young woman, aged 22, who unfortunately caught typhus in hospital when convalescing from a mild but undoubted attack of enteric fever, and whose death was caused on the twelfth day of typhus, and the forty-sixth day from the commencement of the enteric fever, by an intercurrent attack of croupous pneumonia affecting the right apex. The enteric fever was characterised by a typical range of temperature, moderate ochrey diarrhœa, marked splenic enlargement, an abundant crop of *taches bleuâtres* across the back, and a few rose spots. The fever subsided gradually; a temporary intermission, on the twenty-fourth day, being followed by a moderate recrudescence, lasting until the thirty-second day. On the thirty-fifth day, the temperature rose abruptly, and within sixty hours an eruption of maculæ appeared. On the forty-third day (the tenth day of typhus), a pneumonia of the right apex showed itself, which proved fatal in about seventy-two hours. The *post mortem* appearances were briefly—typical croupous pneumonia of the right apex, very considerable enlargement of the spleen, which was in a state of putrilage. Peyer's patches were indistinct, and apparently perfectly healthy. There was no "shaven-beard" appearance, nor any trace of recent cicatrisation. The case illustrated the doctrine of the essential nature of enteric fever, and of the inconstancy of its secondary intestinal lesions.

Glioma of Cerebellum.—Dr. C. J. NIXON showed a specimen of what he regarded as telangeiectatic glioma. It occurred as a soft mass occupying the centre of the left hemisphere of the cerebellum, in a patient who had suffered from a fixed pain in the back of the head.

Tubercul is of the Spinal Cord.—Dr. C. J. NIXON exhibited an example of acute miliary tubercle affecting the spinal cord. The kidneys were also the seat of miliary tuberculosis. Minute abscesses were likewise found in the kidneys.

SATURDAY, DECEMBER 4, 1880.

A. W. FOOT, M.D., President, in the Chair.

Perityphlitis.—The PRESIDENT showed a preparation, illustrative of the results of phlegmonous inflammation in the areolar tissue behind the cæcum. There was no typhlitis, the peritoneal investment of the cæcum being normal. The suppuration, which resulted from the perityphlitis, was of vast dimensions—an elongated sac, extending upwards from the cæcum, for ten inches, to the under surface of the liver, displacing the right kidney forwards and inwards. This huge abscess contained at least a quart of greyish gruel-coloured pus, of a horribly fœtid odour. The lower part of the sac was close to Poupart's ligament. The iliacus and psoas muscles were pulpified, and broken up into ragged shreds of a bottle-green colour, which stank offensively; and among which the white strands of the lumbar plexus stood out boldly. Thrombotic coagula plugged the ileo-cæcal vein and the internal iliac vein, extending as far as the inferior vena cava. The liver weighed eighty-four ounces, and was soft, pale, and greasy. The subject of the case was a coachman, aged thirty-five years. Severe pain in the right iliac fossa was the first symptom. The disease ran a course of six weeks and three days, death resulting from septicæmia. The mean average daily temperature, based on seventy-six observations, was 101.4° Fahr. The evening before his death, the temperature reached 105.2°. The inflammation of the retro-peritoneal connective tissue, in this case, seems to have arisen independently (idiopathic perityphlitis); for there was no evidence of ulceration in the cæcum or colon, or about the vermiform appendix.

Pathology of Hydrophobia.—Mr. KILGARRIFF presented the encephalon, spinal cord, cæcum, portions of the jejunum and ileum, and part of the trachea, of a lad aged 16, who died in the Mater Misericordiæ Hospital on July 5th, 1880, when seven days ill of hydrophobia. The period of incubation was exactly three months. The necropsy was made twenty-five hours after death. Rigor mortis was well-marked, and risus sardonicus was pronounced. Decomposition had already set in. The blood was fluid. The heart, liver, spleen, and kidneys were apparently healthy, but somewhat congested. The lungs, trachea, and bronchial tubes were much congested. The lower end of the jejunum, and commencement of the ileum, were deeply injected, and dotted on the outside in places with specks of lymph. Peyer's patches were remarkably distinct, and of a livid hue. The brain and spinal cord were apparently normal in consistence, and slightly congested. They were referred to the Committee of Reference for a detailed examination.

Colles' Fracture.—Dr. E. H. BENNETT showed to the Society three examples of Colles' fracture, which he had recently obtained, as three examples of the comminuted variety of the injury. The first was caused by a fall from a height of sixty-three feet. It was a compound injury; the upper fragment being thrust through the skin, at the ulnar side of the front of the forearm. The second specimen was caused by a fall from the roof of a two-storey house on to the pavement, but was not compound. The third was a dissecting-room specimen, but was probably caused by some cause of the more violent kind; for the humerus of the same side was also fractured. In each of these instances, caused by exceptionally great violence, the lines of fracture of the carpal articular surface of the radius were identical, in position and character, with those of the interior series of comminuted Colles' fractures, recorded in the communication made by Dr. Bennett to the Surgical Section of the British Medical Association, at its Cork meeting. Dr. Bennett concluded that, as the lines of fracture, even in these extreme cases of fracture *per écrasement*, were identical with those of the comminuted fractures produced by lesser degrees of force, that a similar cause might fairly be assigned as producing them—namely, the impaction of the upper into the lower fragment. Positive evidence of impaction could be seen in the many fragments still found embedded in the tissue of each fragment.

Lumbar Abscess, containing Bony Fragments.—Mr. STOKES laid on the table five fragments of bone, which he had removed from the cavity of a large chronic lumbar abscess, in a child aged four years. The abscess lay at a lower level than usual. There was no evidence of spinal caries, or of caries of any part of the ilium. On opening the cavity of the abscess, half-a-pint of whey-like pus escaped. When the sides of the sac were compressed, hard movable bodies were felt. These proved, on removal, to be fragments of bone, the origin of which remains doubtful.

SATURDAY, DECEMBER 11TH, 1880.

A. W. FOOT, M.D., President, in the Chair.

Carcinoma of Diaphragm and Peritoneum, and Myoma of the Uterus.—Dr. WALTER G. SMITH exhibited the diaphragm and pelvic viscera of a woman, aged 62, who had been admitted to the Adelaide Hospital at the latter end of November, complaining of frequent micturition and sluggishness of the bowels. She was extremely cachectic in appearance, but suffered no pain; nor were there any enlarged glands in the groins. On physical examination, four tumours were detected—one in the hypogastrium, another immediately below the umbilicus, and one in each iliac fossa. After apparent improvement, she sank gradually, and finally died suddenly. On *post mortem* examination, the diaphragm was found studded over with hard cream-coloured nodules, which were found also on the falciform ligament of the liver, and on the peritoneum, in the region of the right kidney. The spleen was little more than a soft pulpy mass. The stomach presented one patch of injection. In the region of the left ovary was a large three-lobed cyst. The uterus contained a tumour, probably a fibro-myoma. The walls of the bladder were immensely thickened. Microscopical examination showed the nodules to consist of large nucleated cells, lying in a well-defined stroma. Dr. Smith believed them to be true carcinoma. The interesting feature in the case was, in his opinion, the coexistence of malignant and benign disease in the same patient.

Perforation of the Colon in Enteric Fever.—The PRESIDENT showed the intestines of a boy, aged ten years, who had died on the forty-first day of enteric fever from perforation. The remarkable points in the case were the youth of the patient, the absence of any marked symptoms of the lesion, and the occurrence of perforation in the large intestine. There was also perforation of the ileum in the floor of a Peyer's patch, about three inches above the ileo-colic valve.

Morbus Coxæ.—Dr. E. H. BENNETT exhibited the head and neck of a femur, excised in the case of a young man, aged twenty-one years, who suffered from morbus coxæ. After the operation, the patient apparently mended steadily; but, a few months afterwards, he became suddenly insane, and died comatose. Dr. Bennett brought forward the specimen, as illustrating the value of excision in contradiction to amputation.

DONATIONS AND BEQUESTS TO MEDICAL CHARITIES.—The Church Burgesses of Sheffield have given £155 to the General Infirmary, and £65 to the Jessop Hospital for Women.—Miss Matilda Cohen, of Inverness Terrace, bequeathed £100 each to the Brompton Hospital for Consumption, the Earlswood Asylum for Idiots, and the Royal Hospital for Incurables; and £50 each to the Royal Sea Bathing Infirmary, and the Victoria Hospital for Sick Children.—The Mercers' Company have given twenty guineas, and the Vintners' Company twenty guineas, to the National Hospital for Diseases of the Heart and Paralysis.

REVIEWS AND NOTICES.

THE PHYSIOLOGICAL AND PATHOLOGICAL RELATIONS OF THE VOICE AND SPEECH. By JOHN SYER BRISTOWE, M.D.Lond., F.R.C.P., Senior Physician and Lecturer on Medicine at St. Thomas's Hospital. Being the Lumleian Lectures, delivered before the Royal College of Physicians in March and April, 1879. London: David Bogue. 1880.

THESE lectures (which were published in this JOURNAL soon after their delivery), embody the well known original researches of Dr. BRISTOWE in relation to voice and speech, and are a most valuable contribution to our medical knowledge on such an important subject. The first lecture describes the organs of phonation, and the mechanical and acoustical principles of the functions of voice and speech, explaining the fundamental importance of the chest and its contents for the regulated discharge of air over the vocal cords, the action of the larynx in the causation of the different sounds, and their various characters and mutual relations. The analysis of our alphabet, and of the mechanical processes by which the sounds of vowels and of consonants are produced, afford matter for very original and important consideration; but they are presented in such a compact manner, and hang so closely together, that it is impossible to make here any satisfactory abbreviation.

The second lecture begins by noticing the great complexity in the combined processes concerned in respiration, in phonation, and in the articulate utterance of sounds. The co-ordinating centres for the respiratory acts, and for the combined movements of the larynx, are seated in the medulla; but the former for the purposes of speech and voice, and the latter for the utterance of notes in musical sequence, are clearly subordinate to some centre of higher attributes. In regard to the transmission of sensory impressions to the brain, "there are, in the anatomical details of the cochlea, and in the analogies afforded by the other senses, good grounds for the belief that every series of simple musical vibrations is caught up, as it were, by its own special portion of the cochlear mechanism, and carried thence by a particular nerve or group of nerves to some of the central apparatus. If this view be correct, every compound vibration, every group of compound vibrations, which falls upon the membrana tympani, and is carried thence in a concrete form to the essential parts of the ear, becomes there analysed, and reduced to its simplest elements, each of which is carried separately along its particular route to the sensorium, there to be reunited with its fellows into a single specific perception."

Dr. Bristowe goes on to analyse the pathological questions related to auscultation, ægophony, bronchophony, and pectoriloquy. In respect to the two latter, Dr. Bristowe believes that none of the writers on the subject has fully realised the importance of clearly distinguishing between the sounds evolved at the rima glottidis and the articulate utterances which are developed in the mouth, nose, and fauces. And after setting forth the grounds for such belief, Dr. Bristowe says: "Bronchophony, then, means the conveyance to the ear of sounds developed at the rima glottidis; pectoriloquy, the similar conveyance of sounds developed above the rima glottidis. The two conditions appear to me to be quite distinct; and though often (possibly in some degree always) united, never to run into one another in the sense of being different gradations of the same phenomenon."

Loss or impairment of the laryngeal voice, and paralysis and spasm of organs concerned in articulation, are the concluding subjects of the second lecture; and in their explanation we feel the advantage of Dr. Bristowe's long experience and great clinical skill. In that common disease, recurrent laryngeal paralysis, his remarks are full of importance. "There has been a general belief", Dr. Bristowe thinks, "among English physicians, that difficulty of breathing also is one of the symptoms due to affection of the recurrent laryngeal nerves. At any rate, it has been maintained—and is, I believe, still commonly believed—that not only the loss of voice, but the paroxysmal cough and dyspnœa, which are so often observed in aneurysm of the arch of the aorta, are the conjoint consequences of implication of the recurrent laryngeal nerve. It is now eight or nine years ago that several cases came under my care which satisfied me that this view is erroneous, and that the paroxysmal cough and dyspnœa occurring in these cases own a different origin to the loss of voice with which they are so frequently associated. Especially, I had under treatment, within a very short period of one another, two middle-aged men, who were suffering from carcinoma, and had unilateral laryngeal paralysis." Cases are related in proof of these statements.

The third lecture refers to the cerebral localisation of speech, and the affections commonly included under the term "aphasia". Dr. Bristowe declares that he has no personal speculation of any value elucidative of the former subject. But he recognises the localisation of the cerebral functions as demonstrated by the recent investigations, and, if not literally, at any rate essentially, accepts provisionally Kussmaul's views in regard to the arrangement and connections of the areæ concerned in speech. Concerning the subordinate centres, he is inclined to think, with Broadbent, that the motor cell-groups for literal sounds, and probably also those for the mechanical details of writing, are placed in the corpora striata, and that subordinate sensory co-ordinations take place in the optic thalami, as held by Bastian. The cases adduced in illustration of these physiological points are extremely instructive, particularly the first, which has been already reported in the *Transactions of the Clinical Society*, and in which recovery of speech was obtained by the plan wisely adopted by Dr. Bristowe. But for its important details, and for those of the other cases, which could not be properly condensed here, the reader must turn to the book itself. Finally, several well executed diagrams illustrate the lectures, which bear in their originality, completeness, and sound practical contents, the standard mark of all the works of the author.

HUMAN ANATOMY AND PHYSIOLOGY, illustrated by a Series of Movable Atlases of the Human body, showing the relative Positions of the several Parts by means of Superposed Coloured Plates, from the Designs of Professor G. J. WITKOWSKI, M.D. London: Baillière, Tindall, and Co. 1880.

WE have before us the concluding parts of this series of iconographic illustrations of anatomy and physiology. They consist of ingeniously planned superimposed coloured plates, which successively depict the larger of the different organs and parts of the body. They include seven sets of atlases; viz.: The Human Body, Neck, and Trunk, with a text descriptive and explanatory of the physiology and functions of the several parts, by Dr. R. H. Semple; The Throat and Tongue, showing the Mechanism of Voice, Speech, and Taste—text by Mr. Lennox Browne; The Female Organs of Generation and Reproduction—text by Dr. Palfrey; The Eye and the Apparatus of Vision—text by Mr. Henry Power; The Ear and Teeth—text by Mr. Lennox Browne; The Brain (Cerebrum, Cerebellum, and Medulla Oblongata)—text by Dr. T. Stretch Dowse; The Male Organs of Generation—text by Dr. Campbell Black. The plates are of a very high order of merit, and extremely useful for the purposes of demonstration and lecture, especially to popular classes, in schools, and for primary anatomical teaching. They are also useful as a reminder to practitioners and others, who desire to quickly rub up their recollection of relations of parts; and for anatomical explanation in the course of clinical or physiological lectures. Great care and ingenuity have been expended on the construction of the atlases, which are singularly accurate and full of detail. The texts accompanying are by no means of equal merit; but this is of relatively little importance. They might have been, with advantage, simply and clearly descriptive of the atlases; but some of them are rather unsystematic and incomplete essays. They are, however, in all cases reliable, as far as they go; and possibly what we find a defect others find a merit. Those who remember Tuson's plates gratefully will find these a decided improvement.

EVESHAM.—The chief feature in the death-statistics of this district for 1879 is the high infantile mortality—a subject to which Mr. Fosbroke devotes much attention. He has alluded to it in nearly all his annual reports, and now brings the matter again prominently forward, urging very strongly the need of action for its reduction. He attributes the excessive mortality to unsanitary surroundings, climatic influences, ill-chosen and improperly administered food, overcrowding, and the like. Overcrowding and bad house-accommodation exist to a considerable extent in the borough, and more cottages seem to be urgently required. The general death-rate of the district is not stated; but the zymotic rate was equal to 1.6 per 1,000. Owing to an admirable arrangement, by which medical men voluntarily send to the health-officer notice of infectious diseases at half-a-crown per case, Mr. Fosbroke is able to give a complete account of the existence in the borough of those diseases during the year. Measles was not very prevalent, and but one case of scarlatina was reported. Four sporadic cases of diphtheria occurred, none of which were fatal. There was a considerable outbreak of enteric fever, with 33 cases and 6 deaths, which was caused by polluted water. A large number of houses have been connected with the new sewerage, and a scheme is in contemplation for providing the district with wholesome water—certainly not before it was wanted. When these schemes are completed, it will be possible to attack vigorously the vicious system of excrement-removal of the town.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JANUARY 1ST, 1881.

A NEW YEAR'S MESSAGE.

As a new year's message, we would beg leave to repeat this week the appeal which we made in our last issue on behalf of the British Medical Benevolent Fund, one of the most valuable institutions of the kind connected with the profession, and one in which the members of the British Medical Association will always feel a particular interest. We should be glad to bind more closely the ties which associate the British Medical Association with this valuable and beneficent organisation, and with that view shall be glad to publish from week to week lists of contributions. We hope during the ensuing year to be able to devise some plan by which the connection between our Association and the British Medical Benevolent Fund may be made much more fruitful in good, much more extensive, and much more productive than it has been of late years. With that view we shall at the earliest opportunity publish a list of contributions, and shall be happy from time to time to find space for further lists. We hope that the Christmas offering may show that the hearts of our associates are at this season inclined to mercifully consider the wants of those whose physical sufferings prevent them from sharing its happy influences, but whose sufferings may be mitigated and soothed by the free-will offerings of those who can give freely of their abundance, or who, with yet more gentle self-denial, can spare something from their more modest competence to gladden the hearts of the sick, the distressed, the widowed, and the orphan. The good gifts of the British Medical Benevolent Fund are distributed with the utmost discrimination, and without any office expenses, by an organisation which consists almost exclusively of voluntary workers. We shall publish next week the first list of contributions, and trust it may be one worthy of the Association, and calculated largely to strengthen the power of the fund for its great and good work.

LUNATIC ASYLUMS IN AMERICA.

AT the meeting of the Conference of Charities and Correction, held in Cleveland, Ohio, on the 1st of July last, a society was organised, under the name of the "National Association for the Protection of the Insane and the Prevention of Insanity"; a constitution and by-laws were adopted; and papers on subjects connected with the proposed work of the association were read by Drs. Shaw, Seguin, Beard, and others. We have recently received the published proceedings of this meeting; upon the cover, the words "Protection of the Insane" stand alone. It appears strange to us, in this country, that, in these days, the insane should require the protection of an association, national in its character, but special in its object. The fact, however, that the habitual use of mechanical restraint in the treatment of the insane has not yet been abolished in the majority of American asylums, is, perhaps, of itself sufficient to account for the movement, of which the formation of the above association is but one expression. The promoters of the new society state that there are multitudes of insane men and women in the United States for whom no special provision is made in the way of care and treatment; also, that some of the State, county, and city insane asylums "have failed of their purpose through mismanagement, or a misconception of the proper methods to be used". Thus, they urge, there is room for organised effo dition of the insane. The Association of Super Asylums was established with somewhat similar e existed some years; but, it is said, this is a strict technical organisation, having its own special inte is, therefore, not effective in securing the reforms now Conference of Charities, which has also been wor direction, falls short of covering the whole field, owi being confined to certain States, and to its having ma jects to deal with.

The National Association for the Protection of the Insane invites the co-operation and support of all friends of the insane, and of the public generally. It proposes to attain its ends by the encouragement of special observations and scientific study of the subject by the medical profession generally, as well as by those connected with asylums; by enlightening the public as to the nature and treatment of insanity; by recommending an enlightened State policy, specially insisting upon the necessity of efficient State supervision of all public institutions for the care of the insane; and by placing asylums on the same footing as other hospitals, giving them "the privilege of a consulting medical staff of general practitioners". This last-named object is the only one to which it is possible to take exception; we fail to see how institutions in which provision is made for the legal detention of persons against their will for care and treatment, and for the protection of society, can be placed upon the same footing as hospitals in which such powers are not exercised. As to the consulting staff of general practitioners, we would only remark that it is usual for the general practitioner to consult the specialist, and not for the latter to call in the former. We are aware, however, that the desire for some such arrangement is due to a widespread feeling, well-grounded or otherwise, of dissatisfaction with the way in which medical work is performed in some of the American asylums. It should be clearly understood that the association about which we are now writing is not the work of a few malcontents, or the result of a groundless outcry against the lunacy system of the United States; on the contrary, it is cordially supported by many of the most eminent and advanced medical superintendents of asylums in that country. Many of the latter are working bravely under most disadvantageous conditions, *e.g.*, defective buildings, insufficient assistance, etc. The profession generally in America seems inclined to support the new association. The only condition of membership is a small annual subscription.

It will be seen that one of the most important objects aimed at is to provide for the visitation and efficient supervision, under State control, of all asylums; to establish, in fact, a board or boards, with functions similar to those exercised in this country by the Lunacy Commissioners. Such a step is most desirable, both in the interest of the patients and of those who have charge of them. It is not very long since a Bill with this object was introduced into the New York Legislature; it was defeated by a small majority, largely through the influence of a superintendent of one of the State asylums of New York. We believe English medical superintendents would be almost unanimous in agreeing that the supervision exercised by the Commissioners is a good thing; they do not find their free and independent action interfered with, as some of their American brethren seem to fear would be the case; on the other hand, public confidence in the general management of our asylums is, in a great measure, secured by this means. Very frequently, too, the Commissioners render most valuable aid to the medical superintendent, by pressing upon the notice of lay managers the necessity for some needed reform or alteration which he alone might have recommended in vain. State supervision also secures that no one shall flagrantly lag behind the knowledge and science of the time in the treatment of his patients. We earnestly hope that the asylums of the United States will soon be placed under efficient Government inspection.

In the year 1876, Dr. Bucknill brought most prominently before English medical readers the very unsatisfactory condition of many of the asylums visited by him in the north-eastern States of America; he

showed that mechanical restraint was still largely used in them, and described the city asylums of New York and Philadelphia as "institutions lamentably deficient of resources, through the most reprehensible default of the governing bodies". It is satisfactory to know that, very shortly after Dr. Bucknill's visit to the New York City Asylum, a most important reform was inaugurated there by the abolition of lay management, and the addition of ten thousand dollars a year to the allowances for food. We fear that such sweeping and desirable reforms as this have not been general in American asylums; otherwise the need for an association for the amelioration of the condition of the insane would not be so apparent as it unfortunately is. Dr. J. C. Shaw, medical superintendent of the King's County Insane Asylum, and one of the active promoters of the new association, gave, at its inaugural meeting, a most instructive account of the condition in which he found the asylum on taking charge of it two years ago, and the way in which he abolished restraint there. He says: "I found a large number of patients in restraint-jackets, straps, and seclusion; some of them had been in restraint for months, and even for years." In order to avoid the result of the ill-feeling which existed between the restrained patients and their attendants, the former were removed to wards in which the nurses were strangers to them; the apparatus was there removed, and comparatively little trouble was experienced. Restraint was rapidly abolished; even the members of the staff who had been used to the old *régime*, expressed their satisfaction with the new system; and, finally, at least *three hundred* pairs of restraint-apparatus, straps, camisoles, etc., were destroyed by burning. The question of the employment of the patients, which is intimately connected with that of the abolition of mechanical restraint, also received Dr. Shaw's careful attention. He has achieved some excellent results in the face of great difficulties, the chief of which appears to be the very inadequate quantity of the land upon which patients can be employed.

It has been repeatedly urged by American medical superintendents that there is an innate peculiarity in the character of the Yankee, an inborn love of liberty, and impatience under control, which render the application of the non-restraint system an impossibility in the United States. Dr. Bucknill has clearly proved this to be a mistake; and reminds us that the same argument was put forth both in Germany and Scotland, previous to the general abolition of restraint in those countries. He says: "It can scarcely be doubted by those who know even a little of America, that the 'inherent quality' attributed to the 'universal Yankee', of peculiar resistance to moral influences, and rebellion against kindly and sympathising treatment, is an unjust and unfounded libel upon him." If any doubt remained upon the subject, it would surely be dispelled by the unequivocal success which has attended the efforts of Dr. J. C. Shaw, and a few other medical superintendents, to introduce the non-restraint system into the asylums under their charge.

We heartily wish success to the Association for the Protection of the Insane in America. If it can only succeed in establishing efficient State supervision of all asylums, the rest will certainly follow; the habitual use of mechanical restraint will become a thing of the past, and patients will not be shut up in close wards all day, but will be usefully employed both in the house and out of it. The management of American asylums will then merit that public confidence which it assuredly does not enjoy at present.

THE DISTRIBUTION OF INFECTION BY MILK.

Although the state of affairs described below by Dr. Ballard, of the Local Government Board, as existing on the premises of a milk-seller, at the recently fever-stricken village of Millbrook, is, no doubt, an exaggerated instance of reckless carelessness and ignorance in the storage and vending of this commodity, such cases are not so uncommon as might be supposed. Indeed, the surroundings of milk sold in the poorer quarters of many of our large towns are often of the most shocking description; and, as such, have not unfrequently been animadverted on by officers of health and others. A milk-can set up in a close reeking provision-shop, tended by a person who divides her time between selling comestibles, doling out milk, and nursing some relative sick of fever in the back-room that opens directly out of the shop, is not a pleasant object for contemplation. Probably, if the whole of the antecedent circumstances of inexplicable cases of typhoid and other fevers could be exactly learnt, the disease might often be traced to milk distributed in this way. The case recorded, some years ago, of the son of a milkman, suffering from typhoid fever, drinking out of the cup that was dipped into the milk for sale, and of the subsequent attack of eight of his father's customers with typhoid, is doubtless not without its counterpart, if the truth were known. Medical officers of health of large towns, who see much of the sale of milk by small shopkeepers, are agreed as to its dangers when so circumstanced; and so far it is fortunate that, in boroughs, the sanitary authority happens also to be the authority for administering the Dairies Order of 1879. But in small places, where dairies and milkshops are under the shadowy supervision of the county magistrates, no medical vigilance is obtainable for the removal of the unsanitary conditions that are too often discovered at dairies—not, however, until they have been associated with the spread of disease. In this connection it is important to remember that, with hardly an exception, the great milk-epidemics that have been recorded have been due to the poisoning of the milk at the farm whence it was derived—these farms, of course, being in rural districts, and thus under far less efficient control than milkshops in the towns to which the farm-yield is sent. The need for a change in the law which shall give medical advice and investigation to the local authority charged with guarding the purity of milk-supplies must, therefore, be sufficiently obvious; and it is to be hoped that, in the forthcoming session, an endeavour will be made to set right the egregious blunder committed in Section 34 of the Contagious Diseases (Animals) Act of 1878.

Dr. Ballard's investigations at Millbrook have, as we indicated whilst the epidemic was still going on, led him to the belief that several causes were at work in swelling the dimensions of the outbreak. There were the new sewers, whose defects were such that, to use Dr. Ballard's expression, they only made additional provision for the spread of infectious diseases among the population; there were the shallow wells, "obviously liable to pollution, and at times dangerous pollution"; and there was the distribution of infected milk by a particular vendor. Altogether, out of about 250 houses of which the village consists, at least 47 were invaded by the fever, and 91 cases, if not more, occurred in a population of (at the highest computation) about 1,500. It is impossible to distribute accurately the cases caused by each of the infecting agencies; but the number occasioned by the poisoned milk cannot have been insignificant. Indeed, Dr. Ballard's description of the circumstances of its storage leads to the presumption that it may have played an unexpectedly large part in the epidemic. It appears that into an old square drain which received infected discharges from a group of waterless "water-closets", a pipe-drain was carried from a slaughter-house, part of which was boarded off to constitute a dairy, on shelves of which milk intended for sale was habitually set in pans. An adjoining water-closet for the butcher's family communicated with the drain, as also did other drains about the premises. In one corner of the slaughter-house nearest to the dairy was an untrapped or inefficiently trapped drain-inlet, which had for a very long time been a source of annoyance from the offensive smells habitually issuing from it. Close to this drain-inlet runs the wooden partition between the slaughter-house and the dairy, and a part of the partition near the inlet had evidently been long broken away or gnawed away by rats, so that the infected sewer-air which issued from the inlet had free access to the dairy also, and to the milk which stood in it. Six cases of fever occurred in this butcher's family in less than three weeks. Yet at no time during the whole epidemic, not even during the period of at least six weeks that the infection existed in his family, was the sale of milk suspended for a single day. The butcher himself did not appear to be aware of the danger attending the sale of milk under these circumstances, and readily supplied a list of seven families in different parts of the village whom

he habitually supplied. Six of these families were invaded with the fever, and only one altogether escaped. In the six families, thirteen cases occurred, which, with the six in the butcher's own family, make nineteen cases which may have become infected by drinking the infected milk. But besides these regular customers, he had occasional purchasers, of whom no accurate account could be given; but at least three families, invaded in August and September, the butcher knows to have been occasional customers. It is, indeed, quite impossible to say to what extent the disease may have been spread in this way. Nor is it practicable to point out precisely how, from the various families infected by the use of the infected milk, and in other ways, the contagium has spread to other families. It is sufficient to say, that ample facilities for the spread of the disease from family to family through the village were afforded by the general condition of the drainage-arrangements and of the water-supply, until the whole village became literally steeped in the contagium.

SYPHILITIC AFFECTIONS OF THE LUNG.

In a paper lately published in the *Giornale Italiano delle Malattie Veneree e della Pelle*, Professor Gamberini of Bologna enters at some length into the subject of pulmonary syphilis. Besides relating two cases of his own, which were judged to be instances of early syphilitic affection of the lung, the author quotes fully a number of cases recently reported by other observers.

The following are the general conclusions at which Gamberini has arrived after a careful study of his own cases and those of others. The existence of a simple inflammatory syphilitic pneumonia may be admitted, but is not yet conclusively proved. The occurrence of a gummy form of disease of the lung is established beyond doubt. True pulmonary tuberculosis may be associated with syphilis, but it preserves always its own pathological characters. To distinguish between the syphilitic and the tubercular forms of lung-affection, the author proposes for the former the title of "consumptive pulmonary syphilis". The influence of specific treatment is, at the present time, the best therapeutic means of diagnosis between tubercular and syphilitic disease of the lung. The author agrees with Schnitzler that pulmonary disease as a consequence of late general syphilis, or even of acute secondary syphilis, is not a rare occurrence. Laryngeal lesions often precede or accompany syphilitic pulmonary affections. This has been proved by the observations of Schnitzler, who, indeed, affirms that the diagnosis of syphilitic lung-disease may be made by means of the laryngoscope alone. The symptoms of syphilis of the lung are generally those of pneumonic phthisis, from which, during life, there may be no certain means of distinguishing it; even after death, the distinction cannot always be made between gumma and tubercle, especially when the gummy nodules are in a state of caseation, or are infiltrated. It must be noted, that syphiloma most usually spares the apex, whereas tubercle most frequently attacks that portion of the lung. This, however, is not constant, as has been shown by Fournier. The course of pulmonary syphilis is usually slow and apyretic, which is not usually the case in tubercular phthisis. Syphilis, also, is accustomed to attack only one lung, and one part of the lung. This tendency to localisation is considered by the author to be a very important point in the diagnosis of pulmonary syphilis, whether the lung be attacked at an early or at a late stage of the disease.

Sir J. E. Wilmot is to introduce a Bill for the Suppression of Vivisection next session, which will be seconded by Mr. J. B. Firth.

The *New York Medical Record* states that a death from trichinosis has recently occurred in Bellevue Hospital, New York. The patient was a young butcher, who had been in the habit of eating raw pork.

We are requested to mention that, by an error, the notice-cards of the Obstetrical Society's meetings announce the next meeting to take place on January 5th. An alteration in the by-laws provides that the January meetings, in future, shall be held on the second Wednesday, instead of the first, as heretofore.

Dr. Thomas Wood, a prominent surgeon of Cincinnati, has died from the effects of blood-poisoning, caused by attending with chapped hands to the wounded in a recent railroad accident on the Cincinnati, Hamilton, and Dayton Railroad.

We understand that the *Obstetric Journal of Great Britain and Ireland* terminates its existence with this month's number. It appears that the journal has been diligently conducted, but probably the great amount of obstetric matter appearing in other weekly and monthly periodicals left it hardly sufficient pabulum for a vigorous existence. Obstetrics are so essentially a part of the ordinary education and practice of every medical man, that it is perhaps hardly to be regretted that valuable obstetric matter should be contributed rather to pages which come under the notice of every medical practitioner, than to special periodicals whose influence is likely to be much more limited by reason of their restricted circulation.

It is this week suggested, and with good reason, that the Royal Commission, which was proposed at the meeting concerning the maladministration at Guy's Hospital, held in Southwark, under the presidency of Mr. Arthur Cohen, Q.C., shall extend to the much larger question of the general distribution of London hospitals, and their mode of administration. The heads of inquiry for the Royal Commission proposed are nearly identical with those suggested, after much conference, at the recent meeting at the beginning of the year, of the treasurer and others interested in the hospital, when they presented a memorial to Sir Richard Cross, asking for a Royal Commission. The heads are: 1. That the Commission shall be extended to all the Royal hospitals in the metropolis; to cover their income, expenditure, and administration. 2. The hospital accommodation of London generally. 3. The propriety of working from a common centre, under a board of almoners, the whole sick-accommodation of London in association with the Poor-law administration, dispensaries, and sick asylums, so that a comprehensive scheme may be digested with a view to the location of hospitals where the necessity of their establishment is admitted.

THE NEW ITALIAN MINISTER.

Signor Cairoli, the Prime Minister of Italy, has offered the post of Minister of Public Instruction to Dr. Guido Baccelli, Professor of Clinical Medicine in Rome, and one of the leading physicians of Italy. It is understood that Professor Baccelli will accept office under certain conditions relating to his position as professor, and to his consulting practice. Professor Baccelli, who is deputy for one of the districts into which Rome is divided, is very popular, and his appointment is received with general approbation by the Romans, as he is the first citizen of the Eternal City who has been a member of any ministry since the entry of the Italians through the breach at the Porto Pia on the 20th September, 1870.

THE SCANDAL OF CORONERS' INQUESTS.

A typical example of what may be properly described as the way in which coroners' inquests ought not to be held, occurs casually this week in the papers, among the reports of the inquests of Mr. W. Carter. Deceased was a person named Bolfield; and, among the evidence given, was that of two women in the house, the landlady and the lodger, who stated that the deceased had gone up to bed at nine o'clock, that he was of drunken habits, and sometimes had severe falls when intoxicated. He was found dead in his room next day. The expert evidence called was that of the coroner's beadle, who appeared on this occasion, as is often the case in the present absurd and irregular state of coroners' inquests, and announced that "he had had the body laid out, and found nothing to indicate the cause of death; the face and hands were contracted, the hands being clenched". In answer to a question

from the coroner, this worthy judicial expert stated that, in his opinion, the deceased had had a fit of apoplexy, while asleep in a state of drunkenness. Comment upon evidence so utterly worthless, and upon conclusions so ludicrously devoid of any substantial basis, would be out of place, of course. The verdict was "Death from natural causes, brought on by a fit, caused by drunken habits". But, inasmuch as there was no evidence that there had been a fit, and no evidence of death being caused by a fit, and such a death might just as easily have been caused by strychnine-poisoning, or from strangulation—might just as easily have been violent as natural, it is evident that such a mode of holding inquests is much more likely, in any given case, to conceal crime than to discover causes of death. Of course, we do not imply that the cause of death in this case was anything but natural; but, if there were, it would remain perfectly undiscovered, so far as any means were taken by this mock inquest to discover it. Such a mode of holding medico-legal inquests is a scandal to a civilised country. For two successive years, a measure has been introduced by Government to amend the law in respect to coroners' inquests; and the frequency with which we have of late had to comment on the lamentable carelessness and ignorance in the holding of coroners' inquests, and the course of procedure at these inquiries, indicates the desirability of bringing such a legislative measure into action.

HARVEIAN SOCIETY OF LONDON.

THE following is a list of the names of gentlemen proposed by the Council as Officers of the Society for the year 1881: *President:* Henry Power, Esq. *Vice-Presidents:* F. J. Gant, Esq.; W. H. Day, M.D.; *J. Milner Fothergill, M.D.; *H. Sewill, Esq. *Treasurer:* James E. Pollock, M.D. *Honorary Secretaries:* George P. Field, Esq.; *Malcolm Morris, Esq. *Council:* G. C. P. Murray, M.D.; W. Squire, M.D.; G. Danford Thomas, M.D.; J. W. Langmore, M.D.; *T. T. Whipham, M.D.; *Alfred Cooper, Esq.; *J. F. Payne, M.B.; *F. A. Mahomed, M.D.; *Osman Vincent, Esq.; *Robert Argles, Esq.; *W. Towers Smith, Esq.; *W. Rayner, Esq. An asterisk is prefixed to the names of those gentlemen who did not hold the same office the preceding year.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

THE following is a list of the names of gentlemen proposed by the Council as officers of the Association for the year 1881: *President:* *Thomas Edgelow, Esq. *Vice-Presidents:* J. A. Baller, Esq.; S. Cartwright, Esq.; *W. A. N. Cattlin, Esq.; *Francis Brodie Imlach, Esq.; S. J. A. Salter, Esq., F.R.S.; and John Smith, M.D., F.R.S.Ed. *Treasurer:* *S. H. Cartwright, Esq. *Honorary Secretary:* J. Hamilton Craigie, Esq. *Council:* E. Bartlett, Esq.; J. Fairbank, Esq.; F. Fox, Esq.; C. Gaine, Esq. (Bath); *W. A. Hunt, Esq. (Yeovil); W. D. Napier, Esq.; W. G. Ranger, Esq.; and Augustus Winterbottom, Esq. An asterisk is prefixed to the names of those gentlemen who did not hold the same office the preceding year. The annual meeting for the election of officers, etc., will be held on Wednesday, January 26th, at 8 P.M., when an address will be given by Mr. W. A. N. Cattlin, F.R.C.S., "On the Imperfections of the Dentists' Act; with suggestions as to the alterations required to protect the interests of qualified surgeons".

YELLOW FEVER AT ST. LOUIS.

A PRIVATE telegram received in Liverpool states that yellow fever has broken out at St. Louis on the Senegal, and vessels arriving in the Gambia from Goree are placed in quarantine.

HOW DISEASE IS SPREAD.

A SOMEWHAT singular case arising out of the conveyance of a little girl afflicted with scarlatina, from the steamship *Scythia* to the North-Western Hotel in Lime Street, Liverpool, was brought before Mr. Raffles, the stipendiary magistrate, this week, at the instance of the health-authorities. On the suggestion of the doctor on board the *Scythia*, it was arranged that the child should be taken to the Infectious Hospital in Netherfield Road North. The father, Mr. George D. Smythe, subsequently made private arrangements by which the child was conveyed in a cab to the hotel named. While expressing sympathy with the parent, Mr. Raffles said the case was of a most serious character, and imposed upon the defendant the full penalty of £5 and costs.

THE ANTI-VACCINATIONISTS.

IT is stated that the returns of all fines and imprisonments imposed for non-compliance with Compulsory Vaccination Acts, just published by order of Parliament, contain some conspicuous inaccuracies. It is stated that, in the whole of Lincolnshire, only 110 persons were fined, and one imprisoned. The fact is, the Lincoln Anti-Compulsory Vaccination League had paid 235 fines for its members, and many persons have been prosecuted and fined, who have had no connection with the league whatever. The Gainsborough League has paid no fewer than 204 fines, and no less than twelve of its members have suffered imprisonment. Mr. Bainborough (of Sleaford) and Mr. Lilley (Horncastle) were both imprisoned, and the former received compensation from the magistrates for illegal hard labour.

THE ALL SAINTS' CONVALESCENT HOSPITAL, EASTBOURNE.

WITH no little temerity, the chaplain, a governor, and others, have ventured to call public attention to the management of this institution, by complaining that the council of the Hospital Sunday Fund have given £500 to its funds upon conditions which have been cheerfully complied with from the first by all the other participating hospitals—general, special, and convalescent. The chaplain writes: "We have been compelled to return the grant lately made us by the Hospital Sunday Fund, on the ground that the conditions imposed upon its acceptance are such as to preclude the possibility of our availing ourselves of it." If this statement of the position were correct, then every other convalescent institution which participates must arrive at a similar decision. Yet the managers of the metropolitan hospitals adopt no such course, but cheerfully accept the conditions imposed by the rules of the fund. Why? Because the regulations of each of these institutions are based upon business principles, and the committees are therefore able to welcome an annual subscriber of £500 or £1000 a year, who generously waives half his rights, and who accepts only half, as the council of the Hospital Sunday Fund accept the number of tickets which might be claimed by an annual subscriber of such an amount. Yet the council of the Hospital Sunday Fund have to meet the demands made upon them by the various ministers of religion in the whole of the metropolis, who, in many cases, require very large supplies of hospital tickets, and especially of convalescent notes, for the poor of their parishes.

THE HYGIENIC LABORATORY AT UNIVERSITY COLLEGE.

THE Hygiene Laboratory at University College, under the direction of Professor Corfield, assisted by Mr. C. E. Cassal, F.C.S., will reopen after the Christmas vacation, on Tuesday next, January 4th, for instruction in the analysis of air, water, and foods. Among the list of honours gained by pupils from this laboratory, we find the sanitary science certificates of the Universities of Cambridge and Glasgow, and of the College of Physicians of Edinburgh, and the degree of Bachelor of Science (in Public Health) of the University of Edinburgh. Three of the pupils have also obtained important appointments as medical officers of health. Two pupils from Malta have gained positions there; in fact, almost all of the pupils have turned their knowledge to good practical account.

MEDICAL REPORTS TO THE LOCAL GOVERNMENT BOARD.

THE report of Dr. Airy on the sanitary condition of the Clitheroe rural district is only remarkable, as showing how the time of the medical officers of the central department is wasted by their having to find out actual sanitary conditions existing in districts, where the reports of the local officers of health ought to have made such inquiries unnecessary. Dr. Airy's report is, indeed, just such an one as any health-officer desirous of doing his business would have presented to his authority as one of his first duties. It records the general death-rate of the district, and its zymotic death-rate; says of the villagers that they are fairly

well housed; comments on the variety, and sometimes insufficiency, of the water-supplies of the various places; condemns the prevalent faulty method of disposal of excrement; and winds up with a series of recommendations for the abatement of these evils. It is not easy to understand why the valuable time of the undermanned Medical Department of the State should be frittered away in inquiries of this character; whilst there are so many large questions of public health that urgently need solution. The fault possibly lies in the insufficient character of the local reports; but it is, to say the least, singular that, after eight years of presumed sanitary work, actual facts as to the circumstances of the health of a district are only to be discovered in this fashion.

DIPHTHERIA AND POLLUTED WATER.

Mr. W. H. Power has been investigating an outbreak of diphtheria at a hamlet called Staple Street, in the parish of Herne Hill, Kent, where, in the space of a few weeks, there occurred, amongst a small community of thirty householders, fifteen cases of the disease, with three deaths. Investigation of this outbreak by the local officers of health led to the suspicion that the use of water from certain wells in the place had brought about the disease; but Mr. Power found reason for doubting this relation, though he was unable definitely to trace the cause of the outbreak. The suspected wells were, it appears, resorted to by several families that escaped illness, while more than one family in Staple Street that suffered from diphtheria obtained water from other sources. Moreover, anterior to, and coincident with, the prevalence of diphtheria in Staple Street, many families widely distributed through Herne Hill parish had suffered from diphtheria or throat-illness, notwithstanding that their water-supplies were different, not only from those in question, but also from one another. Hence, if water were the agent of infection as regards the total outbreak in the parish, many wells differently situated and widely separated must, at nearly the same time, have yielded water capable of conveying the disease. This seems very unlikely. Indeed, upon grounds similar to those whereon, as regards Staple Street, a water theory was based—*i.e.*, community of circumstances at the time of the outbreak among persons attacked—another possible cause of the diphtheria is suggested—viz., school attendance. But, though this may have assisted in the spread of throat-illness, Mr. Power was unable to satisfy himself that it had played more than a subordinate part in the production of the outbreak. The evidence, therefore, with regard to this outbreak, is completely negative: a result that only makes still stronger the need for a general inquiry into the behaviour of diphtheria throughout the country.

SANATORIUM FOR DIPSOMANIACS.

The first annual report of the Spafont Sanatorium, at Bedfont, near Feltham, Middlesex, gives a deeply interesting and very promising account of the work of the first year; and affords much promise for the future. Since its opening on January 1st, 1880, twenty-two patients have been admitted, all voluntary, and all paying towards their maintenance. The sanatorium includes laundry work, working room, and other means of employing patients. The only one of the patients who has completed her time has begged to remain on. This is most hopeful; as all medical men are agreed that, for reformation and cure, lengthened stay is generally desirable. Since the home has been opened, there have been ninety-four applications, most of them from persons of a very respectable class. Of these, it has only been possible to receive twenty-two persons. The expenditure is defrayed by the payments of the patients themselves, with the exception of leaving a minus balance of £200 *per annum* to be made up by subscriptions. There can be no doubt of the extreme value of the work which is thus being done in helping a large class who have contracted the vicious habit, which, amid the temptations of ordinary life, they have allowed to grow upon them, and found to be invincible; but who, under the restraints and discipline of such a retreat, may learn to recover their self-control and self-respect, and once more to take an useful place in society. This home has our entire sympathy and warmest wishes for its support. We earnestly hope that it may prosper. If its managers succeed, as we trust they may, in making it permanently successful, they will have done more good than is even shown in the working of the institution itself: they will have set an example which will have a national value.

SMALL-POX IN THE METROPOLIS.

Dr. J. W. Tripe, Medical Officer of Health for the Hackney District, states that the outburst of small-pox has very much diminished, as, since Friday last, he has had only three new cases reported to him; but the total number for the fortnight ending on Wednesday the 23rd December, was no less than fifty, and there were as many as ten deaths. Nearly all were removed to the Homerton Hospital, or to Highgate, nine only having been treated at home. By far the largest proportion occurred in persons over fourteen years of age, as only fourteen out of the fifty were under that age. This is contrary to what has been observed in former epidemics here, when young children were the chief sufferers. The overcrowding at the Small-pox Hospital at Homerton has been abated by the removal of forty convalescent cases, so that there are now fewer in the hospital than the certified number. The disease has spread over nearly all the district, except Upper Clapton, Stamford Hill, and Stoke Newington; but there were a considerable number in Homerton, although less in proportion than a fortnight ago. In consequence of the information respecting the removal of persons affected with small-pox to the Homerton Hospital not being received immediately after the removal, Dr. Tripe wrote to the Hackney Board of Guardians, asking them to direct their officers to furnish the information, directly the order for the removal of the cases to the hospital was issued, and the guardians have complied with the request.

GUY'S HOSPITAL.

The following is the reply of Dr. Habershon and Mr. Cooper Forster to the resolution passed by the South London District of the Metropolitan Counties Branch, as recorded in the Journal of December 18th, 1880:

Gentlemen,—We sincerely thank you for the cordial expression of sympathy contained in the resolution passed at your meeting on December 14th. The confidence of our professional brethren is especially valued by us in the trying circumstances in which we have been placed; for the honour and the interest of our profession have had great influence in leading us to resign the offices we had so long held in connection with Guy's Hospital.

We have the honour to be, gentlemen, yours very faithfully,

(Signed) S. O. Habershon; J. Cooper Forster.

A letter of similar tenour has been sent by Dr. Habershon and Mr. Cooper Forster to the East Surrey District of the South-Eastern Branch, in reply to a resolution of sympathy passed on December 9th.

THE PATHOLOGY OF RICKETS AND SYPHILIS.

The Museum of the Royal College of Surgeons has recently been enriched by the addition of numerous specimens illustrating the pathology of infantile affections of the bones in cases of rickets, syphilis, and the not unfrequent form of disease where these two disorders are combined in the same subject. The additions include not only certain bones figured by the donor, Mr. R. W. Parker, in the new volume of the *Transactions* of the Pathological Society, and other bones presented by Dr. Barlow, and also illustrating conditions described in a paper published by that gentleman in the thirtieth volume of the same *Transactions*, but also a series of skulls and long bones given to the museum by M. Parrot; these specimens being minutely described in the well known monograph which appeared, in French, in last year's volume of the Pathological Society's annual publication. Both the advocate of M. Parrot's theories, as well as the sceptic, will soon enjoy an opportunity of studying the visible material on which the French pathologist's opinions are based; as soon, in fact, as the specimens are mounted and placed in the museum for public inspection. Mr. Charles Stewart and Mr. Shattock have likewise contributed specimens illustrating the pathology of rickets, as shown in bones divided longitudinally, and mounted in spirit. The rachitic tibiæ, femora, etc., of adults, bent and twisted in the typical directions, and sometimes in directions contrary to the law of rickets—as laid down in books—are very familiar

to all visitors to pathological museums; but spirit-preparations, showing the epiphysal and periosteal changes which occur in rickets, are not so common; the specimens above mentioned supply this want. Dr. Herman has recently contributed a specimen which, when prepared, will illustrate the morbid appearances of the bones in cretinism.

GLAMORGANSHIRE AND MONMOUTHSHIRE INFIRMARY.

THE Marquess of Bute has intimated his intention of presenting a valuable new site for the Cardiff Infirmary, four acres in extent, and estimated to be worth from £10,000 to £12,000, which site his lordship has to purchase from the executors of the late Lord Bute's will. In addition to this noble gift, his lordship is a donor of £1,000 towards the building fund. The architect of the new buildings is Mr. A. P. Bell of Manchester. It is designed, in the first instance, to accommodate one hundred patients, with administrative department sufficient to allow of a future extension to two hundred beds. The site is admirably selected; and, when completed, the new buildings will add one more to the noble institutions which are springing up in this rapidly growing town and neighbourhood. The estimated cost is £21,000, towards which nearly £13,000 has already been promised.

SMALL-POX HOSPITALS AS SOURCES OF DANGER.

WE learn that there is a considerable amount of small-pox in the neighbourhood of the Homerton Small-pox Hospital; a fact which has revived the notion that small-pox hospitals are sources of danger to their neighbourhoods. That they are so *per se—i.e.*, by the passage of infection from building to building, without actual communication by persons—would appear to be negatived by the facts recorded by Dr. Collie in reference to the City of London Union Infirmary, and the Homerton Fever Hospital, when the latter was used for small-pox. Although, however, it is improbable that the virus of small-pox can be conveyed *per se* through the air to any distance—say fifty feet—it might be conveyed by means of visitors, who might catch the disease, and spread it in their respective homes. As these homes are not always, or even in the majority of instances, in the neighbourhood of the hospitals, it would not be there that the disease caught at the hospitals would show itself, but often very far away from them, and where the hospital as a cause would be probably forgotten. We do not believe that the small-pox hospitals are any danger *per se* to their immediate neighbourhoods, or to any other neighbourhoods; although, by imperfect management, they may, by visitors, become a danger to immediate and remote neighbourhoods, often more to the latter than to the former. To take an instance, we would say that persons using the public-houses at the foot of Haverstock Hill would run more risk of small-pox from the Hampstead Hospital than Sir Rowland Hill, who lived at the gate. We believe the whole subject is under investigation by the Local Government Board.

PATHOLOGICAL SOCIETY OF LONDON.

THE following Officers and Council are proposed for election for the year 1881. The gentlemen whose names are marked with an asterisk were not on the Council, or did not hold the same office, during the preceding year. *President:* *Samuel Wilks, M.D., F.R.S. *Vice-Presidents:* George Buchanan, M.D.; *Thomas Buzzard, M.D.; *Andrew Clark, M.D.; James E. Pollock, M.D.; Christopher Heath; *Jonathan Hutchinson; S. James A. Salter, F.R.S.; Septimus W. Sibley. *Treasurer:* *George Johnson, M.D., F.R.S. *Honorary Secretaries:* Joseph F. Payne, M.D.; *Henry Morris. *Council:* Thomas Barlow, M.D.; Evan B. Baxter, M.D.; *John Cavafy, M.D.; Sidney Coupland, M.D.; Sir Joseph Fayrer, K.C.S.I., M.D.; William M. Ord, M.D.; *R. Douglas Powell, M.D.; *George H. Savage, M.D.; Frederick Taylor, M.D.; Thomas T. Whipham, M.D.; *W. Morrant Baker; J. N. C. Davies-Colley; J. Warrington Haward; Henry G. Howse; William B. Kesteven, M.D.; Joseph Lister, F.R.S.; *Robert W. Parker; William Johnson Smith; *Waren Tay; *William J. Walsham.

GEORGE ELIOT.

THE circumstances of the sudden illness which has so prematurely and rapidly cut short the mortal career of this gifted writer are, we understand, briefly these. On the Saturday preceding her death, Mrs. Cross attended an afternoon concert, and appeared to her husband to be sitting in a draught. She did not, however, feel the effects of it at the time; and did not complain of cold, or feel the necessity of sheltering herself from it. On Sunday, Mrs. Cross appeared well, and received several of her friends; amongst these, Mr. Herbert Spencer. On Monday, she complained of feeling unwell, and was seen by a local medical man, Mr. G. W. Mackenzie, who found her suffering from some slight laryngeal catarrh. On Wednesday, Mr. Mackenzie found her markedly changed for the worse, with rapid breathing and hurried pulse, and very prostrate. In the evening, at six o'clock, when he met Dr. Andrew Clark, who had been sent for in consultation, her state was critical in the extreme. There was marked dyspnœa, rapid pericardial pulse; and, on examination of the heart, he found that vital organ labouring heavily through an unusually large quantity of diffused lymph. It was quite clear that she was moribund. There was a cold grey look about her face; her eyes were fixed; and she was almost unconscious. In a few hours after Dr. Andrew Clark's visit, she expired. This would appear to be a sudden death, were it not that these symptoms were the outcome of a long-standing disease. Seven years ago, she was first seen by Dr. Clark, and was complaining of severe lumbar pain; and there were other indications of renal disease, which were relieved by treatment. Dr. Clark then inferred that, in all probability, a renal calculus was forming. A year later, he again saw her with Dr. Parsons, when she had an acute attack of pyelitis. During succeeding years, she suffered from further attacks of the like character. There is no doubt that chronic renal induration supervened. The results of these continued attacks, and of the chronic renal change, were to lower the resisting vital powers of the sufferer; and so, when at last a slight storm came, she had no longer powers left to enable her to successfully contend with it.

TYPHOID FEVER AT ENFIELD.

IT is becoming increasingly evident that the suburbs of the metropolis require serious overhauling. Such inspections as have been made by the central authority have shown insanitary conditions to be rife in them; and they are growing so rapidly that there is need for exceptional measures being taken to preserve their future as well as their present healthiness. An example of a state of affairs that is very far from uncommon around London, or, for that matter, within it, is afforded by a report just made by Dr. Parsons on the sanitary condition of Enfield. Enfield is a growing place, its population being now estimated at over 20,000 persons. The Local Board have spent large sums of money in providing sewerage, water-supply, and other permanent works; but they have, apparently, exercised no supervision, or very little, over the details of the arrangements by which the sewerage and water-supply are made available for the use of the individual houses; and have allowed the connections with both to be habitually made in such ways as to afford opportunities for the transmission of disease from household to household through the medium of these systems. They have not caused periodical inspections of the district to be made as required by law; and the appointments of their sanitary officers have been made on such a footing as to render it vain to expect that the duties can be efficiently performed. Many complaints have been locally made of the unsanitary state of the district; but the Local Board paid little heed to these representations, and it was left for Dr. Parsons to find out the actual state of affairs. The result of the Local Board's neglect is not surprising. Fever, which in almost all cases is typhoid fever, is unduly prevalent and fatal in the district, more than 260 cases described as "typhoid", "gastric", or "slow fever", having been heard of during the inspection as occurring within the last five years. Many other cases must, of course, have occurred with which Dr. Parsons was not acquainted; indeed, in some streets there had been cases of typhoid

fever at some time or other within the last few years in a considerable proportion of the houses. As regards the causes of the fever, the sanitary circumstances of the several portions of the district in which the disease occurred are so dissimilar, as to exclude the idea of uniformity in the mode of its production. The inspection brought to light the existence throughout the district of numerous sanitary defects, such as to render the occurrence of contamination of air and water supply in some cases a matter of certainty; in others of greater or less probability. Thus many of the houses in which fever occurred were found to be in direct communication with the sewers, so as to allow of the entrance into them of sewer-air in a concentrated state. In other cases, the inmates were exposed to effluvia from foul privies, ill-kept waterclosets, or filthy ditches. The water-supply in parts of the district is derived from shallow wells in close proximity to privies; and in those parts where a public water supply has been provided, the arrangements for the flushing of water-closets are in many instances such that there is a danger of foul matters being sucked into the pipes during the daily intermission of the service. It cannot be doubted that, had the supervision of the district been of a nature at all approaching efficiency, these unsanitary conditions, with the sickness and mortality consequent upon them, would not have existed.

NERVE-STRETCHING IN LOCOMOTOR ATAXY.

M. D'OLIER states (*Le Progrès Médical*, No. 52) that the case shown by M. Charcot has continued to improve, and, a month after the operation, remains free from pain; the gastric crises have disappeared, and the motor inco-ordination, also, has nearly entirely disappeared from both sides. Another case, under the care of M. Debove, has been operated on; the median and musculo-cutaneous nerves of the right arm were those stretched. Since the operation, the pains have diminished in the right arm, and disappeared in the left arm and the lower limbs. The plantar anæsthesia has much diminished in the left side; the motor inco-ordination is much improved; walking has become possible without support. The patient has regained regular sleep, and refuses morphia, as his pains "are nothing to what they were". We hope to see some trials made of this new remedy by some one of the many who are engaged in the study of nervous diseases on this side of the Channel.

POISONING BY GLYCINE.

DR. LÉONFFRE, Physician of the Orphan Asylum at Rocca, relates in the *Lyon Médical* cases of poisoning which he has observed in several orphans of the institution. These young children had been chewing fragments of roots of glycine instead of Spanish liquorice. At the outset, they complained of a gastralgic pain; the face became congested, and the cheeks reddened; but this reddening was very transient, and gave way to paleness as soon as the children felt nauseated. A few minutes afterwards, vomiting commenced, consisting first of alimentary matters, then of bile and mucus. The patient then complained of a great feeling of uneasiness; the face was pale and pinched; the eyes sunken, and surrounded by blue lines; the pupils were largely dilated; the skin, and especially the extremities, cold; muscular weakness was very marked; and the patients complained of feeling their legs bend under them. Among those who were most ill, an irresistible tendency to sleep was observed. The children complained of chill; the pulse remained at 80, very weak; and in two cases the voice was imperceptible. The capillary circulation was defective; and in two patients, whose pulse was hardly perceptible, the extremities were reddened, and the face, as well as the skin of the trunk, marbled with blue lines. The respiration was normal, and rather slackened than obstructed. There was neither delirium nor convulsion. The intellectual faculties were intact, except for the torpor. The secretions were not disturbed, the skin not presenting that appearance of sweating which is met with in analogous conditions. The action of the glycine on the intestinal tube was not marked in any of the eighteen cases, except in one girl, who was purged eleven times. The accidents observed were rapidly counteracted by the administration of hot tea and coffee, and the application of hot-water bottles. In one case only, energetic friction was necessary to combat collapse and the tendency to sleep. Dilatation of the pupil was the earliest and most constant of all the symptoms. The quantity of glycine chewed by each child must have varied from one to six *grammes* (fifteen to ninety grains). Thus it seems that glycine possesses marked toxic properties, and that it acts like tobacco. This action of glycine was unknown to Dr. Léonffre, and he has not found it mentioned anywhere.

SCOTLAND.

PROPOSED NEW COLLEGE FOR DUNDEE.

DR. J. B. BAXTER, Procurator-Fiscal, has just brought before the public a scheme for the establishment in Dundee of a college which shall embrace arts and science classes, and shall be similar, or nearly similar, to Owens College, Manchester. To carry out such a scheme, the sum of £250,000 is necessary; and, if the movement is carried on, Dr. Baxter announces that he is now in a position, with the munificent assistance that has been tendered to him, to place at the head of a subscription for the institution of such a college the sum of £125,000. It is to be hoped that the other £125,000 will be forthcoming on the part of the public; and already a meeting has taken place to consider the best means of bringing Dr. Baxter's scheme and handsome offer before the inhabitants of Dundee.

NEW HOSPITAL FOR AYR.

THE plans of the proposed new hospital for Ayr have been submitted to the subscribers; and, though the physicians of the hospital were unanimously in favour of one of the plans, one of the largest subscribers objected to the adoption of this or any plan until the opinion of independent authorities had been obtained. Accordingly, it was agreed that the whole plans should be submitted to Professors Gairdner and Macleod of Glasgow, assisted by a competent architect; and it was understood that the plan approved of by the referees shall be adopted by the subscribers.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending December 18th, it appears that the death-rate in the eight principal towns during the week was 19.9 per 1000 of estimated population. This rate is 8.6 under that for the corresponding week of last year, and 1.8 under that for the previous week of the present year. The lowest mortality was recorded in Dundee—viz., 15.4 per 1000; and the highest in Paisley—viz., 27.6 per 1000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.2 per 1000, being 0.5 less than that for last week. Acute diseases of the chest caused 132 deaths, being 6 less than the number recorded during last week. The mean temperature was 33.5°, being 14.0° under that of the week immediately preceding, and 5.8° under that for the corresponding week of last year.

HEALTH OF EDINBURGH AND GLASGOW.

LAST week, the mortality in Glasgow was 19 per 1000, the same as the previous week, but contrasting markedly with the corresponding week last year, when it was 27 per 1000. In Edinburgh, the mortality was 22 per 1000. There were 8 deaths from zymotic diseases, 5 being scarlet fever, and 3 whooping-cough.

THE DESTITUTE SICK IN EDINBURGH.

ONE of the most valuable societies existing in Edinburgh for the relief of the sick is the Destitute Sick Society, of which the annual meeting was held in Edinburgh last week. The society has existed for about ninety-five years. During the past year, 1,417 applications had been made for relief; and the greater part of these, after suitable investigation, were acceded to. At present, 272 families are receiving regular assistance; and a considerable increase is expected, owing to the prevalence of fever and the want of work presently existing. The relief

is given in the form of money, or coals, or meal, or warm clothing. The total income for the year was £3,015, and the expenditure £2,158. The late Dr. A. Vans Dunlop had left the interest of £1,800 to the society; and the other legacies during the year, together with this interest, amounted to £1,800. When a patient applies for relief, he or she first fills up a paper of answers to questions; next, a householder certifies to the identity; and, lastly, the medical man (generally a dispensary physician) fills up the certificate of sickness.

DEATH OF A LUNATIC FROM EXPOSURE.

LAST week, a lunatic named Veitch, an inmate of the Border Counties Asylum, Melrose, made his escape from the asylum, and travelled through the snow for nearly five miles. His track, owing to the way in which he was shod, being quite easily followed, he was found near Clovenfords, in so exhausted a condition that he died, notwithstanding the restoratives employed.

THE BLIND ASYLUM, EDINBURGH.

THE Royal Blind Asylum, Edinburgh, continues to do much useful work among a class specially entitled to the care of their more fortunate fellow-beings. Directing its efforts not only to the care of the blind, but also to making them as far as possible self-supporting and profitable members of society, it has 235 under its care (of whom 75 are inmates of the West Craigmillar House), and had a profit on manufactured articles of £1,298 3s. 11d.

DISPUTED MEDICAL FEES.

AT the Greenock Small Debt Court, Dr. Crawford, of Port Glasgow, sued George Russell for £9 17s. for professional services. Payment was refused, on the ground that Dr. Crawford treated the defender in an unskilful way, and the latter presented a counter claim for £12, and his employers another for £18, for alleged loss and outlay on account of a cure not having been effected until the defender underwent an operation in Glasgow. Russell met with an accident in a saw-yard, by which he got a leg and arm broken, and Dr. Crawford was called in, and attended for some time until the leg was healed; but the arm did not get better so quickly, and the defender declined the further services of Dr. Crawford, and went to Glasgow. Both he and his employer, as already stated, held that this was caused by unskilful treatment on the part of the doctor, and they alleged that they were entitled to recover the sums named. A number of local medical men were examined, and also Professor Macleod, of Glasgow, who was of opinion that Dr. Crawford had treated the case with proper care and skill, and that the bone broken in the arm was one which did not heal rapidly, and gave a great deal of trouble. Sheriff Smith, in deciding, said that the case was one of very great interest. The evidence showed that Mr. Russell's case was one demanding much more than ordinary skill, and when Dr. Crawford, along with Dr. Grieve, saw the serious nature of the injuries, they advised removal to the Greenock Infirmary. Mr. Russell unfortunately declined this advice. On coming to consider the evidence, the Sheriff said that he found nothing to entitle him to decide in favour of the defender. It was rather shown that, so far from being an incompetent surgeon, Dr. Crawford had proved in this case that he was more than usually competent; and the people of Port Glasgow ought rather to be exceedingly proud to have him among them. Professor Macleod's evidence was most valuable; and he was of opinion that the whole case was admirably treated by Dr. Crawford, and as well as could have been done in Glasgow. He had further stated that the bone in the arm, which did not unite until a long and painful operation had taken place, was a bone of all others most frequently found difficult to unite after being fractured. Dr. Macleod also stated another reason, and that was that, owing to the fractured leg, the bone-forming elements in the system were being taken up by the leg. In fact, all that Dr. Crawford had done throughout the case had been approved of by this witness. Dr. Crawford, the Sheriff thought, was charging a very low rate of remuneration for his attendance in this very difficult case; and it reflected the greatest credit upon him that he took the trouble, unknown to his patient, to go up to Glasgow, in an early stage of the case, and have a consultation with Professor Macleod, and without making the least charge for it. Dr. Wallace's evidence showed that the removal of part of the bandages from the arm, which was made a point on pursuer's behalf, could have no effect in retarding recovery. His lordship then gave decree in favour of the pursuer, with expenses.

IRELAND.

AT a meeting of the Galbally Dispensary Committee, held on the 15th ultimo, an election for a medical officer for the post, recently held by Dr. O'Connor, took place. There were two candidates—Dr. Robert T. Donovan and Dr. Ahern, the former being unanimously appointed.

AN address, accompanied by a service of silver plate, was presented on Christmas Eve to John T. F. Finegan, L.K.Q.P.I., medical officer of Glasnevin and Finglas Dispensary District, on the occasion of his recent marriage, and as an expression of regard and esteem.

DR. VAUGHAN, medical officer at Labasheeda, Clare, has, it is reported, after some hesitation, been compelled to join the Land League; and Dr. Blackall of Kildysart, after having been "Boycotted" since Sunday last, has elected to adopt the same course. This opens a view of the pains and responsibilities attaching to medical practice in disturbed districts.

THE CENSUS IN IRELAND.

THE Registrar-General, Dr. Grimshaw; George Whitley Abraham, Esq., LL.D., Registrar in Lunacy; and Robert E. Matheson, Esq., Secretary and Assistant Registrar-General, have been appointed Commissioners for taking the census in Ireland this year. Dr. Abraham was engaged in compiling the Census Report both in 1861 and in 1871.

OVERCROWDING IN DUBLIN TENEMENT-HOUSES.

THE density of population in some of these wretched dwellings has always been looked upon as one of the chief factors in the origin and spread of zymotic diseases in Dublin. Last week, an instance was brought before a police-magistrate in which there were twenty-three families, comprising eighty-four individuals, in one of these haunts; two back houses being built upon the yard of the original house. We are glad to learn, from the health report for November of Dr. Cameron, the Superintendent Medical Officer of Health for Dublin, that a decided improvement has been effected in the condition of a very large proportion of the tenemental dwellings, though there is vast work still to be accomplished. They are being regularly inspected, and, when found unfit for human habitation, closed.

THE SPREAD OF TYPHUS IN DUBLIN.

A CASE has been brought under the notice of the Public Health Committee and the Local Government Board for Ireland, in which a dispensary medical officer failed to report an outbreak of typhus fever to the former sanitary authority. Six cases of typhus fever, it is stated, occurred in one house in this gentleman's district, one of which, at least, proved fatal. Some of the patients were removed to hospital, but nothing else appears to have been done with a view of preventing the spread of the disease. The Local Government Board have informed the gentleman that it was clearly his duty to report the outbreak.

PAYMENT OF MEDICAL SUBSTITUTES.

AT a recent meeting of the Cavan Board of Guardians, a resolution was adopted that Dr. Teevan, who was acting for Dr. Thomson of Belturbet dispensary district during his illness, should receive three guineas per week; of which sum, two guineas should be paid out of the rates, and the remainder by the medical officer of the district. The Local Government Board sanctioned the payment of two guineas out of the rates to Dr. Teevan as locum tenens; but, last week, Dr. Thomson wrote to the guardians, calling their attention to article 22 of the Dispensary Regulations, showing that he had nothing whatever to do

with the payment of his substitute in case of sickness, and emphatically refused to pay Dr. Teevan, or any other person they might appoint, one farthing. The guardians had to submit; and notice of motion was given that the board reconsider their decision of paying two guineas per week to Dr. Teevan, as it was an exceptional case.

CHRISTMAS AT THE BELFAST HOSPITALS.

DURING Christmas Day, the wards of the Belfast Royal Hospital were decorated, in a very attractive manner, by evergreens, pictures, mottoes, etc.; and those patients who were permitted by the medical staff enjoyed a substantial dinner of turkey, ham, pudding, and fruit. At the Children's Hospital and Convalescent Home, on the Throne Lands, the corridor, which runs along the entire length of both hospitals, was festooned with branches of laurel, ivy, holly, and mistletoe; whilst the "Martin" Memorial Window at one end added to the attractions, and an appropriate motto ("Kind hands make happy hearts") was inscribed in silver letters on a red ground, and placed in a prominent position. The Belfast Hospital for Sick Children, Queen Street, also presented a very animated appearance; and so liberal was the interest taken in the institution, that not a penny of the funds was expended on toys or other sources of amusement. The children in the Ulster Hospital for Children, Fisherwick Place, were entertained to a dinner on Christmas Day, the expense of which was generally borne by Dr. and Mrs. Martin.

BELFAST WORKHOUSE.

THE Local Government Board recently appointed two inspectors, Drs. Brodie and Mr. Bourke, to hold an inquiry into the condition and management of this institution; and, last week, the board of guardians received a communication from the Local Government Board in reference to the inquiry held. They state that they learn with much satisfaction that most important statements which had been made regarding the state of the workhouse have not been sustained; and are also glad to observe, from the report of their inspectors, that they found the house in a satisfactory condition in many respects; but they request the careful and immediate attention of the guardians to some defects in the internal arrangements and administration of the establishment, which have been described in the report. The overcrowding is especially a matter which requires prompt action on the part of the guardians; and the board will communicate again with them on the subject of the misunderstanding which appears to have arisen as to the accommodation in the nursery buildings. The Master of the Workhouse, Captain Whitla, is requested to tender his resignation, as the board are not prepared to permit him to remain any longer in such an important and responsible post.

INTERNATIONAL MEDICAL CONGRESS.

THE following subjects are those proposed for discussion in Section III.: Pathology and Morbid Anatomy. 1. The relations of minute organisms to certain specific diseases, such as relapsing fever, ague, and malignant pustule [anthrax]. 2. The relations of minute organisms to unhealthy processes arising in wounds, and to inflammation in general. 3. Tubercle: (*a*) Its histological characters. (*b*) Its relation to inflammatory processes in different organs, such as the lungs, lymphatic glands, bones, and joints. 4. The origin of cancer and sarcoma, and their relation to the normal tissues in which they arise. 5. Diseases of the Kidneys: (*a*) The morbid histology of the different forms of Bright's disease. (*b*) The relation of renal disease to disturbances of the general circulation, and to alterations in the heart and bloodvessels. 6. Recent researches in the morbid anatomy of the brain and spinal cord. It is proposed to hold exhibitions of microscopical specimens in illustration of each of these subjects; and further, to afford opportunities for the demonstration of methods and instruments of research, in any of those in which it would be desirable. In thus selecting certain special subjects for discussion, it is by no means intended to exclude from consideration other pathological topics. All communications relating to this section should be addressed to one of the secretaries, Joseph Frank Payne, M.D., 78, Wimpole Street, London, W.; Marcus Beck, 30, Wimpole Street, London, W., and abstracts of all papers intended to be read at the Congress should be sent in by April 30th, 1881, to be submitted for approval to the executive committee, and to be translated into German, French, or English.

CREMATION.

THE undersigned have desired to add their names to the memorial to the Home Secretary in favour of cremation: Robt. Saundby, Birmingham; D. C. Lloyd Owen, Birmingham; Thomas F. Chavasse, Birmingham; Thos. Underhill, M.D., West Bromwich; John A. Keyworth, Birmingham; Wright Wilson, Birmingham; G. F. Bodington, Kingswinford.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the offices of the Association, 161A, Strand, London, on Wednesday, the 12th day of January next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, December 18th, 1880.

BRANCH MEETINGS TO BE HELD.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.—The next meeting will be held in the Board-room of the Infirmary, Worcester, on Thursday, January 20th, at 2.30 P.M. Members willing to read papers or cases will please communicate with the Honorary Secretary some days beforehand. The following papers are promised: 1. On some points on the Chemical Examination of the Urine: Dr. Swete. 2. General Results of one hundred cases of Chorea treated in the Worcester Infirmary: Dr. Strange. 3. The use of Belladonna in certain cases of Hernia: Mr. Batten. Dinner at Mountford's, High Street, at 4.45 punctually. Tickets, exclusive of wine, four shillings. Members intending to dine will please intimate same to the Honorary Secretary, Dr. Crowe, Worcester.

SOUTH-WESTERN BRANCH.—A meeting of this Branch will be held in the Athenæum, Plymouth, on January 11th, 1881, at 2 P.M. Dr. Hogarth Clay, President. The following communications are promised. Dr. Stephenson, A paper on Excrement Disposal and Fryer's Patents. Mr. W. Paul Swain: Notes on two cases of Strangulated Hernia; A case of Fractured Patella treated by Wiring; Cases of Excision of the Hip-Joint. Dr. Henderson: A paper on a case of Ovariotomy.—SUTHERLAND REES PHILIPPS, M.D., Honorary Secretary.

DUBLIN BRANCH.—The fourth annual general meeting of this Branch will be held in the Hall of the King and Queen's College of Physicians in Ireland, Kildare Street, on Thursday, January 27th, 1881, at 4 P.M. Dr. Robert McDonnell, F.R.S., President of the Branch, will deliver an address; and the officers and council for the ensuing year be elected. By the kind permission, also, of the President and Fellows, the annual dinner will be at the College of Physicians, at 7 P.M. on the day of the meeting; the incoming President of the Branch, Dr. Hayden, in the chair.—GEORGE F. DUFFEY, M.D., Honorary Secretary, 30, Fitzwilliam Place, Dublin, January 1st, 1881.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ORDINARY MEETING.

THE third meeting of the session was held on December 9th, at the Medical Institute: Present, Mr. R. PROSSER, the President, in the chair, and thirty-two members.

New Member.—Mr. MALE (West Bromwich) was elected a member of the Branch.

The Case of Mr. O'Brien Jones.—The PRESIDENT called attention to the case of Mr. O'Brien Jones, and said that he should be glad to receive any contributions to the fund.

Communications.—The following communications were made.

1. Dr. SAUNDBY showed two cases of Hemianæsthesia; one a man aged 45, the other a woman aged 28. In both cases, the affection appeared suddenly, and had not so far yielded to treatment.

2. Mr. WEST showed a case of Excision of the Wrist-Joint. The patient was a girl aged 17. He had removed a great deal of bone, and had found a pair of stump-forceps, as used by dentists, most useful in doing this. The patient was going on very well.

3. Dr. DEWES showed a substance, about the size of a pigeon's egg, which was either Defibrinated Clot or a piece of Placenta. It had been expelled from the uterus in the case of a patient confined two months previously, and had occasioned protracted hæmorrhage.

4. Mr. LLOYD OWEN read a paper on Colour-Blindness, illustrated by diagrams and apparatus.—Mr. Eales, Dr. Johnston, and Mr. Tait, took part in the discussion which followed; and Mr. Owen replied.

5. Mr. WEST read a paper on the Treatment of Empyema by Excision of a portion of Rib. He narrated two cases, and formed very unsatisfactory conclusions as to the desirability of this operation from his own experience.—Dr. WELCH exhibited a patient about five years

old, in whom this operation had been performed thirteen months previously, with very good results.—Dr. FOSTER condemned the operation.—Dr. Joy, Mr. Yates, Dr. Simon, and Dr. Dewes also took part in the discussion which followed; and Mr. West replied.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.

A MEETING of the above was held at the Greyhound Hotel, Croydon, on Thursday, December 9th; ALFRED CARPENTER, Esq., M.D., President of the Council of the British Medical Association, in the chair.

Guy's Hospital.—The following resolution was unanimously passed: "That this meeting desires to express, to Dr. Habershon and Mr. Cooper Forster, its sympathy in the painful circumstances which have led to their withdrawal from the staff of Guy's Hospital; and its appreciation of the manly spirit which has induced them to resign their respective appointments, sooner than submit to a loss of professional dignity, or sanction changes which they believed to be detrimental to the interests of the patients entrusted to their care."

The Case of Mr. O'Brien Jones.—A letter was read from Dr. Alexander Henry, directing favourable attention to the fund which had been opened by a committee, to defray the necessarily large expenses incurred by Mr. A. O'Brien Jones of Epsom, in his defence in the case of Howell *v.* West and Jones.

Communications.—The following papers and communications were read:

1. Mr. Christopher Heath: On Colotomy.
2. Dr. J. Milner Fothergill: On Cardiac Debility.
3. Dr. D. W. C. Hood: Notes on a Case of Ulceration of the Stomach.
4. Dr. J. Rutherford Adams: A Case of Interest.
5. Dr. H. J. Strong exhibited Dr. Tempest Anderson's new Instrument for Determining Astigmatism.

Dinner.—Thirty-one members sat down to dinner.

SPECIAL CORRESPONDENCE.

ROME.

[FROM AN OCCASIONAL CORRESPONDENT.]

Commencement of Winter Session.—Health of Rome.—Cremation.—The Eucalyptus and Malaria.

THE winter session of 1880-1 was formally opened last month in the Medical Faculty of the University. The number of students shows no falling off from last year, but if anything, a slight increase. Professor Baccelli has commenced his clinical course for the winter at the Hospital of Santo Spirito; his medical lectures draw perhaps a larger audience than those of any other teacher in Rome. Residents here have been somewhat surprised to see sundry notices which have appeared from time to time in a few English journals, regarding the health of the city. The truth is, Rome has never been healthier or more free from zymotic disease than it is at this moment. The autumn has been unusually dry and mild all over central Italy, while at Rome itself the usual inundation of the Tiber has this year, contrary to what generally happens, been a merely nominal affair. On this occasion the river rose not more than a few feet above its banks, and confined its ravages entirely to the streets immediately along its course. A few inches of mud were deposited in the neighbourhood of the Pantheon and the Temple of Vesta; but, so far as I have been able to learn, the health of these quarters has not in any way suffered thereby. As a matter of fact, neither the medical practitioners nor the older residents know anything of the unhealthiness with which the city is at this moment credited. In a capital such as Rome, where there is a large floating population, sporadic cases of zymotic disease will of necessity occur from time to time with more or less frequency. There have been a few such cases, chiefly of small-pox, among the poorer classes, but nothing whatever to justify alarm. On the contrary, comparing one average season with another, the present is probably one of the healthiest known at Rome for many years past.

A warm discussion took place recently in the Municipal Council relative to the official recognition of cremation. A petition had been received from the Society for promoting this method of disposal of the dead, asking permission to erect a furnace and other necessary appliances in the public cemetery. A good deal of sentiment was of course imported into the matter by several speakers, but finally, chiefly owing to the clear and temperate address of Dr. Baccelli, the motion to grant the request was carried by a substantial majority. Cremation therefore is now legalised at Rome, as at Milan, Florence, and other towns.

The singularly mild weather which has prevailed since October has been very favourable to the growth of the eucalypti in the Campagna. I lately had occasion to visit the monastery of the Tre Fontane, which is at present the chief nursery whence these plants are sent out. The monastery has of late years been in the occupation of French Trappists. From one of the monks I learned that the malaria which had hitherto at this spot been singularly pernicious, has of late years become comparatively mild in type. This improvement is attributed entirely to the growth of the eucalyptus trees, which to the number of 25,000 have been planted within the grounds of Tre Fontane. The shrubs are protected by wicker-work against injury, during the first few years of growth, after which they are left to care for themselves. Those planted ten years ago have now reached a height of over thirty feet. The Trappists prepare a spirituous extract and an elixir from the leaves, both of which are strongly redolent of the odour and acrid taste of the eucalyptus. The extract they are accustomed themselves to take daily as a preventive rather than as a remedy for ague. When the attack is actually imminent, nothing is found to answer so well as quinine combined with some purgative. My informant was evidently himself thoroughly saturated with malarial poison, the virulence of which in this particular locality may be judged of by the fact, that it proved fatal to all the eighteen friars who first attempted to plant the eucalyptus in the district. As it is, the health of the fraternity has so far improved, that all thoughts of abandoning the monastery and the work have now been given up.

CORRESPONDENCE.

GUY'S HOSPITAL.

SIR,—The carefully worded resolution passed by the South London District on this subject will, I hope, cease to appear mysterious to your correspondent "An Old Guy's Man", when he is told that, in any action originated by the Metropolitan Counties Branch with regard to Guy's Hospital, a leading part would necessarily be taken by an official whose conduct, in respect to York Road Hospital, is at present the subject of investigation by a committee of the Branch Council.

Agreeing most fully with your correspondent as to the main objects of our Association and Branch being to promote professional dignity and maintain professional concord, it appeared to our District members that it would be unsatisfactory, if the arrangements for taking action on a subject involving such nice ethical questions, as the recent dispute at Guy's, were entrusted to the hands of one whose conduct is under investigation in reference to charges arising out of somewhat a similar matter.

For the information of those of your readers who do not reside in town, I ought, perhaps, to add, that our special interest in the matter arises from the fact, that both Guy's and the York Road Hospitals are situate within the South London District.—Faithfully yours,

H. NELSON HARDY, Honorary Secretary, South London District, Metropolitan Counties Branch.

Dulwich, December 27th.

THE EDINBURGH COLLEGES.

SIR,—There may be a few Fellows of the Edinburgh College of Physicians who wish to adhere to the system of admission by testimonial or certificate to membership and fellowship which has hitherto prevailed; but they are very few. The only real question is, Is examination the best test of qualification and mode of admission to them? And to this not a few answer in the negative, for the following (among other) reasons.

1. When a man has passed the examination of the licensing bodies (including the universities), he has done all that is requisite for entitling him to practise; and no further examinations are or should be necessary, except in the case of such services as the Army and Navy, where they are essentially competitive. It has happened that in these the supply has sometimes not equalled the demand; but that is the fault of the administration, and does not remove the examinations from the list of "competitive".

2. The membership and fellowship have nothing to do with practice; all men practise for some time without them. They are purely honorary; and, therefore, admission to them should be given only to those who, after licence or degree has been obtained, have done something, either in the way of original investigation or practical work, to entitle them to them. A graduate of Edinburgh, for example, has passed through all the examinations that a well-qualified practitioner can pass through; any other to which he may be subjected can only be a

repetition (and a partial one too) of what he has already successfully encountered. In his case, then, the proposed examination for membership is a retrograde movement. The same remark will, of course, apply to other bodies.

3. To make the membership and fellowship really objects of ambition, none should be elected who have not *proved* by real work that they deserve them. In illustration of this kind of work, I would instance Dr. Ferrier's Experimental Researches in Cerebral Physiology and Pathology; Dr. Burdon Sanderson's Report on Epidemic Cerebro-spinal Meningitis; Dr. Lauder Brunton on the Nature and Physiological Action of the Poison of Indian Venomous Snakes; Professor Rutherford on the Physiological Action of Drugs on the Secretion of Bile; Professors Crum-Brown and Fraser on the Connection between Chemical Constitution and Physiological Action; Professor Gairdner's early papers on Clinical Medicine; Dr. James Foulis on Development of the Ova and the Structure of the Ovary in Man and other Mammalia. Surely investigations and practical work such as these are far higher testimonials and proofs than any mere examination can supply.

4. Examinations, unless they be shams, are calculated to exclude the best men. Would Huxley, for instance, submit even to a sham?

5. After the age of forty, admission is to be allowed on easier terms; but still only to those who, in the language of the London College of Physicians, "can show that they have improved the art or extended the science of medicine, or have at least distinguished themselves highly as medical practitioners". Is it not the fact, however, that most men who have attained position have acquired it, or given proof of being on the way to acquire it, at a much earlier age? And why should they be subjected to (excuse me for saying) the unworthy process of examination, and older men, probably not so worthy, be relieved from it?

For reasons such as these, many of the Fellows, while eager for improvement in the mode of admission, regard examination, as *the* process by which honorary rank is attained, not creditable either to the candidates or to the College.

Moreover, colleges of physicians are, like the Royal Society and similar bodies, philosophical and scientific institutions, incorporated for the advancement of medical *science*. How would the Fellows of the other societies look, if it were proposed to admit them by examination, instead of character and work?—I am, sir, your obedient servant,

WILLIAM CUMMING, F.R.C.P.E.

Edinburgh, December 21st, 1880.

PHYSICIANS TO PROVINCIAL HOSPITALS.

SIR,—I am more than pleased to see that in the JOURNAL of December 11th you discuss the prospects of junior physicians attached to provincial hospitals. There are many towns with large hospitals where it is absolutely necessary that there should be two, if not three, physicians to get through all the medical work; while, on the other hand, there is not remunerative work enough for more than one man as a pure physician. What is the remedy? I think it may be found in one or both of the following suggestions.

First, the junior physician or physicians should be appointed from the general practitioners of the town, with some such title as "assistant-physician"; and, on his succeeding to be a full physician, he should give up general practice. The advantage both to the profession and to the public would be very great. At present, it generally happens that, if one has taken a good degree and high honours, and consequently looks out for a medical appointment at a good hospital, he must entirely lose all the immense advantages to be acquired from a general practice; and it frequently occurs that such an one may meet with great success in the diagnosis of obscure pulmonary and cardiac diseases; while he is unable to treat the simplest ailments, because they seldom come under his notice.

Secondly, the full physicians should charge higher fees than the assistant-physicians. It surely is perfectly indefensible, that physicians of between fifteen and thirty years' standing should allow three visits at their house for a guinea; and should meet patients at their homes twice, with or without another medical man, for a guinea; but this does occur, and, I am afraid, in more places than one. I am sure that such physicians would be the gainers, were they to raise their fees, say, to two guineas for the first, and one for each subsequent consultation; and charge a guinea each time they see a patient alone, either at their room or the patient's home. In this way, they would be more respected; their opinions in doubtful cases more valued and sought after; while the pecuniary results would be quite as satisfactory, if not more so. Speaking for myself, I have found that, in the end, more is gained by acting in this direction than by competing with the general practitioner; while, if it were not so, the esteem and good opinion of one's professional brethren would more than compensate.

I enclose my card, and remain yours, etc.,

December 1880. A PROVINCIAL PHYSICIAN.

LISTERIAN OVARIOTOMY.

SIR,—I am much obliged to my colleague Dr. Savage for his interesting letter, which fully confirms my conclusions concerning the application of the Listerian method to ovariotomy—*i.e.*, that the reduction of the mortality of all operators is due, not to the Listerian method, but to the increase of personal experience, better sanitary conditions, and most of all to the intraperitoneal method of treating the pedicle.

The experiment of Dr. Savage's experience and my own is very instructive; for with the clamp, in our old hospital, we had terribly bad results. In our new hospital, with the ligature, we have the very best yet published. I have just published my last series of seventy-six abdominal sections, performed in nine months; and it includes fifty-two ovariotomies, with only two deaths. These cases were performed without the Listerian details; and the deaths were both inevitable; that is, neither Listerism nor anything else could have saved them, for one died of apoplexy four hours after the operation, and the other was a case of malignant tumour with venous obstruction and sudden embolism. Listerism cannot, of course, prevent such deaths, and it is not quite certain that it does not cause others. But whether that be so, or not, can anyone claim for Listerism a superiority, when, in the same hospital, two surgeons have only a fractional difference between them, one using Listerism, and the other not? And I must further point out that, if Dr. Savage's results had been bad, as they are good, the Listerians would at once have answered that his method was not the Listerian method, as he frankly admits it is not. We have, therefore, clear proof that at least the theory upon which Listerism is based receives complete condemnation from the experience of the Birmingham Hospital for Women; and my own growing conviction is that supported by Dr. Bantock, that the practice based upon the theory is mischievous.

Of my fifty-two cases, twenty-three were complicated with serious and often most unusual difficulties; and the two deaths are not amongst these. This may seem a large number of difficult cases, and I am not in the least able to explain it. But it is quite a matter of joke amongst my colleagues, that it is almost exceptional for me to have a straightforward simple case. Therefore it is that I have come to the conclusion that many of the complications formerly regarded as extremely serious possess but little influence on the operation mortality.

Finally, and as an argument from which I can see no appeal, I have rearranged the old hospital, which we left on account of our bad results in it, as a home for private patients, and there I do all my operations in private practice, absolutely without Listerism. Up to the present date, these amount to thirty-two cases, with one death; and, therefore, I am driven to the conclusion that it is to those conditions to which I alluded that I owe my increasing success.—I am, etc.,

Birmingham, December 25th, 1880. LAWSON TAIT.

P.S.—I learn, with regret, that while Dr. Savage's letter was on its road to press, his fiftieth case died of tetanus. This event turns the delicate scales of our mortality-table against Listerism to the extent of .154 per cent.—a fractional disturbance which well illustrates Mr. Timothy Holmes' *reductio ad absurdum*. As a matter of fact, since we gave up the clamp, our deaths have been limited to such as are unavoidable; and, so far as I know, there has not been a suspicion of septicæmia, such as Mr. Thornton has to admit at the Samaritan, in spite of his Listerian precautions.

SIR,—Since writing my letter on the above subject, which you kindly inserted in this week's JOURNAL, the patient upon whom I last operated died four days ago—so that my statistics should be stated as two deaths in fifty operations, and not one in fifty, as in my previous letter. The death was due to one of those unforeseen, and, as far as can be told at present, unpreventable causes—viz., tetanus—which will always be liable to step in and raise the mortality of ovariotomy, apart from the question of antiseptics or non-antiseptics. The patient was perfectly well up to the ninth day; wound healed, without pus; sutures removed; and looking forward to leaving the hospital. She first complained of a little "cold" from a window draught; and, from that, symptoms of tetanus developed, which terminated her life in twenty-four hours. At the *post mortem* examination, made by Dr. Saundby, there was no appreciable cause for death. The abdomen and pelvis were quite healthy; a piece of small intestine was adherent to the stump; and there was not a trace of serum or pus to be seen. I am now sorry that I did not wait a little longer before sending the record of my last fifty cases; but

I was anxious to make the contribution as soon as possible after the discussion in the Royal Medical and Chirurgical Society.—I am, etc.,

Birmingham, December 27th, 1880. THOMAS SAVAGE.

ETHER *v.* CHLOROFORM: MIXED ANÆSTHESIA.

SIR,—To form a strong opinion, on the evidence of a single case, is a frame of mind much to be deprecated in deciding on the comparative merits of anæsthetics. An instance of this is given by the letter of your correspondent, Mr. Jelley, in your last week's issue. Syncope, such as he describes, from the use of pure ether, is extremely rare. Scarcely half-a-dozen cases are on record. The face of a patient under ether is seldom pale, except after prolonged operation, hæmorrhage, or previous to vomiting. Your correspondent says he will never give ether again. Before he has given chloroform fifty times, he will probably have several such cases; and he will be fortunate if they recover after such simple measures as ammonia to the nostrils (perfectly useless if breathing be stopped), or cold to the face. He will, I presume, then take to methylene, only to obtain the same results; and, finally, return to ether, as the anæsthetic in which this accident is far less frequent than with any other. With regard to the measures to be adopted in syncope, I may point out that the Chloroform Committee reported that, by the use of artificial respiration, life was restored, in some instances, after the heart had ceased to beat.

But, while I am writing on this subject, may I utter a word of warning on the combined effects of ether and opium? Several cases have recently come to my knowledge—the details of which, I hope, will soon be published—in which death followed a short time after the administration of ether to patients under the influence of opium. In the table of deaths from ether, which you have just published, out of six cases in which death could be directly attributed to the anæsthetic, two were cases of hernia; and, therefore, most probably under the influence of opium. Whether it be a case of this kind, or morphia be given subcutaneously, in order to obtain the benefits of "mixed anæsthetics", ether is not without danger; and the patient should be carefully watched, after the operation, till complete awakening has taken place. In the recent volume of Billroth's *Deutsche Chirurgie*, which is devoted entirely to anæsthetics, Dr. Kappeler, from an experience of twenty-five cases, speaks strongly against the practice of mixed anæsthesia by morphia and ether; but allows that by morphia and chloroform to be open to less objection. Whether death occurs by the ether deepening the morphia narcosis, or by the morphism preventing the patient from clearing his bronchi from the secretion provoked by the ether, I will not undertake to say. It appears to me to be a very proper question for physiological experiment. Similar warnings have been uttered before against this form of "mixed anæsthesia"; but I do not think public attention has been called before to this explanation of deaths in hernia operation under the use of ether.—I am, yours, etc.,

Leeds, December 18th. ERNEST H. JACOB, M.D.

ETHIDENE-DICHLORIDE AS AN ANÆSTHETIC.

SIR,—You have for many years been so strenuous an advocate of ether, that I was glad to see you urging a trial of ethidene-dichloride, which, during the past nine months, I have used more frequently than either chloroform or ether. What position ethidene is likely to hold in general surgery I cannot predict, having had no experience; but, for operations on the eye, I am confident it is the best anæsthetic yet in use. In making this assertion, I have regard not only to the action of the agent during the operation, but what is, I think, of almost equal importance—the after-effects. Complete anæsthesia by ethidene is usually induced in four or five minutes, with little or no congestion of the face or struggling, and with an absence of that troublesome accident, sickness. Recovery after suspension of the anæsthetic is rapid; usually, in five minutes after removal to bed, a patient will be found fully conscious and tranquil. Often one vomit ensues on recovery, but there is no prolonged nausea, as after chloroform, nor distressing thirst, which is the almost invariable result of ether inhalation. I have had one case of severe sickness lasting nearly twelve hours, after a cataract extraction. The subject of it was a feeble, highly nervous woman, and I think the protracted mental anxiety occasioned by her having to wait for operation more than an hour after the expected time was responsible for this. When the same agent was used two months before for a preliminary iridectomy, there was no sickness. Dr. C. A. Moore (our house-surgeon), whose skilful administration of ethidene leaves nothing to be desired, gives it much in the same manner as chloroform, only more freely; he employs the leather inhaler containing a flannel bag, introduced by Mr. Rendle for the administration of methylene-bichloride. The effect of ethidene passes off so quickly, that it is usually necessary to keep up the administration till the operation is completed.

I earnestly hope experienced anæsthetists will give ethidene a thorough trial; but would urge those unaccustomed to administer anæsthetics not to use it. It must be remembered that the agent is a cardiac depressant, although a less powerful one than chloroform. In our early trials of ethidene, two cases of alarming syncope occurred; and, with these facts in my mind, I cannot endorse your statement, that ethidene may be given with the same feeling of security as attends the administration of ether.—I am, sir, faithfully yours,

FRANK H. HODGES, F.R.C.S.Ed.,
Ophthalmic Surgeon to the Leicester Infirmary.

Leicester, December 19th, 1880.

DEATHS FROM ANÆSTHETICS.

SIR,—About eight months ago, you were good enough to allow me to point out that, in cases of deaths from chloroform, it transpired in evidence that little of the drug was used; that it was given on one thickness of lint, or flannel; also, that the patient was quickly placed under its full influence, where death took place during or after the anæsthetised state. I pointed out how unfair it was for a section of the profession to pour pure chloroform vapour into patients' lungs, and, in cases of death, attribute the death to the use of the drug.

As Dr. Jacob then attacked my views, I now use his statistics to show him and the profession I was right. In every case he has recorded, direct evidence is given that chloroform vapour was poured into the patients' lungs from lint, flannel, or inhalers (*vide* his table). In Cases No. 32 and 88, no mention is made of how the towel and napkin were used; that is, held over the face or not.

Is it not true that chloroform vapour is a cardiac depressant? That the prospect of an operation is also a cardiac depressant? That, in ordinary stethoscopic examinations, patients often feel faint, and ask for water; and, if standing, ask to sit down? Again: is the vapour of chloroform heavier than air? Can air circulate as freely when a meshed thing like lint, flannel, or even a lady's veil, is held over the face, as if no such impediment were there? Does the air breathed during chloroform administration require mixing with only a small percentage of chloroform vapour (5 per cent.), and no more?

But, some say, patients die after they have come out of the chloroform. To this I reply, that such patients as much "come out" of the chloroform because they are seen to recover some of their senses, as the partridge, fatally struck with a shot, may be said to come out of it, because it is seen to fly as straight after the shot as before it for half a mile, then rise perpendicularly into the air ("tour", as sportsmen call it), and drop dead.

The first death from the administration of good respirable air, properly charged with chloroform vapour, has yet to happen; and I challenge Dr. Jacob, or any member of the profession, to record a well-authenticated case, when the vapour has been administered on rational principles, and the patient's heart and pulse have been let alone.—I am, sir, yours truly, WILLIAM FEARNLEY.

London, December 20th, 1880.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE INVERNESS DISTRICT ASYLUM.

IF enchanting scenery could dispel madness, the rate of recovery in the Inverness District Asylum ought to be of a very satisfactory character; for that institution, which must have attracted the notice of all travellers by the Caledonian Canal, stands upon a height above the capital of the Highlands, and commands a prospect of great extent and varied beauty. The Scottish Celt, however, is so accustomed to scenic loveliness as to have become indifferent to it, and is not, therefore, beneficially affected by it, when insane, as we think some Londoners would be if, under such circumstances, they could be transported to the Inverness District Asylum. The medical superintendent of that establishment, Dr. Aitken, is therefore well advised to provide for the moral treatment of his patients by useful occupation and by indoor and outdoor amusements of many kinds, trusting very little to the restorative influence of visual impressions. He is well advised, also, to place the medical treatment of mental disease before their moral management, and to secure to his charges the benefit of every advance in pharmacology and therapeutics. In the interesting report in which he describes the results of his official labours for a year, he refers to a curious and affecting instance of hereditary insanity, existing in a mother and daughter at the same time and partaking of the same character in both. The daughter's insanity was brought on by a disappointment in marriage; the mother's grew out of grief for her daughter's mortification and

madness. Both daughter and mother suffered from melancholia, fancying that their souls were lost, and that they were unworthy to live. Both prayed that they might die and not live, and both made preparations for suicide, which, however, both lacked energy actually to attempt. Both were attacked by phthisis, and died of that disease at about the same time. The mother, either from habit or some vestige of maternal instinct, continued to sit by her sick daughter's bed as long as her strength permitted her to do so.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

NOTIFICATION OF INFECTIOUS DISEASE AT NOTTINGHAM.

SIR,—Under the above heading, I observe a letter from the town clerk in this week's JOURNAL. I have read with surprise some of the statements therein, especially that which refers to the opposition on the part of the medical profession to the notification clause at Nottingham. I beg to state that, as far as I know, there is no such opposition on the part of the medical men of this town to an Act which would, I believe, if put in operation, prove a benefit to the community.

When first brought forward in the town council, in February 1878, the clause provided for the notification being made by the medical attendant, as well as by the householder. This was objected to in the town council, several members of the profession being opposed to it, myself among the number. But subsequently the clause was essentially modified, to meet this and other objections; and, in its present form, it was passed in the summer of 1878. Since then, we have heard nothing of it, except that, in the printed reports of the medical officer of health, he strongly urges the town council to carry out its provisions for the benefit of the public, by helping to control the spread of infectious fevers.

The epidemic of small-pox occurred, I think, in the winter of 1871-72, and the buildings then erected, which "sprang up almost in a night", have since been used with much benefit for the isolation of infectious cases.—I am, etc.,

THOMAS WRIGHT, President Midland Branch B.M.A.

Nottingham, December 27th, 1880.

THE RECENT POOR-LAW INQUIRY AT ST. MARY ABBOTTS, KENSINGTON.

AT the meeting of the Board of Guardians of this parish, held on the 16th inst., a letter was read from the Local Government Board, giving the decision arrived at, by the department, consequent on the allegations of Messrs. Lilly and Liddard, district medical officers, that they had not been called upon by the relieving officers of their respective districts to certify in cases of lunacy, in consequence of their refusal any longer to submit to the demands of those officers in expecting from them a portion of the fees paid for such certification. In this letter the Local Government Board state, "that in their opinion, a charge had not been proved that a system of extortion on the part of the relieving officers had existed. It had, however, been clearly established, that a practice had obtained under which the medical men called in to advise the justices, in such cases have for some years past, been in the habit of paying a portion of the fee received by them to the relieving officer in such case." Seeing that the two complainants had never been called in to certify, after their distinct refusal to submit to share the fees, we are at a loss to see the justice of the distinction thus arbitrarily raised by the department. The department then proceeds to state "that such a course or proceeding is, in the opinion of the board, highly improper, and they therefore request that the guardians will caution the relieving officers against a repetition of the practice in future. It should also be pointed out to the medical officers, that, in making payments of the kind referred to, they become parties to the irregularity in question, and have, consequently, laid themselves open to reproof." The board then proceed to point out that such irregularities in the future may be prevented by the direct payment of the fee by the guardians themselves, through their clerk, rather than by the relieving officers.

We are pleased to observe that the letter from the Central Board was favourably entertained by the guardians, who not only endorsed the opinion, but expressed their own disapprobation of the conduct of the relieving officers in receiving gratuities from the medical officers, and it was also agreed that a copy of the letter should be sent to the medical officers.

It will be thus seen that the allegations of the two complainants have been substantially confirmed. It could not well be otherwise, for as we pointed out in a former issue, the admissions of the relieving officers, and of the medical gentlemen who had had the monopoly of the certification, abundantly showed the truth of these gentlemen's assertions. At the same time, we expressed our doubts whether the Local Government Board, acting on the advice of the inspector, Mr. Hedley, would condemn the irregularities implied in this evident collusion between the relieving officers and the medical officers.

In taking our leave of this subject, we have to congratulate Messrs. Lilly and Liddard on the professional *esprit de corps* and public spirit exhibited by them on this question.

VENTILATION OF SEWERS.

SIR,—The suggestion which I made in the letter which you did me the honour to publish on December 11th—viz., that the paragraph regarding the ventilation of sewers at Maidstone was inserted for the purpose of ventilating the point at issue, has been proved by the result. The case, as reported in your JOURNAL of December 4th, is based upon wrong information.

It appears that in Maidstone party spirit runs high, and nothing that a Liberal can say or do can possibly be right, and *vice versâ* as regards the Conservative. As a consequence, the most absurd arguments are used for the purpose of bespattering individuals of the opposite party, without reference to the logic of the case.

Mr. Lewis Angell informs me that he is the engineer to the Maidstone Local Authority; "that he has just made an inspection of the sewers complained of; that they were clean, without deposit; that, out of two hundred ventilators, only a dozen were complained of, several being upon the line of the Lunatic Asylum sewage, which comes down in great volumes, the special smell in the middle of the day being 'cabbage-water'." Mr. Angell goes on to say: "Of course, the contents of the sewer is sewage, and I never knew sewers yet, however perfect, which did not sometimes smell: in the present instance, the ventilators are all open; no charcoal baskets, etc.; there are also rapid gradients; and the flow of water forces the air up ventilators. The smells, when they exist, are only occasional. The introduction of flats in some of the sleeper gradients will distribute the ventilation, and prevent an undue rush at one or two points."

It is stated, and not contradicted, that hundreds of closets have been connected with the sewers, and are without water-supply; that the local board will not enforce a supply from the water-companies; that the contents of cesspools are constantly emptied into the sewers.

I will support most emphatically the opinion of the engineer, that there is nothing so likely to make sewers to be sewers of deposit, and to cause the ventilators to stink, as allowing cesspool matter to be turned into the sewers, and water-closets to be without water. If the local authorities allow these flagrant departures from sanitary law to be in existence in their borough, they must expect to have smells from ventilators; and much worse effects will follow, if they will only close up the ventilators without doing away with the real cause of the mischief.

I am informed that there were, at the date of my communication, eleven cases of typhoid fever in the borough; two of the patients had passed the ventilators, and complained of the smell. I can only say that, if the local authorities allow of typhoid excreta being thrown into closets which have no water-supply provided, they will, at a future day, have a mass of similar disease promulgated among their people which they ought to have prevented, and not have wasted their energies in the wrong direction.—I am, sir, your obedient servant,

Croydon, December 25th, 1880. ALFRED CARPENTER, M.D.

SUPERANNUATION OF POOR-LAW OFFICERS.

THE Local Government Board have just issued a circular to Boards of Guardians, which is of considerable importance to the members of the medical profession holding poor-law appointments. The board state that, in view of the diversity of practice which exists amongst guardians as to the superannuation allowances to poor-law officers, they have thought it necessary to lay down a definite rule, by which they will in future be guided in considering the applications that come before them. As is well-known, in many instances pensions have been granted which were quite disproportionate to the length of service of the retiring officers; whilst in some few cases, where the service has been comparatively short, and the officers have been appointed at very advanced ages, amounts have been awarded, equal to two-thirds of their salary and

emoluments, being the largest amount which could have been awarded after a period of forty years' service. In order to guard against these anomalies, the board have decided to adopt the scale settled by the legislature with regard to pensions in the Civil Service; so that the amount which may be awarded to an officer who has served with efficiency, for ten years or more, and for less than eleven years, will be an annual sum equal to ten sixtieths of his salary and emoluments at the time of his ceasing to hold office, with an addition of one-sixtieth in respect of each additional year of service, until a maximum of forty-sixtieths, or two thirds, be reached, which is the highest amount authorised by the 27th and 28th Vict. cap. 42. In the instances where, for the due and efficient discharge of the duties of certain offices, professional or other special qualifications are essential, as for example, in the case of district medical officers, and medical officers of workhouses or district schools, and where the persons having such qualifications have been appointed when beyond the age of thirty years, a number of years, not exceeding ten, may, for the purposes of the computation, be added to the number of years during which the officers have actually served. The board still leave it optional with the guardians whether, if they make a grant, it shall be on a lower basis than that above indicated, or shall be for a limited term only: which, considering the stinginess which guardians too often exhibit in the pensions of their officers is, as regards poor-law medical officers at least, much to be deplored. The circular seems, indeed, to have been conceived in an altogether wrong spirit. Because a very few boards have been too liberal in the calculation of their officers' pensions, the central authority thinks proper to lay down a maximum which it will not allow to be exceeded. To be consistent, however, and fair, the rule should surely apply, both to over-payments and under-payments; the latter notoriously, and indeed admitted in the circular to be, by far the more frequent. But whilst, as one may get more than the authorised scale, anyone may, and probably will, get less, since the guardians are in specific terms permitted to make a grant "on a lower basis than that above indicated," considering the insufficient salaries of poor-law officials, this seems to us conspicuously unfair. The least that the board should have done, would have been to direct that the scale which they authorise should be that adopted in each case of pension brought before them. Moreover, the circular leaves untouched the crying question of there being no appeal from the parsimony of guardians who decline to give an officer, in his old age, the pension which he has fairly earned by many years of hard and ill-requited labour amongst the poor. Many instances of hardship and injustice of this sort have been reported in our columns; and if the question of superannuation had been touched at all, it should have been in a generous rather than in this niggard spirit.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

NEWTON ABBOTT, WOLBOROUGH, AND DAWLISH.—This is one of the smallest "combined districts" in the country, having an area of only 112,776 acres, and a population of 36,205. For the supervision of it, Mr. Leonard Armstrong receives a salary of £400, half of which is paid by Government. The reports show that the district works satisfactorily, though it might, apparently, be extended with advantage. Mr. Armstrong has to record for 1879 slightly increased death-rates in two of the districts, due to the unusual prevalence and fatality of diseases of the respiratory organs. The proportion of deaths occurring amongst young children is satisfactorily low; in fact, at Dawlish, only 6 out of a total of 61 deaths were those of children. At the other extreme of life, 41, 30, and 44 per cent. of the deaths in the three districts respectively were amongst persons aged 60 and upwards. The zymotic death-rate has decreased, and at Dawlish was almost *nil*. A good deal of enteric fever of a more or less defined form is, however, reported; and on the occurrence of these cases Mr. Armstrong has some interesting observations. Scarlatina and measles were prevalent in certain parts of the area; and an epidemic of diphtheria occurred amongst the children attending a school in the rural district. Mr. Armstrong made careful inquiry into the circumstances, but could come to no other conclusion than that the disease had a spontaneous origin. Sanitary work seems to be proceeding rather haltingly, though some schemes of water-supply are projected.

ROTHERHITHE.—It is not easy to understand how a report for the year 1878 comes to be available only at the end of the year 1880; but the delay has evidently not been the fault of Dr. Browning. His report, though now somewhat out of date, is still interesting as a first report which gives some hitherto little known particulars about the progress of Rotherhithe. So far from now being, as it was described in the first report of the Health of Towns Commission, almost entirely unsewered, marshy, with a scanty and terribly polluted water-supply, intersected in every direction by fœtid and stagnant ditches, serving alike as water-source and cesspool, with a population of 15,000, mostly compressed into a narrow riverside street, backed generally by blind alleys and courts, amidst which offensive trades flourished unchecked,—Rotherhithe can now, according to Dr. Browning, favourably compare as to airiness, dry gravelly subsoil, cleanliness, good drainage, water-supply, and sanitary improvement, with any workmen's quarter of the metropolis. Where there was once the constant prevalence of agues, fevers, and other communicable diseases, an average death-rate of 30 per 1,000, and a fever-rate of 23 per 1,000, malarious illnesses and open ditches are now unknown; noisome trade factories are all but totally repressed; communicable disease is less fatal, as a rule, than in the neighbouring districts; and the annual death-rate and zymotic rate have, for the last decade, averaged but 18.6 and 3.6 per 1,000 respectively. Thus, while the population and density per acre have doubled, the mortality has diminished by nearly a half. The year 1878 was, on the whole, a healthy one; the birth-rate (41.5 per 1,000) being higher, and the corrected death-rate (18.8) lower, than those of the preceding year. Two outbreaks of imported typhus occurred, but were speedily checked. The number of deaths from scarlatina and other zymotic diseases was in excess of the figures for 1877; but there was a marked diminution in the proportion of deaths under one year of age, which was 33.5 per cent., against an average of 38.7. A good deal of sanitary work was accomplished during the year, and Dr. Browning seems very energetic in the performance of his duties.

ALCESTER, EVESHAM, AND STRATFORD-ON-AVON RURAL DISTRICTS.—To his ordinary annual reports for these districts, which present no unusual features, Mr. Fosbroke has added some valuable comparative statistics and general observations on the sanitary work undertaken during the last five years that he has held office. The three districts collectively contain 169,080 acres, 80 parishes, and a population of 44,059. There is no very populous place within the area, all but a very few of the parishes having populations of less than 1,000 persons. The people are mostly engaged in agriculture, but in the Alcester Union are some needle-making places. The average death-rate of the quinquennium 1875-79 varies but little in the Stratford and Evesham districts, but in the Alcester district is higher. Alcester has also the highest average infant death-rate, and by far the highest zymotic rate. The excessive infant-mortality in the Alcester district occurs in the urban portion, and particularly in the needle-making centres. The employment of female operatives in needle manufacture no doubt mainly accounts for the high mortality recorded, inasmuch as bad nursing, improper food, exposure to cold, etc., frequently fall to the lot of children whose mothers devote the greater part of the day to factory labour. The only serious prevalence of small-pox during the last five years was at Alcester in 1875, when 75 cases occurred. Measles was not specially prevalent till 1879, when it was exceptionally fatal in the Alcester Union. This union has also the highest mortality from scarlatina, the disease being principally confined to the trading portion of the district, chiefly affecting children, and mainly spreading by imperfect isolation. Scarlatina was not prevalent in the Stratford Union before 1879, when it became epidemic in several villages, and spread very largely through the medium of schools. Diphtheria has been comparatively more fatal in the Evesham district than in either of the other two. One epidemic took place in the Stratford Union in 1874-5, and two in the Alcester Union in 1877 and 1878; but, in the Evesham Union, there have been numerous outbreaks, more or less serious. Mr. Fosbroke's general views as to the causation of this disease we have already discussed on page 747. Whooping-cough was particularly fatal in 1875 in the Alcester Union. The highest death-rate from fever in the Stratford Union was in 1876; but all the cases then occurring were sporadic. The fever-rate in the Alcester district varied from .1 per 1,000 in 1877, to .7 in 1879. In the latter year, there was a serious outbreak, clearly due to the use of the polluted well-water in the town. Evesham district was free from any serious outbreak of typhoid fever during the quinquennium. The death-rate from diarrhœa has gradually declined in the Alcester district during the last four years, and is not at all excessive in the other districts. The description given of the sanitary improvements effected, shows that much good work is being done in the district. A sanitary survey has been nearly completed; a hospital, which has been of conspicuous use, has been provided for the Alcester District; immediate notice is sent to the health-officer of cases of certain infectious diseases; the system of excrement disposal has been very considerably improved; and a number of places have been sewered, or supplied with pure water.

BRIGHTON.—The vital statistics of the "queen" of watering-places have naturally a special interest attaching to them. It appears from Dr. Taaffe's report that, in 1879, the birth-rate of the municipal borough of Brighton was 29.7, against an average of 29.8. The death-rate for

the same period was 18.9 per 1,000, against an average of 20.6. Amongst the large towns, Brighton takes second place in 1879 for lowness of death-rate. Of the 1,997 deaths, 130 were those of non-residents, and 1,867 of residents. Thirty-three per cent. of the total mortality was amongst children under five years of age, 20 per cent. being in infants under one year of age. The deaths of persons aged 60 and upwards were 29.4 per cent. of the total deaths; and of persons over 80, 5.5 per cent. The seven principal zymotic diseases were represented by 151 deaths, or an annual rate of 1.4 per 1,000—the lowest for the last ten years. Diseases of the respiratory organs, including phthisis, caused 665 deaths, or a third of the total mortality. Fourteen deaths occurred from scarlet fever, 3 from diphtheria, 26 from measles, 54 from whooping-cough, and 44 from diarrhœa. Eight cases of small-pox were imported, but the disease did not spread. Somewhat late in the day, the Town Council have now resolved to erect a hospital for infectious disease; and, amongst other desiderata for the town, are a public mortuary, public slaughter-houses, and the application of the Artisans' Dwellings Act.

Craven Combined District.—Prior to his final departure for Cyprus, Dr. Barry published a considerable folio volume, containing the reports presented by him to the several sanitary authorities in the Craven district for the year 1879. These reports show—what, indeed, was already known—how energetically Dr. Barry was working in his district, and how great a loss to it his resignation will be. Certainly, we have never read any better or more practical reports than those contained in this volume; and the "combined" report on the district as a whole has been published by the Local Government Board in their ninth report, as of exceptional worth. The facts for each constituent district it would be impossible to give; but a general view of the improvements made under Dr. Barry's *régime* within the area may not be without interest. Considerable progress was made with the house-to-house survey of the district, and records of the exact sanitary condition of every house in nine of the more populous townships were completed. The drainage of four places has been completed, and plans have been prepared for three others. The water-supply of five places has been improved or extended, for a number of parish by-laws have been framed, and in two places the authority has undertaken the scavenging. Some progress has also been made in the prevention of the pollution of rivers. In speaking of the duties of sanitary authorities with regard to infectious disease, Dr. Barry says, truly enough, that the first is that of preventing its appearance. "This is a duty that never ceases. Throughout the year, a constant war has to be waged against dirt in every form; refuse must be constantly removed, the course of drains kept clear, the purity of the water drunk and the air breathed constantly ensured." The second duty is "the limitation of the disease when it has occurred, and this is beset with numerous impediments. These are (1) the difficulty of ascertaining at once the occurrence of any case; (2) the proper isolation of the case; and (3) the destruction of all infected matter at the termination of the case." On each of these matters, and on the difficulties of enforcing them, Dr. Barry has some very sound and interesting remarks. The total number of births registered in the district in 1879 was 2,188, and the number of deaths 1,390; equal to rates of 31.58 and 20.0 per 1,000. A large proportion of the deaths were due to phthisis and diseases of the respiratory organs, 151 being caused by consumption, and 328 by bronchitis, etc. The proportion was greatest in the urban districts. The healthiest districts during the year were the Settle Rural and the Skipton and Oxenhope Urban, which Dr. Barry thinks it is probably not too much to say was largely owing to the improved condition of those districts. Small-pox was entirely absent; but measles was very prevalent over the greater part of the district in the third and fourth quarters, and German measles was also prevalent. Scarlatina was epidemic in the first half of the year in the Skipton and Keighley Unions, especially at Barnoldswick, a capital report on the sanitary state of which appears in the volume. Twenty-eight deaths were ascribed to whooping-cough, but only one to diphtheria. Fever was credited with 27 deaths, but the number actually due to specific fever was considerably lower. Outbreaks of enteric fever occurred in two villages, and sporadic cases in three others. Dr. Barry's tabular statements are very complete, and his separate local reports much to the purpose. A series of five reports on the sanitary condition of individual townships are evidently modelled on the lines of those issued by the Medical Department of the Local Government Board, whose work would doubtless be enormously facilitated if such reporting as Dr. Barry's were the rule rather than the exception.

Bethnal Green.—Last year, the total number of births and deaths in Bethnal Green was 5,246 and 3,069, equal to rates of 39.3 and 23.0 per 1,000. The death-rate was precisely similar to that of 1878 and 1877, and was 0.3 less than the rate for the whole of London. Dr. Bate describes how, with all the energy of the sanitary officers, individual houses remain unhealthy and unwholesome; and says that, if people would only learn the A B C of sanitary science, keep out drain-air, and open their windows so as to let in fresh air, we should have fewer deaths and a healthier population. Of deaths from all causes, rather more than a fourth (25.5 per cent.) were those of children under one year, mostly due to bronchitis and pneumonia, atrophy and debility, convulsions, tabes mesenterica and pertussis, in the order named. The number of deaths amongst children under five years was 1,438, or 46.8 per cent. of the total deaths—2 per cent. less than in 1878. From zymotic diseases, 553 deaths were registered, 428 of which were those of young children. The death-rate from the seven principal zymotic diseases was 3.5, against 3.9 in 1878. Forty-five cases of small-pox were reported from various sources, and 34 were removed to hospital. To measles 106 deaths were referred. Scarlatina was fatal in 76 cases; diphtheria in 12; and "fever" in 56 cases, against 51 in 1878. Whooping-cough caused 147, and diarrhœa 70 deaths. The very low temperature prevailing throughout the summer accounted for the comparatively low mortality from diarrhœa. To tubercular diseases were attributed 426 deaths, of which 324 were from phthisis alone. Dr. Bate gives a long account of the various sanitary improvements effected during the year, and adds an interesting description (with plans) of the mortuary which has been erected in the old parish churchyard.

Calcutta.—Birth-registration at Calcutta is evidently in a very backward state, for the recorded birth-rate of 15 per 1,000 must be absurd. An accurate and exhaustive system of birth-registration would be necessary for carrying out compulsory vaccination. The death-rate for 1879 was above the decennial average, but below that of the two preceding years. The rates in the different sections of the town varied from 13 in one to 53.8 in another. The higher rates were naturally found in the more crowded and destitute parts, where hygienic neglect is most glaring. The death-rate amongst infants under one year, though lower than in 1878, maintained a lamentably high level, being, for all races, nearly three times as large as the English rate. Tetanus, fever, convulsions, and bowel-complaints account for nearly two-thirds of the infant deaths. Fevers caused 5,999 deaths—a figure higher than the decennial average, but below the aggregates of the two preceding years. Cholera was fatal in 1,870 cases, or 380 below the decennial average. The monthly totals present the usual rise in hot weather, depression during the rains, and elevation in cold weather. The climax was later in the year than usual. The number of cases of small-pox was only about half the aggregate of 1878; but the mortality was large. Considerable in January, it rose rapidly to a maximum in April, after which it declined to moderate numbers in July and August, and only two deaths were registered in the remaining four months of the year. Dr. Payne, the predecessor of the present health-officer, Dr. McLeod, made an inquiry, with the result of finding that 10 per cent. of the inhabitants of Calcutta were unvaccinated. He strongly urged that vaccination should be rendered compulsory in Calcutta, and practised throughout the year. It is to be hoped that the next epidemic of small-pox will find the town better prepared than the last.

Hackney.—Dr. Tripe's reputation as a sanitarian and statist is fully borne out by his report for 1879. The year was remarkable for a low death-rate, except from inflammatory affections of the lungs; for low temperatures in winter and summer, and an excessive rainfall in most months, especially in summer. The increase of the population of the district is calculated as 55,000 during the last ten years. The estimated population of the district is now 178,750, amongst whom there were 6,312 births and 3,285 deaths last year. The number of deaths was 3,285, against 3,392 in 1878. The percentage of zymotic to total deaths was 14.6, against 21.6 in 1878 and 20.3 in 1877. The deaths from constitutional and developmental causes were about the average; but 52 per cent. of the total deaths were caused by local diseases, chiefly inflammatory diseases of the lungs. The number of deaths under one year was smaller than in 1878, chiefly from the comparative absence of summer diarrhœa. There were 153 deaths of persons at the age of eighty years and upwards. Of the zymotic diseases, small-pox caused 10 deaths, and 35 cases of it were known to the sanitary department. The disease, in all instances but one, was confined to one house in a street—a result attributed by Dr. Tripe to active disinfection, speedy removal of the sick or their strict isolation, and revaccination. Measles, which has been epidemic during the last few years, caused 81 deaths. Scarlatina did not prevail so much as usual; 70 deaths being recorded, against an average of 100. Of diphtheria, 19 fatal cases were registered. Whooping-cough caused 110 deaths. Fever caused 47 deaths, against an average of 53. During the year,

51 cases of typhoid were inquired into by Dr. Tripe. Diarrhœa caused only 67 deaths, against an average of 121. In the course of some interesting observations on this subject, Dr. Tripe gives it as his opinion that summer diarrhœa is a specific disease; and he thinks there is strong evidence to show that a high temperature, continued for some time, induces a fermentative or putrefactive change in organic matter, either with or without the presence of germs or bacteria, which, being received into the body by the agency of air, water, or food, sets up this disease. A microscopic examination of the contents of the traps in water-closets, and of the air in houses, when the disease was prevalent, showed, in many instances, the presence of bacteroid forms which were absent in cold weather,

HUDDERSFIELD.—The severe and long-continued cold of the winter of 1878-9 helped to raise the mortality of Huddersfield during the first quarter of last year to 28.1 per 1,000, while the rate for the second quarter was as much as 24.8 per 1,000. During the third quarter, the mortality was only 19.6; while for the last quarter it was 20.0 per 1,000. The death-rate of the town was, therefore, 22.95 for the whole year, or 0.75 higher than the average of the two previous years. The death-rate from zymotic diseases was 2.78 per 1,000; also a fraction higher than the rates of 1878 and 1877. On the other hand, the rate of mortality from consumption and diseases of the lungs was 7.6, which, although higher than in 1878, was considerably lower than in 1877, 1876, or 1875. Scarlet fever was very prevalent, especially in the earlier part of the year. Measles began to be prevalent in the spring, and spread rapidly. The deaths were nearly all in very young children, and were principally due to lung-complications. Deaths from continued fever were 23, against 31 and 29 in 1878 and 1877. Whooping-cough caused 33 deaths; but from diarrhœa only 28 (or half the number recorded in 1878) were registered. A total of 178 cases (including 154 of scarlet fever and 16 of enteric fever) were received into the fever hospital. Had the accommodation been greater, a much larger number of beds might have been filled at one part of the year. A new pavilion has been erected for the reception of patients. The compulsory registration clause was more carefully attended to than formerly, though still, Dr. Cameron says, "leaving much to be desired". A total of 244 cases were reported, 175 of which were removed to hospital, of whom 12 died; 69 were isolated at home, of whom 16 died. The local Act has now been altered by an amending Act passed last session.

GLOUCESTERSHIRE.—Dr. Bond's reports on this combination are always interesting. From 1874 to the present time, with the exception of 1876, there has been a steady diminution of zymotic diseases; the diminution amounting, when the first and last years are compared, to nearly 40 per cent. Last year, small-pox was almost entirely absent; but measles was again prevalent, though not to so great an extent as in 1878. The cases of scarlatina were generally sporadic and mild. Whooping-cough was on the increase last year, the wave having been rising during the last five years. Whether the epidemic has yet touched its maximum point, remains, Dr. Bond says, to be seen; but it is worthy of notice, that the sequelæ of both measles and whooping-cough, falling chiefly on the lungs, are much aggravated by a general reduction of atmospheric temperature, such as has been felt during the last two winters. The mortality from diphtheritic diseases, which had fallen in 1878 to the lowest point in the five years, again rose somewhat. The continued fevers show a slight decrease on the mortality of 1878. Dr. Bond devotes some attention to the working of the Public Health (Water) Act, and the Orders of Council as to dairies, both of which seem to have been almost inoperative in the district. No works of construction of any importance were carried out during the year; but the abatement of nuisances was generally maintained with fair activity in the district. The death-rates ranged from 11.9 at Tetbury to 25.5 in the Gloucester Rural District.

ASTON RURAL DISTRICT.—Dr. Hickinbotham's report for 1879 consists mainly of a record of his personal work of inspection during the year. This shows that there are many sanitary defects in the district, which it behoves the authority to remove. The general death-rate was 15.01 per 1,000, against 17.04 in 1878. Of the total number of 356 deaths, 23 were from zymotic diseases. The infant mortality, especially at Erdington, is very unsatisfactory; but Dr. Hickinbotham promises to inquire minutely into the subject. Consumption caused 19 deaths, exclusive of the same number in the workhouse; while diseases of the respiratory organs were responsible for 84 deaths.

CHAPEL RURAL DISTRICT.—Mr. Gravely's last report mainly consists of a series of records of inspections of particular premises and places; but his long illness has doubtless prevented him from making so full a report as usual. During the year there were 272 births, or 8 less than in 1878, and 20 less than in 1877. The deaths numbered 231, or, deducting those not belonging to the district, 141, equal to a rate of 14 per 1,000, or 4 per 1,000 less than in the previous year. Zymotic diseases caused 19 deaths, including 6 from diarrhœa, 2 each from whooping-cough, measles, and diphtheria, and 3 from scarlatina.

DR. F. J. DUDLEY.—We regret to differ from Dr. Dudley, but we still cannot but consider his report as a most bald and unsatisfactory one for a town of 23,000 persons; and we cannot see any injustice in the comments made upon it. A glance at the contents of his report is sufficient to expose its deficiencies. Many medical officers are far too prone to make their annual reports perfunctory and merely statistical; and this is a bad specimen of its class. It is satisfactory to learn that in future the annual report of the borough will be made up to the end of the calendar year, so that the statistics will be more exactly comparable with those of other towns.

MEDICAL APPOINTMENTS.

DONOVAN, R. E., MD., appointed Medical Officer to the Galbally Dispensary District of the Mitchelstown Union, *vice* Michael P. O'Connor, L.K.Q.C.P.I., deceased.

MARTIN, Johnson, L.F.P.S.Glasgow, appointed Medical Officer of Health to Bolton Rural District.

NAPIER, A. D. Leith, M.D., appointed Parochial Medical Officer and Medical Officer of Health for the Parish of Innerwick, Haddingtonshire, *vice* J. S. Corvan, M.D., deceased.

STEPHENS, Thomas Palmer, L.F.P.S.G., re-elected Medical Officer to the First District and Workhouse of the Westbourne Union.

OBITUARY.

ALEXANDER JENNINGS, M.D.,

LATE SURGEON-MAJOR ROYAL ARTILLERY.

DR. JENNINGS died last week, at his residence, 46, Ulsterville Terrace, Lisburn Road, Belfast. Born at Saintfield, Co. Down, he received his education at Queen's College, Belfast, graduating in medicine in 1858. The following year, he entered the Army Medical Department, and was stationed at Mauritius for some time, being afterwards transferred to the Cape, where he published a treatise on ophthalmia, which was prevalent at the stations, and which he attributed to the want of a vegetable diet. At the Gold Coast, where he volunteered, his health became impaired; he retired from the Army, and succumbed on December 20th. Deceased was a nephew of Professor Gordon of Belfast, the well-known surgeon.

ROBERT THOMAS, L.S.A., RAWDON, LEEDS.

WE regret to record the sudden death of Mr. Robert Thomas, of Rawdon, which took place on December 2nd, 1880. Born in 1808, in Yorkshire, Mr. Thomas was actively engaged in an extensive country practice up to the very time of his death. Called up in the night, he visited a patient, returned home and seated himself in his arm-chair, where he was found dead by his household on the following morning. At the age of sixteen he was apprenticed to the late Mr. R. M. Greenhow, of Newcastle-upon-Tyne, and began to attend the practice of the infirmary in that town. Entering subsequently at University College and the Middlesex Hospital, where he saw the practice of Sir Charles Bell, he qualified as L.S.A. in 1830, and settled in practice in his native county. Mr. Thomas long took a warm interest in the work of the Association, and for many years his cheery face was to be seen at the annual meetings. He was an active member of the Bradford Medico-Chirurgical Society, President of the Rawdon Mechanics' Institute, Medical Officer to the Woodlands Convalescent Home, and Medical Officer of Health for Rawdon. Thoroughly devoted to his profession, straightforward and independent in all his dealings, energetic in his work, and kindly in his disposition, he was deservedly held in high esteem by rich and poor in his neighbourhood. His eldest son is Mr. William Thomas, F.R.C.S., Professor of Anatomy in Queen's College, Birmingham.

THE TEMPERANCE MOVEMENT.—The Royal Victoria Coffee Music Hall Tavern, Lambeth, was on Wednesday of last week formally opened by Mr. Ernest Hart. The hall was opened to the public on Boxing Day. Mr. Hart, speaking, as chairman, on behalf of the honorary directors, said their object in taking a lease of the Victoria Theatre, and laying out a very large sum of money in adding the tavern to the theatre, was to provide for the working men, and their wives, daughters, and families, a place of pleasant, healthy, and sound recreation, where there would be no temptation to drinking alcoholic liquors as part of the evening's amusement. The Victoria has been crowded to excess every evening.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 23rd, 1880.

Daniell, Charles Henry, Derby.
Gleeson, John Gerald, Cromwell Street, Belgravia.
Long, Richard Patrick, Essex House, Bow.
Verdon, Michael John, Craven Street, Charing Cross.
Wood, Edward Archer, Marlborough.
Wordley, Alfred William, Green Street, Suffolk.

The following gentlemen also on the same day passed their Primary Professional Examination.

Allwork, Frank, Westminster Hospital.
Holberton, Henry Nelson, St. Thomas's Hospital.
Murch, Alfred, St. Bartholomew's Hospital.
Potts, Walter A. W., St. Mary's Hospital.
Rodwell, John Lyndsay, Charing Cross Hospital.
Sicard, William Edgar, Charing Cross Hospital.
Voss, Francis Henry Vivian, London Hospital.
Williams, John Frederick, Charing Cross Hospital.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced :—

ANGLESEY, County of—Public Analyst. Applications, with testimonials, not later than January 1st, 1881.

BALLINROBE UNION—Medical Officer for Ballinrobe Dispensary District. Salary, £100 per annum, with £25 as Medical Officer of Health, registration and vaccination fees. Election on the 13th instant.

BLACKBURN UNION—Medical Officer to the Rishton District.

CARRICKMACROSS UNION—Medical Officer for Donaghmore Dispensary. Salary, £125 per annum, exclusive of registration and vaccination fees. Election on the 14th instant.

DORSET COUNTY ASYLUM—House-Surgeon. Salary, £70 per annum, and £10 additional as Secretary. Applications, with testimonials, to the Chairman, on or before January 12th, 1881.

GERMAN HOSPITAL, Dalston—Honorary Assistant Physician. Applications, with testimonials, to the Honorary Secretary on or before January 12th, 1881.

GRANARD UNION—Medical Officer for Granard Dispensary District. Salary, £100 per annum, with £16 per annum as Medical Officer of Health, registration and vaccination fees. Election on the 1st January, 1881.

LEEDS UNION—Medical Superintendent to the Infirmary. Salary, £300 per annum, with unfurnished house, gas, coals, etc. Applications, with testimonials, on or before January 3rd.

LISNAKEA UNION—Medical Officer for Brookeborough Dispensary District. Salary, £115 per annum, with £15 as Medical Officer of Health, registration and vaccination fees. Election on the 4th instant.

*LONDON LOCK HOSPITAL, 91, Dean Street, Soho.—House-Surgeon. Salary, £50 per annum, with board, residence, and washing. Applications, with testimonials, to the Secretary, on or before January 15th.

LOUTH UNION.—Medical Officer to Louth District and Workhouse. Salary, £100 per annum.

*MACCLESFIELD GENERAL INFIRMARY—Junior House Surgeon. Salary, £70 per annum, with board and residence in the Infirmary. Applications on or before January 1st, 1881.

*MANCHESTER ROYAL INFIRMARY—Resident Medical Officer for the Convalescent Hospital at Cheadle. Salary, £150 per annum, with board and residence. Applications, with testimonials, on or before January 22nd, 1881.

MOUNTMELLICK UNION—Medical Officer for Coolran Dispensary District. Salary, £90 per annum, with £15 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 10th January, 1881.

NOTTINGHAM DISPENSARY—Resident Surgeon. Salary, £200 per annum, with furnished apartments, gas, and coals. Applications, with testimonials, on or before December 20th; election January 3rd, 1881.

*ROYAL HANTS COUNTY HOSPITAL—House-Surgeon and Secretary. Salary, £100 per annum, with board and lodging. Applications, with testimonials, to the Secretary, before January 5th.

RYDE, Borough of—Medical Officer of Health.

ST. ASAPH UNION—Medical Officer to the Llanfair District.

TOBERCURRY UNION—Medical Officer for Workhouse, at a salary of £60 per annum, and £20 yearly as Consulting Medical Officer of Health. Election on January 3rd, 1881.

UNIVERSITY OF EDINBURGH—An additional Examiner of Pathology. Applications and testimonials to the Secretary not later than January 17th, 1881.

VICTORIA HOSPITAL FOR SICK CHILDREN—Medical and Surgical Registrar. Honorarium of sixty guineas per annum. Applications, with testimonials, on or before January 3rd.

WALLASEY DISPENSARY—House-Surgeon. Salary, £140 per annum, with furnished residence, coals, and gas. Applications, with testimonials, to the Honorary Secretary, on or before January 7th, 1881.

WOLVERHAMPTON FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION—Resident Medical Officer. Applications, with testimonials, not later than February 1st, 1881.

MEDICAL APPOINTMENTS.

BATTLE, W. H., F.R.C.S., appointed Surgical Registrar to St. Thomas's Hospital, *vice* H. P. Potter, F.R.C.S.

BENTHALL, Winfred, M.R.C.S.Eng., appointed House-Surgeon to the Derbyshire General Infirmary, *vice* C. H. Hough, M.R.C.S.Eng., resigned.

BURROWS, W. S., L.D.S.R.C.S., appointed Dental Surgeon to the North-West London Hospital.

EVERARD, H. N., M.B., appointed House-Surgeon and Apothecary to the Leicester Infirmary and Fever Hospital, *vice* C. A. Moore, M.B., resigned.

HINE, J. E., M.B., appointed Junior Resident Medical Officer to the Radcliffe Infirmary, *vice* A. R. Oxley, M.R.C.S., resigned.

MASSIAH, B. J., M.D., appointed Physician to the General Hospital and Dispensary for Children, Pendlebury, Manchester.

MURRELL, William, M.D., appointed Extra Physician to the North-West London Hospital.

PADDISON, Edmund H., M.B., Junior Assistant Medical Officer to the Surrey County Lunatic Asylum, *vice* E. Hosking, M.R.C.S.Eng., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

SKRIMSHIRE.—On the 20th December, at Clydach Villa, near Abergavenny, the wife of Charles Parnham Skrimshire, of a daughter, Elsie Maud.

WOLSTON.—At 46, Charlotte Square, Edinburgh, on December 19th, the wife of Walter T. P. Wolston, M.D., of a son (stillborn).

MARRIAGE.

ALLEN—HAYES.—On December 21st, at Kilcully Church, by the Rev. D. O. Brien, William Henry Allen, L.R.C.S. and L.R.C.P.(Edin.), Army Medical Department eldest son of Atwell Hayes Allen, Esq., of Seaview, Queenstown, to Sarah Alice, only daughter of the late William Hayes, Esq., of Kilcully House, Cork.

Dr. Duplay, an *agrégé* of the Faculty of Paris, and Surgeon to the Lariboisière Hospital, has been appointed to the Professorship of Surgery, to fill the vacancy caused by the death of Dr. Paul Broca.

THE death is reported of Mr. Charles Roe, L.R.C.S.I., aged 24, which took place at Government House, Cape Coast Castle, in November last. Mr. Roe served through the Russo-Turkish and Zulu wars, and was decorated with the Turkish war medal.

PRINCE LEOPOLD will preside at the annual festival dinner in aid of the funds of University College Hospital, on the 20th of May next, at Willis's Rooms.

VACCINATION.—Mr. J. R. Clouting has been awarded the extra grant for successful vaccination in his district of the Thetford Union, for the second time.—Dr. G. R. Barnes, of Ewell, Surrey, has received £4 13s. (fourth award) for efficient vaccination in his district of the Epsom Union.

APPEARANCES IN BLOOD AFTER STARVATION.—DR. P. H. Van der Weyde (*Medical Tribune*, August 15th, 1880), says that he examined the blood of Dr. Tanner at or near the conclusion of his fast. He had expected to find the corpuscles normal in appearance, but fewer in number; in this he was mistaken. There was scarcely a sound corpuscle in the blood examined. Instead of showing the normal round flat discs, with a depression in the centre, and of an average diameter of one thirty-six hundredth part of an inch, they were diminished in size so as scarcely to measure one forty-five hundredth part of an inch in diameter. They had a ragged irregular appearance, and were covered with fungoid spores over their whole surface. The length of the spores averaged about one tenth of the diameter of the corpuscle, or about one fifty thousandth part of an inch in diameter or length. None of the corpuscles were smooth; all had somewhat of the jagged appearance that blood corpuscles have when dried upon the slide. But these were examined while still floating in the blood-plasma, and had not had a chance to dry. The ragged discs were examined with a Hartnack number ten immersion-objective. It appeared that those corpuscles that were most nearly covered with the spores, were the most shrunken, thus rather favouring the idea that the parasitical growth flourished at the expense of the corpuscle itself. The number of white corpuscles at the end of the fast was about one in one hundred, while, at the end of three days after breaking the fast, the number was nearly normal. At the third day after the fast the red corpuscles were in much better health, only about ten per cent. appearing at all damaged, and only about two per cent. showing the fungoid spores. It is not alleged that these pathological appearances are new. On the contrary, similar appearances are found in the blood of typhus fever patients, in the blood of persons dying from consumption, and in the blood of persons of a decided scrofulous taint, but in a smaller proportion than was found in Tanner's case.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th. S., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Pathological Society of London, 8.30 P.M. Annual General Meeting. The President, 1. Rheumatism and Gout in the same Subject; 2. Diseased Kidneys from a Pig. Dr. Thin, On the Pathological Histology of Molluscum Contagiosum. Dr. Radcliffe Crocker, Molluscum Contagiosum. Dr. F. Taylor, Obstruction of Mesenteric Artery and Vein. Mr. McCarthy, Case of Strangulated Hernia. Mr. Cripps, Recurrent Multiple Sarcoma. Dr. Ormerod, Enlargement of the Median Nerve (living specimen). Dr. Burnet, Calcareous Aorta (card). The Secretary (for Mr. Devis of Hereford), Acute Inflammation of Muscle. Annual report of the Council. Election of officers, etc.

THURSDAY.—Harveian Society of London, 8.30 P.M. Annual meeting and President's Address.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE CONTAGIOUS DISEASES ACTS.

SIR,—My attention was drawn last Friday to a paragraph, in your impression of the 27th Nov., headed "The Contagious Diseases Acts at Colchester", in which these words occur: "The courageous and public spirited course pursued by Mr. Laver, in exposing the misstatements in which these 'deputations' are wont to indulge, has had the satisfactory result of showing that, when the true facts are put before audiences, even of a mixed class, the result is the utter discomfiture of the agitators". At the public meeting referred to, I was the "deputation"; but permit me to say, my statements were not contradicted or discussed by Mr. Laver or Dr. Wallace, but supplemented by the figures you publish, with other matter, so that no attempt was made in the direction of "exposing the misstatements". That I made a misstatement or exaggeration, I emphatically deny; and, with all respect, I protest against this insinuation as to my veracity. "The true facts", if put comprehensively before any audience, whether professional or lay, would greatly astonish many of the friends of these Acts, and would, I am confident, clearly convince all intelligent minds of the complete failure of the system. They are, in the "protected stations", briefly as follows. 1. As to primaries—a very much greater annual average improvement before the passing of the Acts than since their full application. 2. As to secondaries—(the admissions to hospital not being published for the separate sets of stations) the constantly sick have increased, but chiefly in the "protected stations", since the Royal Commission reported, in 1871, that there was "no distinct evidence" of the success of the Acts. 3. As to gonorrhœa—the Army Medical Report distinctly admits that no benefit has accrued from the Acts. The pleas set up for single stations, small bodies of troops, and short periods, when examined and compared with counter cases, break down entirely. The detailed proofs of the above, with authorities, I will gladly supply, either privately to any medical gentleman, or for publication in your valuable JOURNAL. In the local prints, I have invited and requested the gentlemen mentioned above to meet me for fair, equal, and exhaustive discussion of this important question.—I am, sir, very faithfully yours, J. H. LYNN.

5, Osborne Road, Forest Gate, Essex, December 14th, 1880.

*** Our correspondent claims to have been himself "a deputation" to the meeting lately held at Colchester concerning the Contagious Diseases Acts. If he produced no better evidence than the three statements contained in his letter, we do not wonder that the good people of Colchester declined to discuss them, as the absurd variance from the truth of similar assertions has been exposed time after time in this JOURNAL, as well as elsewhere.

MEDICAL MEN AND THEIR BILLS.

SIR,—I beg to enclose you a paragraph, which I have cut out of the *Leeds Express*, for yesterday, for your perusal. It is as follows:

"At the Oldham County Court, a curious point was raised. Dr. Thomson sued a person for professional attendance. The judge looking at the bill, said no items were furnished. Dr. Thomson replied that it was not the habit of the profession to supply items. The judge replied that the items ought to be supplied, else how could a man tell whether he had had the medicine and attendance or not. His Honour allowed only one-half of the amount claimed."

I think you will agree with Dr. Thomson, that "it is not the habit of the profession to supply items," unless asked for by the dissatisfied patient; but I am at a loss to understand how the judge came to decide on allowing only half the costs.—I am etc. PARS PRO TOTO.

Leeds, December 9th 1880.

*** We agree with our correspondent "Pars pro toto," that it is difficult to understand the grounds on which the judge based his decision. If the claim was beyond the means of the party sued, it should have been so stated in the judgment. County Court judges very frequently assume towards medical claimants a sort of slipshod mode of procedure, mainly as the humour moves them. To our knowledge, every variety of conclusion is come to in giving judgment. Some say all the items must be supplied; others are bored by having to read them. Our profession is oftentimes blamed for its difference of opinion as to the most abstruse points that can engage the mind of man. Lawyers, and the outcomes thereof, County Court and other judges, are permitted, to the injury of suitors, to differ indefinitely on what appears to outsiders to be no more than the merest moonshine; but then such differences of opinion carry costs. Shall we ever arrive at a rational mode of dealing with the matter?

CREMATION OF DISEASED CATTLE.

SIR,—I am glad the investigations of Pasteur has called forth an article in this week's JOURNAL on the danger to health and life from the present mode of disposing of the carcases of diseased cattle; and in which cremation is advocated instead of interment. Fourteen years ago, when the cattle-plague raged in Cheshire and other parts of the country, and diseased animals were being buried by thousands, I called (through the press) the attention of the cattle-plague commissioners to the dangers.

I hope the more scientific evidence of Pasteur, Lord, and Mr. Spencer Wells, will induce the authorities to forbid the burial of slaughtered or dead cattle, and order their cremation; preventing the probable infection of future generations.

It has occurred to me that, until proper means for cremation are supplied, the gas-works of town could be made available, by severing the animals into pieces and throwing them into the retorts, when almost instant combustion would take place, and the products be utilised.—I am, etc, R. BEALES, M.D.

Congleton, 25th December, 1880.

NASO-PHARYNGEAL CATARRH.

SIR,—Having seen a good many cases of naso-pharyngeal catarrh, and having had the troublesome complaint myself, I recommend "A Suffering Member" to have a Turkish bath, and then take 10 to 15 drops of hydrobromic acid three times a-day in a glass of cold water. C. G. LOCKE, M.D., late Royal Horse Guards.

47, Queensborough Terrace, Kensington Gardens.

SIR,—If your correspondent in last week's number, signing himself "A Suffering Member" from naso-pharyngeal catarrh, will communicate with Dr. Ball, he will have pleasure in recommending a non medical treatment, which enables him (a bronchitic sufferer) to venture out this winter and defy even the north and east winds.

Spalding, 20th December, 1880.

The University of London.

SIR,—May I point out, through the columns of the BRITISH MEDICAL JOURNAL, a way by which the University of London might increase its sphere of usefulness? There are thousands of medical men now in practice, who, from some trivial cause, generally from absence of wise directions of study at the commencement of the curriculum, are unable to obtain a degree in medicine or surgery. Whatever the accomplishments, however brilliant the talents, of men whose misfortune it is to possess only a licence to practise, they are consigned to the regions of mediocrity, from which they can never rise. This is, in my opinion, a very great hardship; and the only source to which we can look for help is the University of London. This University already grants degrees in arts, etc., to anyone who is able to pass its examinations. No residence or prescribed course of study is required. While, for an obvious reason, I do not think it would be wise to place medical degrees on precisely the same footing as arts degrees, I do think that fully qualified practitioners ought to be admitted, by virtue of their qualifications, to the examinations. I would not lower the status of these examinations. I would insist on candidates passing the matriculation and the preliminary scientific examinations as under the present regulations; but I would admit candidates who are already qualified, and who have necessarily had a proper medical education, to the examinations for the M.D., etc., without insisting on the production of certificates of attendance on lectures, etc., subsequent to the passing of the matriculation examination. If the London University authorities would put into effect some such scheme as the one I have roughly sketched out, a great injustice to a large section of the medical profession would be removed. The knowledge that, by dint of hard work and perseverance, the possibility of obtaining a high degree was open to him would act as a powerful stimulus to many a licentiate who, in the present order of things, simply vegetates. There would be new life infused into the profession, and the general public would be large gainers. Many students who flock to the Scotch universities would stay at home, and the University of London would be what its name implies.—Yours faithfully,

E. D. M.

School-Ships; Convalescent Yachts.

SIR, Your remarks in the JOURNAL of December 4th, respecting school-ships for weakly children of the middle classes, induces me to send you a proposition which for some time I have wished to carry out could I get anyone to co-operate with me. Had I the means, I would do it entirely on my own responsibility, as I feel convinced it could be carried out without loss, and pay for itself. I have no doubt you have felt, as I have sometimes, a wish for a short sea-trip as a release from too great stress of business; and also, in many instances, what a benefit it would be to our children patients, could the parents afford it. The opportunity has now occurred when I could carry it out, as I have given up my appointment as the Resident Physician Superintendent of Kingsdown House, and have retired from active practice. I intend taking a house in the spring, taking the care of two or three lady patients; and should have ample time to carry out and organise the scheme of which I have long seen the necessity, and wished to carry out, which, to state briefly, is this: to fit up a convalescent yacht of about 200 or 300 tons, schooner rigged, a safe sea-boat, with small draught of water, not a steamer; take monthly trips with sickly, or unhealthy, or convalescent children in the summer, on our own coast or the French; in the winter, to Madeira, and cruise about the Cape Verd Islands to Rio and the tropics—but try the summer trips first. Having been much at sea, and in my last trip a two years' voyage with a consumptive patient, I would undertake the practical part of fitting the vessel out, and finding the crew, etc.

Now, may I ask your opinion about the matter: Is it very visionary? There are many convalescent homes well patronised in England, and hospitals for children; would not such a scheme as this be equally beneficial in giving both health and pleasure? I think I could point out to you the schooling would not answer; and there are many other things, which only an interview could explain. Excuse my intruding so much on your valuable space.—Yours faithfully,

Bungay, Suffolk, December 15th, 1880. JAS. GARDNER.

Medical Etiquette.

SIR,—A. B. and C. D. are surgeons to a small country hospital. A patient was admitted ten weeks since for a deep and extensive scald. Not recovering as quickly as he thought he ought, he discharged himself, contrary to the wish expressed on his bed-ticket by A. B. The patient returns to the hospital after one day's interval (Sunday), and is readmitted under the care of C. D., who is perfectly aware of the patient's having been under A. B.'s care. Is C. D., committing a breach of etiquette in so doing, or not? A. B. and his other colleagues have lodged a protest with the committee for readmitting the patient.—Yours, etc., E. F.

*** (1) With reference to this matter, it is, so far as we know, quite contrary to the practice in British hospitals that a patient should have the option of changing his medical attendant in the hospital. It is unheard of that a patient should be allowed to discharge himself uncure', contrary to the wishes of his medical attendant, and to re-enter to place himself under the charge of another. Such conduct must be utterly destructive to good order and the good conduct of any public institution, nor is there any knowledge or any precedent, either for the rule or for the course pursued. The medical staff should, we think, make a representation to the board of governors that the rule is a mischievous and obnoxious one, and should be repealed. The Committee should be asked to resent this mischievous and obnoxious rule. (2) C. D. should be asked to make a statement of his view of the facts of the case, and what were his reasons for accepting charge of the patients under the circumstances. (3) It would be well to await the result of representations to the committee before taking any further action.

Paraffin Splints.

SIR,—On turning to the *Medical Times and Gazette*, November 3rd, 1866, I find Dr. Lawson's observations in reply to Dr. Glaister verified. Hence the introduction of paraffin as a material for stiff bandages is clearly due to him. His method of preparation, and the vehicle used are, however, different from mine, as may be seen by reference to the *Glasgow Medical Journal*, August 1880.—Yours truly,

73, Bath Street, Glasgow, Dec. 20th, 1880. WILLIAM MACEWEN.

Hereditary Twins.

SIR,—I attended in labour yesterday a Mrs. H., who had been previously confined prematurely of a seven months' child. She gave birth yesterday to twins; and the notable facts, that I think worthy of communication, are, that she herself is one of twins; that her maternal grandmother had eighteen children, in which were included three sets of twins; and that her husband's mother bore twenty-two children, including one set of twins. Mrs. H. said that her mother might, perhaps, have had more children, but that her father deserted her when comparatively young. Thinking these facts are worthy of insertion in the JOURNAL, I remain, sir, your obedient servant, H. A. LATIMER.

General Practitioners in Ireland.

SIR,—In the BRITISH MEDICAL JOURNAL of December 18th, 1880, it is stated that, "practically, there are no general practitioners in Ireland". In the city of Dublin, there are about forty duly qualified medical men who practise medicine, surgery, and midwifery, compound medicines for their patients, and for the most part keep open surgeries. Each city and town throughout Ireland has its number of such men proportionate to the inhabitants. With very few exceptions, they hold double qualifications, and are all well educated and perfectly competent men. Some forty years ago, men of this class were simply licentiates of the Hall, who compounded the prescriptions of others, and retailed drugs generally. This is now altogether changed; the requirements of the public, and greater educational facilities have made the alteration. There is no such thing in Ireland as a pure consultant. Mr. Carmichael, who died thirty-five years ago, was the last.

On the subject of the much-disputed title of "Doctor", we are all here "Doctors". The veriest tyro just from school, the moment he touches physic in any grade is *ipso facto* by the people dubbed Doctor, and so respected.—I am, etc.,

G. M. P.

Suggestions regarding Medical Practice.

SIR,—Dr. Potter has called attention in the JOURNAL to a very important matter with regard to medical practitioners. That the present condition of things wants changing, no one can deny; but it is very questionable whether the suggestions made are equal to the occasion. No doubt they are in good faith, but it requires great judgment to deal with old habits, and means simply great experience with what has been going on in the medical world during the last century.

The suggestions made in the third paragraph are very vague, and point to the fact that the writer is more a theorist than a practical man. That dispensing by medical men in cities should be done away with, is right enough. In the suburbs, and in the country, this cannot be done so well hurriedly.

The professional fee must depend, in the first instance, upon the status of the medical attendant himself; and in the second, upon the capacity of the patient to pay such fees. The diminution of professional visits, suggested by the writer, for the sake of the patient's pocket and the doctor's time, might be useful; but experienced medical men know well that the doctor's visit, in many cases, does more to improve the patient's condition than the medicine he prescribes; indeed, often his visit is looked upon as the event of the day, and the comfort afforded by the reassurance as to the condition of his case, added to a little friendly advice on domestic, and not unfrequently legal, matters, sought for either by the patient himself or his friends, tends much to quiet the mind; and this aids the medical adviser in his efforts to restore the patient to health. Hence the idea of lessening the number of visits, except in special cases, is a great mistake.

The suggestions made in paragraphs 4, 5, and 6 require no comment whatever; they are simply wordy quotations of the theorist. That a public body, like the British Medical Association, should take this matter in hand, and discuss it fairly and fully, is a question beyond doubt. The importance of discussing the whole matter is pertinent. This must be done, however, by no local Branch, but by the whole profession; and in such a way, by practical men, must lead to permanent good results. A rectification of old standing customs and habits is a matter to be dealt with rather by old and experienced practitioners than by those who have had less time to travel over the same ground. Their intentions are good, but their judgment is not sufficiently matured to enable them to deal so well with such an important subject.

These remarks, I hope, will, through the medium of your able JOURNAL, lead to a thorough discussion of the whole subject.—I enclose my card, and remain, yours truly, SENEX.

The Influence of Jaborandi on Lactation.

SIR,—In the JOURNAL of December 11th, page 951, is a paragraph on the action of jaborandi upon the "flow of milk", together with a case treated successfully by it. Having a similar case under my care, and wishing to try the drug, I should feel obliged if "Sceptic" would kindly inform me: (1) When he commences his treatment, if before or after the confinement? (2) What dose he gives to commence with? (3) How long before the milk is secreted after commencing the treatment?—I remain, faithfully yours, J. L. D.

Chester, December 20th, 1880.

The Abolition of Dispensing.

SIR,—I think many of your readers will agree, that one of the most tiresome tasks entailed upon them is the dispensing of their medicines after returning from a round of visits; even when one's practice is sufficiently large to require the assistance of a dispenser, it is necessary to keep a watchful eye on the drug bills, and upon him; and when a suitable man leaves his situation, it is frequently difficult to replace him.

It has occurred to me that, in these days of co-operation, if the medical practitioners of a town or district were to combine, all the dispensing at their own residences might be got rid of. A small committee should be formed, and suitable premises engaged in a central spot, a dispensary established, and all the practitioners advised to prescribe for their patients, and request them to send the prescription to the dispensary to be "put up". Hitherto one of the obstacles to a general practitioner prescribing has been the expense entailed by so doing upon the patient, many druggists charging eightpence or a shilling for dispensing a prescription; but by all the medical men in the neighbourhood sending their prescriptions to the dispensary, a cost of fourpence would be sufficient; and when in working order, a less charge would probably suffice,—enough to cover cost of drugs and working expenses. If at the end of a year a balance remained, the cost of dispensing the prescriptions could be lessened, as it would be no part of the committee's duty to make a profit; on the contrary, the less cost the dispensary could be worked at the better, as it would induce patients to send their prescriptions. Of course many little details would have to be attended to, such as no prescription being dispensed a second time unless the medical attendant had so ordered; in chronic cases sufficient medicine could be ordered for seven, ten, or fourteen days, just as the prescriber thought proper.

Such a plan, properly carried out, would do much to elevate the profession. It would show the public we charged for services, not for drugs; would give more time for recreation, and, what is even a greater necessity, more time for study; there would be no poor little errand-boy going out with medicine wanted in a hurry and stopping on the way to play; no dirty bottles lying about to be washed or to be broken; no hampers to be packed up and sent away with empties, no fingers burnt with sealing wax, and the doctor smelling like a drug-shop. A knowledge of practical pharmacy is absolutely necessary, but our pupils could be taught it much better in a good pharmaceutical establishment, where the superintendent devotes his whole time to it, than in the surgery of yours obediently,

December 22nd, 1880. A GENERAL PRACTITIONER.

Small-Pox.

SIR,—In reference to the recent small-pox returns, I cannot but think that much might be done against small-pox by more stringent isolation and disinfection. May I call your attention to two recent cases in this parish?

H. W., age 26, died on November 2nd, and was buried on the 5th, after a week's illness from small-pox. He had lived in a four-roomed house; there were five adults in it, and a boy of ten years. Some disinfecting fluid was sprinkled about the house, and sulphur was burnt in the room in which the woman died. This was the only disinfection to which the bedding was subjected, and the flock mattress was not unpicked. The disinfector said his ovens were out of order. The boy was attacked on the 14th, and I urged isolation; but the parents provided themselves with a certificate from the medical man in charge of the case, stating that this was not a case of necessary removal. Our medical officer of health was powerless to act without a certificate from the medical man to the effect that the boy could be removed without danger. I obtained this certificate on the 16th, and on the next day the ambulance was sent; but the parents took their stand on the first certificate, and revoked the verbal permission for removal which I had obtained from them. I visited the house on the 26th, and found the boy convalescent, and his mother pursuing her business of dressmaking. There had not then been any second disinfection.

In another case, a boy of two years old was attacked. The grandmother went to the medical officer of health to get him removed, but he was unable to interfere, as Highgate refuses to admit a child under six years, so he referred her to the relieving officer. The relieving officer refused to remove the case because they were not paupers. After two days, through the help of a guardian, the case was removed by the parish. There were six other children in the house,—in this case one of three rooms.—I am, Sir, yours obediently,

JAMES MAHOMED,
December 17th, 1880. Curate of S. Philip's, Stepney.

Easy Tests for Arsenic in Fabrics.

SIR,—I notice that, under this heading, an editorial comment is made in last week's JOURNAL on a communication by Dr. Henry Barnes to the *Practitioner*. The test he recommends is a very good one, and I have been in the habit of applying it to suspected articles for some time past, having first learnt its application from that valuable little work of the late Dr. Tanner's, entitled *Memoranda on Poisons* (edition of 1878, page 61). I give the directions as contained in Dr. Tanner's book. "A simple method for roughly detecting arsenic of copper in these fabrics is as follows. A small portion of the suspected material is to be put into a test-tube with strong ammonia. If a blue tint be produced, a salt of copper is shown to be present. Withdraw the object, and drop a small piece of ordinary caustic (nitrate of silver) into the ammonia; if arsenic be there, the nitrate of silver will be covered with a yellow coating of arsenite of silver, which will disappear on stirring." The test-tube recommended in the above extract is rather better than the plate or saucer which is often used instead. I have used this test to detect the presence of arsenic in a wall-paper in my own house. In the early part of this year, I suffered for some time from dyspeptic symptoms (colicky pains, nausea, and loss of appetite), and frontal headache. It occurred to me one day that my troubles might be caused by arsenic, and on testing the paper in my dining-room, by the above described plan (corroborating the test later on by others), I found it loaded with the poison. The walls were stripped and repapered, and my health returned.—I am, etc. H. A. LATIMER.

Swansea, December 22nd, 1880.

"Crab-Yaws" in Jamaica—What is It?

SIR,—The following, somewhat novel case, is, I think, of sufficient interest to deserve a place in the BRITISH MEDICAL JOURNAL. At a negro settlement, about nine miles from Kingston, Jamaica, a brown man, named Samuel Racket, suffering from "Crab-Yaws", placed himself under the especial treatment of a black man, named Joseph Samuels, who professed to cure such cases. The evidence of this "Crab-Yaws" doctor, given at the inquest, speaks for itself.

The *post mortem* examination, which I performed a few hours after death, conclusively proved that the man died from embolism; a large clot being found, blocking up the pulmonary artery. The man (light-brown in colour) presented a most extraordinary mottled appearance; just like veined marble, every superficial vein was visibly mapped out and gorged with blood. The viscera were all more or less congested, and the heart was exceedingly fatty. I had no hesitation in stating, that I considered the very trying ordeal to which the man was subjected contributed to his death, having in view his condition. Racket was an intemperate anæmic man, with a very fatty, weak heart. He was made to sit on a chair for five days and nights, with tapes tied tightly below both knees, with his feet immersed in hot fluid. A coal-fire was constantly kept up, to prevent the fluid from becoming cold. He ate his meals, attended to the calls of nature, and slept in the chair; never, for one moment, taking his feet out of the pot. At the end of the five days, his feet were rubbed with salt and lime-juice. He was suddenly placed in the upright position, and, the tapes from the legs being cut, he was made to walk. His sudden death was not at all an extraordinary event, under all the circumstances. With regard to the "Crab-Yaws," a few words here will not be out of place. The perpetuation of an error is often the means of establishing what may be called a *false* fact. Dr. James Maxwell, in his prize-essay on Yaws, written as far back as 1839, says "'Crab Yaws' is an affection of the soles of the feet, occurring as sequelæ of the disease "(Frambœsia), and others, who have written on the subject since, content themselves with quoting his opinion. Now, I have seen a good deal of this so-called "Crab-Yaws," as well as "Frambœsia," and I have never been able to connect one with the other. My last case was a well-to-do Barbadean (black), who had never had "Frambæsia". It was a typical case of "Crab-Yaws". He was being treated by an old woman, with salt pork locally applied, which of course was doing much harm. I poulticed the feet, and applied strong carbolic acid lotion, and, after a time, iodoform, which in a few weeks apparently cured him. In "Crab-Yaws", the soles of the feet swell and crack. The fissures often radiate from a centre, exuding a creamy ichor. The edges of these cracks are everted and ragged. In bad cases, the whole foot becomes hypertrophied, never returning to its natural size, and the ulcerated mass assumes an anæsthetic character. The toes, in time, become involved, and sometimes ulcerate and fall off. The cuticle becomes so thick, that I have seen negroes pare off deep slices, without reaching any sensitive structure. All this would lead me to associate the disease, with anæsthetic leprosy, than with "Frambœsia". In making these observations on an affection, which does not appear to have attracted the attention of many writers on African diseases, I shall be glad, if I can induce others to throw some light on a disease, which, in Jamaica, seems to be handed over, in ninety nine cases out of one hundred, to the "Yaws-Doctor" and his oleati jet. Yours faithfully,

Monathie, Jamaica, Sept. 1880. JASPER CARGILL, M.D.

Deaths from Alcoholism.

SIR,—It has often occurred to me that we are at a loss for suitable terms in which to certify the cause of death when it has been caused by alcohol. In giving certificates to friends of deceased persons whose sad end has been brought about by intemperance, we do not like to put "chronic alcoholism", and have to resort to "cirrhosis", "Bright's disease", etc., when our consciences suggest "brandy", "whiskey", or "gin". I am sure, if we had some technical term to express death from such causes, the total deaths registered from drink would be greatly augmented, and the death-register be made more complete.—I am, etc., MEMB. B. M. A.

IN consequence of press of matter, Dr. A. P. Stewart's letter is postponed till next week.

DR. STALLARD (San Francisco).—The extract sent is only an ordinary example of the sort of sensational fallacies with which his subject is often surrounded. A prick may cause tetanus, supposing that the child died of tetanus, or a silent injury of any kind. Some will pretend to doubt that it is possible such a case may occur, but against it may be set the saving of life of untold thousands and for the protection of great cities from a pestilential plague, which in former times was an abiding pest of civilized communities, is only kept in check by the prophylactic practice of vaccination.

Tight Rings.

SIR,—May I add one other suggestion to those on the above subject in the JOURNAL of the 18th inst? The quickest and easiest way of getting off a tight ring is by means of a pair of bone-forceps. Many of the cases which come under notice are those in which girls have put on common rings, and, therefore, there is no harm in cutting them; but if it be a valuable ring it generally requires enlarging, and must be cut on or off the finger.

The process of filing a ring is tedious and painful, not to say awkward; the use of the bone forceps instantaneous.

Besides the pain to which the patient is put to, the time of the surgeon is more valuable. The ring can be reunited by a jeweller for a few pence. J. PARETTE.

A Favourable Opening.

A CORRESPONDENT writes: There is a most favourable opening for an energetic medical man, to reside in Charlwood, Surrey, equidistant from Horley and Crawley. The parish numbers 1,500 inhabitants, about 600 of whom live in or close to, the village. There are two churches, three clergymen, and good society. The nearest medical man is four miles off. A gentleman, well-qualified, with some means, would, after a time, secure a good practice, embracing within an area of sixteen miles, parts of Sidlow, Leigh, Newdigate, Rusper, Ifield, and Lowfield Heath. Many residents in Charlwood would willingly supply particulars on *personal* application. There is now vacant a small house, with stabling, low rented, and conveniently and pleasantly situate.

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BOOKS, ETC., RECEIVED.

Structural Anatomy of the Female Pelvic Floor. By D. B. Hart, M.D. Edinburgh: Machlachlan and Stewart. 1880.

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HARVEIAN LECTURES

ON THE

PROGNOSIS AND TREATMENT OF CHRONIC DISEASES OF THE CHEST IN RELATION TO MODERN PATHOLOGY.

Delivered at the Harveian Society of London.

By JAMES E. POLLOCK, M.D., F.R.C.P.,
Senior Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

LECTURE I.—(*Concluded.*)

Inflammation and *localisation* of disease are, then, the two propositions at which we have arrived in the teaching of the modern school. Phthisis is constitutionally a chronic inflammatory disease with intercurrent simple forms of inflammation, which, in some cases, heal by cicatrisation. Miliary tubercle is an occasional and secondary element, which never heals, but undergoes only necrotic changes. Scrofulous inflammation consists in an abundant proliferation of cells pressed together in glands, which die, and the contents become caseous and form infecting foci which develop phthisical diseases.

The well-known experiments of Villemin, by which he produced tubercle in certain animals (the rodentia) by the inoculation of tuberculous matters, have raised the question whether a like result cannot be produced in man. But the tubercle so formed is not identical with human tubercle; and septic matters of any foreign origin, so introduced, will produce a similar product. It is believed, then, that scrofulous persons are only self-infecting in the mode I have described.

A remarkable series of experiments, however, bearing on this question have lately been published in Virchow's *Archiv*, and were made by Tappeiner. His object was to ascertain whether the poison of scrofula is identical with that of phthisis. He caused dogs to inhale scrofulous matter taken from a boy in atomised spray daily for a quarter of an hour for about ten days. He also performed a similar experiment on other dogs, substituting for the pus from a scrofulous gland the sputa of a phthisical person. The animals were killed twenty-three days later. In the two dogs treated with phthisical sputa, tubercular nodules were found in both lungs and spleen, their nature being verified by microscopical examination. The dogs treated with gland-pus were found free from tubercle, as were also two other dogs similarly treated, and killed on the 29th day. Other dogs treated with the sputa from simple chronic bronchitis were found to be free from tubercle on the twenty-eighth day. The period of incubation, from the commencement of the inhalation until tubercles were distinct in the lungs, was also investigated. One dog was killed on the thirteenth day after, and no tubercle was found, although he had coughed, and wasted three-quarters of a pound in weight. In another dog, killed on the nineteenth day of the experiment, no tubercle was found. In others so treated, and killed after three months, abundant tubercles were found in lungs and pleura. Tappeiner concludes that the inhalation of phthisical sputa by dogs produces tubercle in the lungs; that the incubation period is more than nineteen, and under twenty-three, days; that the inhalation of scrofulous-caseous pus produces no infection; nor does the sputa of chronic bronchitis. As has been remarked by the *Lancet*, from which I borrow this notice, "these observations constitute experimental confirmation of the infection of phthisis; but the experiments have hitherto been too few to permit of our accepting the doctrines as proved.

Up to the present time, however, we are without any evidence which proves that phthisis is communicable, in the ordinary sense, from one individual to another. My own experience decidedly negatives the idea. I believe that all the cases adduced of communication from husband to wife, or from the sick to their near attendants, are to be included in the category of phthisis arising in the ordinary way. In the course of about twenty-seven years at the Consumption Hospital, we have only had two cases of phthisis among the class of attendants: one, an assistant-physician, who was phthisical before he joined the staff; and a nurse, who was ill when she came to our service at the hospital. Heredity, and the influence of depressing causes, and the occurrence of the usual antecedents of consumption, account for all the cases adduced. One of my colleagues, Dr. R. Thompson, has recently advocated another view, and believes that the phthisis he has seen so produced has characters belonging rather to septic pyæmia than to consumption. It is right that such inquiries should be made, and the subject minutely investigated; but as yet I cannot accept the doctrine. It is closely connected with the theory of phthisis which we have been discussing—namely, its origin in infecting material, and the influence of primary scrofulous inflammations as infecting centres from which secondary results in distant parts originate.

If pulmonary phthisis be, then, a compound of scrofulous inflammation and tubercular new growths, in what forms recognisable to our senses shall we find them? 1. A chronic pneumonia of one apex, with much dulness, slight *râles*, shrinking walls, slight fever, possibly occurring in the rheumatic constitution, and not by heredity. This may run on to cure, or become very chronic. 2. Bronchopneumonia, or caseous pneumonia, which consists of nodular foci in the lungs. Here there has been wasting and fever before any discoverable physical signs. It is hereditary in most instances; and from the proneness to degeneration and death of caseous matters, may rapidly run into cavity. 3. Catarrh of the apex; crackling *râles* in the subclavian or supraspinous region; dulness slight and diffused; possibly an early hæmoptysis; certainly early fever and wasting. A neglected catarrhal bronchitis has originated this. The anatomy would give a cellular infiltration of the pulmonary connective tissue of catarrhal origin, but with inflammatory products. Tubercles of recent formation are found around these. In the process of degeneration, the albuminoid substances first become soluble, absorb water from the surrounding tissues, and melt; and so a central cavity is formed. The consecutive events are secondary infiltrations of other portions of the lungs, which are properly infections, the morbid matters being carried by vessels and lymphatics, and deposited in other parts of the same or of the opposite lung. This is ordinary progressive advancing phthisis. The fever is high, for the blood is constantly charged with the detritus of inflammatory and tubercular products. Local morbid processes manufacture the fever; for febrific substances, the result of their necrosis, are constantly being added to the blood. Hence the high temperature and the waste of tissue or marasmus; for nutrition is spoilt by the same process, and a blood laden with morbid detritus is unfit for the ordinary nourishment of the body. I ask you to bear this in mind: *how local disease, itself originated by a local infection, becomes the workshop in which is elaborated fresh morbid material for new infections.* Till such centres of manufacture are exhausted, the morbific process continues; but if it be stopped for want of pabulum or material (and it seldom stops from other causes) the disease has no check nor limit. This explains many of the phenomena of chronic lung-disease, and will be found to have an important bearing on treatment.

I must diverge here, as the German pathologists always do diverge, to consider the question of apex-disease. At first sight, it seems trivial to ask why the apex is the part earliest affected in phthisis? but it is worth examining. Catarrh of the apex, pneumonia of the apex, mean phthisis. The same signs located at the base have a different import. It may be said that localised physical signs in any portion of the lung,—I mean limited in extent and pronounced in character—have a more ominous meaning than signs of consolidation or catarrh spread over one or both lungs. But why is the apex first affected? It is replied that the immobility of this part, as compared with other portions of lung favours the retention of secretions, which thus inoculate surrounding tissues. These apex-movements are limited by the position, and by the frequent adhesions of the pleura at this part. Mechanically, also, it is more difficult to empty this part of the lung. Again, it is said, that less blood circulates in the apices; and, further, that as the lung is fixed at its root, and the apices lie at a higher level, the expanding influence of the diaphragm is less felt at those parts. The inference is, that all that retards movement, and impedes expansion, and diminishes vascular movement in a portion of lung, makes it more likely to become the seat of chronic induration. In these investigations, we see again how local changes and the influence of locality have come to be considered important in the study of chronic disease.

Now, it will be very evident to those who have followed me that, in describing the effects of inflammation of the lung, and in dividing pneumonia into the "croupous" and "catarrhal", I have limited the possibility of complete restoration of the lung to the "croupous" form in its well pronounced acute variety; and that, in describing the changes which occur in the "catarrhal" form, I have been painting the events of chronic phthisis. Taking the facts to be so—that there is an acute variety of inflammatory disease, tending, in the vast majority of cases, to recovery; and another variety, commencing also by an attack more or less acute, but which inevitably destroys some textures of the lung, and leaves a permanent mark, as it were, with degenerations tending to the destruction of lung-tissue and secondary congestion in sequence—and as it is evident that their ordinary progress is in different directions, we have inquired, In what consists this most important difference? and what common features do they bear which justify us in including them under the same name of inflammation? They have diverging patho-

logical results; the one tends to degenerations which remove the new product most rapidly from the system, the other to degenerations which ulcerate and destroy the cell-walls and surrounding tissues, or harden them and convert them into fibrous structures of low vascularity.

Acknowledging that inflammation—that is, that the inflammatory products of congestion—play a large part in the history of chronic diseases of the lung, and influence the result more than any other agents, I still feel that the name "catarrhal pneumonia" has been unfortunate, as tending to mislead those indifferently acquainted with the minute pathology of the day, and to induce the practitioner to predicate results for his patient which may never occur. To the word "catarrhal" I do not object; for it fairly expresses the product of the attack in the earlier stages, when it is limited to the interior of the air-cells, the walls remaining intact; but the term "pneumonia", I conceive, had better be confined to that sthenic form of the croupous variety, to which alone it was applied before the introduction of the modern German pathology.

It appears to me that the terms croupous and catarrhal have arisen to supply the place of the word "tubercle". It has long been well known that there may be phthisis without any tubercle, such as Laennec or Bayle described, whether miliary and caseous, infiltrated or scattered, whether acute or chronic. The acute tuberculosis, indeed, is still acknowledged to be tubercular; and it is seen and known that tubercles may be developed in the course of chronic phthisis, but are then a mere incident in the story of the disease. But while tubercles—small scattered bodies, miliary or aggregate—are found not only in the lung, but in other organs and in the membranes of the body, and are daily seen without any microscope, and such appearances are associated with a train of symptoms indicating destructive degenerations, it is impossible to deny them a place in our pathological category. It is histology, chiefly, which has displaced the word "tubercle", and the impossibility of defining it under the microscope, or recognising it by invariable and peculiar characters, which has led to the necessity of new terms to express the product of disease which leads to consumption. One thing is clear: that, whereas in the early stages of an attack the products of inflammation and the part of the lung-structure affected are nearly identical in the two forms of pneumonia, in the more advanced stages, even long before softening occurs—indeed, we may say in all its subsequent pathological events, catarrhal pneumonia differs from croupous as much as any two disorders can do affecting the same organ.

Perhaps the most important structural change in all chronic diseases of the lung, is that which results in fibroid alteration; for it influences the course, the symptoms, the duration, and the result of every such affection. It would appear that this growth is not dependent on vascularity, but is almost extravascular. The very minute capillary circulation is not necessary to all vital tissues. This may be seen in fibro-cartilage. The subsistence of fibrous tissue is placed low in the vital scale; and it appears to originate when the flush of inflammation is over and rapid degenerations have settled down and removed the *débris* of inflammatory products.

In the lung, it would appear that, when the growth which we have described, in the alveolar walls and in the interlobular tissue, has not degenerated so as to break down into purely ulcerative and necrotic processes, the result of necrosis from obliterated vessels, a lymphatic increase of interlobular connective tissue occurs, along with a cellular thickening of the old walls. This tissue, in which blood-vessels are not found, extends between the air-cells and between the lobules, and spreads its connections till it reaches the pleura, to which it becomes attached. The changes which the lung undergoes in this process of fibrous conversion are very characteristic. The lung itself is contracted; not only in parts, but as the new growth extends, the whole lung occupies less space; and, from its connection with the pleura, the chest-walls are found also contracted—so that a considerable diminution in the cubic contents of the pleural sac occurs, and a very manifest contraction of the side. This contraction is so characteristic, that it is evident at a glance. The effects of this extension of fibrous tissue through the lung is to cause obliteration of vessels and extinction of air-cells in its tract, by contraction of their walls. Very little blood circulates through a lung in which this process has much extended, and but little aeration takes place; for respiratory cubic space has greatly diminished. The bronchial tubes often undergo dilatation, and afford physical signs mimicking those of ordinary cavities in the lung. Their dilatation may, perhaps, be accounted for by a loss of elasticity in their walls, and of support from the surrounding tissues. It is conceivable, also, that the inspiratory force is more expended on them, as the alveoli lose their capacity for expansion. The pleura has always shared in these fibroid changes in old cases, and has become closely attached to the lung. From such physical condition results that extreme fixity of the chest-walls characteristic of chronic phthisis. The vital results on the lung are most important. That organ is deprived of a large part of its circulation; and, in fact, its capillary circulation has almost ceased. Hæmoptysis is a rare event, for the larger vessels are strangled. Respiration scarcely proceeds, for many air-cells are annihilated; and, there being little expansion, a proportionately small quantity of air enters the lung. The few remaining parts of the lung may expand, and become emphysematous, perhaps, for the same reason that the bronchi have dilated, namely, impaired elasticity of the walls, and the expanding forces more felt. The physiological vital blood-changes depending on the lung diminish as breath-space is lessened. Deficient aëration of blood leads to lividity of the terminal vascular parts, and new growth of low fibroid tissues is seen in the fingers and toes, where clubbing occurs from new growth. Following the mechanical contraction of the lung, the heart is drawn up or down; the diaphragm is raised; the intercostal spaces are drawn in; and the opposite lung crosses the middle line. I am picturing a rather extreme case; but all chronic cases possess, more or less, the same features, and they are dependent on the growth of fibrous tissue in the interlobular structures of the lung. I would ask you to remember that the results are vascular stagnation, from compression and extinction of vessels; and contraction, with comparative immobility of the lung and of the side. Every case of phthisis which becomes chronic presents such alteration of structures more or less marked. It is the inevitable condition of chronicity; that is, of every case which has outlived the first destructive degenerative changes which take place in the early history of lung-disease. There is no such thing as fibrous phthisis; that is, a phthisis which originates in the formation of a new fibroid product in a lung hitherto healthy; which is in itself a *materies morbi*, and in its changes destroys the lung. For what is, and where is found, this fibroid formation? It is a change always secondary to that many-celled invasion of the aveolar walls and interalveolar tissue, which I have been describing. It is, in fact, a conversion of that tissue, resulting from its previous invasion by this nucleated growth; and it is found, not as a product of inflammation, but as a formation of new and extending tissue, replacing and originating in the proliferations resulting from inflammatory action. It differs from them, in that it is slow to degenerate; it amalgamates and alters other surrounding tissues into its own growth, which is ever spreading and involving new portions of lung in firm elastic, contractile extensions; while inflammatory products present rapid degenerations, fatty and caseous. This fibrous element gives chronicity to all old cases; and is, in fact, the conservative element of chronic phthisis. It is a barrier against hæmorrhages, and against ulcerations, and is the safeguard of the patient. The local condition of a lung, so bound down in its circumference to the pleura, with thick bands of tissue passing through it in all directions, is that of a comparatively inert organ. Such a patient neither dies of hæmorrhage, nor is very liable to pneumothorax; nor does he waste from the hectic of an irritated lung, so long as his affection be one-sided. The secondary infections are also delayed, and that ulceration of the ileum, leading to diarrhœa, so common in advanced phthisis, and which may or may not be of septic origin, is of rare occurrence. The blood has, in fact, ceased to be loaded with febrific material; for the degenerative processes have stopped, and the temperature remains normal.

I have thus far sketched for you, gentlemen, the leading pathological changes in acute inflammation in the lung, and in the chronic varieties which lead to destructive changes or to fibroid alterations. Some of the other events in chronic lung-affections will next occupy us, when I shall have less to say of anatomical and histological changes, and more of the clinical events of disease; but, for to-night, I would close by summarising the propositions which I have endeavoured to lay down.

1. Inflammatory products form a large part of that which is found in chronic lung-affections, excluding cancer, syphilis, and pure cirrhosis.

2. Acute inflammatory croupous pneumonia, which is the result of an extreme vascular congestion, has its seat mainly within the alveoli or air-cells of the lung. The alveolar walls are intact, as is also the interalveolar tissue in which the vessels of the lung are contained.

3. Inflammatory croupous pneumonia become chronic means more than this; the alveolar walls have become invaded, and the interalveolar tissues, with more or less strangulation of vessels.

4. The integrity of the alveolar walls is a chief element in all lung-affections, acute and chronic. Where such integrity is maintained, recovery is sure to take place; but where the walls have become invaded by small-celled growth, disintegration occurs, and permanent loss of elasticity and resulting collapse of the air-cell takes place.

5. The phenomena called degenerative result from the death of the parts, their vascular supply having been strangled. The formation of cavity, small or great, is, therefore, due to the necrosis or death of the tissues, deprived of their blood-supply.

6. In so-called catarrhal pneumonia, the phenomena ultimately involve a new growth in the alveolar walls and interlobular spaces, affecting the vascular supply of those tissues.

7. A further necrosis of the alveolar walls, and of the new growth surrounding the vessels and involving the neighbouring parts, may lead to cavity in the lung.

8. A cretifaction may occur, the products being imbedded in the lung.

9. Or a new development of fibrous tissue may take place, deficient in vascularity, and of low vitality, but contractile and capable of extension, involving all tissues of the lung and also the pleura.

10. A resulting contraction of the lung and of the whole side may take place, followed by displacement of viscera.

11. These fibrous alterations in the lung-tissue are an inevitable feature of all chronic lung-affections, and influence their progress and termination more than any other factors in such diseases. As a leading feature in any case, their influence is conservative, and tends to chronicity and prolongation, retarding and counteracting the more serious events of hæmorrhage and secondary septic infections.

There are one or two points which suggest themselves from the considerations I have brought before you.

If chronic phthisis arise out of inflammatory products in the lung, and not from a special and peculiar deposit—the result of a diseased constitution, or a previously existing condition, antecedent in point of time, to all local disorder—is it to be considered a local or a constitutional affection? If local, it belongs to the class of inflammations; or, at least, it is a specific inflammation.

Another and most practical question is, whether catarrh in its ordinary form leads to phthisis? As it has been ascertained that catarrhal pneumonia, which seems, indeed, undistinguishable from phthisis, originates in a catarrh of the minutest bronchi, which has become localised. If this question be answered in the affirmative, we should find innumerable cases of ulcerative disease of the lung arising out of that capillary bronchitis which affects the minutest bronchioles. But I believe it may be clinically asserted that such sequence is a very rare event—so rare, indeed, as to be exceptional. While most cases of phthisis arise out of a gradual, almost unperceived, disorder of health, in which the patient can scarcely say whether the weakness or the cough was the earlier symptom. It is quite certain, as Louis has observed, and every other authority has confirmed, that it is most rare that any patient can refer the first beginnings of his cough to a cold-catching or exposure well within his notice.

Again, such catarrhal colds affect large tracts of both lungs when they become bronchitis; and the essential character of phthisis is localisation—one apex—one limited tract of lung.

This opens the way to much deeper considerations, which I shall take leave to bring before you at my next lecture.

WOLVERHAMPTON.—The report for this borough is for the twelve months, ended September last. This is to be regretted, as the statistics of Wolverhampton cannot be properly compared with those of other large towns. The death-rate during the period reported on, was 21 per 1,000, or, deducting deaths not belonging to the borough, 20 per 1,000. Of the 1,640 deaths, no less than 726 were of children under five years of age, and 491 of infants under one year. Mr. Love seems to think that the sanitary authority can do nothing to reduce this terrible proportion, though the uninhabitable nature of the dwellings in some parts of the borough, would seem to point to the adoption of the Artizan's Dwellings Act, as a partial remedy for the evil. He, Mr. Love, whilst admitting that errors of diet and delicacy of infants, have their place in causing infantile mortality, feels "constrained to add, that it may in the main be traced to the scourge of this country, drunkenness; for where do we find premature birth, marasmus, inanition, atrophy, diarrhœa, and convulsions most prevalent, but in the wretched squalid hovels of the drunkard, the dissipated, and the indolent?" The number of deaths from "preventable" disease is given as 46, though we find 196 deaths referred to the zymotic class, including 101 from diarrhœa. Scarlatina was fatal in 31 cases; the agency of schools in the propagation of the disease having been especially noticed. The mortality from measles has largely diminished, and typhoid fever was fatal in only two cases. Phthisis and chest affections again contributed the largest quota of deaths, 491, and were especially fatal to young children and old persons. The sanitary work of the borough seems to be pushed rapidly forward, and if we may judge from this prefatory report, there is an unusually enlightened sanitary committee in the town.

ON CERTAIN POINTS IN THE PATHOLOGY AND TREATMENT OF INDIGESTION.*

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THE subject of indigestion is so very wide, that I cannot take up more than one or two points connected with it in the present paper. There are few subjects in medicine of greater practical importance; for there are few that come more frequently under the notice of the medical man, that cause greater annoyance to the patient, or are more satisfactory to treat—at all events, in the earlier stages. I have no doubt that many things which I may say in this paper will be quite familiar to you all; and what I hope to do is not so much to give you new observations on the symptoms of indigestion, or new methods of treatment, as to discuss the causes of the symptoms and the results of the treatment in such a way as, perhaps, to render the treatment more systematic.

By digestion we mean the solution and absorption of the food, and the rejection of the excreta, in such a way as properly to nourish the body; and by indigestion we understand the non-solution or mal-assimilation of the food, and the imperfect removal of its waste products. Digestion begins in the mouth; and, if we retain farinaceous food in the mouth for a sufficiently long time, the starch will be converted into soluble sugar, and will be dissolved. But it is rare for us to allow the food to remain in our mouths long enough for any solution to take place, excepting in the cases of such very soluble substances as salt or sugar. The saliva, which is secreted by the mouth, performs most of its solvent action in the stomach, after it has been swallowed. We might, therefore, look upon the stomach, and not the mouth, as the first part of the intestinal canal where digestion takes place. But, if digestion begins in the stomach, indigestion very often begins in the mouth; for it is in the latter that one of the most important parts of the solvent process takes place—namely, that of mastication. The digestive juices act but very slowly upon large masses either of starch or of albuminous food, though they will attack those substances readily if they are completely broken up. Most of us, I dare say, remember from our boyish days how long a bull's eye of sugar takes to dissolve in the mouth, so long as it remains whole; and how quickly it disappeared after we had once yielded to the temptation to crush it between our teeth. And what is true of sugar is also true of bread and of meat.

Why should bread fresh from the oven be indigestible, and the same bread, after it has become stale, perfectly wholesome? I think you will readily see the reason by crushing a piece of each between your fingers. You will find that the new bread simply forms a toughish mass, while the stale crumbles into a fine powder. Dip a piece of each into water, and the new bread will only take up a little, while the stale sucks it up like a sponge. These two properties of the stale bread—its ready pulverisation and its sponge-like absorptive power—render it easily broken up and easily saturated by the digestive juices, so that it is quickly and conveniently digested; while the new bread is liable to form, in the stomach and intestines, pieces which are not readily permeated by these juices, and are, therefore, dissolved with comparative slowness. The same thing is the case with meat. When it is taken into the stomach in large lumps, the gastric juice can attack it only on the outside; but, when it is thoroughly broken up by the process of mastication, it is dissolved with great facility.

We see the advantage of a fine subdivision of food in the case of milk, which in the stomach is curdled into small flakes, which are digested with great rapidity. These fine flakes are seen in healthy infants, who regurgitate some of their food after having taken too much. But, in children whose stomachs are out of order, the milk curdles in a different way, is thrown down in large indigestible lumps, which are either vomited up, or pass into the bowels, causing diarrhœa. In such cases, we mix the milk with lime-water, which causes the casein to be again thrown down in small flakes, and thus prevents a repetition of the mischief.

Now, imperfect mastication is a very common condition, and is the source of a great deal of the dyspepsia with which we meet. It may have several causes. Decayed teeth are one cause. Even when, on cursory examination, the teeth appear to be fairly sound, a small spot of caries on one of them will make it tender, and its possessor uses the other side of the mouth almost entirely for mastication. If there be tender teeth on both sides, he is tempted to bolt his food after masticating it very imperfectly. Want of teeth is another cause. We sometimes see patients whose teeth, so far as they possess them, are either

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* Read for the Lecturer at a Clinical Meeting of the British Medical Association.

decayed, or, more generally, carefully stopped, but who have large blanks in either jaw, whence the molars which formerly filled them have been removed. Those molars which remain are sometimes rendered almost useless from the want of opposing molars in the other jaw, and thus the food is very imperfectly broken up. Another cause, and perhaps a still more frequent one, is the habit of eating hastily, without taking time to masticate. This is not unfrequently induced, in the present day, by the necessity of catching a train shortly after a meal, or by swallowing the food during too brief an interval from business. Another cause is the habit of reading about, or thinking of, during meals, such subjects as relate to one's daily actions. So long as a man reads about something which has no direct reference to his own activity, I do not think it does him much harm; but, if his thoughts be directed towards anything which concerns his active life, the case is very different. I have observed that, in such circumstances, the mere thought of an exertion which he must make at some future time seems to lead to hurry in the present; and so the man bolts his food, finishes his meal in double-quick time, and hastily rises from the table. All this causes imperfect mastication of the food, and consequently leads to its imperfect solution in the stomach and intestines, or, in other words, to indigestion. So long as the man is young, the effects of imperfect mastication may not be noticed, because almost all the organs of his body are capable of doing more work than they are usually called upon to perform, just as he himself is rarely worked up to his full powers. A young man, even if pretty hardly worked, is almost always ready for a spurt when called upon; and so are his stomach, heart, or lungs. But, as life advances, he becomes less and less ready for a spurt. He is living more and more up to the limit of his powers; and the same is the case with his stomach and intestines. The young man's stomach will digest his food even when imperfectly masticated; but, as middle age approaches, this becomes more impracticable; and, unless the food be previously broken up, the gastric juice is powerless to dissolve it. The symptoms which then occur are much the same as those which would be produced by deficient secretion of gastric juice in the stomach; and, in all cases of indigestion, the first thing we should do is to examine the teeth, and make inquiry as to the length of time devoted to meals; and it is well, if possible, to get some information on this point from others than the patient, as he may be unconscious of his habit. If we find that the patient is in the habit of bolting his food, we must insist on more time being taken, and advise him to give his thoughts to his food, and not to his business, while he is taking his meals.

Where we find the teeth imperfect, of course the patient should be sent to a dentist, either to have the decayed teeth properly stopped, when that is practicable; or extracted, when stopping is impossible, and to have the blank spaces left by removal filled up by artificial teeth—so that mastication may be rendered easy. But, even when mastication is thoroughly performed, we find that indigestion may occur from various conditions of the stomach itself. One of the most common of these is catarrh, whether acute or chronic. The symptoms to which this condition gives rise are usually loss of appetite, with an occasional tendency to nausea. Sometimes, however, there is increased appetite, or a gnawing sensation before meals, disappearing as soon as food has been placed on the table, or the first mouthful has been swallowed, and giving place to anarexia. There is a feeling of weight at the epigastrium, and very often pain after meals there, shooting through between the scapulæ. There is much flatulent distension, and sometimes eructation. It is interesting to trace the symptoms to these causes in functional or structural changes in the condition of the viscera, though sometimes our attempts are very imperfect, and occasionally entirely unsuccessful. The loss of appetite in these cases may, however, be connected with a certain amount of congestion—as may also the increased appetite: for, although the cause of appetite has not been precisely made out, it appears, to some extent at least, to be associated with a full condition of the vessels in the stomach. Thus it is that so many different drugs have the power of increasing appetite. Bitters, such as quassia and quinine; stimulants, such as brandy and whisky; irritants, such as red capsicum and arsenic, all have this power. Perhaps the one point in which they agree is, that they all tend to cause congestion of the sensitive mucous membrane. But, when the irritation passes beyond a certain point, a change takes place; and, instead of appetite being felt, there is a sensation of nausea. All the drugs that I have mentioned have this effect, when given in too large quantities. Though in small doses they cause appetite, in large ones they excite nausea or vomiting. We might expect, then, that a moderate degree of congestion, due to a catarrhal condition, would excite in the stomach a feeling of appetite akin to that produced by irritant drugs; and that, when the congestion was still more increased by the stimulating effect of the first few morsels of food, the feeling of appetite would be replaced by one of satiety or nausea. The cause of the feeling of weight at the epigastrium, we cannot precisely determine; but I should be inclined to think it due to the continued pressure of the weight of food upon one part. In the healthy stomach, the peristaltic movements of its walls keep the food in constant motion, and thus its weight is distributed through the entire viscus, and not allowed to press long upon any one part of it. We all know that a slight weight, when allowed constantly to press upon one part, becomes painful, or almost unbearable—though, if moved about over different parts of the body, it would produce a sensation rather agreeable than otherwise. The feeling of weight and dragging at the epigastrium, then, I am inclined to associate with impaired movements of the stomach, allowing the food to accumulate in the greater curvature; and, by its constant pressure upon that part of the organ, and continued dragging upon the pyloric and cardiac extremities, producing the feeling of weight as well as the shooting pain between the scapulæ already spoken of. The flatulent distension is probably partly owing to the generation of gas during the slow and imperfect digestion of the food in the stomach; and partly also to its slower absorption by the blood: for there can, I think, be little doubt that an interchange of gas takes place between the gases in the stomach and the blood in the gastric vessels, just as an interchange occurs between the air in the lungs and the blood in the pulmonary vessels. It is, no doubt, much slower in the stomach, even under healthy conditions; because the layer of tissue lying between the vessels and the gas is much thicker in the stomach than in the lungs. In a catarrhal condition, the difficulty of absorption would be increased in two ways; because not only will the layer of mucus lying in the stomach oppose a considerable impediment to the absorption of gas, and thus take up the gas more imperfectly, but the blood in the congested vessels will circulate more slowly. In cases of heart-disease, we very often find that the patient is a good deal troubled by flatulence, which may, no doubt, partly depend on catarrhal changes in the stomach itself, due to the impeded circulation; but is, in my opinion, also in part due to the slow circulation itself. For one can notice that flatulence is very apt to come on in a healthy person, when the circulation is embarrassed after running to a train. Nor is the heart the only organ which leads to congestion of the stomach. In mitral-disease, no doubt, the backward pressure of the blood upon the stomach through the portal veins, which are destitute of valves, causes congestion; but the gastric circulation may also be impeded by the alterations in the liver itself. We all know that, in cirrhosis, venous congestion is induced in the stomach, and may lead to hæmorrhage from the gastric vessels; but, perhaps, we do not so often consider that vaso-motor changes occurring in the normal liver may also lead to gastric congestion. When the liver is removed from the body, and blood is allowed to flow through the portal vein, from a bottle containing it, by means of a cannula and India-rubber tubing, we notice that the liver is almost like a sponge—swelling out enormously when the pressure is increased by raising the bottle, and diminishing greatly when the pressure is lowered. We also notice that the flow through it may vary to an enormous extent. Sometimes the blood seems to stream through the organ, as though it presented no obstruction whatever; while, at other times, it will only pass through in a fine stream, or even drop by drop, notwithstanding the tolerably high pressure behind. These observations show that the vessels of the liver, so long as it retains some vitality, even after its removal from the body, are capable of great dilatation and contraction, and have very considerable contractile power. This power, if exercised during life, cannot but influence very greatly the circulation in the stomach and intestines; and, if the hepatic vessels contract very much, they may lead to congestion of the stomach. In the condition of so-called biliousness, we find that there is, in some cases, the craving appetite which I have already mentioned, something passing into anorexia, or we may have the anorexia without any craving. It is possible, indeed probable, that these symptoms may be partly produced by the entrance of bile into the stomach itself, where it will interfere with the gastric digestion. But we sometimes find, in cases of biliousness, these symptoms, without having any evidence that the bile has actually entered the stomach; and, therefore, it seems probable that the alterations in the appetite may, to a great extent, be due to alterations in the gastric circulation, caused through vaso-motor changes in the liver. Another factor in the production of flatulent distension is, no doubt, the imperfect movements of the stomach; or, their imperfect co-ordination interfering with the expulsion of gas through the cardiac or pyloric orifices.

From the causation of the weight, pain, and flatulent distension in cases of dyspepsia we may deduce rules for treatment. And first as to diet: we must have regard to the rules already given for complete mastication, not merely because the food is more readily dissolved when it is thoroughly broken up, but because prolonged mastication induces a freer flow of saliva. This alkaline fluid, when it reaches the stomach,

acts as a stimulant to the mucous membrane, and induces a more copious secretion of gastric juice, so that the complete mastication of food in the mouth has the double action of aiding and accelerating gastric digestion; but if we are to get this stimulating effect of the saliva, the stomach must not be full of fluid when the saliva reaches it. It is a good rule, therefore, for persons suffering from flatulence to begin their meals with solid food, and not to take any fluid until the meal is pretty far advanced. We find that patients not unfrequently begin their meals with a draught of some fluid, such as tea or coffee, and then proceed to the solids. After a meal taken in this way, they suffer from flatulence, but are free from it if they begin with the solids instead. Soup appears to be less objectionable, and the patient may sometimes be allowed to take soup at the beginning of dinner; but he should never be permitted to commence his breakfast with tea or coffee. Occasionally it will be of advantage, even at dinner-time, to begin with solids. Where the stimulant action of the food is insufficient, even when taken in this way, we must add to such action by the use of weak alkaline solutions, to be taken before meals, as, for example, ten grains of bicarbonate of soda, with a little bitter infusion. The time for administering this will vary, but it will probably be found best about twenty minutes before meals, though sometimes twenty-five minutes or half an hour. Sometimes we find that a little alcohol with the meal is beneficial, stimulating the stomach, and increasing the circulation, but in other cases we find that it is decidedly injurious; and that, although its local action on the stomach may be unobjectionable, and its immediate effect agreeable enough, yet after its absorption it seems to derange the liver, causing dulness and heaviness to come on a few hours after the meal. One cause, and not an unfrequent one, of indigestion from atony of the stomach, is simply that the stomach, like the rest of the organism, is tired. A man will sometimes work the whole day, until he is nearly exhausted, and then, hurrying home, will at once eat a heavy meal. His whole nervous system is exhausted, and his stomach shares in the general fatigue. It is unable to meet the sudden call thus made upon it; digestion goes on slowly, and thus the individual suffers from weight, distension, and flatulence. Most of these cases occur in men who work their brains more than their muscles; and it is generally utterly useless for the medical man to tell the patient not to work so hard. He *will* work, and then he calls upon the doctor to shield him from the consequences of his indiscretion. The best thing to do, in these cases, is to insist that the patient shall lie down and rest for ten or fifteen minutes before dinner. If he be above middle age, a little wine just at the commencement of dinner may considerably aid his digestion. There is a physiological reason for the glass of sherry so often taken with the soup at dinner; it stimulates the stomach before the food has been ingested, and thus its subsequent digestion. But it is chiefly in men above middle age that this is required, as was, I think, well shown in the experiences of the Ashantee campaign, as recorded by Parkes. It was found that, when the ration of rum was served out to the troops on halting at night, the younger men did not seem to care for it, but the elder ones wanted their own and that of their comrades too. This might, doubtless, be partly due to the different character of the old and young soldiers, but I think probably not entirely so. It probably indicated, to some extent at least, the physiological want of a gastric stimulant, felt by the elder men, for whom the short rest after the march, during the time the evening meal was being prepared, was not sufficient to remove the fatigue which would have impaired their digestion, though the rest without the stimulant was quite sufficient for the younger soldiers. Exposure to cold, as a cause of gastro-intestinal catarrh, and consequent indigestion is sometimes, I think, too little considered. The intestines are but very thinly covered by nature, and the slight abdominal walls are insufficient to protect them from great changes in atmospheric temperature. We can readily see this in the attitude which persons assume when they go to sleep with an insufficient quantity of blankets. They curl themselves up so that the thighs lie against the abdomen, forming a sufficient covering to the intestines. The intestinal vessels are able to contain a great quantity of the blood in the body, and, as they contract when exposed to cold, so much blood goes to the brain, that the person cannot get to sleep. When we get warm, however, they dilate, allow the blood to leave the brain, and we fall asleep. The thighs thus form an efficient covering in bed, keeping the intestines warm, and allowing their vessels to distend, and the person to fall asleep; but during the day the intestines are not unfrequently exposed to chills. In hot countries, this is well recognised, and all through the East we find that the people wear a shawl or bandage around the abdomen. Some time ago, when visiting Pompeii, I was struck by observing the same thing in the bodies of those who had perished during the eruption of Vesuvius, which overwhelmed the city. The necessity for protecting the abdomen, is, perhaps, more readily noticed by the natives of hot climates, who wear little other clothing, than by us, who are better clad all over; but, even here, the necessity for it exists; and in thin persons, who are liable to indigestion, the abdomen should be well covered by a flannel bandage, although there may be no necessity for this in those whose intestines are already protected with a thick layer of omental fat. The best form of bandage is a double strip of flannel, about seven and a half to eight inches broad, and long enough to go once and a half round the body. The overlapping part should be in front, and should be simply fastened with a couple of safety-pins. These I find to be more easily adjusted, and less troublesome than straps, tapes, or buttons.

Another cause of indigestion is disordered relation between the stomach and the liver. Usually, the bile does not enter the stomach, but remains in the duodenum and intestines, but, when indigestible and irritating substances enter the stomach, the bile may flow into it, producing very unpleasant symptoms; not merely does it interfere with digestion, by precipitating pepsine, but the local irritation which it produces in the stomach itself, as well as its general effect upon the nerve centres after being absorbed into the blood, causes the patient to suffer from dullness and headache. In Dr. Beaumont's interesting experiments upon Alexis St. Martin, he notes, that where he introduced several muslin bags, containing various articles of diet, into the stomach, St. Martin, shortly after their introduction, began to complain of a sense of weight and distress at the scrobiculus cordis, slight vertigo, and dimness of vision. This continued to increase, and became quite severe, accompanied, at the latter part of the time, by slight pain in the forehead and through the eyes, and a sense of tightness or stiffness across the breast. His countenance had changed from a florid and healthy, to a sallow, sickly appearance during the experiment, and a soreness at the pit of the stomach continued, after the extraction of the bags, for eight or ten hours; and had not entirely subsided next morning. Morbid action of the inner (?) membranes was evident next day, with considerable erythema and aphthous appearance. Some of the bags were covered with a thick, mucous coat, tinged with yellow bile; and to the entrance of the bile into the stomach, Dr. Beaumont ascribes the symptoms observed in St. Martin, as he had noticed them also in similar experiments. Here, it was apparently, the irritation of the indigestible muslin bags which caused this bilious attack in St. Martin; but other indigestible substances will produce the like effect.

Nor is this the only disturbance in the relation between the liver and the alimentary canal, which is of importance in the production of indigestion. I have mentioned the probable effect of vaso-motor alterations in the liver upon the vascularity of the stomach and intestines, and upon the solution and digestion of food within them. But there remains still another condition of great importance. The digestion of food is not entirely accomplished in the alimentary canal. In addition to what used to be called the primary digestion in the stomach and intestines, there is the secondary digestion, which appears to be of no less importance. Farinaceous foods are converted, in the intestinal canal, into grape-sugar, but apparently only a small amount of this sugar reaches the general circulation unchanged. It first undergoes conversion into glycogen in the liver, and is thence passed out, as it is wanted, into the general circulation. The albuminous constituents of the food are converted, in the alimentary canal, into soluble peptones, but, like the sugar, these also do not reach the general circulation unchanged. Excess of sugar in the systemic circulation is injurious, as we see in cases of diabetes, but excess of peptones appears to be still more injurious. The action of these bodies has been recently investigated by Professor Albertoni of Genoa, and by Professor Ludwig and Dr. Schmidt-Mühlheim in Leipsic. Albertoni has found that peptones, when injected into the circulation, deprive the blood of its power of coagulation, at least in dogs and cats, and probably in all carnivorous animals. It has not the same power in sheep or rabbits, and probably has not the same action in herbivora as in carnivora. Ludwig and Schmidt-Mühlheim also observed the effect of peptones on the coagulability of the blood, and they have investigated their action upon the blood-pressure. They found that when the peptones are injected into the veins the blood-pressure sinks considerably; and, if the quantity introduced be great, a soporose condition, convulsions, and death are produced. It is therefore evident that, unless there were some provision for the alteration of peptones before they enter the general circulation, we should be poisoned by the products of our own digestion. Ludwig and Schmidt-Mühlheim were unable to settle precisely where the peptones underwent transformation, most of them having apparently already disappeared from the portal blood before it reached the liver. Two other observers, Plosz and Görgyai, were led by their experiments to fix upon the liver as the place where peptones undergo transformation, and it seems not improbable that to some extent they are right. The liver, like the stomach, may be overworked, and both organs are liable to great functional disturb-

ance from emotional causes. It is extraordinary how frequently one is able to trace diabetes, or grave functional disorder of the stomach to grief or worry; and although it is impossible to protect patients from these injurious causes, just as it is impossible to protect them from overwork, yet we must do our best to lessen their injurious effects. Probably the best way of doing this is, to remove from the patient's mind during the hours when digestion is going on, so far as is possible, the source of grief, worry, or anxiety which disturbs him. It is, therefore, well to insist, that he shall give orders that no letters or telegrams be given to him, or any commercial intelligence in the papers be looked at, until at least an hour after dinner.

Another most important factor in the proper regulation of the hepatic function is, the removal of waste products from it. The bile is one of these, and its accumulation in the bile-ducts leads to its re-absorption and circulation in the blood, with all the consequences which the injurious effect of the bile upon the nerve-centres is likely to produce. The bile is secreted under very low pressure, and its expulsion from the liver is effected, to a great extent, by the mechanical pressure exerted upon the liver by the diaphragm during respiration. When the person leads a perfectly sedentary life, so that no calls are made upon the respiratory organs for increased action, the pressure of the diaphragm on the liver is diminished, and consequently there is a tendency to the accumulation of bile in the biliary radicles, and to its absorption into the blood. This shows the physiological necessity for exercise in persons who are liable to bilious attacks; and of all forms of it, exercise on horse-back and rowing are probably the best. Half an hour's brisk ride will do more good to the liver than two hours' walking. Here I ought perhaps to have said a few words in regard to cholagogues; but as I mentioned at the commencement, this subject of digestion is so wide, that to go into it in detail would extend my paper far beyond any limits that could be allowed to it.

THE IMMEDIATE CURE OF INGUINAL HERNIA BY A NEW INSTRUMENT.

By W. DUNNETT SPANTON, M.R.C.S.Eng.,
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The operation has been performed in the following cases since the paper published in the JOURNAL of December 11th and 25th was written.

CASE XIV. *Right Oblique Inguinal Hernia.*—Mrs. S., married, aged 27, residing at Hanley, a stout, well-developed, healthy woman, had only one child, ten years previously. She never had any serious illness. She first noticed rupture eight years ago, after falling down some steps. It had gradually increased in size, and latterly became painful. When I saw her on September 23rd, 1879, there was a right oblique inguinal hernia about the size of a duck's egg; and the inguinal ring was quite open. After preliminary preparation, I operated at the patient's house on October 7th, 1879; Dr. Partington administering chloroform. Lister's antiseptic dressings were used, and the operation was performed under carbolic spray. After the operation, some chloroform-sickness ensued, which soon subsided.—October 8th. She slept little, but had no pain. There was frequent retching. Temperature 98.5° Fahr.; pulse 96.—October 9th. She slept well after a dose of morphia. The wound was quiet. Temperature 98.5° Fahr. She had no pain.—October 10th. She was going on well. The wound was dressed under spray. There was slight serous discharge, and some redness along the line of wound, with induration. She was ordered to have a dose of [illegible]. The daily progress was uninterruptedly good, and she [illegible] no pain.—October 15th. The wound was dressed, and the [illegible] removed. There was very little discharge; the track of the [illegible] was [illegible] through. October 23rd. The [illegible] were removed. The wound was almost healed. Strapping and [illegible] were applied.—October 29th. The wound was [illegible] healed. She was allowed to get up. There was no impulse on the [illegible] canal on coughing.—November 13th. She had [illegible] household duties, and felt quite comfortable, and could [illegible] about without any pain or discomfort such as she had [illegible]. She wore a pad truss, and has continued well and strong since.

CASE XV. *Double Inguinal Congenital Hernia.*—Frederick J., aged 4, was admitted into Children's Ward, North Staffordshire Infirmary, under Mr. Spanton, on August 30th, 1879. He was a healthy-looking little child, with a large scrotal hernia of the size of a man's closed fist. The inguinal rings were very wide, and the bowel could be passed easily within the abdomen. No truss was of any avail to keep up the rupture. On August 23rd, after the usual preliminary treatment, I performed the operation with the screw instrument under chloroform. Owing to the great width of the pillars of the hernial ring, I could not satisfactorily secure a hold upon the internal pillar, which was, indeed, so far obliterated that it was formed chiefly by the border of the rectus-sheath. I had some misgiving at the time that the hold I had obtained was not sufficiently secure; and the sequel shows that this was well founded.—August 24th. The patient had, during the night, removed the lint pad, and also the ball from the point of the screw. The latter was not replaced; but the bandage was firmly reapplied.—August 28th. The patient was very restless, although he said he had no pain. The instrument had become twisted somewhat, owing to his constant movement. He took food well.—August 30th. A slight attack of diarrhœa came on.—August 31st. The instrument was removed (eight days after operation); there being a moderate amount of irritation in its track, and slight purulent discharge. The temperature had never risen above 98° Fahr.—September 5th. The hernia had descended again, and the inguinal ring was almost as patent as before operation. The child appeared quite well.—September 30th. He was allowed to get up. It was found impossible, even with a firm pad, to keep up the rupture. Feeling convinced that the failure was due to an imperfect hold having been obtained on the internal pillar of the hernial canal, quite as much as to the unruly behaviour of the patient, I decided to operate again; and on October 10th, under chloroform, I performed the operation a second time, taking especial care to obtain as firm a hold as possible of both sides of the inguinal canal. This involved taking up the sheath of the rectus; and I found that the adhesion of the subcutaneous tissues to the skin of the scrotum rendered the separation of them more troublesome than usual. But the operation was satisfactorily completed in the ordinary manner.—October 12th. He slept well; had no pain. He was much less restless than after the former operation. Temperature 98.6° Fahr.—October 13th. There was some œdema of the scrotum; no discharge.—October 21st. He progressed well. The highest temperature had been 99.6° Fahr. (on 13th); since then, normal. There was a considerable amount of local irritation along the course of the instrument, and a moderate purulent discharge. The instrument was removed under chloroform.—October 24th. The wounds were healing rapidly; the discharge had ceased. This morning, while dressing, the child cried lustily; but there was no tendency to any descent of the bowel. The canal was occupied by a firm fibrous mass, and completely occluded.—December 8th. He was allowed to get up, wearing a pad-truss; and on the 19th he was discharged well.

CASE XVI. *Right Oblique Inguinal Hernia.*—Thomas P., aged 20, glass-cutter, single, was admitted into the North Staffordshire Infirmary on August 29th, 1879. The rupture was about the size of a hen's egg, of three months' standing, caused by jumping. On August 30th, the operation was performed in the usual manner, under chloroform.—September 3rd. There was slight discharge from the lower wound. The general condition was good.—September 6th. The instrument was removed; the ball being embedded under the skin, owing to the screw being rather too short.—September 10th. The discharge had ceased; the wounds were nearly healed. There was a firm cord along the inguinal canal, which gave no impulse on coughing.—September 15th. He was allowed to get up. The wounds were quite healed; the plug firm.—September 22nd. He was discharged well.—September 29th. He called to report himself as feeling quite sound, and not needing a truss.

CASE XVII. *Right Congenital Inguinal Hernia.*—Albert C., aged 6, was admitted into the Infirmary on September 11th, 1879, under Mr. Alcock. Before admission, the hernia was strangulated, and great difficulty was experienced in its reduction. On admission, a rupture of the size of a small egg was present, quite reducible. On September 13th, the operation was performed under chloroform, after the usual preparation.—September 14th. He suffered but little pain, slept well, and seemed comfortable.—September 20th. The instrument was removed under chloroform.—September 24th. The wounds were nearly healed; the discharge was slight. There was some swelling of the scrotum. No impulse was produced on coughing.—October 6th. He was allowed to be up. The hernial canal was obliterated, and there was no impulse on coughing. He was discharged cured. The highest temperature in this case was 99° Fahr.

CASE XVIII. *Right Inguinal Congenital Hernia.*—William C., aged 5, was admitted into the Infirmary on September 30th, 1879. The child, on admission, did not appear strong. He had a right congenital hernia of the size of a hen's egg. The pillars at both rings could be clearly defined, and the hernia [illegible] a finger's breadth. Cold-lotion and bottles of iron were ordered for a few days; and on October 11th, after the usual preparation, the operation was performed by Mr.

Folker under chloroform.—October 12th. He slept well; no pain. Temperature 98.4° Fahr.—October 20th. The instrument was removed. Some difficulty was experienced in taking away the ball from the point of the screw, owing to its being buried in the tissues. Temperature 100° Fahr.—October 23rd. A hard, rather painful enlargement was felt on the right side of the scrotum. There was free purulent discharge. Temperature 101.4 Fahr. He was ordered to take some bromide of potassium mixture, and have evaporating lotion applied. The swelling gradually subsided, and on October 30th the temperature was normal. He was allowed to be up on December 7th. The swelling was quite gone; the inguinal canal firmly occluded; no tendency whatever to recurrence of hernia. He wore a pad-truss.—December 11th. He went home quite well.

CASE XIX. *Right Inguinal Hernia.*—Mary F., aged 26, milliner, was admitted under my care on November 14th, 1879. The patient, fairly healthy, but not robust, had been subject to hernia for about seven years, for which no cause could be assigned. It had never been strangulated, but was often painful; and, although a truss to some extent would keep it up, yet it often would come down and cause inconvenience. As she was engaged to be married, and anxious to have something done to effect a permanent cure, my friend Dr. Orton of Newcastle asked me to see her, with a view to operation. There was a right inguinal oblique rupture of the size of a duck's egg; the hernial opening being large, easily admitting the finger. After the usual preparation, I performed my operation on November 17th, under chloroform. An incision was made in the right labium majus; the skin was separated subcutaneously for an extent of about three-quarters of an inch in every direction; and the fascia and hernial coverings made to plug the canal in precisely the same manner as already described; the difference being, that in this case it was less easy to separate sufficient tissue to form an efficient plug. In introducing the screw, I was careful to obtain as firm a hold as possible at two points in each pillar of the canal, and to bring it up close, inasmuch as there was not the same necessity for avoiding constriction as in the case of men, where the spermatic cord has to be carefully considered. Lister's spray and dressings were employed; but we found that, owing to the position of the wound, it was almost impossible to carry out the system satisfactorily.—November 19th. Since the operation, she had had pain at the epigastrium. Poultices and an opiate gave relief. The dressings were changed. There was no discharge; a slight blush around the wound. Temperature 99.2° Fahr.; pulse 84.—November 21st. The dressings were renewed. Serous discharge and inflammation were slight. Temperature 99° Fahr. She was ordered a dose of castor-oil.—November 24th. The parts were dressed again under spray. There was slight discharge; the wound gaped a little. Temperature 98.8° Fahr. An enema was given; after which the epigastric pain was relieved.—November 26th. The instrument was removed under chloroform (ninth day); discharge slight, purulent.—December 10th. The discharge had been more abundant, coming from the track of the instrument. She felt quite well. Poultices were applied.—December 14th. There was less discharge; the wound was healing. She had no pain, but some tenderness to touch along the inguinal canal.—December 27th. Simple dressing was applied. The wound was nearly healed; the canal seemed securely closed; no impulse on coughing.—January 1st. She was allowed to get up, wearing a pad truss. The patient has since married, and has had no tendency to any return of the rupture up to this time (November 1880).

CASE XX. *Right Inguinal Oblique Hernia.*—Fred. D., aged 6, was admitted into the Infirmary, under my care, on November 15th, 1879. The patient was healthy, and the rupture was first noticed six months previously. On admission, both testes were down; there was a large oblique inguinal right hernia of the size of a small orange. The tissues were very lax, and the rings large. On November 22nd, I operated, under chloroform, in the usual manner, without experiencing any difficulty. At the same time, the prepuce was divided, to relieve phimosis which existed.—November 23rd. He slept well; had very little pain; no sickness. Temperature 99° Fahr.—November 26th. Considerable inflammatory œdema of the scrotum had appeared. There was very slight discharge from wounds. The bowels acted spontaneously. Temperature 100° Fahr.—November 29th. The instrument was removed under chloroform. Discharge free; the swelling of the scrotum continued. Temperature 101° Fahr., indicating the need for removing the instrument.—December 12th. The wounds were quite healed. The temperature fell to normal after November 29th, and remained so.—December 20th. He was allowed to get up, wearing a pad-truss, which he bore quite well. On January 8th, 1880, he went home; the inguinal canal being firmly occluded, with no tendency whatever to any return of the rupture.

CASE XXI. *Left Congenital Inguinal Hernia.*—John C., aged 7, was admitted into the Infirmary, under the care of Mr. Folker, on November 11th, 1879. He was rather a delicate-looking boy, in whom the rupture had come very gradually. On admission, there was a left inguinal rupture, which descended to the size of a hen's egg, with very patent ring.—November 15th. The operation was performed by Mr. Folker, after the usual preliminaries, under chloroform.—November 16th. He had had no pain nor vomiting; he was very quiet. Temperature 99° Fahr.—November 17th. The wounds were dressed. The parts were quiet. Temperature 99 Fahr.—November 19th. He had a troublesome cough. Slight discharge. He complained of pains in the legs (from lying so still?). Temperature 98°.—November 24th. The instrument was removed under chloroform. The discharge was rather profuse; but the surrounding irritation was less than in some cases where the screw was removed earlier. Temperature 100 Fahr.—December 12th. The wounds were quite healed. He wore lint pad, and bandage.—December 19th. He was allowed to get up, with a pad-truss. The parts were quite firm, without any tendency to return of the rupture.—December 22nd. He went home quite well.

CASE XXII. *Double Inguinal Hernia from Application of Sayre's Jacket.*—Elizabeth M., aged 5, was admitted into the Infirmary, under Mr. Folker, on December 18th, 1879. The child was admitted for angular curvature of the spine; and had a Sayre's jacket applied in the ordinary way. Very shortly afterwards, she was found to have a right inguinal rupture coming down as large as an egg, and easily reduced. On January 10th, 1880, the hernia was operated upon with the screw instrument under chloroform.—January 11th. She had an opiate last night, and was quite easy to-day. Temperature 98.6° Fahr.—January 17th. The instrument was removed easily. There was considerable irritation around the wounds. Temperature 98.4° Fahr.—January 22nd. The wounds were still discharging. There was a good plug of thickened tissue in the hernial canal.—February 2nd. Over the track of the screw, a small abscess formed, which broke this morning. *Sloughing and healing.* She continued to improve; but, on March 15th, for the first time, there was noticed a tendency to a return of the hernia at the internal ring when she cried or coughed much, but at no other time. She left the infirmary, wearing a pad. The chief point of interest in this case is in the unusual cause for the hernia; and this was probably the reason, moreover, why the operation was not perfectly successful. If it had been deferred until the child's health had improved, and her cough relieved, it is quite possible that the result would have been more perfect. But even as it is, a pad sufficiently controls what tendency to bubonocele exists to gradually complete the cure in all probability.

CASE XXIII. *Right Oblique Inguinal Hernia.*—Daniel A., aged 25, miner, was admitted into the Infirmary, under Mr. Alcock, on January 6th, 1880. Four years previously, the rupture was caused by lifting a weight. At first, only a bubonocele existed, until three weeks before admission, when the hernia descended to the extent of two inches below the external ring, and was easily reducible. He had been wearing a truss, but this failed to keep up the bowel. On January 10th, the operation was performed under ether. The tissues were very loose, and invagination was easy. After the operation, he had much pain, requiring opiates. Evening temperature, 99.8° Fahr.—January 12th. The right half of the scrotum was œdematous, and the skin somewhat inflamed. The ball came off the point of the screw, but was not replaced. He complained of considerable pain and thirst. An opiate at night, and soda-water, were ordered. Temperature 101° Fahr.—January 13th. The scrotum was much inflamed and swollen. Castor-oil was ordered. Temperature 101.4° Fahr.—January 16th. The bowels acted freely in an enema. The swelling and inflammation of the scrotum were increased; the discharge profuse. Temperature 102.4° Fahr. The instrument was removed.—January 21st. The discharge was still profuse. The inflammation of the scrotum was subsiding. He had had a bad night, and felt much better. Temperature 98.2 Fahr. Some matter formed in the outer and upper part of the scrotum, which was opened on February 1st, and washed out with carbolic acid lotion. From this time, he gradually improved; and, on March 1st, the wounds were quite healed. A firm mass of tissue occupied the lower part of the hernial canal; but the hernia could be felt slightly to enter the internal abdominal ring, and then was stopped by the plugged canal. He left the infirmary on March 15th, wearing a pad-truss. In this case it would appear that an insufficient hold was obtained on the pillars of the internal ring; or it may possibly be that the excessive suppuration which occurred tended to loosen the early adhesion which was set up, and allow the invaginated tissues to slide, as it were, from their proper position. As it is, the patient is much better for the operation.

For the two following cases, I am indebted to Mr. Jabez Thomas, Surgeon to the Sheffield Hospital.

CASE XXIV. *Left Congenital Inguinal Hernia.*—Charles E., aged 11, was

admitted into Swansea Hospital, under Mr. Thomas, on December 26th, 1879. "The operation was carried out in all its details on January 12th, under the carbolic spray, and the whole instruments and wounds covered with a pad of gauze, secured by a bandage. The patient once vomited during the night, and the following morning complained of pain and tenderness over the lower part of the abdomen; no tympanites. Temperature, A.M., 102°; P.M., 100.4°. Liquor morphiæ (mx) relieved him, and the next day this had disappeared.—January 14th. Temperature, A.M., 102°; P.M., 100.4°. As the gauze was saturated with blood and serous oozing, the parts were dressed under spray. Looked well; tender; no redness; a little œdema of scrotum, and orchitis.—January 19th. The temperature gradually went down, until it reached normal on this day. The wound was dressed as before: slight suppuration; induration along canal well marked. Soap-and-water enema caused good evacuation, the patient feeling no pain or inconvenience. The left testis was still swollen.—January 23rd. The screw was removed; there was no suppuration; the wound was dressed as before. There was good induration along the course of the inguinal canal. The bowels acted naturally.—January 26th. The bowels have continued to act daily naturally.—January 28th. The dressings were removed. The wounds were healed. *The canal was occupied by a good firm elongated plug, to which no impulse was imparted on coughing.*—February 12th. He was discharged cured."

CASE XXV.—Mr. Thomas writes: "The second case, in a child nine years and a half old, ran a similar course to the first, with equally good results." ... "I saw my first case a few days ago, and found the inguinal canal quite obliterated; and there was no impulse imparted to the induration which occupies its site."

It would be difficult, I think, to adduce stronger testimony than this of the practicability and efficiency of the operation.

A NOTE ON THE ALUMINOUS CHALYBEATE WELL OF HARROGATE.

By GEORGE OLIVER, M.D.Lond., M.R.C.P.

THE publication, in the JOURNAL of December 18th, of the recent analysis of the ancient alum-well at Harrogate by my friend Mr. R. H. Davis, F.C.S., suggests, in the absence of published experience, a note on some therapeutical applications of it.

My observations have been mainly directed to the external use of this powerfully astringent water; and during the past season it afforded gratifying results in the following classes of cases.

1. *Relaxation and loss of tone of pharynx and larynx; chronic congestion of pharynx.* This water was administered as a spray-inhalation.

2. *Profuse phthisical perspiration.* The undiluted water sponged, or, what was more grateful, and perhaps more efficacious, sprayed over the skin, surpassed all other remedies in one extreme case.

3. *Tendency to ulceration of vagina and to abscess of mammary glands.*

Other applications, promisingly useful, may be further noted. In relaxed and debilitated conditions of the skin, the addition of this strong aluminous chalybeate to the bath-water—*e.g.*, the spray or needle-bath, or the ordinary sponge-bath—may prove adjuvant to the valuable chalybeate and other courses of treatment prescribed at Harrogate; and, as a dressing or lotion in certain obstinate skin-diseases (*e.g.*, chronic eczema, the vegetal parasitic diseases) and chronic ulcers, this stimulating and astringent water may play an useful part in the local treatment.

My limited experience of the internal use of the water does not enable me to draw any definite conclusions as to its therapeutic force or range. I am, however, persuaded that it may prove beneficial in some cases of chronic diarrhœa and dysentery, and other chronic discharges, whether hæmorrhagic, mucous, or purulent. My few observations suggest that the commencing dose should be small—a tablespoonful, or even less; that it should be well diluted, and should not be taken on an empty stomach, but an hour after meals.

Such medicinal virtues as the water possesses appear to depend mainly on the acid and astringent properties of the persulphates (which exist in the large proportion of one grain to the ounce), and the rich charge of iron salts (proto- and persulphates). It was noted that, unlike some allied waters—*e.g.*, Sandrock's, Isle of Wight; Vicar's Bridge, near Dover; strong chalybeate at Mount—it is not too necessarily noted for convenience; and, though a very strong chalybeate, its constituents are in perfect solution, and not in suspension, like some of the muddy mineral waters which have been dignified as mineral waters.

Among the well-known rich and varied resources of Harrogate, this sulphated chalybeate may be easily passed over, as it has been for more than a hundred and fifty years. But, though its range of application as a curative agent is undoubtedly limited, it cannot be supplied by any member of the unexampled series of medicinal waters which Harrogate possesses, and should not, therefore, be ignored. Among its richly endowed fellows, it will doubtless hold its own, whatever the shape ultimately given to its province of usefulness by observation and experience.

A CASE OF CÆSAREAN SECTION, IN WHICH BOTH THE MOTHER AND CHILD WERE SAVED.*

By WILLIAM WALTER, M.A., M.D.,

Consulting Surgeon to St. Mary's Hospital, and the Manchester and Salford Lying-in Hospital.

MY paper consists of an abstract of some notes which I took of a case of Cæsarean section that occurred four years ago in the North Staffordshire Infirmary, under the care of Mr. Alcock; and I am much indebted to that gentleman for his kind permission to make use of the case on the present occasion.

During the last four years, Porro's operation has become known, and laparo-elytrotomy has, through the exertions of Dr. Gaillard Thomas, been so much improved, that both are now fully recognised as rival operations to the Cæsarean section. Time and experience are yet needed before we can arrive at accurate conclusions as to the relative merits of these various operations over one another; but much can be done towards the solution of this difficult and important problem if the profession will search for and record all those cases of Cæsarean section which still remain unpublished. In Manchester, our veteran and highly esteemed obstetrician, Dr. Radford, has during the last two months collected from various sources upwards of a dozen cases of the Cæsarean operation that have never been published; and he has mentioned these cases in a second edition of his *Observations on the Cæsarean Section*, which is now going through the press.

On June 23rd, 1876, K. T., a dwarf, in labour, was sent into the North Staffordshire Infirmary by Mr. Alcock, who, a few hours before, had seen the case in consultation with Mr. Taylor of Burslem. The patient, a primipara, twenty-eight years of age, was of remarkably low stature, being only three feet six-and-a-half inches in height. This diminution in stature was mainly owing to the shortness of her lower extremities, which scarcely equalled one-third the length of her body. Notwithstanding this, she could walk very well, and on many occasions accomplished a distance of three or four miles without fatigue. The expression of her countenance did not betoken a high mental development, and her general disposition was decidedly apathetic. Her health was good, and her body well nourished. The catamenia commenced when she was seventeen, and rarely showed any irregularity. She told me that she had been married more than a year, and had come on the previous day to the Burslem Wakes, to be exhibited with her husband, whose height was an inch and a half less than her own. He was forty years of age, and, from his conversation, seemed fairly intellectual. She stated that, for several successive days, she had been driving in a caravan through the country; and the jolting she sustained had induced labour three weeks before the proper time. The pains had commenced twenty-four hours before her admission, and for the last six hours there had been but a short interval between them.

Her face wore no appearance of anxiety; nor did she seem to have suffered much constitutionally from the somewhat protracted period of her labour. Her pulse was good, 100 in the minute, and showed no perceptible alteration during the continuance of a pain. The temperature was normal, and there was no abdominal tenderness. On passing my hand over the uterus, I perceived that its long axis corresponded to a line drawn from the centre of Poupart's ligament on the left side to the floating ribs on the right side. The placental *bruit* was audible over most of the anterior right aspect of the uterus; while the fœtal heart was only distinctly heard over a small area at the upper half of the same side. The vagina was not too hot, and was well moistened with a slimy discharge. The membranes had been ruptured five or six hours. The os uteri was of the size of a shilling, quite soft, and responded feebly to the pains, which were coming on every ten minutes; it was situated very high, and in close proximity to the bladder. The promontory of the sacrum was very large, and certainly did not leave more than one inch and a half for the antero-posterior diameter of the inlet; the transverse diameter was below the normal: and the diameters of the outlet were not appreciably altered. The presentation was a knee; but, in addition, part of a foot could be felt very high up and near the pubes.

A consultation of the staff was held soon after her admission into the

* Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Cambridge, August 1880.

infirmary, and it was decided unanimously that Cæsarean section afforded to the patient the best chance of escape; and, as the labour had made no progress during the last six hours, although the pains had increased in frequency and severity, it was deemed useless to postpone the operation, lest the patient, by becoming exhausted, would have to incur still greater risks than those necessarily attached to the operation itself.

The temperature of the room was now elevated to nearly 70° Fahr.; and, the patient being placed under the influence of bichloride of methylene, the operation was commenced. An incision was made in the median line from the umbilicus to near the pubes. No hæmorrhage took place from the parietes. The uterus was then opened in the middle line, and the child extracted without difficulty. Its left knee was found to be the presenting part; and its right foot rested on the symphysis, the dorsal aspect of the child being in front. The placenta was then removed, and great hæmorrhage took place from its uterine attachment; and at the same time very alarming hæmorrhage occurred from the uterine sinuses, and great difficulty was experienced in checking it. Five vessels in the uterine incision were tied with ligatures of Chinese twist, and the ends cut short. The uterus not contracting, cold sponges were applied to its interior, and, with the aid of ergotine (half a grain) injected hypodermically, secured at last a permanent contraction. It was thought well to use fine carbolised catgut sutures in the uterine wound; but, before introducing them, a large India-rubber tube was passed from the uterus into the vagina, for the purpose of drainage. (This, however, came away a few hours later.) During the operation, the intestines did not come much into view; and what blood escaped into the abdominal cavity was carefully sponged away before the external wound was closed with seven silk ligatures. A pad of lint was next placed on the abdomen, and covered over with a thick layer of cotton-wool; the application of a flannel bandage completing the operation. The quantity of methylene used was ten drachms; but it did not produce any nausea or vomiting.

The child, whose weight was 5 lbs. 10½ oz., was a male, and cried immediately on being born. It seemed very healthy and well proportioned, and measured twenty inches and a quarter, or, in other words, half the height of its mother.

I will not try your patience by reading the daily report of the patient, but shall content myself instead with giving a *résumé* of the more important features of the case during its progress towards recovery.

1. With respect to the temperature. On inspecting the temperature-chart, one sees at a glance that a distinct rise took place at three different periods of her illness.

The first and highest was on the fifth day, when the thermometer registered 102°; and, from the tender and tympanitic condition of the abdomen at the same time, was owing most probably to peritonitis.

The second rise was on the twelfth day, and was attributed to a moderate attack of phlegmasia dolens, which, commencing three days before, had now reached its climax. It was not ushered in by shivering, or any constitutional symptoms; and, after a duration of twelve days, passed away, leaving for three weeks slight œdema of the left foot.

The third and last rise was on the nineteenth day, and was caused by the formation of an abscess in the right breast. In six days, this was opened, and continued to discharge for nearly four weeks.

	Day.	Temperature. M.	Temperature. E.	Pulse. M.	Pulse. E.
June 23	1	—	100.0	—	130
,, 24	2	98.8	98.2	108	100
,, 25	3	98.0	99.4	100	100
,, 26	4	99.2	99.2	100	100
,, 27	5	102.0	100.0	120	108
,, 28	6	99.8	101.0	112	112
,, 29	7	98.8	100.0	112	100
,, 30	8	99.0	99.6	100	104
July 1	10	99.4	99.8	100	110
,, 2	10	99.3	100.0	104	114
,, 3	11	98.8	100.2	100	115
,, 4	12	99.2	101.0	112	108†
,, 5	13	100.2	100.6	110	100
,, 6	14	97.*	99.6	100	100
,, 7	15	98.2	99.8	95	98
,, 8	16	98.6	99.4	87	85
,, 9	17	97.0	99.2	80	80
,, 10	18	97.2	98.0	85	90
,, 11	19	97.6	100.2	85	90‡
,, 12	20	97.6	98.2	80	81
,, 13	21	97.6	98.2	80	82

* Peritonitis. † Phlegmasia. ‡ Mammary abscess.

Abdominal pain was complained of for the first ten days, and was most severe on the fifth day. Most of this time, poultices were applied to the abdomen.

Her bowels were moved on the fifth day by a dose of castor-oil. During her illness, they were sluggish, generally requiring a dose of oil or an enema to produce an evacuation.

The lochia ran a natural course. The wound suppurated very little, and at no time was the discharge offensive. The sutures were found loose on the seventh day, and then removed; the wound was completely cicatrised in four weeks.

The patient was allowed from the first a fair amount of fluid nourishment, including wine in the middle of the second week; on the fourteenth day, she commenced taking solid food, beginning for a few days with fish and fowl; all through her illness, her appetite was good.

The infant throve very well, but was bottle-fed after the fourteenth day, on account of the mother's nipples being sore.

On the twenty-sixth day, the patient was sitting up in the ward, and rapidly regained her strength, being discharged from the infirmary at the end of six weeks.

The successful termination of the case was doubtless owing to the early recognition of the pelvic deformity, and the promptitude exercised in the performance of the operation before symptoms of exhaustion had shown themselves.

SHOCK OR ETHER?

By PAUL SWAIN, F.R.C.S.,
Surgeon to the Royal Albert Hospital, Devonport

At the present moment, when deaths from anæsthetics are being prominently brought under our notice, the following case will be of interest.

On November 17th, I was sent for by Mr. Butters of Horrabridge to see a farmer, who, on the previous day, had received a gunshot wound in the leg. The accident happened at a farm, in a remote district, called Beeralston, on the banks of the Tamar. The party were returning from shooting, when a gentleman, carrying his gun under his arm, accidentally let it off—the charge entering his friend's leg at the back, blowing away the whole of the inner side of the ankle-joint, and reducing the lower third of the leg to a pulp. Most profuse hæmorrhage immediately ensued; and, as no medical assistance could be obtained for four hours, a large quantity of blood was lost. The unfortunate man was removed to the farm-house; and Dr. Philpots of Tavistock was the first to render him any assistance. He, in conjunction with Mr. Butters, remained with him during the night; and it was only by the most assiduous care that life was maintained. I saw the patient, at 3.30 P.M., on the following day. He had then just sufficiently recovered from shock to warrant an amputation, about which there could be no second opinion. Ether was the selected anæsthetic; and it was administered by Dr. Philpots on a sponge, placed in a cone formed by a folded towel. The patient inhaled the ether more quietly than is usual, and was not long in getting under its influence. I then proceeded to remove the limb below the knee. The operation was performed as rapidly as possible by double skin-flaps, and the two main arteries were secured, when my attention was directed to the patient's condition. He was perfectly cold and pulseless, and was sweating profusely. His respiration had also ceased. Artificial respiration was immediately commenced; brandy was administered, some of which he swallowed; and the region of the heart was stimulated with clothes wrung out of boiling water. For some little time we could hear the feeble heart-sounds with the stethoscope. All our endeavours to restore animation, however, failed. The man was dead. I gave evidence at the coroner's inquest, and stated my conviction that the death was one purely from shock, and that the ether had no part in producing it. The public mind, in these parts, had but lately been much exercised by a death from chloroform, which had occupied considerable attention in the local papers. I thought it, therefore, wise to tell the jury my reasons for the above conclusions. It appeared to me that the sources of shock were fourfold.

1. There was the shock of a gunshot wound, which *per se* is considerable, even when of less dimensions than this one.

2. The gun having been fired close to the limb, the entire charge had struck the part as one body. The hole in the gaiter, through which the charge entered, was not larger than a half-crown. Thus, added to the shock of gunshot injury, was the well-recognised shock resulting from the blow of a large bullet or round-shot.

3. The ankle-joint was destroyed—so that here also was present the shock of injury to a large joint.

4. Superadded was the final shock of the operation. My idea is that the man commenced to die at the moment when the limb was separated from his body. Hardly a drop of blood was lost—so that the mere division of important tissues must have determined the fatal issue.

The sudden collapse, attended with profuse sweating; the power of deglutition; and the continuance of the heart's action after apparent

death—all seem to me to point to death from pure shock; whilst, on the other hand, the absence of all struggling, as also of noisy respiration and blue countenance, point equally away from death by the inhalation of ether.

A METHOD OF EXTRACTING THE PETROUS BONE FOR A *POST MORTEM* EXAMINATION OF THE EAR.

By ARCHIBALD CLERK, M.B., Glasgow.

THE method which I am about to describe was practised on a boy eight years of age, who died in a fit, after nine days' illness. He had measles when two years of age, and since that time he suffered more or less from chronic purulent inflammation of the ear; but, apart from this, his health was quite good till his last illness, when the inflammation became acute, and extended, as the *post mortem* examination showed, into the interior of the cranium.

I was very anxious to see the exact state of matters; but, as permission was granted to make a local examination only, I was thus prevented from following the method described by Dr. Foulis in the BRITISH MEDICAL JOURNAL, or, indeed, any method which involved the removal of the scalp. In these circumstances, I planned and carried out the following operation, by which the petrous bone actually shelled out, and left the dura mater *in situ* and intact. The operation is as follows. 1. Remove the soft tissues in a flap, whose anterior border is made by an incision along the posterior margin of the ramus of the inferior maxilla. 2. Make another incision about half an inch behind the mastoid process, and nearly parallel to the former. 3. Connect these by a transverse cut above the ear. 4. Dissect this flap downwards and close to the bone, and with the ear attached. The limits of these sections will be easily understood when the bony sections are described. These should be made as follows. 1. The articular end of the jaw-bone being pressed slightly forwards, pass the chisel through the thin bony roof of the articular cavity, and continue the line upwards through the posterior root of the zygoma. 2. Cut then transversely in a line parallel to the zygomatic root, and about a quarter of an inch above it. Continue this line backwards through the parieto-mastoid suture till it meets the posterior section. 3. This posterior section is indicated by a line drawn through the posterior mastoid foramen above to the posterior edge of the jugular foramen below, or, roughly, one quarter inch behind the digastric fossa. This will nearly complete the section. 4. The chisel should now be used as a lever, and the bone pressed out from above, and also at the sides. Lastly pass the chisel between the styloid and spinous processes, and against the root of the latter. This last point of connection being separated, the bone can easily be levered out, and with this the operation is complete. The ear can then be examined at once, or, what is better, if circumstances permit, the bone can be kept for future examination. If the bone is not returned, then fill up its place with a sponge, and when the flap is replaced hardly a trace of interference is visible, as the stitches are mostly covered by the hair. In private practice this much, as in my own case, will often be allowed, when an operation by saw and chisel will not. The chisel must be narrow. The one I used was three-eighths of an inch wide, and eight inches long.

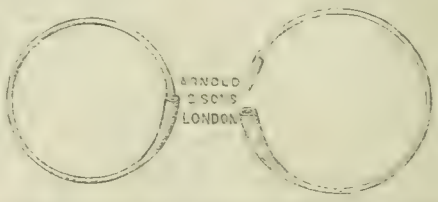
The case itself is interesting. The patient's last illness is said to have followed on a blow received on the ear. Pain behind the ear and fever followed (105° when I saw him), but no delirium or stupor till his sudden death in a fit.

Post Mortem Examination: Extracranial Changes.—The periosteum was separated from the bone over the whole surface of the external meatus, and also from a semicircular area of half an inch radius above meatus, but continuous with the latter. A patch of the size of a shilling in the same connection was found over the region of the posterior mastoid foramen, but completely isolated from the ear portion. The formation of this suppurating spot is very curious, and will be explained after. The middle ear was disorganised. Of the ossicles the stapes alone remained. The membrana tympani was unchanged. The suppurative process had formed a burrow passed backwards through the mastoid cells, and the roof of this tunnel and of the middle ear was reduced to a mere shell. *Intracranial Changes.*—This shell on its upper or intracranial aspect was roughened, and the dura mater covering it was involved in an inflammatory process. This inflammation passed backwards over the ridge of the petrous bone, and was prolonged into the coats of the lateral sinus, roughening the groove, between which and the coats of the vessel were adhesions, and what looked like an ulceration of the sinus. From this the inspection was carried through the posterior mastoid foramen, and formed on the outside of the cranium the isolated spot already mentioned. The lateral sinus itself was plugged by a large and firm clot, and this was probably the immediate cause of the sudden death.

SURGICAL MEMORANDA.

TREATMENT OF WEBBED FINGERS.

IN cases of webbed fingers, I believe that the method of treatment suggested by Liston is the best; viz., "of making a perforation through the web towards the proximal extremity of the finger; and, by the introduction of some foreign body, as a piece of thick firm cord, preventing its healing. After the edges have cicatrised, then the remainder of the web might be cut at one sweep, and the fingers dressed separately for a sufficient time". It appears to me obvious that the best form of "foreign body" for producing the desired result is an imitation of what has proved in so many thousand cases to be very successful in producing a patent opening through the lobe of the ear, and that a ring of gold or silver would be better than the various clamps in common use.



Having inquired at several instrument-makers, and being unable to obtain a ring for the treatment of these cases, I instructed Messrs. Arnold and Sons of Smithfield to make the one represented in the woodcut. It will be seen to consist of a piece of wire, with a point at one end, and a hollowed portion at the other large enough to receive it. The point having been thrust through the web, the ring is bent, and the point will be found to remain in the hollow part of the wire that has been made for receiving it. It will be seen that, there being no hinge in the middle of the ring, there is no opportunity for matter to collect near the wound.

HENRY F. BAKER.

THERAPEUTIC MEMORANDA.

THE TREATMENT OF ASTHMA.

I AM very glad to see Dr. Marshall's record of his success with the iodine treatment. The following case has occurred in my practice since my former communication, and is a good illustration of the beneficial results of the method. H. H. had suffered for the last six or seven years from attacks of dyspnœa, coming on in the night about 3 A.M., which formerly occurred only in June or July, but latterly throughout the year. I painted the lines of both pneumogastrics with a mixture of equal parts of the liniment and tincture of iodine, and ordered him to repeat it every night. The next time I saw him he told me that "he had not had such a good night's sleep for twelvemonths;" he slept all night, and was so surprised on waking in the morning that he got out of bed to look at his watch before he would believe it. He discontinued the iodine after a few applications, as the skin became sore, but he has had no return of the attacks.

ROBERT SAUNDBY, M.D.

71, New Hall Street, Birmingham, Jan. 1st, 1881.

THE PHARMACOLOGY OF CHLORAL-HYDRATE.—M. Dmitrieff, in a recent inaugural dissertation published at St. Petersburg, states that he has tested the effect of chloral-hydrate, both clinically and experimentally, on unhealthy, badly granulating, wounds. By excision of a piece of skin in dogs, and infection of the wound with putrefying matter, he produced unhealthy ulcerating surfaces. Some of these he dressed with one or two per cent. solutions of chloral-hydrate, while the rest were simply covered with a moist cloth. The first very soon became healthy, and cleaned before the others. The ulcers, on microscopic examination, were found covered with a layer of micrococci, which disappeared after two or three days' dressing with chloral-hydrate. These results were confirmed clinically; and the writer has also shown that an equal quantity of a one per cent. solution of chloral-hydrate destroyed, in twenty minutes, all motility of the bacteria in a putrefying infusion of flesh.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

ST. MARY'S HOSPITAL.

CASES UNDER THE CARE OF DR. BROADBENT.

CASE I. *Left Hemichorea, later for a short time bilateral; Choreic Movements, ultimately ceasing; Endocarditis; Death.*—M. Murphy, aged 15, nominally a gardener, really a dancer at music-halls, was admitted into St. Mary's Hospital, under the care of Dr. Broadbent, on October 29th, 1880; and died December 22nd. His father was subject to rheumatism; but his mother and other members of the family were healthy—one brother, however, having had fits. He had himself never been ill till, on October 15th (a fortnight before his admission), the left arm and the same side of the face began to twitch. This continued, and increased somewhat up to the time of his coming to the hospital. He complained of nothing else.

He was a sharp-looking boy, and had taken to dancing and singing at music-halls from love of excitement and adventure, and against the wishes of his friends. Of course he had kept late hours, but was not known to have given way to vicious propensities. He was extremely pale. Choreic movements were very evident in the face, predominantly on the left side, but affecting bilaterally acting muscles on both sides. The left arm was in constant motion, so that he often lay upon it to keep it quiet; and he had previously strapped it to his side. There were movements in the left leg, but less evident. The right limbs were perfectly quiet. There were slight choreic actions in the abdominal muscles. He answered questions correctly, and made very intelligent remarks; but his speech was indistinct, and broken by choreic jerks. His pulse was 88, large, soft and compressible, sudden and short—somewhat collapsing, indeed, in character. Temperature 101.2°. He had frequent dry hard cough. The lymphatic glands of the neck were slightly enlarged. On examintng the heart, the area of dulness was found to be increased in an upward direction and to the left. The apex-beat was in the fifth space, half an inch to the left of the vertical nipple-line; and impulse was felt above this point, directly to the left of the mamma. Here the entire diastolic interval was occupied by a grave slightly vibratory murmur, presystolic, which ended in a loud systolic murmur of blowing character. At the apex, the diastolic rumble was less distinct; the systolic murmur louder. Over the aorta at the second right space, and above this point to the branches in the neck, a systolic murmur was heard. At the third right space was a short smooth diastolic murmur; but this was more distinct over the pulmonary area, the third left space, and fourth cartilage; it was not, however, conducted far. The aortic second sound was not extinguished. The murmurs, therefore, appeared to give evidence of mitral obstruction and regurgitation, and of aortic obstruction and regurgitation; for the basic diastolic murmur, though loudest over the pulmonary area, was undoubtedly produced in the aorta; and the long vibratory rumble heard to the left of the mamma could scarcely have any other origin than the current of blood rushing through the mitral orifice from the left auricle into the ventricle. The old question of the relation between heart-disease and chorea was thus presented in an unusually interesting form. As the heart was decidedly enlarged, and as the boy said, on inquiry being made, that he had been short of breath for some time, it was concluded that the heart-affection was of some standing. In the sequel, doubt was thrown on this conclusion.

He was ordered, for a short time, small doses of iodide of potassium with citrate of potash; then citrate of iron and quinine, liquor potassæ arsenitis, and digitalis; and ordinary diet, with extra milk, and beef-tea.

In the first few days, he improved; his temperature became normal; he slept well, and was quieter. The account first noted down of the murmurs was verified by repeated examination, and the collapsing character of the pulse seemed to be more pronounced.

On November 4th, the temperature again rose above the normal point; and on the 6th it reached 101.4°.

November 9th. Chorea affected both the arms, and his speech was so indistinct as to be scarcely intelligible.

November 10th. Notes of the condition of the heart might again be recorded. The area of dulness was increased; the apex was in the sixth space, almost in the anterior axillary line. To the left of the nipple on the same level, the diastolic interval was entirely occupied by a grave murmur, which ended in a systolic murmur of different character. The second sound was audible. To the inner side of the apex, the systolic murmur was more distinct; the presystolic less distinct. At the left edge of the sternum in the third space, there was heard a loud second sound, with a very short diastolic murmur, quite different from that heard beyond the nipple; this murmur was audible over the sternum at the same level and to the right of it, but was not conducted downwards. There was a systolic murmur at the right second space and sterno-clavicular articulation. The pulse was collapsing; regular, large, 72.

November 13th. He was frightened in the night by a delirious patient, whom he attacked, saying the man wanted to cut his throat. He was quieted with great difficulty. The chorea was very bad for some days after this, and he was in an excited condition.

November 17th. The presystolic murmur to the left of the apex was less distinct. Temperature 102°.

November 19th. The temperature was falling; the patient was quieter, and spoke more plainly.

November 20th. A spotted erythematous rash was observed on the back of the right wrist. The long presystolic murmur was again distinct. There was indistinct reduplication of the second sound. Systolic retraction of the fourth, fifth, and sixth spaces was noted between the nipple-line and the sternum. The apex was bulging in the sixth space to the left of the nipple-line.

November 26th. He was much better; had had epistaxis in the night; also on the 24th.

November 29th. He was much quieter, controlled his urine, and spoke quite distinctly. The temperature, however, was rising again, and was 102.2°. He had some pain in the left side, and the splenic dulness was extensive. The diastolic aortic murmur was louder.

December 1st. Temperature 104°. He felt sick.

December 2nd. Temperature 102.5°. There was scarcely any perceptible chorea.

December 3rd. Chloral and bromide of potassium were given at night.

December 6th. No chorea was to be detected.

December 8th. For the first time, the action of the heart was irregular, an intermission occurring every seven or ten beats. Cough, which had been more or less present from the first, was very troublesome. The chorea was entirely gone.

December 10th. The presystolic apex-murmur was scarcely audible; the systolic murmur was very loud.

From the 13th, the pulmonary symptoms became more marked, and cough troublesome, with much frothy expectoration.

December 15th. The respiration was hurried and panting. There was resonance with good breathing on the front of both lungs, with impairment of resonance and distant tubular breath-sounds below the spine of the scapula in the left back. There was no presystolic apex-murmur, and the systolic murmur had become postsystolic, *i.e.*, its maximum intensity distinctly followed the first sound. There was no good aortic second sound, but the aortic diastolic murmur was no lenger audible. No evidences of cutaneous embolism existed; no blood or albumen was present in tbe urine.

He became rapidly worse, and was delirious; coarse crepitation and sibilus were heard over the posterior apex of both lungs. At length, acute bed-sores began to appear on the sacrum over the scapula, and at many other parts; but, before sloughs actually formed, he died on December 22nd.

At the *post mortem* examination, some turbid fluid was found in the pericardium. The heart was large, the left ventricle considerably dilated, its walls of a pale yellowish-brown colour. The mitral orifice was of normal size, and the only abnormal appearance on the valves was a continuous row of small, firm, fibrinous projections on the auricular aspect of both flaps, at a short distance from the free margin. They could not be scraped off by the nail, but were well organised, and evidently of some duration. The chordæ tendineæ were not affected in any way. The aortic valves were slightly thickened, and presented a few minute fibrinous granulations; but they were apparently competent. The right side of the heart presented nothing abnormal. The lungs were greatly engorged, and, at the upper part of the lower lobes, crowded with very minute granulations, looking like miliary tubercles, but not felt when the finger was passed over the left surface, or when the lung was pressed. The precise nature of these granulations remains to be determined by microscopic examination. In the brain, there was no evidence of embolism of large or small vessels, and no appearance of tubercle. The brain-substance presented no change. The ventricle contained a considerable quantity of clear fluid; along the fringe of both choroid plexuses was a slight deposit of yellow organised lymph, but nowhere any traces of tubercle or of recent inflammation.

REMARKS.—The aspect of the boy, the evident illness and prostra-

tion, not accounted for on the supposition either of recent ordinary endocarditis or of old-standing valvular change, and unexplained by the state of the lungs, the fluctuating temperature—all these were suggestive of ulcerative endocarditis, as were also the peculiar and varying murmurs. The cough, again, was just such as often accompanies this affection. A provisional diagnosis of ulcerative endocarditis was therefore made. It was to become definitive on the occurrence of embolisms, capillary or arterial. The skin was constantly examined for minute ecchymoses, and the urine for albumen and blood; but none of these evidences of the distribution of fibrinous particles appeared. To the last, therefore, there was uncertainty on the subject; for, although the spots on the wrist, the epistaxis, and the enlargement of the spleen, might have been the result of embolism, they were not adequate proofs of it. The *post mortem* examination showed that no ulceration of the endocardium had taken place; but it cannot be doubted that there had been fibrinous deposits on both mitral and aortic valves; and it is extremely probable that particles had been abundantly carried away in the blood, and that the fluctuating temperature was in relation with the varying numbers of microscopic emboli.

As regards the condition of the lungs, if there was acute tuberculosis, it must have been so recent, that it could have nothing to do with the earlier symptoms; and it would not be safe to connect definitely the old inflammation, of which the choroid plexuses gave indications, with the chorea. The coincidence, however, is interesting, and worthy of note.

It remains to consider together the physical signs of derangement of the valves of the heart and the condition of this organ found after death. The mitral systolic murmur is adequately explained by the dilatation of the left ventricle, which was competent to give rise to regurgitation without much change in the valves; the aortic systolic murmur, again, might be produced by very slight roughening of the cusps, or by anæmia alone. It may further be safely concluded that some slight incompetence of the aortic valves had existed, although the diastolic murmur had been short, and the aortic second sound had never been lost. A state of pulse closely resembling the collapsing pulse of regurgitation is met with in some cases of pericarditis and endocarditis; so that no conclusion could be drawn from the collapsing pulse, though it was noted from first to last. The sign still to be discussed is the murmur called in the record presystolic, although described as occupying the entire diastolic interval. It was sufficiently distinct to be recognised by numerous students, and was most audible just to the left of the nipple on a level with it, and consequently when the stethoscope was immediately over the dilated left ventricle. The only possible source of sound at the time and place was the current of blood through the mitral orifice; and it must be supposed that the projections on the auricular surface of the valves over which it flowed were sufficient to produce audible eddies.

CASE II.—(From notes by Mr. LOUIS E. WOOD.)—*Subacute Rheumatism: Presystolic and Systolic Mitral and Systolic and Diastolic Aortic Murmurs.*—This patient was under observation at the same time with the boy whose case has just been described, and the two were watched with great interest. It is not a common thing to hear a double murmur of both orifices of the left ventricle; but, by one of the coincidences with which medical men are familiar, two examples were in hospital at the same time; and, what was more remarkable still, in both the general symptoms and fluctuating febrile temperature were suggestive of endocardial ulceration.

Robert J., aged 27, a waiter, was admitted October 21st, 1880; and left, at his own request, on December 9th. His family history was very good, and his childhood had been healthy. He had had scarlatina when ten years old; and acute rheumatism when fifteen, not very severe; but, after it, the heart beat quickly on slight exertion, and the sight of the right eye was greatly impaired. At the age of twenty-two, he had another attack of rheumatic fever, which confined him to bed for seven or eight weeks, and left him more liable to palpitation of the heart and dyspnœa.

His own account of his recent illness was, that, on August 2nd, he "got wet", and had to stand in damp clothes; in the evening he had shivering fits, and felt sick and faint; and ever since had felt very weak and giddy, while he had also lost flesh. It was ascertained, however, that, sometime before this, his duties at the club had been altered, and he had had much running up and down stairs, instead of being on one floor, and it had been noticed that the work had tired him greatly.

On admission, he looked pale and anxious; complained of pain in the right ankle and left wrist; but no swelling was present, although the joints were said to have been swollen. His appetite was bad; he had thirst, constipation, and a brown tongue. Temperature 101.8; pulse 88, regular, forcible, somewhat collapsing in character. The urine was fairly normal. The lungs were normal. The heart was enlarged, the apex-beat being felt and seen in the sixth space, half-an-inch to the outer side of the vertical nipple-line. At the apex, a soft systolic murmur was heard; at and to the inner side of the apex a rumbling presystolic murmur was audible, the first sound not being altered in character. At mid sternum, there were heard a double murmur, the systolic part of which was soft, audible at the right sterno-clavicular articulation, and the diastolic part, a little to the left of the sternum.

The imperfect vision of the right eye was found to be due to hypermetropia. The optic discs were otherwise normal.

An aperient was given, and he was ordered iodide of potassium in doses of eight grains, with ammonia and bark; simple diet, with extra milk and fish.

His general condition varied little during his stay in the hospital; he was feverish, the evening temperature being rarely below 101°, often above 102°, whilst the morning temperature was usually subnormal; he perspired much, especially at night; from time to time rheumatic pains came on, and occasionally one or two joints were swollen; on the whole he grew weaker. Once he had epistaxis.

It should be added, perhaps, that iron and quinine were substituted for the iodide when this was found to do no good.

As regarded the heart, its size remained about the same; the aortic murmurs varied a little in intensity, but underwent no other change. The mitral murmurs, however, varied much; at times the presystolic murmur could not be heard, at other times it was very distinct; a faint thrill was only once or twice perceptible with it. The systolic murmur was more constant, but now and then disappeared. Both first and second sounds were audible at the apex, the first not greatly modified; the pulmonary second sound was mostly accentuated, the aortic always distinct, notwithstanding that the diastolic murmur indicated leakage; occasionally reduplication of the second sound was noticed.

REMARKS.—In this case, as in the first, the variable high temperature, and the aspect of the patient, were suggestive of ulcerative endocarditis, but no minute petechiæ were ever found, and the urine remained free from albumen and blood throughout. The course of the febrile condition was different, however, in the two patients; in one there were alternate pyrexial periods with remissions of four or five days; in the other there was high temperature every day with a morning fall.

The changes in the mitral murmurs, and especially the frequent disappearance of the presystolic murmur, were such as are not uncommon in the early stages of mitral stenosis. That narrowing of the orifice had not proceeded far was, moreover, indicated by the normal character which the first sound retained. The changes in the aortic valves, again, were not so far advanced as to extinguish the aortic second sound.

A diagnosis of incipient narrowing of the mitral orifice, and of an early stage of aortic regurgitation, could be made with confidence; but these conditions alone did not account for the pyrexia and prostration which were striking features in the case; and as their causation was not made clear, either by recovery or by *post mortem* examination, it remained uncertain.

HOSPITAL FOR EPILEPSY AND PARALYSIS, REGENT'S PARK.

SPINAL MENINGITIS, FOLLOWING SCARLET FEVER, WITH CONSECUTIVE LATERAL AND POSTERIOR SCLEROSIS OF THE CORD.

(Under the care of DR. ALTHAUS.)

PARALYSIS, after acute diseases, has of late attracted much attention, more especially that which follows diphtheria, typhoid fever, and small-pox. Cases of this kind were formerly believed to be consequent simply upon systemic exhaustion induced by severe febrile attacks, but a closer scrutiny of the clinical aspect of such cases has revealed the fact that structural lesions exist, either in the centres or the peripheral nerves, such as myelitis, neuritis, etc., which give rise to the paralysis. Post-scarlatinal paralysis appears to be extremely rare, and the following case is therefore of considerable pathological interest.

L. E., a single woman, aged 37, was admitted under the care of Dr. Althaus on October 12th, 1880, with the following history. Her mother died of apoplexy, and a paternal aunt had been paralysed; one of the patient's brothers is weak in the back and unable to walk. She herself had always been in delicate health, and at eleven years of age had a fall down the cellar steps, after which she could never walk or run so briskly as other girls of her age. She had first menstruated at seventeen, but was never thoroughly regular; and subsequently her catamenia became arrested for four years consecutively. When twenty-two years old she had a severe attack of scarlet fever, with much throat-affection, and internal otitis in the right ear, with subsequent perforation of the membrana tympani. She had for years afterwards a yellow discharge from that ear, in which she was now quite deaf, while she

heard very well with the left. She was thirteen weeks in bed, as after the fever was gone she had so much pain in her back and legs, and felt so weak, that she was unable to get up; and when she was eventually got out of bed, it was found that she had lost the use of her legs, and had to go about in a Bath chair. About twelve months afterwards she fell down a cliff forty-five feet high, owing to the side wheel of the Bath chair, in which she was, having slipped; and she had concussion of the brain, with complete loss of consciousness for a week. No bones were broken, but she was very much bruised about the body. About five years ago symptoms of fistula *in ano* showed themselves, and she entered a London hospital for the purpose of having it operated upon. While there, the weakness in the back increased a good deal, and she had more shooting and burning pain in the legs, and difficulty in urination and defæcation.

On admission, there was no symptom of disease of the brain, or of any of the cranial nerves. The memory, speech, and intellect were normal; her temper was calm, and not emotional. The pupils responded well to light and shade. She had no difficulty in moving her head; and sensation and motion in the upper extremities was normal, although she occasionally felt numbness in the hands. She had the greatest difficulty in shifting her position in bed, and was quite unable to raise herself up from the recumbent position without support, showing paralysis of the spinal muscles and the ilio-psoas. The lower extremities were completely paralysed, with the exception of the left ankle-joint, in which a slight motion was possible. The right thigh and leg were in a state of constant clonic convulsion, which, according to the patient, only came on during a railway journey she had to make before entering the hospital. These convulsions were so strong as to impart a shaking motion to the whole body of the patient, which was audibly transmitted to her bed and the flooring of the ward. Since they came on, they had never ceased day or night, and the patient had had no rest at all in consequence. On examining the lower extremity more closely, the shaking appeared to proceed more particularly from the rectus femoris, which was felt to contract violently and then at once to relax again, just as if it was being acted upon by a slowly interrupted faradic current. On counting these muscular shocks, which alternated with relaxation, it appeared that there were 210 in the minute. The same concussions were felt in the hamstring muscle, although not nearly so violently as in the rectus; and also in the gastrocnemius. These spasms were painless, but were occasionally interrupted by a sudden tonic spasm in the adductors of the thigh, by which the right leg was violently thrown across the left, and remained in tetanic extension, which was extremely painful, for some minutes, after which the rigidity was relieved, and the clonic convulsions resumed their play. These latter were apparently not influenced by rubbing or squeezing the limb, or by the passage of a continuous current. The left leg was perfectly quiet, but in a state of habitual rigidity, so that on attempting passive movements of it, powerful resistance was encountered which cannot be overcome. There is, however, slight movement in the ankle-joint by the action of the tibialis anticus, drawing the foot a little way upwards and inwards. Although both legs were very thin, there was no actual degeneration of muscular tissue, for all the nerves and muscles responded quite properly to the action of both the faradic and the voltaic currents.

Sensation was as much impaired as motion. There was complete anæsthesia and analgesia in the right leg up to the knee; in the front of the thigh, however, the prick of a pin and pinching are perceived. On the back of the thigh sensation was less than in front. The left lower extremity, in which motion was better than in the right, was worse as regards sensation, for there was absolute anæsthesia and analgesia up to Poupart's ligament, where the prick of a pin excited a dull sensation. In the abdominal parietes and the loins loss of sensation was as marked as it was in the legs; and in the back, the anæsthesia of the skin extended upwards to the third dorsal vertebra. A singular symptom was, that strong pressure on the back and on the front of the right thigh caused severe pain, which persisted for some time afterwards; there was also habitual pain referred to the back, and occasional burning and shooting sensations down the legs; and this was more particularly the case when the patient attempted to change her position in bed, or to move the legs; while, therefore, there was *anæsthesia* of the skin, there appeared to be *hyperæsthesia* of the muscles.

The vasomotor nerves of the lower extremities were in a state of spasm, for there was complete ischæmia to the deepest punctures. This extended on the back as far up as the third dorsal vertebra. The reflex action of the skin and tendons was lost in the lower extremities. There was also anæsthesia in the vagina, and difficulty with the bladder and bowels, which were in a state of atony; although there was neither incontinence nor retention. The patient took about five minutes to pass a small quantity of urine, and she was scarcely aware of the passage of it. The bowels habitually required aperient medicines. The catamenia had recently been unduly profuse, while at an earlier period of the complaint there was amenorrhœa. The appetite of the patient was good, and there was no indigestion. The thoracic viscera were healthy. The pulse was feeble and compressible, eighty per minute. The urine contained a slight excess of lithates, but not of phosphates or urea, and no sugar or albumen.

Dr. Althaus said that, although the early history of the case was defective, yet the patient had undoubtedly, either during the attack of scarlet-fever, or while she was convalescent from it, suffered from *acute lepto-meningitis in the dorsal region of the cord*. Pain in the back and the lower extremities was generally absent in myelitis, and very marked in meningitis; and where myelitis appeared to be accompanied with much pain, it was generally owing to the inflammation spreading to the membranes of the cord, whereby the nerves of the pia and dura mater and the posterior nerve-roots were irritated. The muscular rigidity and convulsions which appeared in meningitis were partly owing to reflex from the posterior to the anterior nerve-roots, and partly to direct inflammatory irritation of the latter, with which sometimes even in the beginning secondary areas of inflammation in the lateral columns of the cord were associated. Meningitis often passed from the acute into a chronic form, which latter was liable to sudden exacerbations, if the patients were exposed to unfavourable influences. Thus the greater loss of power experienced after the patient's fall from the cliff, and again after the operation for fistula, and the convulsions in the right leg which had come on after a fatiguing railway journey, would be easily explained.

The present condition of paralysis, anæsthesia, and rigidity, was, in Dr. Althaus' opinion, connected with secondary sclerosis of the lateral and posterior columns of the cord. Simple compression or strangling of the anterior and posterior nerve-roots by proliferation of connective tissue in the meninges might indeed give rise to paralysis and anæsthesia; but this would be associated with the well-known electric signs of degeneration of muscular tissue, viz., loss of faradic, and probably also of voltaic excitability of the muscles, as under such circumstances the nutritive influence of the grey centre in the cord, and more particularly of the anterior horns, would no longer be able to arrive in the muscles. In the present case, however, the preserved faradic contractility of the paralysed muscles showed that the grey centre in the cord was healthy, and its influence extended to the muscles as usual. Moreover the peculiar distribution of the paralysis and anæsthesia in this case seemed to point more to sclerosis of the white lateral and posterior columns of the cord than to strangling of the nerve-roots. It had been shown experimentally that motor impulses and sensory impressions did not run up and down in the same side, but in opposite sides of the cord; inasmuch as section of one lateral half of the organ would cause paralysis of motion in all parts below the section on the same side, and anæsthesia in all parts below the section on the opposite side of the body. This would explain physiologically why the right leg, which was more paralysed and convulsed than the left, had yet more sensation than the left, while the left was more anæsthetic and less paralysed—pointing to greater severity of the pathological lesion on the right side of the cord. Localisation under these circumstances would therefore be precise. That the posterior as well as the lateral columns had become sclerosed, Dr. Althaus concluded from the state of sensation and reflex action. If there were only lateral sclerosis, we should, in addition to rigidity and clonic convulsions, have increased tendon reflex of the patella, and little or no anæsthesia; while the absence of tendon reflex and the high degree of anæsthesia present pointed to posterior sclerosis. The prognosis in a case of fifteen years' standing, in which several subsequent attacks of inflammation had taken place, and which occurred in a patient who had inherited the neurotic constitution, was necessarily unfavourable, inasmuch as complete recovery could not be expected under such circumstances; but Dr. Althaus thought that by putting the patient on full doses of ergot of rye, combined later on with the use of the constant current, considerable improvement would be obtained.

BEQUESTS AND DONATIONS.—Mr. James Bentley, of Wood Green Park, Cheshunt, has bequeathed £1,000 to the General Fund, and £100 to the Samaritan Fund, of St. Bartholomew's Hospital (of which he was formerly Treasurer), £500 to Christ's Hospital, £500 to the Seamen's Hospital, £200 to St. Thomas's Hospital, and £100 to St. Luke's Hospital for Lunatics.—Mr. Thomas Elliott Price, of Stoke Newington, has bequeathed £100 each to King's College Hospital and the Royal Free Hospital.—Lord Overstone has given £100 to the Charing Cross Hospital.—"A Lady" (per Lord Shaftesbury) has given £50 to the East London Hospital for Children.—Mrs. Straus, of The Holme, Prestwich, widow of Mr. Sigismund Straus, has given £50 to the Manchester Ear Institution in accordance with his wish.

REPORTS OF SOCIETIES.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

WEDNESDAY, DECEMBER 15TH, 1880.

W. A. N. CATTLIN, F.R.C.S., President, in the Chair.

On Maxillary Abscess and Necrosis in Childhood.—Mr. EDMUND OWEN read a paper on this subject, and stated that the question he desired to suggest for discussion was this: "Is it right to refuse to extract a carious and aching tooth, on account of the acuteness of the periosteal and maxillary inflammation which its presence has excited?" He felt that the knowledge of general surgeons on this point was by no means definite, involving as it did pathological and surgical principles of great importance; and he was anxious to get an opinion from those present, since he held that no surgeon should ever refuse to remove a tooth which was the cause of acute inflammation, for the simple reason that the local disturbance was excessive. He would narrate three cases by way of analogy. CASE I was that of a little boy, in a most miserable condition, with a large bright red or dusky swelling at the end of his thumb. He could neither eat nor sleep on account of inflammation of the bed of the nail. The nail was evidently sound, discoloured, and loose; and imbedded in a bleeding groove of vascular granulations. The nail was removed; water-dressings applied; cod-liver oil and iron prescribed; and the boy, from that time, recovered health and strength. No treatment which did not include the removal of the nail would have been of avail. CASE II was that of a child, with acute periostitis and inflammation of the bone itself, with probably some periosteal suppuration, caused by exposure to cold and wet. A bold and free incision was made, which at once relieved the vascular tension, and the patient recovered. CASE III was that of a boy, with the lower part of his face bound up, and his external ear plugged with cotton-wool. On removing the comforter, and with it a decomposing mass of moist linseed-meal, one found the cheek red and swollen. He could only slightly separate the jaws; and one noticed, on examining the mouth, that one of the molars was slightly decayed, and that the gum surrounded it with a bright red line. On pressure, a small quantity of pus welled up between the tooth and gum; and, near the angle of the jaw, there was a small opening, from which matter was discharging. The boy had been previously taken to a dentist, who refused to extract the tooth "until the inflammation had gone down"; and advised the mother to keep on poulticing the cheek. Mr. Owen then drew attention to the course the inflammation followed in this last case: the local disturbance having caused paralysis of the vaso-motor nerves, the Haversian arteries became crowded and blocked with the red corpuscles. The colourless corpuscles effected their escape, together with some of the liquor sanguinis, through the thin-walled vessels, and the protoplasmic contents of the lacunæ and canaliculi took on energetic proliferation; at last, the intravascular pressure became unrestrainable, and, the walls of the vessels giving way, the bone became flooded with sanguineous effusion. Healthy nutrition being impossible, a portion of the jaw perished, and freed itself by linear ulceration, and remained as a sequestrum. The less the wounding of the skin, the less the disturbance of the young teeth, as the dead piece of bone was being removed, the better. In his experience, necrosis of the superior maxilla in childhood was rare; whilst that of the inferior was not uncommon. In the case of the boy with the acutely inflamed tibia, it was found that the result of those free incisions had been, that it had afforded relief to the vascular and nervous tension, and also a vent to the effused products, and thus saved the compact bony tissue from a fatal flooding; and these same conditions were obtained in the case of the child with the maxillary distress. Prompt extraction would have spared the sufferer much subsequent trouble. In conclusion, Mr. Owen would venture to affirm, that whenever a child was brought for assistance, the more firmly fixed the jaws and the greater the inflammation, the more imperative it was that the irritating tooth and the vascular tension of the adjacent bone be simultaneously removed. The tissues would then settle down in quiet as happily as did the red and swollen fingertip, when the removal of the piece of damaged nail was effected.—The PRESIDENT remarked that it was the erring practice of some to wait until inflammation subsided; and he was a strong advocate for an early removal of the offending cause, as delay often greatly increased human suffering, and was injurious in many instances to the patient in after-life.

Symptoms of Blood-poisoning: Scurvy (?).—Mr. CATTLIN narrated a case in which all the apparent symptoms of blood-poisoning were present. The water and drainage of the patient's house were good, and he had never been to sea. The breath was fœtid, and the gums presented a waxy appearance. The upper and lower extremities were studded with patches, like ecchymosis; but no symptoms of purpura hæmorrhagica were seen in the mucous membrane of the mouth, or elsewhere. The treatment consisted in a generous diet, with full doses of chlorate of potass and decoction of bark, which was afterwards changed for mineral acids and sulphate of iron and quinine. Under this treatment, the patient slowly recovered; and, in all probability, the case was one of scurvy, brought on by other than the usual causes.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

WEDNESDAY, DECEMBER 15TH, 1880.

JOHN WIGHT, M.D., in the Chair.

Placenta Prævia.—Dr. J. MACKENZIE BOOTH reported a case of placenta prævia, which had occurred in his practice. He said that the comparative rarity of the condition had induced him to bring the case before the Branch. The patient was a primipara, about 34, in indifferent health. Appetite and digestion were good. Menstruation had been free till February of this year, and slight in March. In July, there was a slight discharge of blood, but nothing to attract notice, and the case did well till the end of October, when, while she was going to bed, severe hæmorrhage set in, without obvious cause; and continued for several hours. On visiting her next day, she was found weak, but after a day in bed, she insisted on getting up. A few days afterwards (in the beginning of November), hæmorrhage occurred again, and ceased shortly after she lay down. There had been irregular pains, but the os would not admit the tip of the forefinger, and nothing abnormal could be made out. She was kept in bed, and on November 8th, regular pains set in, with very severe flooding; so severe, as to threaten fatal syncope at the first burst. On examination, the os was found of the size of half-a-crown, soft, and dilatable; but nothing, except blood-clot, was detected inside the os. In consultation, it was resolved to turn and deliver; and on passing the hand into the vagina, and the fingers through the clot, the placenta was found firmly attached all round. On pushing through the placenta at one side, the head was felt; and on the hand being passed along the membrane, well up into the uterus, the right knee was hooked, the leg brought down, and a well-sized female child delivered in the usual way; the head requiring some little time in passing through the outlet. A large dose of ergot and brandy was given, while the head was passing through; and the placenta was speedily expelled. On inspection, a large hole was seen in the placenta, close to the insertion of the cord through which the hand had passed; and it was split through to the circumference on that side. After removal, another dose of ergot was given, and pressure was applied over the uterus to ensure contraction. After delivery, there was great debility and occasional unconsciousness. She had incessant thirst. Temp. 99° Fahr.; pulse very weak, 108. In two days she improved, and appeared to be doing well; but on the morning of the third day, she had a rigor, with abdominal pain, lochial suppression, temperature 105°, and pulse 140. No clots, and but little fœtor. Fifteen grains of salicylic acid in milk every second hour, hot fomentations, and vaginal syringing with permanganate of potash solution, were ordered. In the evening, that temperature was 100° Fahr.; pulse 108; and the other symptoms were improved. She continued improving, till the morning of the sixth day, when she had another rigor, and a return of the other symptoms, the temperature being 104°. Under the same treatment, the temperature again fell; the discharge returned slightly, and the abdominal pain abated; but the pulse remained from 120 to 140; the surface became pallid; she was at times unconscious, and incoherent; and becoming gradually weaker, she died on the tenth day after delivery. During the last few days of her life, the temperature remained at about 99°; *post mortem* examination could not be obtained. In concluding the report, Dr. Booth remarked that, from the sudden onset of the puerperal fever in this case, and its rapid decrease, after antiseptics had been used; from the manual interference, necessary in the uterine cavity, and the low position of the open surface, left by the separation of the placenta; he inferred that the fever had been caused by septic absorption, and regretted he had not used Condy's fluid more assiduously after the first attack. The fatal issue seemed attributable to the additional asthenia left after the second attack; but for which, there had been every reason to expect a favourable, if somewhat tedious convalescence.

Perforation of Cæcum: Pelvic Abscess.—A case of this affection (with preparation), was reported by Dr. CARDEN. The case was that of a girl aged 16, who, two days after mensturation, complained of pain and swelling in the right iliac region. There was no tenderness on pressure. Pulse 100; temperature 100°. The next day, the swelling had increased, and the case looked like one of perityphlitis, or ovarian inflammation. After a few days, the swelling became more prominent,

leading to suspicion of abscess in the abdominal wall; but it was not considered judicious to use the knife, as fluctuation was not distinct. On percussion at this time, the most prominent part was found tympanitic. After a little, the swelling subsided somewhat, but there was still great tenderness. Temperature was 101° to 103°, variable. Ten days after she was first seen, the glands in the groin swelled, and there was great pain in the lumbar region. Then the thigh swelled enormously, and became very tender, resembling white-leg. Obscure fluctuation was felt, but not sufficient to warrant the use of the knife. On the sixteenth day after she became affected, an exploring needle was introduced into the thigh, with the result of the discharge of a little serum only. The swelling increased, cough and delirium came on, and death took place shortly after this. On *post mortem* examination, a large abscess was found outside the peritoneum, and extending from the right lobe of the liver, down to the iliac region. There was no peritonitis. On lifting up the cæcum, an opening large enough to put a finger through was found in that part of the gut; and among pieces of fæces behind there was found an orange-seed. Possibly, fæcal accumulation had helped, as there was a history of constipation. The thigh, when cut into, presented in its muscular texture a great resemblance to green cheese. Its vessels were quite distinct.

Defective Development of Fœtus.—Dr. FRANK OGSTON exhibited the body of a child, presenting, at first sight, the appearance of extrophy of the bladder, with the orifices of the ureters easily demonstrable. The scrotum was complete; no testes; penis, with prepuce present; no arms. On opening the body, a rectum was found, three inches long, containing mucus, not bound down by peritoneum; and ending in a blind extremity. There was no large intestine, the small intestine ending a *cul-de-sac*. One testis was in the ring, and the other high up behind the kidney.

SURGICAL SOCIETY OF IRELAND.

FRIDAY, DECEMBER 10TH, 1880.

A. H. MCCLINTOCK, M.D., President, in the Chair.

Tumour of Pudendum.—Mr. THORNLEY STOKER exhibited a tumour which he had removed from the pudenda of a female. It arose by a pedicle from the muco-cutaneous junction of the vagina; and was found, on examination, to belong to the myxo-fibromatous variety—being encapsuled, and attached by a pedicle. It was removed by means of a ligature, which was applied round the pedicle, above the capsule, which was thus removed intact—a circumstance which rendered the probability of its returning very remote. The tumour was ulcerated at one point.

Excision of Knee.—Mr. WHEELER exhibited portions of the tibia and femur of a patient on whom he had performed excision of the knee a few days before. Two years ago, the patient had suffered from an attack of synovitis of the knee-joint, from which he apparently recovered; but, shortly afterwards, he got an attack of what seemed to be osteitis; after which the synovial membrane again became inflamed, and pulpy thickening occurred in the joint. The cartilages were intact, but underneath the cartilages the tibia was carious. The crucial ligaments were red and inflamed. The result was, so far, satisfactory.

Excision of Knee.—Mr. CROLY exhibited the portions of bone which he had removed in excising the knee-joint of a man, aged 28, in which case the disease was limited to the cartilages—the subjacent bone being perfectly sound, though bare.

Scirrhous Tumour of Breast.—Mr. WHEELER exhibited a scirrhous tumour of the breast, which he had removed from a woman, aged 45. Pain in the breast was the only symptom of which the patient complained. There were no enlarged glands in the axilla or elsewhere, nor was there dimpling of the skin, etc. The case he considered interesting, owing to the early stage at which it was discovered. Microscopic sections of the tumour were exhibited, showing the scirrhous nature of the mass, and the ducts of the gland not yet obliterated by the growth.

Excision of the Wrist.—Mr. CROLY exhibited the bones of the carpus, removed in the performance of Lister's operation for excision of the wrist.

Cancer of Breast.—Mr. CROLY showed a scirrhous tumour of the breast, of six months' growth, which he had removed a few days before.

Excision of the Wrist.—Mr. J. K. BARTON read a paper, in which he traced the history of the operation of excision of the wrist, from its first commencements down to the present day, when the highest perfection yet reached had been obtained, he said, through the genius of Mr. Lister. There were two points on which the merit of Lister's plan mainly depended: viz., the stress he laid upon (1) the necessity of removing all the "material of the joint"; and (2) the necessity of avoiding injury to the tendons of the wrist; and the long and careful after-treatment, and systematic exercise of the fingers. Mr. Barton then briefly summarised the history and treatment of those cases in which he had performed the operation. In one case, in which he had excised the wrist of a man on March 27th, 1880, there were caries of the bones of the joint, and sinuses round the wrist. The patient had been treated at the dispensary for two months previously, but without prospect of cure. The operation was performed by means of two lateral incisions—Esmarch's bandage having been previously applied, and the carbolic spray employed. The space left after removal of the ends of the diseased bones was two and a half inches. The cut surfaces of the bones were somewhat approximated, though not brought into apposition, and the limb was dressed antiseptically. A cast, showing the condition of the hand after eight months, was exhibited; and particulars of its present condition were given. The length of the limb that was operated on, from the olecranon process to the tip of the little finger, was fifteen and a half inches; the healthy limb measuring seventeen inches. The operated hand was six and three-quarters inches long, as compared with seven and a half inches, the length of the sound hand.—Mr. CROLY had on three occasions performed excision of the wrist-joint by Lister's method. He considered an important point to be aimed at was to make the section of the ulna oblique—so that, if possible, the styloid process might be left; and thus avoid the tendency to displacement of the hand.—Mr. WHEELER objected to the use of Esmarch's bandage in excision operations, in consequence of the delay in the operation and the subsequent, often troublesome, hæmorrhage, necessitating the ligature of many small arteries, which would otherwise not have required tying.—Mr. THORNLEY STOKER considered Esmarch's bandage of paramount importance in excision operations, and designated it "one of the greatest advances in modern surgery". He had never seen the slightest ill result follow its use, since the proper method of applying it had become known. The thing to be avoided was applying the constricting tube too tightly.—Mr. BENNETT also took part in the discussion; and Mr. BARTON replied.

REVIEWS AND NOTICES.

A MANUAL AND ATLAS OF MEDICAL OPHTHALMOSCOPY. By W. R. GOWERS, M.D., F.R.C.P., Assistant Professor of Clinical Medicine in University College, Assistant Physician to Univertity College Hospital, and to the National Hospital for the Paralysed and the Epileptic. London: J. and A. Churchill. 1879.

WHEN, twenty-one years ago, Helmholtz, guided by the experiments of Brücke, invented the ophthalmoscope, he did not certainly contemplate that his discovery, one of the principal in modern science, would so quickly be applied to the whole range of diseases elsewhere than the eye, making ophthalmoscopy, in a short time, one of the most important methods of physical diagnosis. But, while clinical observation and research had thus diligently achieved this rapid development, furnishing materials for valuable monograms, mainly referring to the special practice of ophthalmology, no systematic guide for the student and general practitioner had been written on the acquisition of a correct knowledge of the ophthalmoscope. The *Manual and Atlas*, published by Dr. GOWERS, has completely filled up this long felt deficiency.

The book is divided into an introduction, and two parts, followed by three appendices, and the description of the sixteen plates of the atlas, which, in addition to the diagrams throughout the work, greatly enhance its utility. The plates are from original drawings, carefully prepared, and finally executed by the author, most of the remaining illustrations being also original.

The introduction exposes the points of special importance for an efficient use of the ophthalmoscope. The first part deals with changes in the retinal vessels, optic nerve, etc., of general medical significance. The second part refers to ophthalmoscopic changes in special diseases. The space for this review does not permit an attempt to notice, even in bare outline, the subjects treated in these two parts. For this reason, and without being embarrassed in the choice of matter, we shall briefly cite here and there some of the principal facts brought forward by the author; beginning by those on the important subject of optic neuritis, or papillitis.

Dr. Gowers believes that our knowledge of the conditions on which certain varieties of optic neuritis depend is altogether insufficient to distinguish them, otherwise than as varieties of intensity, on whatever difference of mechanism they may ultimately be proved to depend. Intense papillitis may set in without any obvious cranial or cerebral disease, and, consequently, without descending neuritis; or again, without any intracranial condition, which would cause any mechanical effect or constriction. Cases of the former category are certainly

rarer than is commonly supposed; and then, as Dr. Gowers states, "two possibilities may be borne in mind, (1) that the effect of a sudden intracranial pressure, and of distension of the sheath together, may possibly be sufficient to set up papillitis, and, (2) that a condition of irritation may be propagated down the nerves, which cannot be recognised by the microscope, but which, reaching the papilla, may excite a papillitis". Dr. Hughlings Jackson's theory of a vaso-motor influence, as cause of the inflammation, depends for its support chiefly on the absence of any other explanation.

Dr. Gowers has never been able to discover any evidence of constriction of the vessels on the sclerotic ring, or behind it. It is always in front of the sclerotic, in the substance of the swollen papilla, that the vessels present conspicuous constrictions and are pressed upon, and have their walls thickened by new tissue. Further, the most intense strangulation may occur without intracranial disease, or condition which could cause any mechanical effect. Thus, Dr. Gowers thinks that the use of the term "choked disc", as significant of a supposed mechanism, is to be deprecated in the present state of our knowledge. The term intra-ocular neuritis, or papillitis, is pathologically accurate, and is preferable until our knowledge of the changes is more definite.

Dr. Gowers believes that purely clinical characters afford a better basis of distinction between the variety of neuritis, than the relation, for the most part unknown, between pathological process and ophthalmoscopic appearances. According to these views, the following are the most marked varieties:

"1. *Slight papillitis*, including the condition described as congestion with œdema, in which the changes are so slight as to dim, but not obscure the edge of the disc on indirect examination; although it may be invisible, wholly or in part, to direct examination.

"2. *Moderate papillitis*, obscuration of the edge of the disc, or of the affected portion, complete, even to indirect examination; swelling moderate, commonly reddish; veins natural, or large; sometimes white tissue about the vessels, close to them, or extending for some distance in the disc.

"3. *Intense papillitis*, great swelling; veins at first large, and arteries small; many hœmorrhages; retina often involved by direct damage, or by hæmorrhages. Always succeeds a slighter stage, in which the evidence of strangulation may be at first little marked."

The distinction between slight and moderate papillitis, which might seem conventional and indefinite, is in reality established, separated by no arbitary line, but by a very definite condition, namely, the obscuration of the edge of the disc. Moreover, the plain clinical distinctive signs between the above varieties do not presuppose any pathological process, and therefore are preferable, in our opinion, to the inaccurate special forms of descending neuritis, and choked disc, commonly accepted by English ophthalmoscopists.

Traumatic meningitis is as often attended with optical neuritis, as is tubercular meningitis. In cerebral hæmorrhage, early changes in the papilla would be evidence that the blood was effused into the membranes.

Passing on to the relations of tumours of the brain and optic neuritis, Dr. Gowers, from his own experience, would say, that the latter occurs in about four-fifths of the cases of tumour, and it often is the only unequivocal sign of intracranial disease. It does not seem at present possible to say on what the occurrence of optic neuritis depends; why it is present in the majority, absent in the minority of cases. The position of the growth has, apparently, no influence on its occurrence. Nor does the nature and size of the tumour influence the development of neuritis. This, in tumours of slow growth, often occurs long before death. Encephalic tumours do not cause neuritis by the direct effect of their mass on the intracranial pressure, as evinced by the frequent existence of the largest intracranial tumours with perfectly normal discs; as also by the glioma attended with optic neuritis, perhaps in a larger proportion of cases than any other form of cerebral tumour, and which commonly does not press upon, but invades, the brain-tissue. In many cases in which optic neuritis occurs long after the symptoms of tumour have existed, its occurrence precedes death by no long interval. Blindness, from optic neuritis, never comes on instantly, but in the course of two or three days, and important indications are derived from the form in which sight is lost in respect to its cause. The course of the neuritis is, to some extent at least, dependent on, and influenced by, the course of the tumour. The former may subside with, or without, impairment of vision, when the progress of the tumour, either spontaneously, or under the treatment, becomes lessened, or arrested; whereas atrophy of the optic nerve occurs when the tumour continues its growth.

In syphilis, congestion or inflammation of the optic papilla is associated with growths in the brain, and very rarely with softening from syphilitic disease of the vessels. Optic neuritis is very rare as a primary affection, if it ever occurs, in syphilis; but it is, on the contrary, very common as secondary to brain-disease. Disseminated choroiditis is in the great majority of cases syphilitic, and usually unilateral. Finally, uveal pigment on the anterior surface of the lens, is an important sign of past iritis, in cases in which syphilis has not been suspected.

Atrophy of the optic nerve does not occur in more than 15 per cent. of ataxic patients; and Dr. Gowers has looked, but without success, for the chronic optic neuritis, described by Dr. Clifford Allbutt as sometimes preceding the atrophy.

In cases of lead-poisoning, periodical amblyopia has been noticed in association with neuritis, as well as with normal ophthalmoscopic appearances. In very recent intense lead-poisoning, toxic amblyopia and neuritis are apparently more common than atrophy, but albuminuric retinitis is extremely common in cases of long duration.

Dr. Gowers has found that, in epileptics, every character of the fundus was such as is presented by persons not epileptic. He has repeatedly examined them after fits, but without being able to satisfy himself that there was any difference from the appearance of their discs and vessels at other times. Even after frequent fits, the observations have been negative, excepting in one case of exceedingly severe fits, recurring at short intervals for several days. These facts fully agree with our own observations, but are not in accordance with the views in regard to post-epileptic retinal changes, held by Dr. Hammond, as reliable proofs of the existence of epilepsy.

In regard to insanity, great discrepancy exists between the observations cited by different authors, and by Dr. Gowers. In general paralysis, most of the cases examined by him, in various stages of the disease, presented perfectly normal conditions; and these results do not differ from those obtained by other physicians. In a few cases, however, there is loss of sight, depending upon grey atrophy of the optic nerves, similar to that which occurs in spinal disease; and, commonly without diminution in the size of the retinal vessels. In some instances, the onset of the visual trouble may, as in locomotor ataxy, precede the mental symptoms of the disease.

In only one, out of several cases of mania, did Dr. Gowers meet with undue and uniform redness of the discs, with distinctly softened edges; and in melancholia he found, entirely in accordance with most observers, the ophthalmoscopic appearances to be normal, notwithstanding that Jehn has described hyperæmia in some of forty cases, and actual neuritis in two, which he ascribed to meningitis. These contradictory results confirm the necessity of well comparing the diverse appearances of the fundus that are normal, as much as its changes depending on age and other physical conditions, with the intra-ocular aspects met with among the insane, before pronouncing them morbid changes.

Much more could we dwell, if we had space, on the section referring to disease of the urinary system, which is one of the most interesting and instructive in the manual. There is, however, one point in it, that we cannot pass over unnoticed—does the albuminuria of pregnancy, when leading to retinal changes, commonly improve or disappear when the pregnancy is over?

A word or two more, before finishing, as to the appendices with which the book closes. The first contains a full description of the ophthalmoscope, with remarks on learning its use, on ophthalmoscopic micrometry, and on the examination of colour-vision. Under the second heading, Dr. Gowers very properly insists, as he has already done in the preface, on the advantage of students learning the use of the ophthalmoscope early in their practical work, instead of, as at present, leaving its acquisition to the last; and that the condition of the fundus should be systematically described in case-taking. This advice, of obvious necessity and advantage, is accompanied by practical suggestions on the best method to acquire dexterity and skill in the use of the ophthalmoscope. Appendix II is on test-types; and appendix III contains an account of fifty selected and most instructive cases.

In concluding the review of a book, the scope of which is so interesting and wide, we do it with the regret of having only noticed but few of its important contents. We need hardly add that, besides its excellence as a text-book, this manual offers the double advantage to students, of teaching them how to acquire dexterity and skill in the use of the ophthalmoscope; and, above all, demonstrates its application to the general diagnosis of disease, without the fallacy of regarding it as only necessary to the special practice of ophthalmology. The book is clear and concise in its descriptions, and nevertheless full of sound clinical principles, flowing from the numerous observations carefully made by Dr. Gowers, whose manual is the most masterly that has been yet written on medical ophthalmoscopy.

NOTES ON BOOKS.

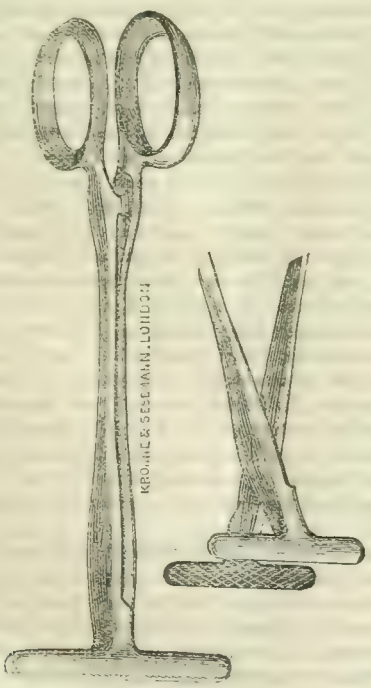
MESSRS. RUDALL, CARTE, and Co. publish a professional pocket-book and daily and hourly engagement diary for 1881, which is especially adapted for professional engagements. This convenient little book is so arranged that each day has a column to itself, and each hour a line; while at the bottom of the page are memorandums for the week. Such a pocket-book is undoubtedly very convenient for professional men; and we are surprised that the model has not been before and more generally adopted. This particular diary has headings especially interesting to persons of musical taste. It is, however, in its arrangement, well adapted to medical men as it stands at present; and, with an additional space, it might be made to be especially convenient, and would, no doubt, be generally popular.

MESSRS. J. SMITH and Co. of Long Acre, send copies of a clinical notebook for hospital and private practice, which, by its compactness and convenient form, will be found useful as a record of cases at the bedside, as well as for the general medical purposes of note-taking. Each page is ruled with vertical columns for the date, day of illness, pulse, temperature, number of respirations per minute, and urine. Each left-hand page is reserved for "general remarks", and is also cross-ruled, so that it can be converted into a temperature-chart. In a pocket is furnished a little brass outline stencil-plate for rapidly sketching an outline of the body, in which may be marked, by shading, the seats of effusions, or the position of displaced organs and tumours. The latter part of the book is ruled especially for longer reports of physical examinations, of operations, *post mortem* examinations, and cases for which the first part of the book is not suited. The book is very compact, handy, and useful. It is edited by Dr. F. R. Fairbank.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

THORNTON'S T-SHAPED COMPRESSING FORCEPS.

THIS forceps, as represented in the accompanying engraving, was designed by Mr. Knowsley Thornton as a modification of Mr. Spencer



Wells's pressure forceps, and is intended to seize and compress the edges of the divided uterine tissues in flap-operations for the removal of uterine fibroids; it will also be found very useful for temporarily restraining hæmorrhage along the edges of large surfaces of adherent omentum in ovariotomy. It is made, in two different sizes, by Messrs. Krohne and Sesemann, London.

SELF-RETAINING NASAL SPECULUM.

THIS instrument serves the purpose of dilating the anterior nares during manipulations (or operations) in the nasal cavities, in which both hands are required, and has been in use since last January. It consists of two hooks of silvered wire (curved, as seen in Fig. 1) united by an elastic



Fig. 1.

band, passing obliquely round the head, and provided behind with a buckle. Fig. 2 shows the mode of application of the speculum. The

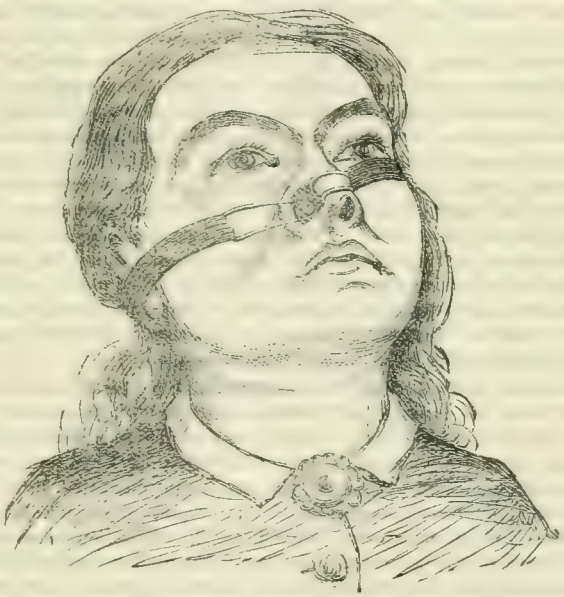


Fig. 2.

double-curved hook passes over the tip of the nose, which it draws upwards; whilst the other hook is inserted into the outer angle of the nasal aperture. The amount of dilatation can be regulated by tightening or loosening the elastic band by means of the buckle behind; and the hooks, being to a certain extent flexible, their curve can be altered to suit individual cases. Whilst being very simple and inexpensive, this instrument presents the advantage that no portion of it projects appreciably beyond the anterior nasal aperture, an important point in operative procedures in the nose. The instrument may be obtained of Messrs. C. Wright and Co., 108, New Bond Street, London, W.

Brighton, December 1880. E. CRESSWELL BABER, M.B.Lond.

VACCINATION IN INDIA.—The use of animal lymph has been introduced into Madras. Government has sanctioned a monthly allowance of one hundred rupees for the maintenance of a depôt where a regular supply of animal lymph will be available. Attempts were made, without success, to inoculate calves with human small-pox. The lymph from which the present series of successful calf-vaccination was started, was obtained from Bombay. It is not intended that animal vaccination shall supplant or supersede arm-to-arm vaccination, but that it shall be used as a means of distribution, and in cases where scruples are entertained regarding the use of human lymph.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JANUARY 8TH, 1881.

METROPOLITAN LUNACY.

A SPECIAL Committee of Guardians of the Whitechapel Union, appointed some time ago to consider the increasing number and cost of pauper lunatics in that union and the metropolis generally, presented to the board, on the 10th of August last, a report on the subject, which has since been printed and circulated, and which is obviously the result of a careful inquiry into a difficult and momentous subject, and of an earnest endeavour to devise a practical remedy for a social evil of great and growing magnitude. The increase in lunacy which the Committee were called on to consider is certainly of a portentous character, and well calculated to arrest the attention of the philanthropist and the ratepayers. On January 1st, 1870, there were 291 lunatics and imbeciles chargeable to the Whitechapel Union, costing £6,142 2s. 10d. *per annum*; and, on January 1st, 1880, the number of lunatics and imbeciles had risen to 414, and the cost of their maintenance to £8,310 19s. 4d. *per annum*. And this vast increase in the number of lunatics was not peculiar to the Whitechapel Union. In all the other metropolitan unions, a proportionate increase had taken place; so that, in ten years, their quota of lunatics and imbeciles had swollen from 7,053 to 11,960. In 1851, the county of Middlesex contained 2,465 pauper lunatics and idiots; in 1880, it contained 9,857.

It is almost needless to say that this enormous augmentation in the hapless army of diseased and weak-minded persons dependent on public charity is not adequately accounted for by growth of population, or by the detention amongst us, for a little time, of some mad men and women, who, under the rougher modes of treatment that formerly prevailed, might have been hurried abruptly beyond the cognisance of statistics. Nor is it explained by any scheme of mobilisation dependent on the erection of new asylums; or by any Government bounty offered to recruits for this army, drawn from a miserable crowd of camp-followers always hanging on the outskirts of mental disease. The true interpretation of the increase of lunatics, which all deplore and some palliate, is not, probably, to be found on the surface, nor in any one direction. It is probably an exceedingly complex and labyrinthine question, involving a vast variety of considerations; and the guardians of the Whitechapel Union have acted wisely in declining to enter upon it. Like practical men, they refuse to wander far afield in search of speculative knowledge, and confine their attention to what falls immediately within their own sphere. The number of pauper lunatics and imbeciles for whom they are required to make provision has increased hugely; and the accretions to the mass go on at an unabated rate. Is there, they ask themselves, anything in the state of the law, in the practice of the guardians and their officers, or in the administration of asylums, which is responsible, to any extent, for the influx and accumulation of lunatics and imbeciles with which they have to deal? Leaving to men of science and social reformers the etiological relations of the habits and customs of the age to mental obliquities and defects, and to physicians the problem how improved treatment may nip madness in the bud, and turn back the tide of insanity that now sets so strongly for chronicity, they apply themselves to the consideration of the working of the lunacy law, with the purpose of ascertaining whether any alterations in its machinery would have a beneficial effect in lightening their lunatic burdens.

The first matter which the Whitechapel Committee considers, is the practice as to the admission of lunatics into asylums; and here, they think, they have discovered a loophole by which a number of unsuitable cases find their way into these institutions. This loophole consists in the ignorance of mental disease by the medical men who sign the certificates for pauper-lunatics. They quote Dr. Brushfield to the effect that great difficulties present themselves in framing lunacy certificates; that a knowledge of insanity should be as compulsory on the medical profession as that of any other disease; and that a general diffusion of this knowledge amongst medical men would result in fewer cases requiring asylum care and treatment; and then, from Dr. Brushfield's observations, they somewhat illogically deduce that "the certificate upon which an alleged lunatic is detained in a public asylum should be the certificate of an expert in lunacy, and of a practitioner in no way, even to the extent of a fee, interested in the admission of a patient". The fact is, they have mistaken Dr. Brushfield's meaning. He desiderates a knowledge of insanity amongst medical men, not that fewer lunatics may be certified, but that those who are so may be better certified; and that the skilful treatment of mental diseases at their outset may cut short many cases before they reach that stage at which asylum treatment becomes essential. He does not say that the difficulties now felt in the way of signing certificates lead to unsuitable cases being sent to asylum; the truth being that these difficulties operate in exactly the opposite way, and lead to the detention at home and in workhouses of patients who ought to be sent to asylums. They do not facilitate the transmission of lunatics to asylums, but are a barrier in the way of it. Much may be said in favour of the appointment of experts to sign lunacy certificates; but the effects of such appointments would assuredly not be to diminish the number of admissions to asylums. Experts might decline to certify a few cases that are now certified by the Poor-law medical officers; but, in much larger number of cases, they would grant certificates where they are now withheld. Mr. Wilkes, the Medical Commissioner in Lunacy, expressed the expert view, when he told Mr. Dillwyn's Select Committee that there are far more persons outside asylums who ought to be in, than inside who ought to be out. Asylum medical officers differ amongst themselves as to the propriety of having certifying experts; but they are unanimous in their opinion that the effect of having them would not be to restrict admissions into asylums. Indeed, the strong objection urged against the creation of a class of experts of the kind indicated by the Whitechapel Committee is that they would take too liberal a view of insanity, and be apt to include under it those dubious states of mind that are at present separated from it by thin, but sufficient, partitions. Much of the outcry against lunatic asylums in recent years has been founded on the suspicion that their expert medical officers take too comprehensive a view of their vocation; and that their special acquaintance with insanity has predisposed them to make too much of it, and to think all men, not only mortal but lunatic, excepting themselves. However impartially they discharged their duties, certifying experts would soon fall into disrepute, and become butts for the missiles of those hordes of potential lunatics, self-conscious lunatics, half-cured lunatics, and fanatical grievance-mongers, who, being in perpetual dread of an incarceration that would be a boon to themselves and to a long-suffering public, divert attention from their own deficiencies by clamorously directing it to the deficiencies, real and imagined, of that lunacy law which was framed for their behoof.

It is sometimes forgotten—and the Whitechapel Committee seem to have overlooked the fact—that Poor-law medical officers, after having performed the duties of their position for some time, become, in a certain measure, experts in insanity. Whether with or without preliminary training, obtained in an asylum or by attending lectures, when they enter on these duties, they cannot perform them long without acquiring a practical knowledge of mental disease. Many of them study standard works on the subject, and most of them attain to an

intellectual *tactus eruditus* which enables them to diagnose insanity with justice and precision. It has been the fashion to make fun of their certificates, selecting from amongst them some flagrant examples of absurdity; but we venture to assert that, as a rule, "the facts indicating insanity observed by myself" are stated in the certificates of Poor-law medical officers with a discrimination and common sense that could not be surpassed by the most accomplished specialist, whose refinements would, perhaps, convey with them less solid conviction than more blunt and self-evident proofs. Were the Commissioners in Lunacy to give us the fruits of their immense experience, we strongly suspect they would tell us that the certificates received from Poor-law medical officers are, as a rule, not one whit less satisfactory to their minds than those sent in by eminent alienists and West-end physicians.

The second point on which the Committee of the Whitechapel Guardians enlarge is one of great consequence, and that is the delay that takes place before any patient attacked by insanity can be removed to an asylum in which curative treatment can be ensured. "A vacancy", they say, "has usually to be obtained; a delay of days, and it may be of weeks, ensues; the perfect arrangements of an asylum in the probationary treatment of the patient are wanting, and restraint is necessarily resorted to. Thus the symptoms of the patient are aggravated rather than ameliorated, and the chances of cure are proportionately diminished." Insanity, to be successfully treated, must be treated early; and it is a cruel wrong to the insane poor, and to the community at large, to waste, in preliminary negotiations, those precious hours at the beginning of an attack when remedies can exercise a beneficial effect. But the way to avoid such injustice is obvious; and that is, always to keep asylum accommodation in advance of the requirements of a district. And this the justices of each county have full power to do, by the extension of existing asylums, by the erection of new ones, or by the drafting off from asylums of chronic and hopeless cases. The blame is theirs, if they have postponed a legitimate expense, and have thereby incurred more serious outlay in the future; if they have compelled unions to resort to private licensed houses, in which pauper lunatics are most inadequately maintained at exorbitant charges; or to leave acute cases in workhouses, or in their own homes, until all chances of recovery have vanished and the madness is stereotyped on the brain. But all this the Whitechapel Committee fails to perceive. Instead of insisting on the Middlesex magistrates doing their duty, they develop a new plan of probationary asylums, into which lunatics are to be admitted without order other than the certificate of a surgeon, through which all lunatics are to pass; those that have been ground small enough to go through the small sieve of an examination by a Commissioner in Lunacy proceeding to the county asylum, and those that maintain consistency enough to resist this ordeal being returned to the outer world. Lunacy has suffered much at many times from amateuring, every disinterested tyro who has given a thought to the subject imagining himself qualified to reform it altogether; and this scheme of probationary asylums is a bit of amateuring. No man of experience in lunacy has given it any countenance. If we are to have probationary asylums on the one hand and chronic asylums on the other, what work will be left for our ordinary asylums, which have been built at great cost as curative establishments, to do? A speciality within a speciality is more perplexing than a dream within a dream. Insanity, a tolerably well defined disorder, is to have at least half a dozen different kinds of hospitals—probationary asylums and chronic asylums, private asylums and county asylums, registered lunatic hospitals and convalescent homes, idiot schools and criminal asylums—dedicated to its treatment. Is it not inevitable that, whenever it became thoroughly understood that these proposed probationary asylums are places for the provisional detention of lunatics, the same disability and ban will become associated with admission into them that is now associated with admission into a regular asylum? And, that being so, does it not follow that the public would soon regard them with jealousy, and denounce the simple expedient by which admission into them is to be obtained? The public is in no mood to weaken the securities of personal liberty where allegations of insanity are made; and yet it is suggested that any British subject should be placed in a probationary asylum, in companionship with undoubted lunatics, on no other authority than that of *unvised* medical certificate. The Commissioners in Lunacy have thought it their duty to raise a voice of warning as to the danger to personal liberty which is incurred by the easy method by which patients are committed to Leavesden and Caterham Imbecile Asylums; and well-informed persons are agreed that the violations of liberty which occur in connection with charges of lunacy occur, not in asylums, but in workhouses, which now correspond exactly with the proposed probationary asylums, in which men and women said to be insane are forcibly detained, and put in padded rooms and strait-waistcoats, without legal warrant of any kind. Probationary asylums would greatly augment the cost of lunacy administration; they would intensify the aversion and distrust with which abodes for the insane are now regarded; and they would react unfavourably upon existing asylums, over which able medical men would no longer consent to preside, when they received merely such patients as a preparatory institution thought fit to send on. They would fail to secure advantages of any kind. It would be as reasonable to propose a probationary hospital for typhoid fever or Bright's disease, as a probationary asylum for insanity.

The statement made by the Whitechapel Committee of Guardians, that aged and demented paupers, who are troublesome to deal with in workhouses, but which are not in need of the care and treatment which it was the object of the Lunatic Asylum Act to provide, are sent to asylums, is unquestionably well-founded. When genuine senile insanity is developed, and the patient is infirm, helpless, restless at nights, and disturbing to others, an asylum, with its appliances and large staff of nurses, is the proper place for him; and all such cases should be sent on in spite of the reluctance of asylum medical officers, who are naturally anxious to keep their death-rate down and their rate of recovery up, to receive them. But, beyond such cases, there are others of simple and unobjectionable dotage, sometimes transmitted to asylums, that might very well be retained in workhouses. Against this, however, the guardians have the check in their own hands, as they are entitled to exercise some judgment as to the character of the cases in which removal to an asylum is recommended, and can catechise and caution their officers on the subject.

As regards the treatment of patients actually in asylums, we can cordially agree with the remarks of the Whitechapel Committee. They speak, in terms of the utmost confidence, of the skill and care bestowed by the medical and nursing staff on the patients placed under their supervision; but, at the same time, they call attention to various points in the management of metropolitan asylums, which, in their judgment, require further consideration. They question the sufficiency of their medical staffs; and who will doubt that they are right in doing so, when told that there are only fourteen medical officers in the asylums of Middlesex to superintend and treat six thousand patients? and they hint at the impossibility of each patient, who is susceptible of curative treatment, receiving the detailed personal attention which his or her case requires. The adequacy of the classification of patients in asylums; the separation of the young from the robust, in order the better to provide for the special requirements of each as regards employment and exercise; the security that patients, who reach convalescence, are withdrawn from injurious influences; the expediency of limiting the number of patients which should be under one management; and the practicability of adopting some modification of the boarding-out system in the case of harmless and convalescent lunatics—are subjects which they have passed under review, but upon which they do not dogmatise at present. Their notions on these subjects, however, as far as they can be gathered from their report, are of an eminently sound and judicious description.

The report which we have criticised—and we have, of course, given greater prominence to the points where we dissent from its conclusions,

than to those where we agree with them—is a very able document, displaying much clear insight and practical sagacity, and reflecting much credit on its compiler.

HABITUAL DRUNKARDS IN NEW ZEALAND.

Dr. Frederick Skae, who, as Commissioner in Lunacy in New Zealand, is ably maintaining the distinction won for his name, in connection with the treatment of the insane, by his accomplished father, in the days when the Royal Edinburgh Asylum at Morningside was the nursery of medical psychologists, refers in his report, presented to the Houses of General Assembly in the month of July last, to the treatment of habitual drunkards in the asylum at Christchurch, into which they are received under the provisions of the 21st section of the Lunatics Act of New Zealand. Three habitual drunkards of each sex were in the asylum at the commencement of 1879; and two males and three females were admitted for the first time, and one female was readmitted, during the course of the year, making twelve in all under treatment. Two males and four females were discharged recovered, and two males and one female not improved, leaving one male and two females still inmates of the asylum at the beginning of 1880. In every case but one, the judge's order of committal directed that the patient should be detained in the asylum for twelve months (the full time allowed by the Act), unless ordered to be discharged before the expiration of that term. Only one, however, of those discharged during the year had remained for that time; one stayed under two months, three under four months, two under six months, and one under seven months. It can hardly be supposed that, when the moral powers have so utterly broken down under the influence of drink, as to justify confinement in an asylum, two or three days of repentance, or a few months of rebellious grumbling, are likely to secure recovery. A year's seclusion is not, in Dr. Skae's opinion, a day too long; but the practical difficulty is, that the patient is not often of this way of thinking. The immediate effects of the alcoholic poisoning soon pass off; and no outward and visible sign of the inward and spiritual weakness remains. And when this is so, unwarrantable self-confidence speedily returns, and impatience waxes hot. The patient bewails the misery and loss that prolonged detention is entailing, and fervently proclaims an unalterable resolve to drink no more. The husband or wife of the patient, as the case may be, believes the protestations made; and the doctors, on whose evidence the committal was granted, are sent to review the case. The chances are that they fail to find anything the matter, and charitably give credit to good intentions; and so the patient is discharged, when the morbid appetite is not extinguished, but only smouldering, and ready to flare forth once more whenever the wet blanket of restraint is taken off it. In all cases of habitual drunkards committed to asylums in New Zealand—and some have been sent to the Dunedin Asylum, as well as to that at Christchurch—the patient's maintenance is ordered to be paid at a certain weekly rate, ranging from twenty shillings to forty shillings. In seven cases, Dr. Skae intimates, the payments have been made as ordered; in one, the money is expected; but, in four cases, no payments have been made, nor are any likely to be forthcoming. It can hardly have been the intention of the Act, Dr. Skae justly observes, that habitual drunkards should be maintained in asylums gratuitously, and, at the same time, be at liberty to pass their days in absolute idleness. Yet this is its effect, when, as often happens, there are no funds to meet the payments ordered. These patients will rarely work of their own accord—they are not working men, to begin with—and they object to do anything inconsistent with their dignity as habitual drunkards, or that might reduce them to the level of ordinary lunatics, who are generally industrious. Even when their maintenance is paid for, their presence in the asylum has, Dr. Skae declares, an injurious influence on all around them. They spend all their time in amusements or grumbling; and, with that hypertrophy of self-esteem which often accompanies an atrophy of moral character, give themselves superior airs, which are offensive to their insane companions, whom they demoralise by setting them an example of idleness, and in other ways. But, in the case of those habitual drunkards who pay nothing, and who are mere broadcloth paupers, this lordly indolence is peculiarly obnoxious to the other patients and to the officers of the asylum.

It is clear that New Zealand has not yet solved the problem of the best way of dealing with habitual drunkards, and that its legislation on the subject has hitherto been of a halting and timid description. A lunatic asylum is not the place for habitual drunkards; and, if they are to be confined at all, they must be confined for a sufficient length of time, and under regulations of sufficient stringency to insure their good behaviour, and their full participation in that most valuable species of moral treatment—hard labour.

It is a significant fact that, notwithstanding the very unsatisfactory state of matters which he reports, Dr. Skae is still unwilling to abandon the shred of control over habitual drunkards which the present law of his colony confers. "Great as are the annoyances", he says, "which result from the reception of habitual drunkards into asylums, and small as may be the benefits derived from it, it does not seem desirable altogether to rescind the law which provides the only means of recovery to a class of people who are a misery to themselves and others; many of whom are undoubtedly anxious to get rid of their infirmity, and some of whom succeed in doing so, and through these means. A few years of the experience of the 'retreats' for inebriates which are about to be established in England, may justify the adoption of a similar plan of treatment here." We should recommend New Zealand not to wait for experience from England, but to lead the way in this important matter; and show the mother country that it is possible to restore habitual drunkards to self-respect and habitual temperance without jeopardising the liberty of the sober population, or incurring those other risks which have been predicted whenever an effective measure has been proposed here. Under the existing law, but little encouragement is given to the establishment of retreats in this country; and the experience of such of them as are started can scarcely yet be expected to be of an instructive kind.

THE BRITISH MEDICAL BENEVOLENT FUND.

Many of our members and of the other readers of this Journal will, we believe, be glad to have brought to their knowledge some particulars of the beneficent working of the British Medical Benevolent Fund, for which we are now asking their general and active support. Such support, we may observe, may well take the form, not only of personal contribution of money—a tithe rendered to the claims of suffering, sorrow, pain, and calamity, among our less fortunate brethren and their families—but also of an offering of time, pains, and perhaps some self-denial, in bringing these claims under the notice of friends, connections, patients, and the lay public generally. There is no profession of which the members give more liberally of their time, skill, energies, and charity, to the poor of all classes; there is none of which the decayed and distressed families have, in their time of need, more obvious title to the aid and compassion of all classes; nor are such claims to sympathy and aid likely to be denied or disregarded when they are urged. There need be no sense of indelicacy or importunity in seizing and in finding opportunity for making widely known the operations of this Fund, and its rank among beneficent institutions. There are, happily, in this kingdom, thousands of persons who feel that it is a privilege to know where the gifts which are the free will offerings of kindness and sympathy may be well bestowed, without probability of abuse. The intelligent and unpaid labours of the administrators of the British Medical Benevolent Fund reduce its office-expenses to a trifle, and minimise the inconvenience to applicants.

The British Medical Benevolent Fund was originally founded by the late Mr. Newnham, in connection with the Provincial Medical Association, as what is now the British Medical Association was then called; but while both institutions were struggling for existence, they drifted apart, and the Fund for many years obtained little recognition from the Association. The report was, however, duly presented at most of the

annual meetings. Some years ago, at the instance of Dr. Hare, at that time treasurer, the fund previously called the Medical Benevolent Fund received the prefix British; and as time went on, the parent Association and many of the Branches lent their aid and countenance; and recently full recognition was accorded by the advocacy of the Fund by the Bishop of Bath and Wells at the opening service of the annual general meeting at Bath. This important step, obtained through the influence of Mr. Bartrum of Bath, was followed up at Cambridge; and the eloquent appeal of the Bishop of Ely brought the Fund more forcibly than ever to the notice of the members of the Association.

There are two divisions of the Fund—the annuity and the donation departments.

The annuity department shares, with other charitable institutions, the work of providing, to some extent, for the aged and infirm belonging to the profession. On the list are thirty-six annuitants of £20, five of £26—the ordinary sum being supplemented by an addition of £6 from a special fund raised for the purpose of increasing the amount to 10s. a week—and six of £10. The ages of five annuitants elected in November are respectively 93, 82, 73, 66, and 65; of the last three, one is suffering from cancer of the penis and bladder, another is paralysed and bedridden, the third hemiplegic; not one of them had a farthing of income. This simple statement will show better than many words the extremity of distress relieved. The five were selected from among twenty-seven applicants, only three of whom, however, had been more than two years on the list of candidates.

The donation department is peculiar to this Fund. Its object is to relieve urgent distress at any age and from whatever cause, except the applicant's unworthiness. The amount voted in 1880 was £1,696; in 1879, £1,715; in 1878, £1,385; in 1877, £1,648; in 1876, £1,379—an average of about £1,500 *per annum* for the last five years. For the preceding five years, the average would be about £1,000. This department is dependent from year to year on subscriptions and donations; and the amount distributed is, in fact, limited only by the amount collected. The increase noted above is largely due to the impulse given to the operations of the Fund by Dr. Hare as treasurer, and Mr. C. S. Webber as honorary financial secretary.

The committee meets once a month, and cases are brought before it by means of a printed form, on which are specified the particulars constituting the demand for relief, authenticated by two signatures, one at least being that of a subscriber. The form must also be accompanied by two letters from medical men. To obtain the signatures and letters is the only trouble to which the applicant is put. When the evidence is satisfactory, a grant is at once made; if there be any doubt, further inquiry is made, usually by some member of the committee or honorary local secretary. Illustrations of the cases which come before the committee may be given from the work of the year just finished.

Another distinguishing feature of the Fund is, that the expenses of management are reduced to a minimum. All the correspondence with and concerning applicants is undertaken by the honorary secretary for cases; and the work connected with collection of money by the honorary financial secretary. The only expenditure is for printing, postage, and other kindred disbursements, together with a percentage on such part of the subscriptions as is gathered in through the collectors.

The following are some of the cases that have occurred within the last year.

1. A lady, residing in Berkshire, aged 44, was left a widow after the long illness of her husband, M.R.C.S., who had for many years been in general practice. There are nine children, the eldest under twenty years of age, and no income to support them. The case was strongly recommended by medical men in the neighbourhood. Voted £20.

2. A widow, aged 27, with four little children, the last one born after death of the father, who was M.R.C.S. &L.R.C.P., and practised in a London suburb. The father died almost suddenly of heart-disease, leaving wife and family totally unprovided for. Voted £20.

3. Two sisters, aged 51 and 50, daughters of a medical man, have kept themselves for many years since their father's death, by letting apartments, but now having to support a brother, M.R.C.S. and L.S.A., who is insane, and also on account of the illness of one of them, are in a state of extreme poverty and distress; strongly recommended by several medical men. Voted £30.

4. The three children, aged 13, 10, and 9, of a surgeon-major in the army, who died in Cabul, whose mother is dead, and the only living relative, a great uncle, a clergyman of small income; no means of support or education. Voted £15.

Dr. MEYMOTT TIDY has resigned the office of public analyst for Essex, in consequence of the increasing pressure of private practice.

ON the 28th of last month took place the thirty-fourth case of cremation at Gotha. The first occurred on December 10th, 1878.

A MEETING will be held at St. George's Hospital, on Wednesday, at 5 P.M., for the promotion of the testimonial to Mr. George Pollock.

DURING the month of October last, there were, at Marseilles, 813 deaths, of which 43 were from small-pox, 52 from typhoid fever, and 3 from other infectious diseases.

WE regret to hear of the death at Rome, of enteric fever, of Mr. George Harrison Evans, M.B., F.R.C.S., of Edgbaston, Birmingham, the eldest son of the late Dr. George Fabian Evans, of Birmingham.

A CONGRESS of Laryngology is announced for September, 1882, in Paris. The members of the organising committee nominated are MM. Fournier, Gouguenheim, and Krishaber.

THE death of an inmate of the Workhouse Infirmary of St. George-in-the-East occurred on the 27th ultimo from "senile decay", whose age was stated to be 106 years.

DURING the thirteen weeks ending last Saturday, the metropolitan death-rate averaged only 20.9 per 1,000, against 23.7 and 24.4 in the corresponding periods of 1878 and 1879.

ON Wednesday evening, January 12th, a paper on "A Sanitary Protection Association for London" will be read at the Society of Arts by Professor W. Fleeming Jenkin, F.R.S. The chair will be taken at eight o'clock, by Professor Huxley, F.R.S.

WE have been requested to state that the library of the Royal College of Surgeons of England will be closed on Friday and Saturday, the 14th and 15th of this month, owing to its being required for the pass membership examination of the College, which will be held on those days.

A SERIOUS outbreak of typhoid fever is reported at Finedon, in the Wellingborough rural sanitary district. A total of thirty-two cases has, up to the present, occurred in fourteen families, and there have already been six deaths. The epidemic seems to be attributed to polluted water, though the facts hitherto published do not give more evidence of this relation than is afforded by the statement that many of the wells were found to be "polluted".

THE medical commission recently appointed to examine the mental condition of Veli Mahommed, who shot the Russian Colonel Cummerau one day last spring, when that officer was riding through a faubourg of Constantinople, has decided that he shows unmistakable signs of melancholy madness, and also of persecution mania, and that the germs of the disease probably existed at the time when he committed the act for which he was tried and condemned to death. In consequence of this decision the capital sentence will doubtless be commuted.

UNQUALIFIED MEDICAL PRACTITIONERS.

MR. G. JEANES, who had practised in Walworth Road, has been summoned at the Lambeth Police Court, in respect of offences under the Births and Deaths Registration Act, 1874, and also under the Medical

Act, for giving a certificate as a Member of the Royal College of Surgeons and an Associate of the Apothecaries' Society. Under the first two summonses, the penalty was £10; and under the other, £20. Mr. Lewis Glyn, barrister, appeared in support of the summonses; and Mr. Lickfold (Lewis and Lewis) for the defendant, who pleaded "Guilty". Mr. Saunders fined the defendant £1 in respect of each of the first two summonses; and in respect of the other, £20.—Mr. W. J. Payne, the Southwark Coroner, also held an inquiry as to the death of Mrs. Martha Lusty, aged 61, in which it appeared that the deceased had been in ill-health for some years; but, becoming much worse, a person was called who represented himself to be Dr. Harding of Great Suffolk Street, but who was afterwards discovered to be a chemist named Wardley. He refused to prescribe for the deceased, as he said she was in no need of medicine, but only required nourishment and nursing. Accordingly, no medicine was administered; and on Sunday last the deceased died, the *soi-disant* Dr. Harding giving the witness a paper professing to be a certificate of death. This was at once refused by the registrar, and hence the inquiry before the coroner. The coroner, in summing up, called the attention of the jury to the fact that Wardley had been before him, acting in the same illegal and dangerous manner, four or five times during the present year; and on each occasion it had transpired that he had passed for Dr. Harding. The coroner said he had several times severely reprimanded the man; and on one occasion the jury found that his conduct had accelerated, if it had not actually caused, death. Mr. Bacon, foreman of the jury, thought that it was time some steps were taken to put a stop to Mr. Wardley's fraudulent and dangerous business. He was not a qualified man; and poor people, who had their children or themselves treated for by him, stood in danger of their lives. He considered it a shameful and scandalous matter that the respectable poor, who preferred a cheap dispensing doctor to the parish infirmary, should be subjected to such a risk; and he hoped that the present case would be publicly noticed, and legal means taken to protect them. A verdict of natural death was finally recorded.

SUMMER DIARRHŒA IN LIVERPOOL.

THE subject of summer diarrhœa has lately received consideration in a report presented by Dr. Stopford Taylor to the Health Committee of Liverpool, in response to a resolution of that body. After some general remarks on the fatality of the disease in different parts of the kingdom, Dr. Taylor observes that, so far as the action of the Health Committee was concerned, Liverpool was in as favourable a state to contend against the disease as in the previous year; but the meteorological conditions were entirely different. In 1879, with a low summer temperature, there were only 216 deaths from diarrhœa; in 1878 and 1880, with high temperatures, there were respectively 800 and 813 deaths. During the first week of July, terminating on the 10th, with a temperature of 57.9°. there were 16 deaths. As the temperature rose, so did the number of deaths increase, until the week terminating September 4th, when the average mean temperature was 66.1°, and the number of deaths 109. The number of deaths increased, indeed, during the next week, to 112, although the mean temperature fell to 60.3°; but this is easily accounted for by the effects of the great heat of the previous week not being felt till then. "Heat by itself", says Dr. Taylor, "will not produce diarrhœa; but, acting upon organic matter, it promotes decomposition, filling the atmosphere with noxious emanations, which, with the exhalations from a crowded population, envelopes, as in a fog, the ill-ventilated parts of the city." Though the disease was general over the whole city, the greatest mortality was in those districts where the houses are most crowded together, and the population most dense. The consequence of these insanitary conditions is reflected in the general high rate of infantile mortality which prevails in these localities; and it is no matter of surprise that, when diarrhœa prevails, the enfeebled constitutions and lowered vitality of the children render them unable to cope with the disease, so that they sink into early graves. The system of subletting houses greatly aggravates the evil; and Dr. Taylor deplores the fact that this practice is extending, and is deteriorating the physical and moral condition of the people. He says, the neglect and indifference with which children are treated in some of these houses is painful to witness; and that large numbers of them die can excite no surprise, for the wonder is tha any of them survive.

RECREATION GROUNDS FOR THE METROPOLIS.

AT the recent quarterly meeting of the Surrey magistrates, a report was presented by the General Purposes Committee, in which it was stated that no answer had been received from the Metropolitan Board of Works to the proposal of the magistrates that a reduction should be made in the price of the site of Horsemonger Lane Gaol, with a view to its purchase by the Board for use as a recreation ground. In connection with this, the chairman moved a resolution to the effect that it was expedient, in the interest of the county, that the site of the county gaol be retained; that the orders made as to the sale of a portion of the land be rescinded; and that the Finance Committee be empowered to negotiate for its use as an open space. The resolution was adopted by a large majority.

INQUESTS IN MIDDLESEX.

A REPORT has been issued by Dr. Hardwicke, coroner for Central Middlesex, from which it appears that last year he held 1,598 inquests, at a cost of £5,805 4s., or an average of £3 8s. 11d. for each inquest. No fewer than 228 persons died, as the juries found, from disease of the heart, 168 from disease of the lungs, 94 from disease of the brain and convulsions, and 85 from apoplexy. Deaths of children from suffocation in bed numbered 135, and in all these cases verdicts of "Accidental death" were returned. Forty-six persons died through injuries received by being run over in the streets, and 43 from the effects of injuries caused by falling down in the streets. Twelve deaths resulted from accidental poisoning. Three persons only were killed by machinery, and 67 succumbed to the results of burns and scalds. The coroner points out the desirableness of *post mortem* examinations in cases of paupers and prisoners dying in workhouses and gaols being made by independent medical men unconnected with those establishments. He also remarks upon the loose manner in which some registrars grant burial certificates, without a written information from a duly qualified medical practitioner detailing the cause of death.

SMALL-POX HOSPITAL ACCOMMODATION.

LAST week, the guardians of the Metropolitan Asylums District waited upon Mr. Dodson (with whom was Sir John Lambert), at the Local Government Board, on the subject of the steps to be taken for providing additional small-pox hospital accommodation, and the proposed huts at the Deptford Hospital. The deputation was headed by Dr. Brewer, the chairman of the Metropolitan Asylums Board; Mr. Galsworthy, vice-chairman; Mr. Bostock, chairman of Stockwell and Fulham Hospitals; Mr. Barringer, chairman of the Homerton Hospital; and Mr. Hodges, chairman of the Deptford Hospital. Dr. Brewer, after pointing out how necessary an increase of accommodation for small-pox cases was, said their position was exceedingly doubtful, owing to the suit now pending before the House of Lords (the Hampstead Hospital case). They dared not undertake to buy new sites; and they asked the Local Government Board, whether it would be right to supplement by 70 beds the accommodation at present existing at Deptford? The Metropolitan Board of Works would not sanction the erection of six wooden pavilions, owing to the risk of fire, and they stipulated that incombustible materials only should be used. Three years ago, the Metropolitan Board sanctioned wooden huts, but they would not do it again. Mr. Dodson, in reply, said the state of the law, owing to the Hampstead Hospital case, created a great difficulty. Then, with reference to Deptford, there were already a large number of patients there; and simply on that score, it became a question whether it was desirable permanently to add so large a number to them. If he remembered rightly, the report of the Parliamentary Committee on Hampstead Hospital was against the congregation of so

large a number of patients on one site, and therefore that would constitute an objection to a permanent addition. But he quite sympathised with them in the difficulties in which they were placed, and the desire they had to afford the additional accommodation. He was afraid that, if the epidemic should spread, even this accommodation of seventy beds would be but a small addition; and it would not relieve other sanitary authorities from making the best provision in the circumstances. The great object was to get this thing done immediately to meet the present emergency. He would consider the matter, and give an answer with the least possible delay, because the Board felt that in this matter time was precious.—Mr. Andrew Wentzell, the Hackney member of the Metropolitan Asylum Board, has reported to the Board of Guardians of that parish, that the statistics furnished by the hospital superintendents show an increase in the number of small-pox patients under their charge. There were 382 patients in the hospitals of the Asylum Board, against 372 reported a week ago. They were thus located:—In Homerton Hospital, 104; at Stockwell, 102; Deptford, 137; and Fulham, 39. A considerable number of the patients at Homerton were approaching convalescence.

INFLUENCE OF THE ANTISEPTIC METHOD ON MEDICAL JURISPRUDENCE.

In a lecture at the close of his last session, Professor Nussbaum (*Wiener Medic. Presse*, Nos. 21-23, 1880), discusses the consequences following to medical jurisprudence from the revolution in surgical opinion caused by the antiseptic method. So strong an adherent is he of this method, that he would extend the statute of the German penal code, dealing with bodily injuries and damage to health through negligence or malapraxis, to such a case as a surgeon examining a wound with a finger not disinfected according to the strictest antiseptic principles. He considers, also, that the duty of carrying out these principles excuses the medical man from making, in a medico-legal case, that thorough and searching examination of a wound formerly required.

MEDICAL SOCIETY OF LONDON.

The Lettsomian Lectures will be delivered by Sir Joseph Fayrer, on Mondays, January 10th, 24th, and February 7th, 1881, at 8.30 P.M. The subject will be Tropical Dysentery and Diarrhœa. Lecture I will be delivered on January 10th, on Dysentery: Introductory; Brief Historical Notice; Geographical Distribution and Prevalence in India and other Countries of Dysentery and Diarrhœa; Definition of Dysentery; Various Types and Forms; Etiology; Symptomatology. Lecture II will be delivered on January 24th, on Pathology and Treatment of Dysentery: Pathology and Morbid Anatomy of Dysentery; Acute and Chronic, illustrated by Clinical Histories of recent cases and by specimens; Treatment of Dysentery. Lecture III on February 7th, on Tropical Diarrhœa: Chronic Dysentery and Tropical Diarrhœa; Morbid Anatomy; Pathology; Symptoms and Treatment, illustrated by recent cases and specimens.

DOMESTIC MEDICINES.

At an inquest recently held by Dr. Danford Thomas on the body of a child, aged 2 years, who had been ailing from cough and cold, for which the mother administered a "Steedman's teething-powder", Dr. Gwynn, the medical officer of health for Hampstead, who happened to be passing at the time of the child's death, was called in. He stated, in the course of his evidence as to the causes of death, which he attributed to irritation of the brain and exhaustion from diarrhœa, that he was also of opinion that death was accelerated by the administration of a powder called "Steedman's powder". These powders, he said, contained calomel and antimony, which produced irritation in the bowels, causing diarrhœa and sickness. The jury returned a verdict embodying the opinions expressed by Dr. Gwynn. In another inquest, held by Dr. Hardwicke on the body of a child who died after the administration of castor-oil, the coroner, in summing up the case, said the public ought to know that there were several kinds of castor-oil, only one of which was fit for medicinal purposes for human beings, viz., "the cold-drawn oil". Castor-oil could be, and often was, obtained from oil-shops, which was quite good enough for horses and cattle, but was full of impurities. To give little children the common oil was simply to make them worse.

PAYING WARDS AT ST. THOMAS'S HOSPITAL.

The announcement in the papers that the paying wards, known as St. Thomas's Home, were ready for occupation, is premature. They will not be ready for probably another month, at least. At present, the wards are not in a sufficiently forward condition for visitors to inspect them. At the St. Thomas's Home, the patient will receive every comfort, good nursing, and adequate diet, for an inclusive payment of eight shillings *per diem*. With a scarcely remunerative and small payment like this, it is not unreasonable to hope that the patients will be able to give somewhat larger fees to the consultants who may attend them, in conjunction with the resident medical officer. One other point strikes us. There are to be regular visiting days, to which the friends of the patients will be restricted. Will pay patients submit to such a rule? If they do, well. If they do not, then a twenty-five-bedded ward, divided by curtains, is not likely to be popular. The experience of the managers of the Home Hospitals Association, at Fitzroy House, proves that, when a visitor comes to a patient in a ward with more than one bed, those who have no friends quietly overhear all the visitor has to say; and so true privacy is impossible. For this reason, the four-bedded ward has been given up at Fitzroy House.

TYPHOID FEVER FROM INFECTED MILK IN THE PORTSMOUTH GARRISON.

The Portsmouth garrison has again suffered from an epidemic of typhoid traced to milk. Two years ago, an outbreak of typhoid fever, traced by Mr. George Turner to the drinking of infected milk, invaded the Eastney barracks, where not only the mess, but the inhabitants of the quarters of the married officers, were attacked; the milk, in both cases, being supplied from the implicated dairy. A somewhat similar state of affairs is now reported as occurring at the Cambridge barracks, where, from September 30th to October 10th last, seven cases of enteric fever appeared. The sufferers were an officer's wife, two children, and a nurse, living in the officers' quarters; and a woman and two children living in the married soldiers' quarters. The sanitary state of the barracks is good, and no defects could be discovered on careful examination. But all the persons affected derived their milk-supply from a particular dairy; and, on the use of this milk being discontinued in barracks, no more cases occurred. On visiting the milkman's house, it was ascertained that his son had been suffering from some kind of fever, with admittedly typhoid symptoms, from which he was then recovering. He lay in a room upstairs; and everything, such as stools, etc., had necessarily to be carried through a back kitchen, which was used as a sort of dairy. There was no properly constructed dairy whatever, and no other room was used for the purpose. It seems probable that the infection may have been absorbed by the milk standing in the room through which the stools were conveyed, or, perhaps, temporarily deposited. If, however, as seems likely, the person engaged in the milking was also in attendance on the patient, the chances of the poison getting into the milk would be enormously facilitated. In the officer's family, all the members attacked were in the habit of taking a glass of milk before going to bed. The officer himself, and two children, took milk in tea very sparingly, and escaped. This case only adds one more to the now very numerous instances on record of the evils arising from unregulated and carelessly managed private dairies; and makes the need for some effectual legislation on the subject even more urgent than before.

TYPHOID FEVER FROM INFECTED MILK IN MARYLEBONE.

In his excellent first monthly report to the Vestry of St. Marylebone, Mr. A. W. Blyth, the newly appointed medical officer of health, gives some interesting particulars with regard to "a very curious outbreak of typhoid fever" in the parish, which seems to have been due to milk-infection. He says that, on or about October 28th, 1880, four

householders in Clifton Hill, one in Bolton Road, and one in Upper Hamilton Terrace, became affected with typhoid fever. In one of the affected houses in Clifton Hill, three were struck down almost exactly at the same time, viz., the father and two children; at another house, a servant was attacked; at a third, a child; and at a fourth household, another servant. In Bolton Road, a mother and her child were successively attacked; and, in Hamilton Terrace, a boy was taken ill about the same date. The houses invaded in Clifton Hill were not all on the same side of the street, nor adjacent; nor has Mr. Blyth been able to trace between any of them direct communication. From the fact of the cases occurring at one and the same time, it is natural to infer that, about that date, there was a common influence acting on all these households. The sanitary condition of the premises was fairly good, and quite inadequate to develop the disease, even were such an evolution possible. But five out of the six households were supplied from the same dairy: a dairy, moreover, which only supplied a few other people. It was found, too, that the household most seriously affected in Clifton Hill used a large quantity of milk; and that the father, who died, used to be fond of drinking milk unboiled. The fact that there was a case of typhoid fever in the neighbourhod, at almost the same time, not supplied by the same milkman, does not invalidate the strong suspicion that infected milk was at the bottom of the mischief in this outbreak; though more detailed evidence than is given in Mr. Blyth's report is required before such a conclusion could be arrived at with certainty.

COMMON LODGING-HOUSES.

DR. HARDWICKE lately held an inquest on the body of a seller of chickweed and groundsel, who died in a common lodging-house at Holborn Buildings, containing forty beds. After the inquiry was concluded, the coroner, in summing up, remarked that one of the most important questions of the day was the subject of lodging-houses. The decencies of life were not observed in houses like that in which the deceased died; they were hotbeds of disease, vice, and misery, and the powers of the police did not enable them properly to supervise the houses. All over London these wretched hovels were to be found, and congregated therein were the dirtiest, most vicious, and most wretched of creatures, who bred disease during the night, and sowed it broadcast during the day. In Paris, all persons found without means of proper feeding and sleeping were compelled to quit the streets and were properly taken care of, during the night; he thought the same system should be practised in London, instead of allowing the wretched outcasts to prowl about the streets until they had the necessary fourpence to pay for a night's lodging in a house teeming with disease and death. He believed that if public dormitories, with bathrooms attached, were constructed, and a halfpenny charged for the bath, the poor would flock to such a place, and forsake the common lodging-houses, where comfort was utterly unknown. The ratepayers would be the gainers pecuniarily, and disease would decrease to a vast extent. The jury, in returning a verdict of "Death from effusion of blood on the brain, accelerated by excessive drinking", expressed an unanimous opinion that the common lodging-houses in the metropolis should be swept away, and the streets cleared of poor outcasts at night.

DEATH FROM CHLOROFORM.

MR. ARTHUR J. SHIRLEY, the coroner for Doncaster, held an inquest, on December 30th, touching the death of Benjamin Duke, thirty-one years of age, who died from the effects of chloroform, administered under the direction of Dr. Wilson. The coroner said that the deceased suffered from a tumour on his forehead; and, about twelve months ago, he consulted Dr. Wilson in reference to it, as he wished to have it cut out, but, owing to his habits of life, the doctor thought it would not be wise to have the operation performed then. The deceased was spending Christmas at Doncaster with his parents; and he again consulted Dr. Wilson, to see whether he would perform the operation. Dr. Wilson, considering that the man's habits of life had improved, consented to do so; and on Wednesday he attended, along with the surgeon from the infirmary, in order that deceased might undergo the operation. Chloroform was administered; the heart's action ceased, and he sank under its influence. Dr. Wilson, in evidence, said that something was said about not using chloroform, because deceased thought he could not bear it; but witness told him it would be a very painful operation, and would require very careful dissection. Deceased's reason for not wanting an anæsthetic was, that he was ill after it before. He was then ten years of age, and witness was told that it made him sick and poorly for some time. He did not test the heart, because, from his general appearance, it seemed quite unnecessary. It was arranged that the operation should be performed on the following day; and Mr. Sharples, acting as temporary house-surgeon at the infirmary, consented to go with him. Mr. Sharples felt deceased's pulse, and saw that he was perfectly well. Witness placed the chloroform on the towel, and Mr. Sharples administered it whilst witness was getting the instruments ready. The first dose consisted of two drachms, and Mr. Sharples placed the towel over his face, allowing sufficient room for breathing. In a minute or two, Mr. Sharples asked for a little more chloroform, as he had not enough, and about one drachm was put on, making three drachms altogether. Deceased then struggled very violently. During the struggle, his face became very livid, and they stopped giving him chloroform. The breathing became very slow and laboured; he gasped, and witness then drew the tongue forward; and, seeing he was not taking the chloroform well, they endeavoured to restore the breathing. The colour became more purple than usual. They continued artificial respiration, sent to the infirmary for the battery, and tried for an hour to restore breathing. He should say that he died in four minutes after the administration of the chloroform. The pulse was watched all the time. When he began to struggle, he clenched his fist, and his breathing was laboured. He had given chloroform 2,000 times, he should think, and had seen it given frequently; but he had never heard of a case similar to this one. All was done that could be done.—In reply to the foreman, witness said, in the majority of cases where he had seen chloroform administered, the stethoscope had not been used to test the action of the heart. He was present at the necropsy along with Mr. Tacey and Mr. Sharples, and performed the operation. He found the body well nourished, exceedingly muscular, and well developed in every way. He examined the heart, and found that it was somewhat flabby. The muscular fibres were very fairly firm, but not so firm as the perfect standard of health. The valves of the heart were a little extended, and the liver was somewhat enlarged. With the exception of the slight flabbiness of the heart, the body was that of a perfectly healthy man. He had no doubt that flabbiness was the cause of the chloroform having such an effect upon him; and death was caused by the administration of chloroform. The flabbiness of the heart could not have been detected by the stethoscope or by any other means. Flabbiness of the heart was very unusual at his time of life.—Mr. C. W. Sharples, temporary surgeon at the infirmary, stated that when deceased had nearly finished struggling there was a change in his face; and, as that denoted that something was wrong, they commenced to work his arms and promote artificial respiration. The breathing was noisy at first. He held the towel partly over his face, leaving room for the breathing. He had assisted in administering chloroform about one hundred times in London and at the hospital. Sometimes the stethoscope was used to test the heart, but not when a man was healthy. Flabbiness of the heart was found in stout people. The chloroform was poured on to the towel by Dr. Wilson. There would not be more than three drachms altogether.—Mr. Tacey agreed with Dr. Wilson's evidence. He agreed that the heart was flabby, and thought that the arteries were a little large. He had administered chloroform for twenty-one years, and had never had a fatal case. He had been present immediately after death. He did not think, in this case, that the stethoscope was absolutely necessary; but it was an invariable practice with him to use it. He always used it as a matter of caution; but in this case, if Dr. Wilson had used it, he would not have been any wiser. Without using chloroform in this

case it would have been exceedingly difficult to perform the operation; and, in the struggling, the man's eye might have been cut. The flabbiness of the heart was sufficient to account for death, and, being flabby, the chloroform would stop the action of the heart.—The jury found that deceased died from the effects of chloroform.

THE ILLNESS OF THE VICEROY OF INDIA.

THE complete recovery of Lord Ripon, and the satisfactory communications which have been received from various friends in India, appear to confirm the medical opinion first formed, that the recent illness of the Viceroy was nothing more than fever, from which new comers to India nearly always suffer under similar circumstances. Lord Ripon had come down, probably under stress of business, contrary to the usual caution necessary, from the cold north-west into the seething moisture of heated Bombay, where the temperature stands at 88° in the month of November; and had been much fatigued by various Durbars and public ceremonies; and, under such circumstances, it is not at all surprising that he has suffered from an attack of fever. His convalescence, however, gives good reason to hope that no evil consequences will follow. An attack of feverishness or fever in India has not the same serious significance that it has in England, and to English ears. In India, one hears, on one day, that a man is completely prostrate with fever; the next day, he meets him at a dinner party, well.

INTERNATIONAL MEDICAL AND SANITARY EXHIBITION.

IN connection with the approaching International Congress, and under its auspices, it has been decided by the Executive Committee of the Parkes Museum of Hygiene that there shall be an international exhibition of medical and sanitary appliances of all kinds; and leave has already been granted for space for the purpose in the Exhibition Buildings at South Kensington. An active Committee has been formed to organise and manage the exhibition; and, as a first step towards fulfilment, a guarantee fund has been established, to which all interested in the success of the project are invited to subscribe. As this will be the first exposition of its kind ever held in this country, combining, as it promises to do, all branches of hygiene and medicine, together with surgical appliances and apparatus in use in the sick room and hospital, it cannot fail to create an interest beyond the limits of the profession. Valuable assistance has been promised from various quarters; and, considering the novelty of the undertaking, and the wide-spread interest associated with its objects, the exhibition cannot fail to command general approval and ultimate success. It is proposed to inaugurate the exhibition about the middle of July, and to keep it open during the month of August.

ANIMALS WITH A SECOND BRAIN IN THE SPINAL CANAL.

AT the closing session of the autumn meeting of the National Academy of Science of New York, Professor Marsh read a paper on the "Dimensions of the Brain and Spinal Cord in some Extinct Reptiles", which, from the report in the *New York Medical Record*, appears to have contained some very interesting facts. Professor Marsh first brought the evidence to sustain his proposition that the older the type of mammal, reptile, or fish, the smaller the brain. He then called attention to a very curious development in certain fossils, near the sacral region of the cord. In a gigantic reptile, of the jurassic formation, an animal nearly thirty feet in length, the brain was scarcely as large as that of an ordinary dog, judged by the size of the cranial cavity. But the spinal canal presented the extraordinary feature of an immense enlargement in the sacral region, where the bone was so excavated as to form an immense vaulted receptacle, several times larger than the cavity of the skull. The sacrum consisted of four vertebræ, which were well ossified and of great solidity, and within this was contained, during the life of the animal, a posterior brain—if he might use the term—which was eight times as large as the encephalon. The point was of very curious interest, not only as a fact of fossil anatomy, but in respect to the physiological inferences that might be drawn from it, into which he did not propose to enter. It was so remarkable, indeed, that he took occasion to examine other examples of the same species before accepting it as a general fact of extensive application. Upon recurring to some younger specimens of the same gigantic saurian, he was enabled to verify the existence of the cavity in every instance, and to prove that sacral enlargement of the cord in extinct reptilians was an extraordinary fact. If it had appeared in a single instance, it must, of course, have been regarded as a phenomenon due to injury or disease; but in all cases, since his attention was attracted to the point by this enormous creature, he had found the posterior cavity in extinct reptiles. There was nothing analogous to this sacral enlargement, Professor Marsh continued, in existing vertebrates. The aurphiax had absolutely no brain—that is, no cerebral enlargement of the cord at the anterior extremity, but there was no enlargement of the spinal cavity at the sacrum which answered to what he had observed in extinct species. In answer to an inquiry whether the sacral enlargement was in such a position as to furnish a point of origin for the nerves of the leg, Professor Marsh said that such was the case, and that the animal had very powerful hind legs; but the fore legs were equally strong, and there was no corresponding enlargement.

A WALK OF 2,500 MILES IN 1,000 HOURS.

IN the annals of human endurance, under prolonged exertion, the pedestrian performance of William Gale has so far surpassed any previous feat on record, that an account of his physiological condition cannot be uninteresting to the profession. The famous pedestrian, now forty-nine years old, is a short man—about 5 ft. 5 in. in height—and of spare conformation, with little muscular development, weighing 8 st. 9 lbs. To do him justice, it must be noticed that he has an heroic form of head, capped with thick short locks of chestnut hair, a well-chiselled face, with a complexion of uniformly pink colour; and that his manner is singularly calm, unassuming, and self-contained. His habits are strictly "temperate in all things". Although he usually sleeps seven or eight hours at night, he can readily reduce this amount of rest to three or four hours, for a period of several weeks; or he can take interrupted sleep of five or ten minutes, occasionally, in the course of otherwise uninterrupted walking exercise, during the whole twenty-four hours. Thus, he has walked 1,500 miles in 1,000 consecutive hours—or six weeks—at one mile and a half an hour; and 4,000 quarters of a mile in 4,000 consecutive periods of ten minutes. Having recently undertaken to extend the former distance to 2,500 miles in 1,000 hours, with the additional condition of starting every half-hour, for one mile and a quarter, the intervals off the track could scarcely exceed ten minutes, and averaged five, or were sometimes limited to only a few seconds. Walking, therefore, sixty miles every twenty-four hours, these brief intervals must suffice for rest, taking food, and for other bodily requirements, during six weeks. The walk took place at Lillie Bridge Grounds; the track—a cinder-path—was in the open air, round and round a measured distance, a hut being provided for retirement. Gale was dressed lightly, wearing a flannel shirt and over-jersey, drawers, and knee-breeches, thick stockings, and broad low-heeled shoes. His head was usually uncovered. His diet for twenty-four hours consisted of meat (about a pound and a half), eggs (five or six), beef-tea; with a large quantity of heat-producing food, in the form of rice, sago, gruel, bread-and-butter, marmalade, and jams; with cocoa (two quarts), milk (a quart), tea, and a glass of bitter ale occasionally; no wine or spirits. During the walk, he suffered from constipation, the fæces being very copious and hard, although well coloured with bile. A compound rhubarb pill, taken almost daily, overcame this difficulty. The urine continued healthy, but concentrated; and deposited an abundance of pink lithates occasionally. The skin was moist, but not freely perspiring. A large quantity of water must have been exhaled; respiration being very active, the heart's action remarkably strong, and the pulse varying from 73 to 77. Towards the end of the fifth week, he sometimes complained of vertigo, and walked for two or three hours at midnight in a half-conscious state, and without perfect co-ordination of muscular action; but, when spoken to by a voice familiar to him, he instantly became fully conscious. In one of these states—five days

before the end—he refused to walk any further, lest he should "go off the towing-path into the river"—a rink close at hand; and, the half-hourly period having been exceeded by his arguing on this subject, the original arrangement of the walk terminated—at the distance of 2,232 miles! Afterwards walking, with periods of rest for some hours, he extended this distance to a total of 2,405 miles, without attempting to make up the remainder, in the 1,000 hours. He experienced some muscular stiffness in the legs, and loss of power in the extensors of the thighs to take a long stride; hence the deficiency of ninety-five miles. At the conclusion of this unprecedented pedestrian feat, Gale was examined by Mr. F. J. Gant, who found that his state was as follows. Pulse 75, strong, regular, full; heart's action and sounds normal; temperature 97.25°; hands and feet warm. Respirations 15 per minute, and deep. Frontal headache. Pupils of eyes not dilated; of equal size; contracted under light. He was drowsy, and slept in a few minutes, snoring, but having no puffing expiration. The tongue was red and moist; the appetite was excellent. The complexion was ruddy, and somewhat weatherbeaten; no subcutaneous fat existed anywhere; the circumference of the right thigh, at the middle, was seventeen inches and a half; that of the left sixteen inches and a half. There was no tendency to hernia; no varicocele. The varicose veins of the left leg were in the same state as at starting. There was no pain in, or synovial swelling of, the joints; no œdema of the ankles. The feet were sound; the cuticle on the treading portion of the sole and heel was much thickened; the toes were closely moulded together, from the constant pressure of the shoes. The weight was 8 st. 2 lbs.; being a loss of 7 lbs. during the walk.

UNIQUE CASE OF POISONING BY ACONITE.

An inquest was held on Tuesday last, by Dr. Diplock, on the body of Miss Amelia Wallsworth, aged 33, matron at the Metropolitan and City Police Orphanage at Twickenham, of which we have obtained particulars of great toxicological interest. It appears that she had complained of a cold in the head in the presence of Dr. Webster, who remarked that camphor and aconite, in drop doses, were useful in the earlier stages of this complaint. From the evidence of a Miss Daines, who had slept in deceased's room as a guest, it appeared that, before going to bed, deceased took something in a tumbler and water. She also gave Miss Daines some, telling her it was good for a headache. Soon afterwards, Miss Daines felt very restless, and had a strange numbness in her hands and arms; and, finding the deceased in an even worse state, she spoke to her. Deceased said that she felt as if she were swelling, and would get out of bed and ask one of the nurses to give her some coffee. She left the room to do so, and did not return. Miss Daines was herself so ill from the effects of the aconite, of which Miss Wallsworth had given a teaspoonful, that she fainted whilst giving her evidence. Mr. Netherclift said that, when called to Miss Wallsworth, between two and three on Sunday morning, she was gasping for breath, with her mouth wide open and her tongue protruding. Her eyes were fixed on vacancy, and the pupils were much dilated. He asked her what she had taken, and she gasped out "Aconite". He administered an emetic of mustard, which induced copious vomiting. Diffusible stimulants, such as ammonia and brandy, were also given. Heat was applied to the extremities and cardiac region. He then administered, at intervals, three subcutaneous injections of from ten to fifteen minims of tincture of digitalis. Galvanism was also applied in the region of the heart. Dr. Hamilton Bland was then called in in consultation; and three subcutaneous injections of brandy were given. Frequent inhalations of ammonia were adopted. The patient was then completely insensible, and pulseless. Artificial respiration was maintained, without intermission, for two hours; but, beyond slight reflex action of the laryngeal muscles, there were no symptoms of returning life. The jury found a verdict of "Death by misadventure"; and conveyed, through their foreman, to Mr. Netherclift and Dr. Hamilton Bland, the following resolution, which had been passed unanimously. "The jury wish to express their high appreciation of the painstaking attention and sustained efforts, so promptly resorted to by the medical gentlemen in attendance on the deceased; and their conviction, that nothing that science or skill could do was left undone in their endeavour to avert the fatal issue." It was understood that the unfortunate lady had taken three teaspoonsful of Fleming's tincture of aconite, from a bottle which she had filled in the dispensary. She survived the fatal dose four hours. There was a marked improvement in the pulse after each injection of digitalis. We understand that Miss Daines is still in a critical condition.

SCOTLAND.

The medical and other classes in the University of Aberdeen were resumed on Tuesday, January 4th. There was a large attendance of students.

UNIVERSITY OF EDINBURGH.

Completed returns for the University of Edinburgh show that, during 1880, there was a roll of 3,172 students, this being an increase of 316 on the previous year. In the Faculty of Medicine, with which we are more particularly interested, there are 1,634 students, being fully one half of the total number. Of these, 679 are from Scotland, 558 from England, 28 from Ireland, 112 from India, 204 from different British Colonies, and 53 from foreign countries; or at the following percentages: Scotland, 41; England, 34; Ireland, 2; India, 7; colonies, 13; foreigners, 3. During the year, 29 graduates received the degree of M.D.; 129 took the double degree, M.B. and C.M.; while 5 took that of M.B. alone, this being about the rate of one to ten of the students attending. The aggregate number, however, is that of students belonging to all the four years; so that it is 134 out of the fourth and fifth years' men alone, which would give a very much larger percentage.

TRINITY COLLEGE HOSPITAL, EDINBURGH.

The Town Council of Edinburgh, on Wednesday, elected Dr. James Dunsmure to be medical officer to the pensioners of Trinity College Hospital. This is one of the best paid appointments going. The minimum sum paid to the medical officer is £100 *per annum*, and his duties consist in seeing the pensioners (who are limited in their number) at least once a year, and as often as necessary in sickness. There were five candidates voted for in making the appointment; and it fell to Dr. Dunsmure by a majority of one over J. Milne Chapman, M.B.

PROFESSOR STIRLING ON EXPERIMENTAL PHYSIOLOGY.

On Tuesday, December 21st, Professor Stirling delivered an address to the Aberdeen Natural History and Microscopical Society, on the "Experimental Physiology of the Circulation and Respiration". The lecturer pointed out the growing tendency to illustrate simple facts by very complicated contrivances; and specially urged that many of the fundamental facts of the circulation were capable of demonstration—even to large audiences—by very simple means. The lecture was illustrated by a very large number of experiments, which were made obvious by the use of the simplest apparatus; in fact, of such things as are to be found in almost every house, and which can be made by any one. The course of the blood was first described, and how it was compelled to pass through the heart and blood-vessels in a definite direction. Many experiments, to illustrate the competency and mode of action of the heart-valves, were shown. The extent and duration of the auricular and ventricular contractions were made visible, by placing long levers of straw on these parts; and then the effect of heat on the rate and extent of the cardiac contractions was illustrated. By means of rigid and elastic tubes, various pulsatile phenomena were illustrated; and it was shown how the elasticity of the arterial walls, combined with the resistance to the outflow of the blood at the periphery, were the causes of the interrupted flow of blood in the large arteries being converted into an uniform stream in the capillaries. It was specially indicated that the valves in the veins were known half-a-century before

Harvey made known his discovery of the circulation of the blood—so that it was not the observation of the valves of the veins that led Harvey to the discovery of the circulation of the blood, but, as he himself expresses it, "the frequent recourse to vivisections"; in fact, after long and tedious experimentation on living animals, he convinced himself of the correctness of his views. The influence of the nervous system on the heart, as shown in fainting; on the arteries, in blushing; and on the veins, by their loss of tonus after destruction of the central nervous system, were illustrated by experiments. A short account was given of the changes of the blood and air during respiration; and these results were demonstrated by several striking experiments.

DEATH IN A RAILWAY CARRIAGE.

On Monday morning, on the arrival of the London express train in Edinburgh, a man was found dead under the seat of a third-class carriage. The authorities made an investigation, and an examination of the body, and are satisfied that death occurred from natural causes. Those who travelled with him, state that he became sick, and lay down under the seat of the carriage.

IRELAND.

Dr. Thomas O'Sullivan was, on last Saturday, installed as Mayor of Limerick for the present year. The new mayor promised, among other matters, that particular attention would be paid to the water-supply, and to the subject of artisans' dwellings, during his year of office.

The Board of Trinity College have appointed Dr. George F. Duffey, University Examiner in Pathology at the M.B. Degree Examination during the year 1881, and Dr. Walter G. Smith, University Examiner in Therapeutics during the same period.

TYPHUS FEVER IN DUBLIN.

One of the most unquestionable proofs of the unsatisfactory sanitary condition of the city of Dublin is the continuously high death-rate from fever, and the large proportion of the deaths from fever which are referred to typhus. During the first nine months of this year, the annual death-rate from fever in Dublin was equal to 1.19 per 1,000 of the population, against 0.24 in London, 0.27 in Edinburgh, and 0.59 in Glasgow. This high fever-rate in Dublin approaches that which prevailed in Liverpool in its worst days; and typhus, which is all but banished from most of the large towns in the United Kingdom, is still endemic in Dublin. It is possible that the diagnosis of fatal cases of fever is somewhat defective in Dublin, as in other large towns; but if we deal with fever generally, including typhus, enteric, and simple continued, it may fairly be asked, why should the death-rate from these causes in Dublin be nearly four times as high as in London or Edinburgh, and more than twice as high as in Glasgow?

BELFAST WORKHOUSE.

The Belfast Board of Guardians had under consideration last week the report of Dr. Brodie and Mr. Bourke, inspectors under the Local Government Board, in reference to the recent inquiry into the condition and management of this institution. The inspectors place on record their complete satisfaction with the condition in which they found the workhouse in all particulars depending on the active and careful supervision of the officers. The inmates appeared to be well supplied with wholesome food and sufficient clothing; the bedding was of good quality, and the apartments clean and well kept. The hospital for infectious diseases and the schools were, the report states, especially worthy of praise for their admirable and efficient condition. With regard to the discipline and classification of the inmates, as regards the separation of the sexes, they are considered sufficiently perfect and complete; but the necessities that have from time to time arisen for meeting the increase of inmates of various classes by structural alterations and additions seem to have complicated the internal arrangements of the house, and impaired the simplicity, and consequently the efficiency, of the provisions for classification which were designed and carried out on the erection of the Irish workhouses. However, they believe that classification has been substantially maintained in the workhouse. As regards the mortality of the infants in the house, the inspectors report that their appearance presented no marked contrast to that of the same class in the workhouses of large towns generally. In the Belfast Union, it appears that infants born in the workhouse are often exposed to special dangers from a habit among the mothers, more prevalent there than in other places, of taking the children out of the workhouse as soon as they themselves are able to move, keeping them outside for a certain time, and then returning. Such frequent changes are certainly unfavourable to the infants, and render it exceedingly difficult to arrive at any just conclusion as to the effects of workhouse arrangements and conditions of life upon infant vitality. The result of the returns as to infant mortality shows an average of 27.9 per cent., which, under the highly unfavourable conditions above stated, cannot be regarded as an exceptionally high rate of mortality. Other portions of the report refer to the inaccurate statements made as to the drunkenness, immorality, and crime which were stated to exist; and to the recommendation that the master should send in his resignation—matters which it is not necessary to notice. In conclusion, the guardians may fairly be congratulated on the result of the investigation; the report stating that the evidence places beyond all doubt the interest taken by the board generally in the affairs of the union, and the readiness of many of the members to devote a large share of their time to the direction and control of those affairs. The inspectors have been unable, they observe, to find a single instance in which the guardians have resisted or unduly delayed the beneficial application of the law to the destitute poor of their union, or its effectual administration in the workhouse.

CHARGE AGAINST A DISPENSARY MEDICAL OFFICER.

The Belfast Board of Guardians recently requested an explanation from Dr. Irvine, Medical Officer of the Ballyhackmore Dispensary District, for having been absent from duty as dispensary medical officer on the 23rd December last, without leave from the Castlereagh Dispensary Committee, or from the Belfast Board of Guardians; and for taking a prominent part in a political demonstration in the town of Saintfield. At a special meeting of the guardians held last Saturday, Dr. Irvine stated, in explanation, that he had paid all his visits on the day in question (which was not a dispensing day), and that he had made arrangements to have a medical practitioner should any occasion arise for his services. After a very heated discussion, a resolution was adopted directing the attention of the Local Government Board to Dr. Irvine's absence on the day referred to. Dr. Irvine has been in the service of the guardians for the past ten years without a single complaint having ever been made against him, and it appears a rather harsh proceeding on their part to act as they have done; more especially when every precaution was duly taken by Dr. Irvine, so that his absence for a few hours would not cause any inconvenience.

FEVER IN TANDRAGEE.

Fever is very prevalent in this town at present, there being no less than 110 cases out of a population of 2,000 persons. The defective condition of the sewage is the cause attributed for the spread of the disease.

DERRY CITY AND COUNTY INFIRMARY.

On Christmas Day, the wards of this institution were handsomely decorated by the skill of the nurses, the various devices and mottoes reflecting great credit on those who took part in the work; and on the 28th ultimo, the patients in the Infirmary were presented with articles of warm clothing, etc., provided by Lady Miller, out of donations forwarded for that purpose. There was a Christmas-tree in each ward, gaily decorated and loaded with presents for distribution to the inmates; tea, cake, and fruit being plentifully supplied. We under-

stand that the arrangements, which were so successful in helping to alleviate the sufferings of the poor inmates during the festive season, were due to the thoughtfulness, exertions, and liberality of Sir William Miller, surgeon to the institution, Lady Miller, and other benevolent friends.

HEALTH OF BELFAST.

FROM the report of Dr. Browne, superintendent medical officer of health, for the four weeks ending December 25th, we learn that 158 deaths were registered from affections of the lungs, which number included 51 from phthisis; while the deaths, registered in the same period of children, under one year of age, were 69. The total births registered, amounted to 485, and the total deaths to 381; showing a natural increase of 104. The average death-rate was 23.6 per 1,000; and from zymotic diseases 3.3. The mortality from chest affections is still very high, the result, probably, of the rapidly varying state of the atmosphere and the low temperature; while from zymotic affections, it is remarkably low, in fact, the town has seldom been so free as at present, from the various contagious and preventible diseases.

A NEW YEAR'S MESSAGE.

AS a new year's message, we would beg leave to repeat this week the appeal which we made in our last issue on behalf of the British Medical Benevolent Fund, one of the most valuable institutions of the kind connected with the profession, and one in which the members of the British Medical Association will always feel a particular interest. We should be glad to bind more closely the ties which associate the British Medical Association with this valuable and beneficent organisation, and with that view shall be glad to publish from week to week lists of contributions. We hope during the ensuing year to be able to devise some plan by which the connection between our Association and the British Medical Benevolent Fund may be made much more fruitful in good, much more extensive, and much more productive than it has been of late years. With that view we shall at the earliest opportunity publish a list of contributions, and shall be happy from time to time to find space for further lists. We hope that the Christmas offering may show that the hearts of our associates are at this season inclined to mercifully consider the wants of those whose physical sufferings prevent them from sharing its happy influences, but whose sufferings may be mitigated and soothed by the free-will offerings of those who can give freely of their abundance, or who, with yet more gentle self-denial, can spare something from their more modest competence to gladden the hearts of the sick, the distressed, the widowed, and the orphan. The good gifts of the British Medical Benevolent Fund are distributed with the utmost discrimination and without any office expenses, by an organisation which consists almost exclusively of voluntary workers. Liberal donations have been transmitted to us, of which we shall publish next week the first list. Meantime, we trust that it may be increased by further gifts, which should be forwarded to the office during the next few days.

INTERNATIONAL MEDICAL CONGRESS.

THE following is the proposed list of subjects for discussion in Section XIV, Military Surgery and Medicine:—1. By what arrangements can the practical difficulties in the way of employing antiseptic surgery (Listerism) in the treatment of wounds inflicted in the field in time of war be most readily overcome? [The discussion to include (*a*) the system on which the treatment can be most efficiently carried out; and (*b*) the fittest material means to be employed in it, under the circumstances in which armies are placed while on active service.] 2. To what extent, and in what special directions, has conservative surgery advanced in field practice, as shown by statistical results of the treatment adopted for gunshot wounds during the wars of the last ten years? And what indications have been afforded, if any, by the experience gained during this period for making further advances in the conservative treatment of such injuries? 3. What are the most reliable, and at the same time practicable, means of immobilising the parts involved in gunshot fractures of the spine, pelvis, and femur, in field practice? 4. On improvements in field hospital and transport equipment, for use with armies moving in uncivilised or partially civilised countries, suggested by the experience gained during the recent military operations by British troops in South Africa. 5. On the prevalence and prevention of typhoid fever among young soldiers in India.

All communications regarding Section XIV should be addressed to Surgeon A. B. R. Myers, Coldstream Guards Hospital, Vincent Square, London, S.W.

CHRISTMASTIDE AND THE NEW YEAR IN THE LONDON HOSPITALS.

THE season of "peace and good will to men", through which we have just passed, was utilised by thousands of kind hearts, and industrious hands, to lighten still further the burden of pain and suffering borne by the sick in the metropolitan hospitals. No one was neglected in the distribution of seasonable gifts; whilst for all, but especially for the children, amusements of all kinds were provided, and were, in many cases, enthusiastically appreciated. We record short notes of the doings at many of the hospitals, particularly at those devoted to the treatment of children, for which our thanks are mostly due to the courtesy of the various resident medical officers.

CHARING CROSS HOSPITAL.

An entertainment was given in the Board room on the evenings of December 17th and 18th, by the students, assisted by Mrs. Mitchell Bruce, Mrs. Bloxam, Mr. Cantlie, and Mr. Bloxam.

The first part, consisted of vocal and instrumental music, rendered by Messrs. Wyborn, F. Taylor, Carroll, Walter, and other gentlemen. This was followed by Robertson's comedy, "The Ladies' Battle", which proved the event of the evening. Mr. Cantlie, as the "Baron", played a carefully studied part, with great success. Mr. Wyborn, as "Henri", the hero of the piece, acted naturally and well. Mr. Mosse, as "De Grignon", was popular with his audience, and his spasmodic heroism, struggling with his natural cowardice, was a clever representation of a difficult character. Mrs. Bloxam played the part of "Leonie", carefully, and with considerable earnestness. To Mrs. Bruce, who represented the "Countess", the greatest tribute of success is due. Throughout the piece, her acting was far beyond that of most lady amateurs. In some of her scenes with the "terrible Baron", she was seen to great advantage, and at the fall of the curtain, received an ovation from her delighted audience. The evening was brought to a close by Brough's farce, "No 1, Round the Corner", in which Messrs. Gilbert, Mosse, and Berkeley, took part; the first named gentleman being very effective as "Flipper".

Mr. Gilbert was stage-manager, and Mr. Taylor officiated at the piano. The costumes were kindly lent by Mr. Nathan.

During the afternoon and evening of Christmas day, the children were made happy by a Christmas tree, whose substantial fruit still renders the ward bright, and full of musical sounds. The male patients, after tea, were allowed to smoke, and enjoy themselves to their heart's content; and the resident officers went through the several wards, and assisted at the festivities. Not only in the wards for male patients, but also in those for females, "there was a sound of revelry by night". By the kindness of the sisters of St. John's House, each patient had some useful present, and all seemed thoroughly to appreciate the efforts made to render a hospital Christmas a happy and merry one.

GUY'S HOSPITAL.

On Christmas day, Guy's put on its now familiar dress, and the wards never showed a brighter or more appropriate display of banners, devices, mottoes, and the usual tokens of a season, emblematic of peace and good will to all. It would have been difficult for a stranger to have discovered that discord ever reigned in the establishment, so cheery were the nurses, and so grateful were the patients for the bounties bestowed on them from all hands. Among the numerous devices, were to be seen many expressions of loyalty and gratitude to the staff, both resident and visiting; and we were pleased to find, among other souvenirs of regard, that the memory of Mr. Cooper Forster's long connection with the hospital was still held in grateful esteem in the wards, to which he was so long and honourably attached. The patients were regaled with the customary roast beef and plum pudding, supplemented by gifts of fruit and cake, and other accessories generally provided for them by the students. Christmas

trees, blossoming with toys for the children, and wearing apparel for the women, and provided by the same friendly hands, were to be seen in most of the wards; and the male patients had been furnished with an ample supply of pipes and tobacco, to which, no doubt, they did full justice, as the privilege of smoking in the wards is restricted to Christmas day. In several of the surgical wards, a series of very pleasing musical entertainments were given during the week, in which the resident staff took a prominent part, supported by lady amateurs and by several of the sisters, whose vocal accomplishments won for them repeated expressions of applause. A motto, conspicuously placed in the accident ward, reminded every one, that kind hearts rose superior to coronets and quarrels; and there was ample evidence on all sides of the desire for peace and harmony. Altogether, the new year has commenced more auspiciously than its predecessor; and it would be ungenerous to mar the forecast, by keeping alive the memory of former troubles.

KING'S COLLEGE HOSPITAL.

The president, and medical officers at this hospital, were much aided in their endeavours to provide an appropriate entertainment for the patients, on New Year's day, by members of the Kyrle Society, who gave a series of songs in the various wards, aptly chosen to suit the different tastes of the patients.

ST. MARY'S HOSPITAL.

The annual Christmas entertaintment to the patients was given by the resident medical officers and their friends, on Thursday, December 30th. The hospital presented a gala appearance, the vestibules being hung with coloured lanterns, and the wards bright and tasteful with seasonable decorations. At five o'clock, a large Christmas tree was lighted up, and its multitudinous toys and gifts distributed. At six, tea and coffee were served in the matron's room to the guests; and at seven, an attractive musical programme was commenced in the Board-room, before a large audience of patients and friends. The selections, which showed admirable judgment on the part of the management, consisted of part-songs and songs, interspersed with solos for violin and pianoforte, and two readings. The quartets for male voices were given by Messrs. Mivart, Havell, and Lane, and Dr. West. In the other part-songs, they were joined by Mrs. W. H. Hall, and Miss Pettitt. The songs by Miss Hallett and Miss Pettitt were loudly applauded. Herr Polonaski rendered admirable service by his violin solos; a berceuse and mazurka of his own being vociferously encored. The pianoforte playing of Fräulein Bondy, and the readings of Mrs. Hallett, added greatly to the pleasure of the audience, and gave a judicious variety to the programme. A grand pianoforte was kindly lent for the occasion by Messrs. Cramer.

MIDDLESEX HOSPITAL.

On Christmas day (through the kindness of the lady visitors, and other friends, who placed at the disposal of the lady superintendent both useful articles and money), the patients at this institution had tea and cake provided for them in their respective wards. In the morning, each patient received a present, in the shape of warm articles of clothing. In the evening, all the children, and the other patients that could be moved, together with many visitors and friends, assembled in the Board-room, where the usual Christmas tree was erected, artistically covered with handsome decorations, and beautifully lighted with numerous wax tapers. Each child received several toys, and every patient had something from the tree; those who were unable to be present not being forgotten. The wards were suitably decorated with evergreens; and in several there were to be seen Christmas trees on a small scale.

UNIVERSITY COLLEGE HOSPITAL.

The Christmas treat for the patients took place on Wednesday, December 29th. The nine sisters of All Saints' Home, Margaret Street, collected the funds to be spent upon the entertainment. The wards were gaily decorated with texts, mottoes, festoons of evergreens, and painted shields. Such of the patients as could be allowed to partake of cake, oranges, and sweetmeats, were regaled therewith, with negus and tobacco for the male surgical patients. To every invalid also a present of some sort was given, consisting of articles of warm clothing for the adults, and toys for the children. As many patients as could be moved were brought down to one of the largest wards, bright with Chinese lanterns, mural decorations, and a large Christmas-tree. When the visitors were assembled, Dr. Roberts and his staff entered and sang glees, solos, etc., and greatly added to the enjoyment of the evening.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET.

The annual Christmas tree for the little patients of this hospital was held on Thursday, January 6th. On December 30th, thanks to the kindness of Mr. Labouchere and the subscribers to *Truth*, the children were amused by a performance of the Royal Hand-bell Ringers. The date of the entertainment was left to the authorities of the hospital to settle, and they appropriately fixed the 30th ultimo, as it was the day of the marriage of Dr. Barlow, one of the assistant-physicians, with a lady who had for several years acted as one of the ward-sisters in the hospital. Several of the nurses wore wedding-favours, and the joyous peal of bells reminded all present of the auspicious event which had taken place at an earlier part of the day. The hand-bell ringers took up their position in the hall, and the children and visitors, among whom were several of the medical staff, grouped themselves upon the staircase and balconies. Those children who were not well enough to be dressed were wheeled in their beds on to the balconies close to the railings, whence they could see and hear everything which took place. A very appropriate and highly entertaining programme was gone through, including several glees and songs especially suited to the very young children, such as "A Little Farm well Tilled", and "A Frog he would a-wooing go", which were rendered by the performers with appropriate action, and highly appreciated by the juvenile part of the audience. Mr. Duncan Miller, the conductor of the troupe, made several short addresses between the songs and bell-ringing, so as to give the performers time to rest their wrists. He explained the mechanism of the bells, drew attention to the several peals of bells of the churches in the immediate neighbourhood of the hospital, and to the fact that Handel had formerly for a short time been organist to the neighbouring Foundling Hospital; he also interspersed his remarks with jokes and humourous allusions to the topics of the day, such as the state of Ireland, etc. In fact, all present spent a very enjoyable evening, which, at the end, was acknowledged by Dr. Cheadle in a short speech, in which he congratulated the bell-ringers on their dexterity, and on the execution and selection of their pieces; and also thanked Mr. Labouchere for the treat which his kindness had afforded.

NORTH-EASTERN HOSPITAL FOR CHILDREN.

The new buildings having only been occupied since last August, this was the first celebration of Christmas in them, and a most enjoyable one it proved to be. Proceedings commenced on the evening of the 24th, with a magic lantern entertainment, comprising scenes from the oft-told stories of Robinson Crusoe, Cinderella, and Jack and the Bean Stalk, together with other amusing slides, the more ridiculous of course drawing forth the louder shouts of laughter from the children. This was held in "Barclay" ward, named after the president and treasurer to the hospital, and in addition to the resident staff of the hospital there were present Mr. J. Lister Godlee, chairman of the house committee, a relative of Mr. Joseph Lister, Dr. Sansom, the senior physician, Mrs. Fox and Miss Philips, all of whom have in a large measure contributed to the well-being and success of the hospital. In Connaught ward a large Christmas tree had been gorgeously decorated and loaded with toys of every description, and came in for its full share of admiration, reflecting no small amount of credit upon the lady superintendent and her staff of nurses. On Christmas morning each child discovered beneath its pillow a letter containing the usual greeting of the season, this being through the kindness of the "Pillow Mission", and as many children as possible were allowed to get up and gather round the fire, and talk or play as it seemed best to them. The dinner was not one whit behind other Christmas dinners, and consisted of many delicacies, the whole repast giving great satisfaction, and certainly raising one's opinion of the talents of the housekeeper. At 5 P.M., in Connaught ward games of every description were indulged in, and then came the time appointed for the demolition of the Christmas tree, already bending beneath its burden. Every toy had previously been labelled with the name of the recipient, so that no one was forgotten, not even one of the "older children" in the building. The effect was very pretty; the tree well lighted up. The wards, pictures in themselves, tastefully decorated with holly, mistletoe, and appropriate mottoes, and above all the merry faces of the children, all helped to combine a most pleasant and memorable evening. In the evening the resident staff dined together in the nurses' dining room, thus most pleasantly completing the day. Finally, the best thanks of the hospital authorities were given to those ladies and gentlemen who contributed to the amusements by their generous gifts; and to Mr. Poland, the registrar, who undertook the magic lantern entertainment with such success. A visit to this hospital, so admirably constructed and managed, and situated as it is in one of the poorest parts of the metropolis, will repay both professional and non-professional people, and should serve to make it more widely known.

VICTORIA HOSPITAL FOR CHILDREN, CHELSEA.

The season here was not without its festivities, though the annual fête is reserved till the latter end of the present month. Notwith-

standing this, the children have been supplied with a Christmas tree of no mean dimensions, gaily attired with fancy articles of various kinds. Christmas morning saw the children gleefully disporting themselves with presents of toys. Each possessed a parcel carefully directed to itself in particular. At midday they were regaled with turkey, through the generosity of the children of St. Barnabas Parish School, who supplied the welcome fare; whilst heaps of Christmas cards, and picture books, and such like bounties, added much towards obtaining for the little inmates some share at least of the season's productions. On New Year's Day the services of a conjuror were secured, whose sleight of hand called forth acclamations of wonderment and approval. The magic wand, as usual on such occasions, received credit for more than its due, and proved a faithful source of amusement at any rate, if not the *fons et origo* of many useful articles sporadically produced. One small boy, whose long dark eyelashes and cachectic appearance betrayed the nature of his constitution, and who recently had had a limb amputated, looked on with fixed gaze; may be, that in his reverie he was thinking whether the wonderworking conjuror could restore his lost member! Halfpence poured forth from a boy's scalp like the shelling of peas. One of the nursing staff expressed a fervent desire to know how that trick was done. Another boy had apparently been breaking through the rules on this festive occasion, for a sugar-stick of colossal dimensions was found impacted in the gullet. The operator proved himself a surgeon of no ordinary skill in extracting it. It will, however, scarcely be credited that it measured eight feet in length. By the time the conjuror had finished, the lights on the Christmas tree had grown dim, reminding the children that the festivities must come to a close. The wards gradually assumed their accustomed quietude amid the glow of Christmas fires.

HOME AND INFIRMARY FOR SICK CHILDREN, SYDENHAM PARK.

On Tuesday, December 29th, the little patients had their annual Christmas treat. After a good substantial tea, to which thirty-four children sat down, they were ushered into the playroom, where a grand Christmas-tree shined, resplendent with a hundred lights, which brought to view toys of all sorts and sizes, kindly provided by the friends of the institution. The children sang three or four pretty carols during the distribution of toys, closing with the glee of "Good Night." There was a small stall of children's and other work, from which was realised £8 4s. About eighty ladies and gentlemen of the neighbourhood were present.

ROYAL HOSPITAL FOR WOMEN AND CHILDREN, WATERLOO ROAD.

The Christmas treat to the children does not take place until later. At Christmas there was the usual distribution of toys, etc.

SAMARITAN HOSPITAL FOR WOMEN AND CHILDREN.

The usual Christmas festivities have taken place. They consisted of an excellent dinner, followed by a New Year's tea, and the distribution of presents for the women, and a Christmas-tree for the children.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL:

NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the Offices of the Association, 161A, Strand, London, on Wednesday, the 12th day of January next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, December 18th, 1880.

BRANCH MEETINGS TO BE HELD.

[illegible]

[illegible]

[illegible]

3. Mr. Spanton showed a new form of pad Truss (made for him by Messrs. Maw and Son), and which he now employed in most of the cases operated upon for the radical cure of hernia. It was very comfortable to wear, and gives ample support without the pressure of a spring.

4. Mr. Spanton read Notes of a Case of Intestinal Obstruction, caused by a wine-bottle, and removed by abdominal section—the patient not recovering. The bottle was shown *in situ*, occupying the rectum and descending colon.

5. Mr. Sampson Gamgee (Birmingham) made some remarks upon Wound-Treatment, followed by a practical demonstration of his method.

CORRESPONDENCE.

GUY'S HOSPITAL.

SIR,—Hitherto, though I have thought much, I have written nothing, regarding the *imbroglio* at Guy's hospital. But the letter of "A Metropolitan Hospital Surgeon," in your issue of December 25th, induces, or rather compels, me to abandon my expectant attitude, and endeavour briefly to set before your readers a view of the present state of matters, somewhat more in accordance with fact than the effusion of your anonymous surgical correspondent.

Let me premise that the strife, in the previously peaceful and prosperous hospital, was commenced by the arbitrary proceedings of the new treasurer and the newer matron, both of whom seemed determined to magnify their office at the expense of the hospital, the nurses, the patients, and the medical staff. These last, being frequently subjected to inconvenience and annoyance in the discharge of their duties, and finding the nursing arrangements of the wards overturned at the caprice of the matron, and, as everybody knows, to the detriment of the patients—in order, as some of the staff believed, to carry out an ecclesiastical system which provokes much more to ill will and confusion, than to love and good works—opposed for a considerable period, *a united and unbroken resistance* to the new officials and their measures; and, in particular, demanded the removal of the matron. An unfortunate sentence, which was capable of being construed in an offensive sense, led the governors to request the resignation of Dr. Habershon and Mr. Cooper Forster, who, as senior physician and surgeon, had signed the memorial of August 13th to the governors, on behalf of the medical staff. With the withdrawal of this memorial, and the concession by the governors of the right of two members of the staff to attend "the taking-in committee", the unanimity of the staff seems to have ceased; and the views, once so resolutely upheld by every member of it, seem now to be maintained only by Dr. Habershon and Mr. Cooper Forster.

On October 14th, the governors, while not insisting on the resignation of these two gentlemen, go on to say: "The governors, however, must at the same time record their resolution to maintain in its integrity the power to govern the hospital, entrusted to them by law, and this resolution must be accepted by the medical staff." The decision of the two seniors was at once taken. They saw that matters were substantially unchanged; that nothing of all they had been contending for had been granted, except the right to attend the sub-committee, to the constitution of which many of the staff strongly objected; and this equivocal boon was accompanied by an assertion of irresponsible power over the medical staff, so vulgar and offensive, that Dr. Habershon and Mr. Cooper Forster at once wrote their letters of resignation. This instinctive protest against insult and tyranny would have been carried out without delay, and without counting the cost, but for the earnest request of their colleagues, that they should remain. They consented to do so *till they had finished their clinical lectures*. This done, they at once gave effect to their resolution, which they had never abandoned, and severed the connection which had been so honourable to them, and so beneficial to the hospital and its school; not without much pain, but with a clear conscience.

And now, our anonymous surgeon seeks to minimise this act of self-sacrifice, by representing it as merely the anticipation, by "a month or two" of their necessary retirement. The truth is, that Dr. Habershon had *five*, and Mr. Cooper Forster, *three* years to run of their natural term of office. If we suppose the yearly emoluments to be £350, and I should think they cannot be less, their resignations imply the pecuniary sacrifice in the one case of £1,750, and in the other, of £1,050, besides the much greater one of abruptly terminating their hospital labours, in the full vigour of their powers, and ripeness of their professional experience. What could prompt this, but the firm conviction of the impropriety of continuing to hold office on such terms as were prescribed by the governors? I do not judge those who have felt it their duty to remain; but I protest against this ungenerous attempt to depreciate the motives and conduct of the seceders, whose names will long be held in honoured and affectionate remembrance by the multitude of men who have gone forth from Guy's during the last forty years to practise their profession in every quarter of the globe.—Yours faithfully, A. P. STEWART.

Grosvenor Street, W., December, 29th.

MIXED ANÆSTHESIA.

SIR,—Through the courtesy of the house-surgeon of the Leeds Infirmary, Mr. W. H. Brown, I am enabled to publish fuller notes of the cases of death after mixed anæsthesia referred to in my last communication.

Case 1. A man, aged 60, was admitted to the Infirmary, on September 30th last, suffering from a large and rapidly growing tumour of the lower jaw. It was considered to be of malignant character, and its removal was advised. On October 26th, about ten minutes before the operation, one-third of a grain of morphia was subcutaneously injected, and ether was administered by a Clover's inhaler. The operation was a severe one, lasting half an hour, a large portion of the lower maxilla being removed. The hæmorrhage was free but not excessive. A small quantity of chloroform was administered during the operation. When the operation was completed, the patient had a good pulse, respiration rather slow, pupils contracted to pin's point, and there was profuse sweating. Two hours after, as he had shown no signs of consciousness, and the pupils remained the same, efforts were made to arouse him, but without success. The pulse grew worse, and an hour after he died with all the symptoms of opium poisoning. At the *post mortem* examination, the kidneys and other organs were found to be healthy.

Case 2. A woman, aged 50, was admitted under the care of Mr. Jessop, for malignant disease of the upper jaw. One-third of a grain of morphia was injected twenty minutes before the operation, and the upper jaw was removed in the usual way. There was very little bleeding. She died with symptoms of narcotic poisoning about two hours after the operation was completed, having never regained consciousness.

Case 3. The following case was related to me by my friend, Mr. A. F. McGill. A woman, age about 47, was operated on by Mr. McGill, for strangulated femoral hernia. Ether was administered, and the operation completed with no great difficulty. Opium had been administered previously to facilitate taxis, and when the ether was given she was under the influence of the narcotic. After the operation she remained drowsy, and the breathing was somewhat embarrassed. This increased, and two hours after, she died, having never regained consciousness.

Quite recently there has come to my knowledge a case of death which occurred during the operation for hernia, under ether, at a provincial hospital in the south of England. The details of this will soon be published. Whether the patient was under the influence of opium or not, I was not able to ascertain; but it is a remarkable fact, that of fourteen deaths under ether of which I have notes, occurring during the past decade, no less than five should be for operations for hernia or intestinal obstruction.

The exact cause of death in these and similar cases is far from clear. There are three relations in which we may regard an anæsthetic with regard to a death occurring under its use. First, it may be the direct lethal agent, as in the case of a healthy patient who dies suddenly from chloroform administered for a trivial operation. In a second class come cases like those we have been considering, where the anæsthetic is probably one of a series of factors modifying the fatal issue. In the first case, for instance, we have to consider five points: 1. The age of the patient; 2. The shock and the hæmorrhage of a severe operation; 3. The morphia; 4. The chloroform; 5. The ether. And it seems improbable that only one of these should be the cause of death. In a third class of cases, the patient dies from shock or hæmorrhage, without our being able to blame the anæsthetic in any degree.

In reply to Mr. Fearnley's letter of last week, I have only to repeat that to hold a single fold of lint charged with a drachm of chloroform loosely over a patient's face is not "filtering pure chloroform vapour into his lungs". That a glance at the death list shows that the hospitals, where the "only rational method" is adopted, have a place there as well as others; and that in regard to watching the heart and pulse, most persons will prefer to profit by the extensive experience and skill of men like Mr. Clover, and Mr. Mills, whose recent letters on the subject I have read with great interest.

I have no wish to practice the "bag and baggage" policy with regard to chloroform. It is an admirable anæsthetic for young children, and for old persons who are subject to bronchitis; and to these cases I think it should be confined. But I especially wish to urge that now there is

a good opportunity to compare the two anæsthetics on something like equal grounds. Let the statistics of our great hospitals be carefully compared. Let every death be recorded. Let everything which can be urged against ether or chloroform be considered, that we may be able to state definitely the opinion of the profession on the subject of anæsthetics, which it is now impossible to ascertain.—I am, &c.

Leeds, January 3rd, 1881. ERNEST H. JACOB, M.D.

LISTERIAN OVARIOTOMY.

SIR,—I have read with much interest the letters of Mr. Lawson Tait and Dr. Savage on this subject. In my paper, read before the Royal Medical and Chirurgical Society, and which has elicited this correspondence, it was not within the scope of my subject to say anything about the theory on which Listerism is based. But I could have produced—and, indeed, did produce, but without comment in this direction—evidence to show that, in Mr. Lawson Tait's words, "at least the theory on which Listerism is based receives complete condemnation" in my practice. For, in addition to the proof furnished, that, as I departed more and more from pure Listerism in the direction of reducing the germicidal properties of the carbolic acid solution, the less pyrexia I met with, and the better and more numerously my patients recovered, I produced evidence to show that the theory is not tenable. Thus, I exhibited three bottles containing fluid (varying in amount from six to twenty ounces, and consisting of blood and serum in varying proportions), obtained from three drainage cases, in which the operation was performed with the one-per-cent solution. These fluids, of ages varying from one week to six, were free from all appearance of decomposition. Moreover, in each of these cases the tube was exposed to ordinary air, ten, eleven, and about thirty times respectively, for the purpose of removing their contents, and the spray was not once used. Indeed, in the process of exhaustion, air was made to circulate freely to the very bottom of the tube; notwithstanding, repeated microscopical examination of these fluids showed a complete absence of bacteria. I leave it to your readers to supply an answer for themselves to the oft-repeated assertion that cases have gone wrong because at one of the dressings the spray was either not properly directed, or inefficient. To ask one to accept such an explanation is making a claim on one's credulity, which, I would hope, is very rarely admitted. In these three cases the patients recovered from very severe operations with very moderate pyrexia, a fact of which I have elsewhere given an explanation.

Lest it might be thought that in the seventy-eight modified Listerian operations I had had a favourable run of cases, I should like to state that in thirty-one only were there no adhesions, that in three of these there was ascites, and that in forty-seven there were either adhesions of varying severity up to universal, or the tumour required more or less complete enucleation. To show the nature and severity of the adhesions, I need only say that in eighteen cases I had to use the drainage-tube; and that in two of these death took place, from shock, within twenty minutes of the operation. Another point not to be omitted is the fact that in seventeen cases I had to remove both ovaries, in varying stages of cystic degeneration, a larger proportion than has fallen to the lot of any other ovariotomist. Yet of these seventy-eight cases I did not lose a single case from septicæmia, "such as Mr. Thornton has to admit, in spite of his Listerian precautions." One of my deaths furnishes an almost exact counterpart of the case, which Dr. Savage has now had unfortunately to add to his list. The description he gives might stand for mine in all its details as to dates, circumstances, and conditions, with this exception, that in his case "a small piece of small intestine was adherent to the stump." In mine, nothing could have been more satisfactory than the state of all the parts concerned in the operation.

It has become too much the fashion of late to publish the most trivial cases in support of Listerism, as if such marvels had never before been seen. In the present number of the JOURNAL are reported —viz., at page 14, two cases of injury to the head which, if they had occurred in the practice of a Listerite, would have been triumphantly appealed to as affording overwhelming evidence of the value of this system.

I quite concur with Mr. Lawson Tait, when he says, that "the method of recovery" is of far more value in estimating the merits of any particular system, than "the mere death-rate" which is often a matter of luck, and especially when the difference in the latter is measured by units. I further agree with him in attributing to the present mode of treating the pedicle much of the success which has recently been achieved. If there is one thing more than another, in the matter of ovariotomy, to which I look back with satisfaction, it is to the persistency with which I held to, and urged the systematic use of the ligature at a time when (in 1875), owing to the powerful and sustained advocacy of Mr. Spencer Wells, the clamp was at the zenith of its fame. Notwithstanding the excellent results obtained by Dr. Tyler Smith, the ligature had fallen into unmerited oblivion, and was at that time used only as a *dernier ressort*, and in the most desperate cases. Thus, Mr. Wells says (at page 361 of his book), "you will hardly wonder that I use the clamp whenever I can;" and at page 371, he says, "the more I see of ovariotomy.....and the more I am driven to resort to cautery or ligature, the less I am satisfied with the results of these methods, the more reluctant am I to employ them, and the greater is my confidence in the clamp," etc. The evidence I produced in favour of the ligature, as far back as 1872, before the Obstetrical Society, appears to have missed that notice which it claimed, and which subsequent events have shown it to have deserved.

I must now enter a protest against the new practice of counting cases of oöphorectomy as "ovariotomies". Hitherto we have been accustomed to associate certain ideas with the term "ovariotomy", such as that the extirpated ovary is more or less extensively diseased, and may be more or less adherent to opposing parts, etc. There can be no doubt that "ovariotomy" is a much more dangerous operation than "oöphorectomy", and if this new classification be adopted it will follow that the man who does the largest proportion of oöphorectomies will, by so much, show a lower rate of mortality. Thus, to take Dr. Savage's cases, we find thirty-four ovariotomies with two deaths; and sixteen oophorectomies without a single death. This is unfair to those who, like myself, do not include oöphorectomy. Nor is it fair to the operation of "oöphorectomy" to group it with the much more formidable "ovariotomy"; while in the converse the results are misleading. I must express the hope that this practice will not have many adherents. —I remain, sir, yours faithfully,

GEO. GRANVILLE BANTOCK.

12, Granville Place, W., Jan. 3, 1881.

BRITISH MEDICAL BENEVOLENT FUND.

SIR,—Although already a subscriber to the British Medical Benevolent Fund, I cheerfully respond to the appeal you publish in the JOURNAL, and enclose a small offering to that institution. At the same time permit me to say that I am persuaded that the announcement you make of your intention during the ensuing year to endeavour "to devise some plan by which the connection between our Association and the British Medical Benevolent Fund may be made much more fruitful in good, much more extensive, and much more productive than it has been of late years," will be hailed with profound satisfaction by every member of our Association. I have long felt that some decided effort in this direction was called for; and at the last meeting of the South Wales and Monmouthshire Branch I brought the matter forward; it was then resolved to establish a medical benevolent fund for South Wales and Monmouthshire on the plan of that most admirable society, "the West Riding Medical Charitable Society," which for upwards of fifty years has done inestimable good in the district in which it operates. The object we had in view in seeking to establish a local society was, I need hardly say, to supplement, but in no way to interfere with the work already being done by existing societies. Having in view, however, your promise above quoted, I shall feel it my duty to recommend that any action having for its object the establishment of our local society be, for the present, deferred, in order that our undivided support may be given to your efforts.

Possibly the great work accomplished by the West Riding Society may not have been brought to your knowledge. I therefore enclose a copy of the report and rules with which I was favoured by Mr. Wheelhouse, of Leeds, one of the joint secretaries.—I am, etc.,

GEO. ARTHUR BROWN.

Tredegar, Monmouthshire, Jan. 1st, 1881.

STRATFORD-ON-AVON.—The population of this district has been increasing during the past few years, so that it is not surprising that the total number of deaths has somewhat increased also. The infant mortality still remains, however, satisfactorily low. No less than 38.6 per cent. of the total deaths occurred last year in persons aged sixty years and upwards. Out of a total of 194 deaths, 54 were from diseases of the respiratory organs. The zymotic deaths (13) were, with one exception, fewer in number than in any year since Mr. Fosbroke has been officer of health. Scarlatina caused six deaths, and was greatly spread by imperfect isolation. The district has now passed from the control of the Local Board to that of the Town Council, who will need to give early attention to the sewerage and excrement-disposal of the town.

OBITUARY.

CHRISTOPHER FLEMING, M.D., DUBLIN.

We have to record with regret the death of the above well-known Dublin surgeon, at the advanced age of eighty-one; which event took place at his country residence, near Dublin, on the 31st ultimo.

Mr. Fleming was an ex-president of the Royal College of Surgeons, and also of the Pathological and Surgical Societies of Ireland, and for many years occupied a prominent position in the surgical profession in Dublin. He commenced his profession at an early age, under the auspices of the late Mr. Dease, and on his death, he continued his studies under the celebrated Abraham Colles. Mr. Fleming was not fortunate in obtaining an hospital appointment at an early period of his career; but eventually he obtained one of the surgeoncies of the Richmond Hospital, and, for seventeen or eighteen years, he worked there with a zeal, energy, and indefatigable industry, that obtained for him a deservedly high reputation, as a thoroughly sound and practical surgeon. His diagnostic powers were of a very high order, and his skill as an operator admitted by all. The particular department in surgery to which he devoted special attention, was the diseases and injuries of the genito-urinary organs; and the results of his experience in dealing with this all-important branch of surgery he embodied in a volume, which was published in 1877; and which, as a guide to the practitioner, and as a reliable and trustworthy work of reference, will always occupy a high position in the surgical literature of this country. Those who had the privilege of studying under Mr. Fleming at the Richmond Hospital will gratefully remember his kindliness, and gentleness of manner; his conscientious and judicious method of teaching, and how ready he ever was to give advice and aid to all who exhibited desire to work earnestly and well. He resigned his surgeoncy to the Richmond Hospital a few years ago; but at the time of his decease, he was consulting surgeon to Dr. Steevens' Hospital, and a member of the Board of Superintendence of the Dublin Hospital Board.

GEORGE HARRISON EVANS, M.B., F.R.C.S., of BIRMINGHAM.

We regret to record the death of Mr. G. H. Evans, who succumbed to enteric fever, in Rome, whither he had gone for the restoration of his health, on the last day of the old year. Born in 1845, the eldest son of the late Dr. George Fabian Evans, who was in his day the senior consulting physician, and "head of the profession" in Birmingham, he began his curriculum at the General Hospital and Sydenham College in his native town, under the guidance of his distinguished father. Studying subsequently at St. Bartholomew's Hospital, London, he became M.R.C.S. in 1868. He then proceeded to the University of Edinburgh, where he graduated as Bachelor of Medicine in 1871. He exhibited an early preference for surgery, and, in 1872, after he had taken the Fellowship of the Royal College of Surgeons by examination, he began practice as a consulting surgeon in Birmingham; in the following year he was appointed surgeon to the Children's Hospital. In 1874, upon the foundation of the Birmingham Medical Institute, which owed its initiation to a munificent bequest of his father, Mr. Evans was unanimously chosen as the first honorary secretary of the new institution; the subsequent success of the undertaking was in no small degree due to his faithful and courteous discharge of his duties and his wide personal influence. About two years ago, when he might fairly have expected soon to take a prominent position amongst the hospital surgeons and clinical teachers of his town, his health broke down with slight, but unequivocal, signs of cardiac failure, and he reluctantly withdrew from office at the institute. Soon afterwards, retiring upon his ample resources, he gave up private practice, but he did not relinquish his surgeoncy at the Children's Hospital until a few months ago. Mr. Evans won the regard of all who knew him by his modest demeanour and gentle and polished bearing; he was a diligent hospital surgeon, well versed in the literature of his profession, and he will be remembered as a sound practitioner and a skilful operator. He leaves a wife and two young children.

BOMBAY MEDICAL RETIRING FUND.—The following is the allotment of annuities for 1881: £252 to Surgeon-General J. R. Miller, M.D.; £210 to Surgeon-Major F. W. Harris; £210 to Deputy Surgeon-General R. G. Lord, M.D.; £168 to Surgeon-General W. G. Hunter, M.D.; £168 to Deputy Surgeon-General F. G. Joynt, M.D.; £168 to Surgeon-Major W. E. Wood.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

TABULAR STATEMENTS FOR ANNUAL REPORTS.

THE Local Government Board have, as usual, issued forms of tabular statements for the annual reports of officers of health, required under the official regulations to be made up to the end of December in each year. The board have not, however, in their covering circular, adverted to the considerable changes which have been made in the forms; nor have they given any explanation of the reasons which have induced them to make the alterations. It is a pity that the red forms have been issued so late in the year, when the statistics of the various districts have probably been already, to a considerable extent, arranged in the old way; and it would doubtless have led to less confusion if they had been issued before, with some indications of the changes proposed to be made. It must be confessed, however, that the alterations are improvements. No changes of importance have been made in the table of deaths *(a)*, except that account is taken of the deaths occurring outside the district that belong to it, and of those occurring within it that do not belong thereto. The number of deaths registered as actually occurring in a district frequently requires correction before it can give an exact view of the mortality of a district—a point too often overlooked by officers of health; space has, therefore, been provided in the table for enabling health-officers to indicate, to the best of their ability, what the extent of such corrections should be. It is in Table "B"—which has heretofore been in the same form as that in which the now-disused quarterly returns were started, seven years ago—that the alteration is most marked. The table is no longer one of "mortality and sickness", but of sickness only. It is now identical in construction with Table "A", except that the mortality at different ages is not required. The table is to be concerned, not with pauper sickness only, but, with all sickness coming to the knowledge of the medical officers of health. No opportunity is given, except by a summary statement in the margin, for discriminating in the table between cases; for example, in workhouses or workhouse infirmaries; amongst out-door paupers; amongst in-patients at hospitals, or out-patients at hospitals and dispensaries; or in club or private practice, of which the health-officers may receive information. The forms have, however, evidently been thought out with much care and no little ingenuity; and we shall be curious to hear what their practical value proves to be.

CONTRACTS FOR MEDICAL ATTENDANCE.

A CASE of conspicuous hardship to a medical man has recently come before the Exchequer Division of the High Court of Justice; and though Mr. Justice Stephen felt bound to decide the case against the plaintiff, he expressed in emphatic terms his sense of the meanness of the local authority who had evaded their just liabilities by a legal quibble. In June, 1878, an outbreak of scarlet fever occurred in the neighbourhood of Grantham, and, mainly owing to the exertions of Dr. Ashby, the officer of health, some tent-hospitals were erected jointly by the local authorities then existing in the neighbourhood. The plaintiff in the case, Mr. Eaton of Grantham, was engaged to act as medical attendant to the sufferers isolated in the tents, for which he was to receive 5s. 3d. for each tent daily. At this rate, his total charge would amount to £97 7s. 9d. The Town Council of Grantham, into whose district had meanwhile been merged the other two of the three districts providing the tent hospitals, declined to pay this sum, and offered a smaller amount; subsequently, on being sued, they urged that no contract had ever been made, and if made it was illegal. Under Section 174 of the Public Health Act it is necessary that all contracts made by local authority over the value of £50 should be in writing, and sealed with the common seal of the authority. This had not been done; and so since the clause does not contemplate an emergency such as that in which Mr. Eaton was appointed, Mr. Justice Stephen had reluctantly to give judgment for the authority; observing, however, that in his opinion the defence ought not to have been set up. He said it was clear to him that the board resisted a moderate demand for payment earned by a man who discharged a public duty at the risk of his health and practice. They founded their defence on a ground of the most technical character, which had nothing to do with the merits of the case. He did not, however, feel himself at liberty on that account to deprive them of the costs to which in the order of things they were entitled. Thus Mr. Eaton, in addition to losing his professional fees whilst serving under the Town Council, will sustain a severe pecu-

niary loss through the heavy costs that he has unwittingly incurred. This may be law, but it certainly is not equity; and we trust the inhabitants of Grantham, who were protected from the epidemic spread of scarlatina by the prompt isolation of the early cases in the tents, will testify their appreciation of Mr. Eaton's services by subscribing liberally to a fund to indemnify him for the serious expenses to which he has been put. The case may serve as a wholesome warning to medical men to be wary in their relations with local authorities; and to be careful, above everything, that all money relations are put upon a strictly legal footing before any services for the authority are entered upon.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

JARROW.—Mr. Spear's report on this district possesses an unusual importance; because it is at Jarrow that the exceptional powers for dealing with infectious disease, that have since been adopted for several other towns, were first put in operation. Of the great usefulness in the borough of the notification of infectious cases, we have already spoken (page 603); and it appears that action was also taken last year, under other clauses of the local Act, in employing nurses, closing dairies, and preventing persons living in infected rooms working at certain employments. The point of greatest interest in the report is the account given of an outbreak of typhus in the borough after several years' absence. The disease seems to have been imported from Sunderland; and, in the absence of hospital accommodation, to which the early cases could be removed, spread to about ninety-nine persons, mostly living in ill-ventilated and crowded houses. Notwithstanding the difficulties in which Mr. Spear was placed, through the absence of a hospital, and his consequent helplessness in staying the ravages of the disease by effectual isolation, he speaks in the highest terms of the value of the information as to the existence of cases. He adds that, whilst he was generally successful, as regards most of the centres of infection, in stopping the progress of the disease by such precautionary measures as could be enforced in the sufferers' houses, "the one thing needed to put an effectual end to all the disease, and death, and misery that we were coolly watching—hospital accommodation—the sanitary authority could not or would not provide. That question was still, as it had been for five years, 'under consideration'." During the year, there were 919 births and 437 deaths in the borough, equal to rates of 40.8 and 19.5 per 1,000. Twenty-nine per cent. of the total number of deaths were those of infants under one year of age, and 46 per cent. of children under five years. The zymotic mortality was equal to 3.3 per 1,000. Measles and whooping-cough were, in the latter part of the year, epidemically prevalent. Nineteen cases of typhoid fever (4 fatal), and 38 of scarlet fever (8 fatal), were compulsorily reported to the sanitary authority.

WANDSWORTH.—In a district which is being so rapidly and extensively built upon as this, it is obviously very difficult to fix upon an even approximately accurate estimate of the population. Upon the official estimate, however, the birth rate was 39.7, and the death rate 20.3 per 1000, each of which shows an increase on the figures for 1878. The death-rates of the five constituent parishes were: Battersea 23.9. Wandsworth 19.0, Clapham 17.5, Streatham 15.6, and Putney 15.0. An increase of 82 zymotic deaths over the number for 1878 is recorded. A remarkable decrease in the fatality of diarrhœa occurred, but, except a trifling decrease in the deaths from diphtheria and whooping-cough, the other zymotic diseases show an increase. Measles and scarlatina were the chief epidemics of the year, the mortality from each being considerably above the average. Diseases of the respiratory organs were very fatal, no less than 891 of the 3526 deaths being ascribed to lung disease. Probably at least 1200 deaths, or more than a third of the entire mortality of the district were due to diseases of the lung. The proportion of deaths under one year to the total mortality was 21.1, and of deaths under five years 46.2 per cent. The subject of uncertified deaths is referred to by nearly all the five health officers; and strong comments are made on the unsatisfactorily high proportion of such deaths obtaining in the district.

SCARBOROUGH.—During the third quarter of 1880, there were 230 births and 150 deaths at Scarborough, against 240 and 152 in the corresponding quarter of 1879. As compared with the previous year, there was a very large increase in the number of deaths in children under one year, and between the ages of one and seven years; the increase being almost entirely due to the much greater fatality of infantile diarrhœa. Last autumn, 28 deaths occurred from this disease, against only 5 in the autumn of 1879. No fewer than 21 of these deaths occurred during the four weeks ended September 20th, and appear to have followed a season of several weeks of almost rainless weather, which was succeeded by a rainfall of nearly three inches during the week ended September 15th. Dr. Taylor regards improper food as quite as important a factor in producing diarrhœa as hot weather; and he states that he has frequently been told, when asking "what food baby has", "Oh! it has the same as we have—just what is going". There need be, therefore, no occasion for wonder at the high infantile mortality recorded. Eleven of the deaths occurred amongst visitors, and 40 amongst persons aged sixty years and upwards; 6 deaths being recorded of persons between eighty and ninety years old.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—Admitted Licentiates, December 30th, 1880.

Allen, Thomas W. J., University Hospital, W.C.
Bathe, Anthony J., 3, Whittington Villas, N.
Bull, George C. Robins, 15, London Street, Paddington, W.
Carpenter, Arthur B., Duppas House, Croydon
Grayling, Arthur, Forest Hill, S.E.
Harvey, Sidney F., 9, Catherina Terrace, Lansdowne Road, S.W.
Macdowall, Cameron J. F. S., 32, Osnaburgh Street, N.W.
Maynard, Foster F. M., St. Andrew's Park, Hastings
Mills, Thomas W., M.D. McGill, 126, Murray Street, N.
Patten, Charles A., Marpool House, Ealing, W.
Pearce, Walter, 62, Oxford Terrace, Edgware Road, W.
Phillipps, William Alfred, Longton Grove, S.E.
Renshaw, Israel J. E., Sale, Manchester
Wilkinson, Frank T., 6, Dean Street, S.E.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Board of Examiners, on the 5th instant, and when eligible will be admitted to the pass examination.

Messrs. Charles Slater, J. F. Gordon Dill, Thomas Rushbrooke, and Harry Groom, of the Cambridge School; Edward Paxton and Joseph Whittaker, of the Manchester School; Albert G. Cunningham and Joseph H. Powell, of the Bristol School; Charles W. Thompson, of the Leeds School; Frank Pearse, of Guy's Hospital; William H. Burke, of the Dublin School; H. Simpson Wood, of the Melbourne School; and Thomas Kelly, of the McGill School, Toronto.

Eleven candidates were referred to their anatomical and physiological studies for three months, including one who had an additional three months.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced:—

AYLESBURY UNION—Medical Officer to Third District and Workhouse.

BALLINROBE UNION—Medical Officer for Ballinrobe Dispensary District. Salary, £100 per annum, with £25 as Medical Officer of Health, registration and vaccination fees. Election on the 13th instant.

BLACKBURN UNION—Medical Officer to the Ribton District.

BRACKLEY UNION—Medical Officer to the Sulgrave District.

*BRIGHTON AND HOVE DISPENSARY—Resident House-Surgeon to the Western Branch. Salary, £140 per annum, with furnished apartments, coals, gas, and attendance. Applications, with testimonials, on or before January 31st.

BROMYARD UNION—Medical Officer to First District. Salary, £130 per annum.

BURTON-ON-TRENT UNION—Medical Officer and Public Vaccinator for the Burton-on-Trent District and Workhouse. Salary, £— per annum, with £— per annum for Workhouse. Applications, with testimonials, on or before January 10th.

CARRICKMACROSS UNION—Medical Officer for Donaghmoyne Dispensary. Salary, £125 per annum, exclusive of registration and vaccination fees. Election on the 13th instant.

DORSET COUNTY ASYLUM—House-Surgeon. Salary, £— per annum, and £— additional as Secretary. Applications, with testimonials, to the Chairman, on or before January 12th, 1881.

GERMAN HOSPITAL, Dalston—Honorary Assistant Physician. Applications, with testimonials, to the Honorary Secretary on or before January 11th, 1881.

KILKENNY DISTRICT LUNATIC ASYLUM—Visiting Physician. Salary, £— per annum. Applications [illegible] instant for the appointment, which in the first instance will be probationary.

KILKENNY UNION—Medical Officer for Gowran Dispensary District. Salary, £— per annum, with £— yearly as Medical Officer of Health, registration and vaccination fees. The person appointed will [illegible] medical officer to the Gowran Fever Hospital at £— yearly. [illegible] instant.

*LEEDS AMALGAMATED FRIENDLY [illegible] MEDICAL AID ASSOCIATION—Assistant Medical Officer. Salary, £— per annum. Applications, with testimonials, to the Secretary [illegible] January 8th.

LONDON LOCK HOSPITAL, 91, Dean Street, Soho—House-Surgeon. Salary, £— per annum, with board, residence, and washing. Applications, with testimonials, to the Secretary, on or before [illegible]

LOUTH UNION—Medical Officer to Louth District and Workhouse. Salary, £— per annum.

MYNYDDISLWYN ROYAL INFIRMARY—Resident Medical Officer for the Cwmbrân Cottage Hospital at Cwmbrân. Salary, £— per annum, with board and residence. Applications, with testimonials, on or before January [illegible], 1881.

MOUNTMELLICK UNION—Medical Officer for Coolran Dispensary District. Salary, £90 per annum, with £15 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 10th January, 1881.

RYDE, Borough of—Medical Officer of Health.

*ST. BARTHOLOMEW'S HOSPITAL—Surgeon. Applications, with testimonials, on or before January 24th.

TAUNTON UNION—Medical Officer to the Corfe District. Salary, £110 per annum. Applications, with testimonials, on or before January 10th.

UNIVERSITY OF EDINBURGH—An additional Examiner of Pathology. Applications and testimonials to the Secretary not later than January 17th, 1881.

WOLVERHAMPTON FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION—Resident Medical Officer. Applications (stating salary required), with testimonials, not later than February 1st, 1881.

MEDICAL APPOINTMENTS.

CAMPBELL, Colin M., M.A., M.B., C.M., appointed Assistant Medical Officer to the Durham County Asylum, *vice* R. L. Rutherford, L.K.Q.C.P.I., resigned.

CARRE, George E., A.B., M.B., appointed Resident Medical Superintendent to the Omagh District Lunatic Asylum, *vice* Francis J. West, M.R.C.S.E., deceased.

LYNCH, J. Roche, M.R.C.S., appointed Honorary Consulting Surgeon to the London Diocesan Deaconess Institution, on retirement from the honorary acting staff.

MORGAN, John H., F.R.C.S., appointed Demonstrator of Surgery, Pathology, and Ophthalmology to the Charing Cross Hospital Medical School, *vice* Edward Amphlett, M.A., M.B., deceased.

SMITH, Robert, M.A., M.B., appointed Demonstrator of Morbid Anatomy to the Charing Cross Hospital Medical School, *vice* J. Pearson Irvine, M.D., F.R.C.P., deceased.

STEDMAN, Arthur, M.R.C.S., appointed Medical Officer to St. John's Foundation School at Leatherhead.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

MARRIAGES.

BARLOW—DALMAHOY.—On the 30th December, at 69, Queen Street, Edinburgh, by the Rev. A. Whyte, M.A., Thomas Barlow, M.D., F.R.C.P., to Ada Helen, daughter of the late Patrick Dalmahoy, Esq., writer to the Signet.

MCDONAGH—PATTISSON.—On the 29th instant, at St. Matthew's, Oakley Square, James T. McDonagh, M.R.C.S., of Mornington Villa, Hampstead Road, N.W., to Dora, eldest daughter of the late Jacob Pattisson, Esq., and grand daughter of the late F. N. Pattisson, J.P., of Coppeshall, Essex.

DEATHS.

EVANS.—On December 31st, at Rome, of typhoid fever, George Harrison Evans, M.B., F.R.C.S., of Edgbaston, eldest son of the late G. F. Evans, M.D., of Birmingham, aged 35.

GIBSON.—On the 29th December, at Auteuil, Paris, Isa, second daughter of William Gibson, M.D., Campbeltown, Argyle, aged 18.—Friends are requested to accept this, the only intimation.

GOODMAN.—On December 23rd, at his residence, Eastbourne House, Gloucester Road, Birkdale, Southport, Charles Rowland Goodman, M.D., late of Manchester, aged 43.

HAILEY.—On January 2nd, at Tickford Lodge, Newport Pagnel, Hammett Hailey, M.R.C.S., aged 57, after a few days' illness.

DEPUTY SURGEON-GENERAL J. L. JAMESON, Army Medical Department, has been appointed to succeed Surgeon-General Thompson as principal medical officer at Cork. Deputy Surgeon-General Jameson has recently arrived home from India on promotion.

The Local Government Board have approved of an increase in the salaries of Dr. Brett of Watford as medical officer to the workhouse and district of Watford. The increase, which commenced on December 25th, is from £55 and £70, to £70 and £100 respectively.

WEST-KENT MEDICO-CHIRURGICAL SOCIETY.—The second meeting of the present session was held at the Royal Kent Dispensary, Greenwich, on November 5th, 1880; Mr. H. W. Jackson in the chair, when Mr. W. Rivington, surgeon to the London Hospital, read a paper on "A Wound of the Knee-joint Treated Antiseptically". Mr. Rivington first gave a detailed account of the case and treatment, which went to show that it was a severe wound in the knee-joint, which made a perfect recovery under the Listerian treatment. Mr. Rivington then said that it was unlikely that the case would have gone on so well under the old treatment, and compared the issue of cases treated in former years under the old system, and cases now treated under the protection of carbolic acid and carbolic gauze. Admitting that excellent results were obtained in the perfectly pure atmosphere of the country, with a modified antiseptic procedure, and even without antiseptic precautions, Mr. Rivington said that the comparison must only be between cases which were treated in the loaded atmosphere of great cities and hospitals.

WANT OF SUBJECTS FOR DISSECTION.—The lack of subjects for dissecting purposes is being felt, not only in our own hospitals, but in those of India. The Principal of the Madras Medical College, in his report for 1879, alludes to this matter; and says that, whereas at least fifty bodies were required during the winter session for two departments alone, only twenty-five subjects were actually available. Similarly, in the summer season, only nine subjects were available for the operative surgery class—a number which the Professor of Surgery considered quite inadequate for the practical instruction of his swollen classes. In a city circumstanced as Madras is, it apparently ought not to be difficult, with proper arrangements, to secure an ample supply of bodies—the special difficulties which beset English medical schools not being operative there.

PUBLIC HEALTH.—During the week ending Saturday, December 25th, 4,841 births and 3,146 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality was at the average rate of 19 deaths annually in every 1,000 persons living. The annual death-rate was 22 in Edinburgh, 19 in Glasgow, and 27 in Dublin. The annual rates of mortality in the twenty English towns were as follow: Brighton 16, Sheffield 16, Portsmouth 16, Wolverhampton 16, Birmingham 17, Bristol 17, London 18, Leicester 18, Newcastle-upon-Tyne 19, Bradford 19, Manchester 19, Salford 19, Plymouth 19, Leeds 20, Oldham 20, Hull 21, Sunderland 22, Liverpool 22, Norwich 26, and the highest rate, 26, in Nottingham. The annual death-rate from the seven principal zymotic diseases averaged 2.4 per 1,000 in the twenty towns, and ranged from 0.5 and 0.9 in Brighton and Birmingham, to 4.5 and 5.4 in Sunderland and Nottingham. In London, 1,242 deaths were registered, which were 666 below the average, and gave an annual death-rate of only 17.7. The 1,243 deaths included 15 from small-pox, 40 from measles, 45 from scarlet fever, 16 from diphtheria, 27 from whooping-cough, 14 from different forms of fever, and 15 from diarrhœa—being altogether 172 zymotic deaths, which were no fewer than 109 below the average, and were equal to an annual rate of 2.5 per 1,000. The deaths referred to diseases of the respiratory organs were 290, and were no fewer than 273 below the average; 175 resulted from bronchitis, and 71 from pneumonia. Different forms of violence caused 54 deaths; 51 were the result of negligence or accident, including 25 from fractures and contusions, 7 from burns and scalds, 6 from drowning, and 7 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 40.6°, and 1.0° above the average. The general direction of the wind was S.W. Rain fell on four days of the week, to the aggregate amount of 1.26 inches. The duration of registered bright sunshine in the week was equal to 17 per cent. of its possible duration.—During last week, being the fifty-second week of last year, 5,683 births and 3,971 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality was at the average rate of 24 deaths annually in every 1,000 persons living. The annual death-rate was 20 in Edinburgh, 23 in Glasgow, and 36 in Dublin. The annual rates of mortality in the twenty English towns were as follow: Newcastle-upon-Tyne 16, Portsmouth 16, Sheffield 19, Bradford 19, Norwich 21, Birmingham 21, Plymouth 22, Hull 23, Brighton 23, Leicester 23, Bristol 23, London 23, Manchester 24, Leeds 26, Sunderland 26, Salford 27, Oldham 28, and the highest rate, 30, in Wolverhampton, Liverpool, and Nottingham. The annual death-rate from the seven principal zymotic diseases averaged 2.8 per 1,000 in the twenty towns, and ranged from 0.7 and 1.0 in Plymouth and Newcastle-upon-Tyne, to 5.5 and 5.8 in Wolverhampton and Sunderland. Small-pox caused 17 more deaths within registration London, whereas no fatal cases were recorded in any of the nineteen provincial towns. In London, 1,648 deaths were registered, which were 224 below the average, and gave an annual death-rate of 23.5. The 1,648 deaths included 17 from small-pox, 67 from measles, 61 from scarlet fever, 10 from diphtheria, 16 from whooping-cough, 14 from different forms of fever, and 15 from diarrhœa—being altogether 200 zymotic deaths, which were 74 below the average, and were equal to an annual rate of 2.8 per 1,000. The deaths referred to diseases of the respiratory organs were 353, but were no fewer than 189 below the average; 218 were attributed to bronchitis, and 82 to pneumonia. Different forms of violence caused 70 deaths; 61 were the result of negligence or accident, including 20 from fractures and contusions, 11 from burns and scalds, 2 from drowning, one from poison, and 20 of infants under one year of age from suffocation. Seven cases of suicide were registered. At Greenwich, the mean temperature of the air was 40.6°, and 1.9° above the average. The general direction of the wind was S.W., and the horizontal movement of the air averaged 12.6 miles per hour, which was 0.13 below the average. Rain fell on five days of the week, to the aggregate amount of 0.96 of an inch. The duration of registered bright sunshine in the week was equal to 2 per cent. of its possible duration. The recorded amount of ozone showed an excess during the week, especially on Wednesday.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 2; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Sir Joseph Fayrer, Lettsomian Lecture on Dysentery.—Odontological Society of Great Britain, 8 P.M. Annual general meeting. Elections of officers for ensuing year. President's Valedictory Address. Curator's, Librarian's, and Treasurer's Reports. Mr. G. Wallis will show Mr. Lennox Browne's adaptation of the Lime-Light. Casual communications.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. Knowsley Thornton, "One hundred and seventy-two Antiseptic Abdominal Sections, with remarks on the Causes of Death in the fatal cases"; Mr. Frederick Treves, "Case illustrating the Condition of Large Arteries after Ligature under Antiseptic and Non-Antiseptic Measures"; Mr. Henry Lee, "On Radical Cure of Varicocele"; Mr. J. M'Carthy, "Aneurism of Axillary Artery, treated by Antiseptic Ligature of third part of Subclavian Artery".

WEDNESDAY. Obstetrical Society of London, 8 P.M. Specimens will be shown by Dr. Chambers, Mr. Doran, Dr. Hoggan, and others. Papers: Dr. Thos. Chambers, "Complete Extirpation of the Uterus, with both Ovaries; Recovery"; Dr. W. R. Rogers, "Case of Chronic Complete Inversion of the Uterus, successfully treated by Sustained Elastic Pressure"; Dr. Matthews Duncan, "Delivery in a case of Double Uterus"; and other communications.—Hunterian Society, 7 P.M., Council Meeting. 8 P.M., Mr. Jonathan Hutchinson, "The Clinical Importance of recognising the Pre-cancerous Stage of Cancer".

THURSDAY.—Ophthalmological Society of the United Kingdom, 8.30 P.M. Mr. Higgens, "Hyposcleral Cyclotomy"; Dr. W. A. Bealey, "A Rare Form of Muscular Asthenopia"; Mr. Hulke, "Ophthalmoplegia Interna"; Dr. A. D. Davidson and Mr. Fitzgerald (Dublin), "Cases of Detachment of the Retina in Albuminuric Retinitis". Living specimens must attend at 8 o'clock.

FRIDAY.—Clinical Society of London, 8.30 P.M. Annual meeting. Election of officers. Report on the Treatment of Hip-Disease, with especial reference to the Operation of Excision. Mr. Croft, "A Case of Traumatic Hydronephrosis"; Dr. R. H. Lloyd, "Two Cases of Myxœdema"; Dr. Sutherland, "Case of Chronic Vomiting, in which no Food except Koumiss was taken for sixteen months".

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE publication of the Index to the second volume for 1880 is unavoidably deferred till next week.

THE MODE OF ELECTION OF THE COUNCIL OF THE COLLEGE OF SURGEONS OF ENGLAND.

SIR,—Mr. G. Pollock has done good service in drawing attention to the subject of the election of the Council of the College of Surgeons, for a feeling exists that some change in the present mode of conducting these elections would be attended with advantage. To allow fellows to vote by proxy would obtain from them a much more general expression of opinion than can be the case under the present system. Many busy men, both in town and country, are unable to spare the time to attend personally to record their votes, though anxious to do so. Voting by proxy would give them this opportunity. The adoption of such a scheme as Mr. Pollock suggests would surely, with some modification of details, allow of a more dignified procedure and a more discriminating choice than at present obtains, and would eliminate much that is undesirable in the present methods of election. It would also be a gain if the general body of fellows had clearly laid before them the views, on any points of special interest at the time, of the gentlemen for whom they were asked to vote. This might be done in such a way as to exclude all resemblance even of canvassing, but would prevent the elections degenerating into the chance selection of a name. To the great majority of the fellows these gentlemen must be personally unknown; and without some such indication they would have but little to guide them in their choice.—I am, sir, yours obediently,

3, Savile Row, W. WYNDHAM COTTLE.

THE CASE OF MR. ARTHUR O'BRIEN JONES.

SIR,—This case is not the first of the kind, nor is it, we may be sure, the last. The cost to the defendant may be so great as to amount, in some instances, in the absence of help, almost to ruin; and I write to suggest that we should have a better provision against such hardship than the uncertain result of an appeal for subscriptions. Why should we not have a sort of mutual insurance or protection association against such risks? It is stated, in a recent impression of the JOURNAL, that the British Medical Association numbers nearly eight thousand members. If even only a half of these were to adopt such a scheme, an annual subscription of five shillings would yield an income of £1,000; but if a larger subscription were required, I do not think it would be grudged. No one can say that his turn will not come. An action for having granted a lunacy certificate may crop up any day, perhaps in a case where not to have granted it would have been a culpable shirking of duty. Then there have been cases of false charges, for the purpose of extorting money, of criminal assault in the consulting-room—and that is a risk to which every general practitioner is daily exposed. It would assuredly be considerable comfort to the victim of such persecutions to know that, if his innocence is established, he will not be involved in a loss of money by his defence.—I am, etc.,

Dundee. J. W. MILLER, M.D.

*** The subject is worth discussing, but we can see serious objections to such a fund. It would be liable to numerous calls, which it would be hard to refuse, and yet injudicious to encourage. It would possibly tend to lessen the prudence which a sense of individual responsibility emphasises; and, on the whole, it is probably not so disadvantageous as it seems, that only in special and individual cases, each considered on its own merits, pecuniary indemnity should be obtained by professional aid from costs incurred by the operation of the law.

LUNATIC ASYLUMS IN IRELAND.

SIR,—The inspectors of Irish asylums, as you have rightly remarked in your issue of December 25th, are disposed to apologise for the difficulty which a compiler finds in avoiding repetitions after he has been engaged in writing reports for thirty years. I cannot go back for so long a period; but I was connected with an Irish asylum some years ago, and used to read the inspectors' reports assiduously. I can testify to the difficulty which the inspectors labour under. In their twenty-third report, published in the year 1874, they tell the same marvellous story about a criminal lunatic, who had been many years insane, and whose brain was perfectly healthy, which they think worthy to be again recorded in their twenty-ninth report. The story must be the same, for the previous history in the two cases is identical. The pathological portion has improved a little by keeping, as such tales are apt to; for, whereas we are told in the twenty-third report that "a slight opacity of the membrane covering the middle and posterior portion of the organ" was noticeable—a fact which is adduced as proving "that grave mental affections can exist for a long series of years without any appreciable lesion of structure"—we learn, from the twenty-ninth report, that "the brain and its membranes were found to be in the healthiest condition". One might be inclined to conclude that *post mortem* examinations were rather rare in Irish asylums, when the inspectors were forced to unearth this pathological gem in order to decorate their last report. The quotation from Reid, however, is new. Perhaps an extract from some more recent author—say, Ferrier—would have better suited a modern generation.—Your obedient servant, SCRUTATOR.

CHILBLAINS.

SIR,—Can any of your readers tell me the best remedy for chilblains? I am driving about all day, and suffer from them on my feet, hands, and ears. I have tried iodine and stimulating liniments without avail.—Yours truly, M.D.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

MR. TENNYSON'S LAST NEW WORK.

THE metropolitan and country papers have teemed with articles founded or commenting on the indignant criticism which we felt it a duty to offer on Mr. Tennyson's monster, whom he delineates as the surgeon to a children's hospital; the being "with coarse red hair, big face, big chest, big merciless (not merciful) hand; happier in using the knife than in trying to save the limb; one of those who break their jest on the dead", etc. The *Pall Mall Gazette*, the *Echo*, the *Daily Telegraph*, the *Scotsman*, the *Western Morning News*, the *Manchester Guardian*, and a host of others, have commented on the subject. We have met with nothing, however, more sympathetic than the following, from the pen of a lady, in the *Leicester Chronicle*.

"Where Mr. Tennyson has sought and found his unique model for such a picture I cannot well imagine; certainly not in the hospitals of the metropolis; and, I earnestly believe, not in the wards of any hospital or infirmary in Great Britain. We women—all who have ever known pain and sickness ourselves, or the terrible and worse agony which comes to us in the suffering of those we love, when hope and despair for very life seems hanging on the doctor's word and look—must feel how untrue all this is. Whose encouraging voice is it that gives the mother strength to bear the sight of her child's present pain, in order that she may still retain him in her arms? Or the loving wife fortitude to hold the hand she loves best in the world, while the precious limb is set, without flinching? Is it not the calm word and skilful touch which is so re-assuring, even to the sufferer; and which, amongst the poor and friendless, establishes an affectionate relation between the surgeon and his patient, to which all who have been in the habit of visiting our hospitals will testify? It is not many weeks ago that I saw in our largest children's hospital a little girl, whose pain and restlessness was such, that she could not sleep; and rest was of all things most necessary to her recovery. A terrible wound in her arm, made by the "dreadful knife in trying to save the limb," had been gently and tenderly dressed by the same hand which made the wound, and relieved from present pain, the little one had fallen asleep, her head on the surgeon's shoulder. Patiently he sat, his arm tenderly supporting her feeble body, waiting till she should be so fast asleep, as not to be disturbed by his movements; and at last, when the sweet unconsciousness of sleep had firmly closed her weary little eyes, I saw him gently lay her head on her pillow; and, passing his hand caressingly over her pale face, he went on to the next bed, where he was welcomed by a tiny child, who called out in unmistakable affection, "This is my doctor come: he helped to cut off my leg, and I like him so". Shame on the man who can abuse his great gift of language and power of description to pander to the delusion and folly of the moment; and to endeavour to impress his readers with the false notion that a good, true, Christian woman, whose vocation and desire is to minister to the sick and dying, can do so with earnestness and efficiency, if she be ever ready to put herself in opposition to the man "fresh from the surgery", whose life has been spent in studying the cause and nature of disease, and the discovery of means to lessen pain and prolong life. Such a history seems to me more in harmony with the teaching and life of the "Lord Jesus", whom she is so anxious "to seek in prayer", than the ready assertion, that "his voice and his face were not kind", and his hands "cruel and merciless". I think every woman who reads these lines will recall moments, perhaps hours, in her life, when her heart has overflowed with gratitude alike to God and to her doctor, whose special messenger he seemed to be in her time of distress and sorrow. Of course the fact of being a surgeon cannot make a bad man into a good one—but I believe no really bad and cruel man would remain long in such a position—the education, the training, and subsequent practice, require an amount of self denial, patience, and accquaintance with humanity in all its phases, which would soon disgust a selfish and low minded man and he would leave the ranks; while the generous and noble nature is but refined and strengthened, as it is interested in, and devoted to, its chosen and holy work. I think my fellow-countrywomen will agree with me that it is unfair and unjust to draw such a picture."

THE INVENTION OF SPECTACLES.

SIR,—To-day I received the BRITISH MEDICAL JOURNAL for December 25th, containing an interesting letter of Dr. Boggs on the invention of spectacles, with the following passage.

"Nous savons cependant que Néron etait myope, et qu'il assistait au jeu du Cirque avec une émeraude taillée dans l'axe concave qu'il plaçait dans le coin de l'œil.... I am sorry I cannot give you the source of the above quotation, as it is a cutting from a scientific article of a newspaper; but as it is in print, it may be considered authentic."

I have less confidence in printed matter; and I hope that my honourable colleague (Dr. Boggs) and your readers will agree with me.

The anecdote of Nero is to be found in Plinii *Histor. Natur.*, lib. xxxvii, cap. 16: "Smaragdi....plerumque et concavi, ut visum colligant. Quapropter decreto hominum iis parcitur, scalpi vetitis. Quanquam Scythicorum Ægyptiorumque durities tanta est, ut nequeant vulnerari. Quorum vero corpus extensum est, eadem, qua specula, ratione supini imagines rerum reddunt. *Nero princeps gladiatorum pugnas spectabat smaragdo.*" In the explanation of the last sentence, the grammatists and antiquarians (Vettari, Manni, Lippert) have not succeeded; but, a hundred years ago, the German poet and polyhistor G. E. Lessing (see *Antiquarian Letters*, No. 54, a. 1758) says: 1. The use of grinded convex and concave glasses and the dioptrics was perfectly unknown to the ancient Greeks and Romans, only catoptrics was partially known. 2. Nero was not at all myopic; but rather hypermetropic, or astigmatic. Suetonius (cap. 51) describes him with "oculis cæsiis et hebetioribus"; and Plinius (lib. xi, sect. 54, Ed. Hard.) says precisely: "Neroni, nisi cum conniveret, ad prope admota (oculi) hebetes."

I will not decide if Nero's *smaragdus* was thin and transparent, and used as a London smoke glass; or if it was thick and opaque, and used as a reflecting mirror; but, certainly, Nero was not the model of young elegants who squeeze a concave monocle in one of their eyes, as the author of the French paper seems to believe after his observations on the boulevards of Paris.—I am, sir, yours obediently,

JULIUS HIRSCHBERG, M.D., Professor in the University of Berlin.

Berlin, N.W., 36, Karlstrasse, December 26th, 1880.

TRAPS FOR MEDICAL PRACTITIONERS' USE.

SIR,—Some of the readers will please say what kind of two-wheeled vehicle they recommend for general use, in a district where long drives, bad roads, and frequent getting in and out of the trap is of daily occurrence?—I am, etc., M.R.C.S.

THE MEDICAL PROFESSION AND INTEMPERANCE IN ALCOHOL.

SIR,—Truly he is a happy man—a happy doctor, I should say—who can honestly affirm that he never by his alcoholic prescriptions made a drunkard. For myself, in my earlier days, I was a firm believer in the many supposed virtues of alcoholic compounds. It is about fourteen years ago that the scales were removed from my eyes by the stern reality of facts, and my sole regret now is, that I had held out so long against evidence of the most startling kind.

Many years ago I asked a noted drunkard to sign the pledge, when she replied, bitterly, that I was the last man who ought to give her such advice; for it was my own father who had taught her to love the drink. He had prescribed whisky for her in an illness, and she had learned to love it. I did succeed for eighteen months; then she fell, through a publican.

A few months ago, an old lady, a former patient of mine, whom I had not seen for many years, said to me, "Doctor, I still, at times, suffer from that pain in my back which I had long ago; and I still take your prescription regularly, I assure you". "Indeed; pray, what was it?" "A tumbler of gin toddy every night going to bed." I felt deeply ashamed. "My dear madam, that is twelve years you have gone on taking a medicine which has not yet cured you! Pray follow my advice now; give up the useless drug, and try something better." But did she? I trow not. She had learned to like it, and she would have it; and her own sister says, sorrowfully, that she sometimes "takes more than is good for her"; in plainer words, she is a drunkard. And this by my prescription.

If there is one thing which disquiets my mind now, and will do so till my dying hour, it is the remembrance of cases such as this, where, by my blindly carrying out the teaching of my student days, I have brought mortal injury to both body and soul of those who trusted themselves in my hands. I have resolved to do all that in me lies to repair the mischief I so unwittingly have done; and in a few cases I am thankful to say I have succeeded in restoring to themselves one and another, who had been led into excess by my prescriptions. I was sent for to a lady supposed to be seriously ill. I recognised the cause of her illness, it was the result of my pernicious practice. I kept my own counsel, and was ultimately successful in prevailing upon her to cease taking the stimulant which was really the sole cause of her in disposition. In a similar case of a maidservant, I had the happiness of undoing, as far as it ever can be undone, my own evil work.

Will Mr. Baker object, as he has done to examples cited by Miss Richardson, that these are nameless cases? Of course they are, they must be nameless. No medical man would be so dishonourable as to betray to the world the family secret confided to him. It is enough that I acknowledge the disastrous results of my belief in the popular delusion with regard to the prescription of alcoholic stimulants. I may just add, that I can very happily compare my present practice with that of the days when I prescribed alcohol right and left, as is still done by those who retain their faith in it. I am now convinced that stimulant does more harm than good, even in the complaint for which it is almost universally administered—weakness of action of the heart.

Some time after my change of system, a literary lady was placed for a while in my hands to recover from the effects of over-work. To her great dissatisfaction, I gave her no stimulant. She told me repeatedly that her London physician, "who knew her constitution perfectly," had always ordered it, and she "was confident that without it she should die"; and many a left-handed compliment I got for withholding from her, while in my house, what she loved so well. However, she got better without it, and returned to her home. She died in London a few years afterwards, separated from her husband—need I say for what?

I have said enough, I think, to prove that we medical men are verily guilty in this matter, and that no browbeating of those who venture to remonstrate with us will avail to clear us from the charge which they bring against us.

I would close with a word of warning to my brother medicos. In observing the results of this mode of practice, as I have had opportunity to do in the small towns in which I have lived, I have been distressed to see friends, and former fellow-students of my own, who, making the fatal mistake of following their own prescriptions, have themselves fallen victims to their mistaken theory.—I am, etc.,

Newbiggin-by-Sea, December 1880. J. C. REID, M.D.

DR. MURPHY (Sunderland) will see, by reference to another column, in which we refer to the event which he deplores, that we do not think the best interests of medicine would be consulted by his proposal.

BATHS AT UNIVERSITY COLLEGE HOSPITAL.

SIR,—In the paragraph which you have kindly inserted in your JOURNAL, relative to the new arrangements in connection with our baths, you state that patients recommended by medical practitioners are allowed the use of the baths upon payment of 2s. 6d. per bath, upon the two days specially set apart by the committee to the general public for the purpose. This is a mistake. You will observe, by the copy of the regulations which I enclose, that the charges are 5s. and 3s. 6d. per bath upon these special days; but upon other days, when used by hospital cases, the patients of private practitioners can have the use of the baths at a cost of 2s. 6d. per bath, or on the stated evenings at 1s. per bath.—I am, sir, faithfully yours,

NEWTON H. NIXON, Secretary, University College Hospital.

A NEW PHASE IN NURSING.

SIR,—I enclose slip from the *Rugby Advertiser*, containing an account of an inquest held on a patient of the hospital. The nurse was called, and gave evidence of the cause of death; though, as appears from her statement, a surgeon had attended the case. If a nurse is competent to give evidence of the cause of death, we must presume the nurse at Guy's Hospital was not so much to blame when she did not diagnose fracture of the skull. Whether in this case it was the nurse's self-sufficiency, or the whim of the coroner, the attending surgeon lost his fee. I think you will agree with me that such irregular proceedings at least require ventilating; so, enclosing my card, I subscribe myself

SEXTUS.

NASO-PHARYNGEAL CATARRH.

SIR,—In Saturday's JOURNAL I see Dr. Ball of Spalding offers to "A Suffering Member" "a non-medical treatment" which enables him (*i.e.*, Dr. Ball, a bronchitic sufferer) to venture out and defy the coldest winds. Such information is surely sufficiently valuable to be communicated to all suffering members, for the benefit of themselves and of their suffering clients; and I hope Dr. Ball will make it public in your columns, and not leave us all cogitating as to what it can be.—I enclose my card, and subscribe myself, EXCEEDINGLY CURIOUS.

GLOVES FOR COLD AND WET WEATHER.

SIR,—I was much pleased with the letter of Œconomicus in the JOURNAL for December 18th. I had never before heard of "whip-cord gloves", but should imagine they are excellent for driving in. May I ask Œconomicus if he gave the address (Bury, Broad Street, Birmingham) correctly, as I wrote to it for some whip-cord gloves, but have had no answer.—I am, etc., C. E. A.

Treatment of Ringworm.

SIR,—About a year ago I wrote to your JOURNAL, asking for suggestions in the treatment of tinea tonsurans, as I had a family of six children under treatment in which the disease was most obstinate and unyielding. I received a large number of replies to my communication, recommending a host of remedies, many of which are said to be specific; and in order that I might do justice to all the gentlemen who were kind enough to give me their experience, I tried the great majority of them; and my experience is, that the most success was obtained from a mixture, to be applied to the parts affected, of carbolic acid and glycerine in the proportion of one to eight (weaker if it inflames). The general health also requires attention. Tonics, including arsenic and cod-liver oil, are often indicated; also a prolonged change to a bracing coast.—I remain, yours faithfully, RICHARD JEFFREYS.

Elder House, Chesterfield.

P.S.—I should also strongly advise shaving the heads regularly until the disease has disappeared.

C. W. (Macclesfield).—The book is not published in English.

The Management of the Third Stage of Labour.

SIR,—The adverse record of your correspondent "Placenta" as to the value of "expression" of the afterbirth should not be allowed to pass without refutation. During the past three years, I have only twice found this method fail me, and in each instance morbid adhesion was present to render it inapplicable. The hardened uterus, even in fat subjects, can always be readily felt; and by firm pressure the placenta becomes "expressed" into the vagina, whence it may be removed by what is then legitimate traction of the cord. By such means, the uterus is steadied, the severity of the after-pains seems modified, and the risk of *post partum* hæmorrhage certainly diminished. The introduction of the hand into the uterus, as recommended by your correspondent, is certainly retrograde, being as objectionable in practice as it is to the patient.—I am, sir, yours obediently,

Dalston, E., Dec. 28th, 1880. F. E. COCKELL, junior, M.R.C.S.E.

SIR,—In answer to "Placenta," I, like himself, have wandered from the teaching of the text-books. We are told that, as a rule, the placenta is expelled in half an hour by the uterine action. It may be so; but I rarely have seen it. Immediately after the separation of the child, I grasp the uterus firmly, and encourage its descent on the placenta, and for a few minutes hook the latter near the insertion of the cord. In this way I avoid all flooding, and save myself much time and annoyance. The squeezing of the uterus is the main instrument; and practice will determine the amount of traction on the placenta. I have only met with two cases of hour-glass contraction, and those in the earlier days of my adoption of this plan.—Yours, etc.,

Longtown, Abergavenny, Dec. 21st, 1880. LESLIE THAIN, M.R.C.S.

Medical Men and Their Fees.

SIR,—I observe in to-day's JOURNAL, that a county court case of mine has travelled to you by way of Leeds, and is the subject of an editorial annotation. Your remarks apply pointedly to our county court judge. It may interest your readers to know that, in the case referred to, the defendant, who was sued for attendance on a deceased relative, admitted in court having received more than sufficient money to cover expenses, and had literally no defence except that the money was spent. I may add that, although I had not supplied items on the face of the bill, I was prepared with my ledger to prove them in court. In a subsequent case, the judge, finding this to be so, actually insisted that I ought to be able to state the age and personal appearance of the person attended, and on my somewhat indignantly, and, perhaps, imprudently, replying that I was not a photographic apparatus, allowed only a portion of the bill. It will thus be apparent to your readers that dishonest debtors have a good time of it in Oldham; and that I, having figured in court for the first time in a professional experience of eleven years, am not ardently desirous of going there again, at least as plaintiff.—I am, etc.,

Oldham, Jan. 1st, 1881. GEORGE THOMSON, M.D

Temperance Work of Non-Abstainers.

IN the annual summary of the *Church of England Temperance Chronicle* we read the following. "The BRITISH MEDICAL JOURNAL, official organ of the British Medical Association, with 10,000 subscribers, has had repeated friendly references to temperance. The Editor, Mr. Ernest Hart, takes a warm interest in coffee taverns and the new Music Hall Company. He spoke out strongly at Dr. N. Kerr's lecture in the Memorial Hall. His admirable efforts have our warm appreciation; and he well illustrates the power of a non-abstainer. Much valuable aid has been rendered to branches of our society by the frequent addresses of Dr. Alfred Carpenter, whose position as President of the Council of the British Medical Association adds special weight to his words."

Practice by Army Surgeons.

SIR,—In reply to the question of "Medicus" contained in his letter published in the JOURNAL of the 25th December, it may be stated that there is no regulation prohibiting army medical officers from practising, when such occupation does not interfere with their official duties. In many parts of the world their services are much in request, and in some places no other medical aid is available.

Civilians are frequently entrusted with the medical charge of troops; but it does not appear that this is made a ground of complaint by military surgeons, who are thereby relegated to foreign service.

Your correspondent complains of great injury inflicted upon those who have to pay rent and taxes by army surgeons in one locality being called in in consultation, as though the latter enjoyed an immunity from taxation, and lived rent free! This is by no means the case. A few unmarried officers are here and there accommodated in barracks it is true (thereby forfeiting part of their emoluments), but the majority provide their own dwellings, and, with smaller means, are subject to the same charges as their brethren in private life.—Your obedient servant,

December 27th, 1880. BRIGADE-SURGEON

The "Hammond Prize" of the American Neurological Association.

THE American Neurological Association, offers a prize of five hundred dollars, to be known as the "William A. Hammond Prize," and to be awarded at the meeting in June, 1882, to the author of the best essay on the Functions of the Thalamus in Man. The conditions under which this prize is to be awarded are as follows. 1. The prize is open to competitors of all nationalities. 2. The essays are to be based on original observations and experiments on man and the lower animals. 3. The competing essays must be written in the English, French, or German language: if in the last, the manuscript is to be in the Italian handwriting. 4. Essays are to be sent (postage prepaid) to the Secretary of the Prize Committee, Dr. E. C. Seguin, 41 West Twentieth Street, New York City, on or before February 1st, 1882; each essay to be marked by a distinctive device or motto, accompanied by a sealed envelope, bearing the same device or motto, and containing the author's visiting card. 5 The successful essay will be the property of the association, which will assume the care of its publication. 6. Any intimation tending to reveal the authorship of any of the essays submitted, whether directly or indirectly conveyed to the committee or to any member thereof, shall exclude the essay from competition. 7. The award of the prize will be announced by the undersigned committee, and will be publicly declared by the president of the association at the meeting in June, 1882. 8. The amount of the prize will be given to the successful competitor in gold coin of the United States, or, if he prefer it, in the shape of a gold medal, bearing a suitable device and inscription.—Signed F. T. MILES, M.D., Baltimore, J. S. JEWELL, N.D., Chicago, E. C. SEGUIN, M.D., New York.

The Leclanché Battery.

SIR,—I will thank you to allow me to ask you, or your readers: What constitutes a Leclanché element, or cell, in galvanism? What is the best way to put it together? and, What is the strength of the solution, or solutions, used? I understand that a battery composed of Leclanché cells is the one to be most commended for wear and constancy of power.—I am, sir, faithfully yours, ELECTRON.

P.S.—What is the best way to prevent the crystallisation of the solution (which is chloride of ammonium, I think), on the zinc rod?

COMMUNICATIONS, LETTERS, etc., have been received from:—

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Conscious Matter; or The Physical and the Psychical universally in Causal Connection. By W. Stewart Duncan. London: David Bogue. 1880.

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Transactions of the Pathological Society of London. Vol. xxxi.

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HARVEIAN LECTURES

ON THE

PROGNOSIS AND TREATMENT OF CHRONIC DISEASES OF THE CHEST IN RELATION TO MODERN PATHOLOGY.

Delivered at the Harveian Society of London.

BY JAMES E. POLLOCK, M.D., F.R.C.P.,
Senior Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

LECTURE II.

MR. PRESIDENT AND GENTLEMEN,—At our last meeting, we considered how far the events of chronic lung-disease are influenced by the nature of the morbid product, and by the part of the lung-structure invaded. I dwelt on the fact that affections which simply filled the alveolar cells with inflammatory products, without impairing the structure of the walls or interalveolar spaces, are capable of complete restoration; whereas alterations in the walls of the air-cells, and in that cellular tissue which contains and surrounds the vessels of the lung, ultimately leads, with almost invariable result, to irreparable mischief in the part affected. As regards the products of irritation of lung-tissue, whether we call them inflammation or tubercle, their ultimate changes also largely influence the progress and termination of every case. That which tends to speedy liquefaction is generally rapidly absorbed, as in acute pneumonia; while the process of caseation is incapable of absorption, and is prone to disintegration. Again, the degenerative alterations in lung-tissue which tend to the production and increase of fibrous tissue of low vascularity lead to extreme chronicity; and, although incapable of restoration to a healthy state, are agents which oppose active destructive change, and thus counteract some of the most dangerous complications of chronic lung-disease.

These several conditions must be regarded as the most potent factors in the story and complications of phthisis, and serve to explain the many variations of that complex disease.

But, viewing our cases clinically, there are several considerations which influence largely the course and termination of chronic disease of the lung; and I proceed to examine some of the most important of these.

I desire to express, first, that it appears that the doctrine of the inflammatory origin of phthisis has of late years directed much more attention to the local disease in the lung. In former days (the Laennec period), the tubercular theory implied a pre-existing constitution, to which the tubercles in the lung owed their existence. This cachexia, involving the whole system, invaded the lung by a cacoplastic deposit, which was only a part of the ailment. The blood itself was supposed to be invaded; and, indeed, as we know, there is no organ of the body in which these tubercles are not found. Their inevitable tendency to degeneration and decay was held to be evidence of the depraved nature of the constitution in which they were found. Again, the whole malady was believed to be tubercle; and, tubercle being ineradicable and incurable, it followed that no amelioration of local disease could occur short of the destruction and removal of the *materies morbi*. Thus, when a tract of lung became dull with the other physical evidence of consolidation, the induration was attributed entirely to the tubercle. Certain shrewd observers, however (and among them my old teacher, Stokes), taught that the dulness in a portion of phthisical lung might be diminished by local depletion; and a portion at least of the exudation causing the dulness and impermeability was rightly attributed to inflammatory products of a temporary and removable nature. Here, indeed, was a near approach to the more modern German theory, that the whole of the lung-block is due to inflammation. I believe that the latter theory arose out of microscopical, and not from clinical, observation. Since it has been admitted that inflammatory products are found in almost every case of phthisis, and that tubercle is often absent in many true cases of phthisis, there has been a gradual tendency in the profession to pay more attention than formerly to the lung; to study local changes of tissue and the varieties of local symptoms far more than in the days of the preceding generation. This has had its good and its evil side; and I mention it here with the intention of examining how far purely local conditions influence the progress of our cases of chronic lung-disease. I do not believe that what is called the constitution which has led up to lung-disease can or ought ever to be overlooked. There is no reason to believe that a healthy man acquiring a pneumonia should fall into phthisis, unless he had an underlying proclivity to changes in the walls of his air-cells and their surroundings. Shall we say an inborn tendency from heredity, or an acquired tendency to produce low rather than sthenic irritation in his lungs, owing to altered vital, or nerve, or blood-producing powers, the result of accidental influences, such as grief, overwork, or anxiety, or affections acquired rather than inherited, which have led the way to his phthisis?

But we know that local conditions have been more studied than formerly, and I would now enumerate some of the clinical observations which have arisen out of them. I have myself pointed out some of these many years ago; but others have since been added.

Let us consider what symptoms are due to lung, and what to constitution diathesis, or whatever term represents systemic disorder apart from the reflected sympathies of the whole being with the localised irritation in his lung. This method will, perhaps, have the advantage of novelty in considering the events of phthisis. We and our fathers have, indeed, spent much time and labour in theorising over the abstraction which we call a constitution or diathesis, in order to account to ourselves satisfactorily for such events as fever, wasting and secondary disorders arising out of a malady whose earliest and latest structural changes we find in the lung. But we have not advanced our practical treatment of the disease by such labours. We have multiplied so-called blood-remedies—nutrients which add to the pabulum of the chyle, such as oil or chemicals, such as hypophosphites and iron, which can alter and enrich the vital fluid; and, in such treatment, our aim has confessedly been, not to reach the lung-disease, but to obviate, by a higher nutrition, the wasting effects on the system.

I should be far, indeed, from discouraging such hypotheses, or opposing such treatment. It is at once the most scientific and successful mode of combating diseases whose result is a waste of vital power and of all bodily tissues.

But, on the other hand, it was natural enough in those who hold the theory of the inflammatory nature of all chronic lung-indurations to attribute the leading symptoms of a general nature, such as fever and wasting, to the sympathy of the system with a local irritation in the lung. Even the older pathologists have held that the hectic of phthisis is the measure of the lung-irritation. It is quite possible to imitate the hectic and wasting and all the symptoms of phthisis by an accidental irritation of the lung. I give the following case as a very practical illustration. Miss C., aged 18, of healthy parentage, and in perfect health, while at dinner, got a portion of the vertebra of a rabbit, on which she was dining, impacted in the right bronchus. Her distress and cough were for some days very great; and, although no effort was spared to induce expectoration of the bone by emetics and inverted posture, and other means, it remained so fixed. She had intense pain in the right subclavian region. At this point, a loud sibilant sound was heard on inspiration. In the course of a few weeks, she had wasted wonderfully; had a high temperature and pulse, with chills and night-sweats, and several times a streaky hæmoptysis; while a crepitant sound was heard at the seat of pain. Not to detail the whole of this interesting case, at the end of eighteen months she presented all the symptoms of advancing consumption, excepting that she had no secondary disorders of lung, nor of other organs. One day, during a violent fit of coughing, she expectorated a nearly perfect dorsal vertebra of a young rabbit; and from this time all her symptoms declined. She ceased to cough and expectorate, and regained flesh and vigour. A curious whistling sound on inspiration, with flattening of the chest-walls and fairly defined dulness, remained in the right subclavian region up to the latest time at which I saw her. At the present time, I have under my care a lady of about fifty, who was the subject of the same accident, a portion of mutton-bone becoming impacted in the left lung, as was evident from the physical signs. She was brought to me about two months after this occurrence, suffering from cough, with copious and occasionally fœtid expectoration, and frequent hæmoptysis. There was dulness with a large crepitation in the left subclavian region, not quite at the apex, but about opposite the third rib. She had wasted, and was sweating, and had pain in the left chest. She described to me that, while at dinner, and in perfect health, she choked herself, and a piece of mutton-bone "went the wrong way". As she had been previously healthy, I diagnosed impaction; and, to my gratification, this opinion proved correct, for about a week later she brought me the specimen of bone (which I exhibit), which she expectorated after a severe fit of coughing with hæmoptysis. She has recovered flesh, and has no fever; but still at times expectorates a quantity of muco-purulent matter, and has had several hæmoptyses.

The physical signs in the left front have quite disappeared; but there are crepitant sounds and slight patchy dulness at the base of the lung posteriorly. Her recovery is, therefore, incomplete, although she has the appearance of perfect health. But, for our purpose, this and the preceding case amply illustrate the proposition that an acute lung-irritation caused by impaction can produce all the symptoms of chronic phthisis, and that the symptoms may cease when the cause is removed.

Again, were it possible to isolate and limit lung-disease to a portion of the pulmonary tissue, might we not look for a cure of the phthisis? I believe it is not too much to answer "yes" to this question. How often do we see in practice the most violent fever, wasting, and exhaustion, accompany the softening of an indurated mass in the apex of one lung, and all cease when a cavity has been formed; the temperature falling, sweating ceasing, and the patient recovering flesh! It is evident that, in such a case, the moment the local irritation has ceased, the patient begins to recover. I have witnessed several times not only the cessation of all symptoms, but the drying up of the cavity, as proved by the absence of expectoration, and the substitution of the signs of simple consolidation at the part affected, for the fluid-gurgling and cavernous breath and voice sounds previously heard. It is, therefore, to be accepted as a not uncommon event that, the local product of inflammation or tubercle being cleared out of the lung, the symptoms may all cease, and the patient again enter on comparative health. The whole class of chronic single cavities in the lung, which are more numerous than perhaps those not conversant with consumption hospitals would believe, help to prove this close relation between the systemic waste and disorder, and the condition of the affected portion of lung. For we find such patients generally in fair flesh, with only a morning accumulative secretion to get rid of; often not even this. We find them with a fair condition of nutrition, and not losing weight; and their temperature will be normal.

It is not easy to define, in viewing such cases as these, how much is due to a constitutional inherent disorder, and how much to suppurative hectic. The same fever and wasting may accompany local affections of joints, or abscess in any part of the body. In the first instance, the removal of the joint causes immediate cessation of the suppurative fever. The surgeon treats the local disease, and succeeds, his patient recovering flesh and vigour after the operation. We are aware that there is behind this a low strumous habit, rendering inflammatory products very liable to degenerative changes; and also inducing, from slight causes, what may be called irritative inflammations, the products of which are of low vitality, slow to mature, and slow to be absorbed. But, to the practical physician or surgeon, the removal of the part affected or the incision of the abscess proves how very much of the irritative fever has been due to local causes.

I take some other instances of the influence of local condition on the progress of chronic lung-disease.

1. *The distribution of physical signs.* By this I mean the parts of the lung invaded, and the relation of such parts to each other; also the intensity of the inflammatory action, as shown in extreme exudation.

a. A single massed deposit in the apex of the lung, and more markedly at the left side, if accompanied by much dulness well defined (I mean bounded or limited at its lower edge), is most apt to undergo rapid softening, and to end in cavity or clearing out of most of the morbid products. This is a common event in rheumatic constitutions. Its story is ordinarily that of much fever and wasting at the early period of softening and excavation, but it most frequently becomes chronic, and is followed by contractile fibrous changes in the lung and side. It may have begun by profuse or considerable hæmoptysis, but it ends in becoming chronic and greatly prolonged. Its events are an interpretation of the local condition—a cavity lined by a membrane, with free opening into a large bronchus; daily morning secretion; cough influenced by posture; late hæmoptysis rare, for the vessels have become obliterated; direct extension downwards through the lung most rare, for fibroid alterations have strangled the circulation, and set up a barrier between diseased and healthy parts. The secondary infections of other parts are generally to the apex of the opposite lung, and less commonly to the base.

Here is a course of events seemingly determined by the localisation of disease, by its boundaries, and by its intense massing at one point. Such conditions lead to rapid early changes, but also to later and marked prolongation; and the prognosis should be made accordingly. If seen in the early stages, the patient may be encouraged that he will probably make a good rally if he can be supported through the trying time of cavity-formation; and if seen in the later, he may be assured that he has already passed through the period of greatest danger.

b. Contrast with this the local peculiarities of cases of rapidly progressive phthisis. I do not mean what is called acute miliary tuberculosis, but the case which, beginning, say, at the apex, spreads quickly to the base, and perhaps simultaneously invades the opposite lung. Here the signs of consolidation are heard over a diffused ill-defined space at first; then a patch of tubular breath-sounds develops lower down; then the opposite base or apex gives harsh breath-sounds, soon passing into those of induration; while crepitation, here small and there larger, has two or three seats in the lung at the same time. There is no limit to the morbid sounds, which at first seem separated by tracts of healthy vesicular lung; but these become quickly united, as it were, till the whole lung is crepitant. There is no intense dulness, for rapid degenerative processes break down the lung-tissue; there is no defined cavity, for time is wanting to produce the fibrous changes which always accompany and surround such. The character of the moist crepitant sounds is peculiar, being composed of the moist crepitant of pulmonary origin, *râles* in the bronchial tubules, and pleural frictions. Such combined sounds are of evil import, and mean that all tissus of the lung, as well as its covering, are engaged in the morbid process.

The symptoms are parallel with these conditions. A tolerably profuse hæmoptysis often begins the story; and it is repeated at frequent intervals, for the reason that the processes which strangle the pulmonary vessels have had no time for development. The lung is invaded by an inflammatory irritation with its pulmonary and nutrient vessels in full activity. They not only allow of hæmorrhages into the tissues of the lung, but they are the carriers of inflammatory, possibly of septic, products to distant parts of the same or of the other lung, hence producing patch after patch of congestions, which coalesce, soften, and break up all the tissues. And, of course, there is fever, with high temperature, waste, thirst, and increasing dyspnœa.

CASE.—A young lady, aged 18, weight 12 stone, looking in robust health, without previous severe illness, and of healthy parentage, had an hæmoptysis while on a tour in Wales, for which she was instantly brought to London, and placed under my care. I found the right apex slightly dull and crepitant, and her temperature 103°. The physical signs rapidly spread in patches, as I have described, towards the base of the lung. The opposite lung was engaged about the tenth day. The hæmoptysis never ceased for more than a few hours, nor did the temperature fall below 103°, and reached 105°; and she died at the end of the third week. This case was seen by Sir W. Jenner at my request. We cannot pretend that, in this case, a constitutional tuberculosis killed the patient, who seemed to us to have died of rapid congestive changes in the lungs, and the accompanying fever.

c. Another form of chronic lung-disease illustrates my proposition, that the position and localisation of morbid changes in the lung largely influence the symptoms.

I have elsewhere called this chronic diffused tubercle; but, whether tubercle or inflammation, it possesses the characters of chronic phthisis, and has prolongation as a leading character.

A patient will present himself with the following symptoms. He has cough, expectoration, small occasional hæmoptysis, moderate wasting, fever at intervals; but, on the whole, his illness is not characterised by high temperature, nor, indeed, by urgent symptoms of any kind. On examination, the chest will be found well shaped and rather voluminous; and this is the first peculiarity noticeable on stripping him. His chest does not look like phthisis; it is not flat and long, nor are the scapulæ prominent, nor the shoulders high; neither are the movements impaired; yet one side will present a slight—very slight—dulness of percussion-note; and over a large tract of this will be heard a moist crepitation, not of the large gurgling kind, nor yet of the dry crackling, but of medium quality. It is persistent on cough, and heard on inspiration only; and there are no *râles* on expiration. The same physical signs are commonly heard over a large part of the posterior aspect of the lung. Withal, there is no great dulness. The breath and voice sounds are not tubular nor blowing, so it is plain that there is not much consolidation of lung-tissue. It is also limited to one side commonly; but there is a double form of the affection with like physical signs. Now we notice, about this form of disease, that it does not run into cavities, nor lead to continuous breaking-down patches, like our last described. Neither is there profuse hæmoptysis. And why? It is evident that this is a surface affection. I mean that the face of the lung, and not its whole depth through and through, is engaged. We know this by the fact that the dulness is very slight, which it would not be if the lung were consolidated in all its thickness. There is air under the finger when you percuss the side, and the absence of tubular sounds proves that the lung is not deeply indurated. There are no contractions of the side, and no displacements of viscera, because the fibrous element is not developed with lung. It does not spread rapidly through and through, because there are no islets of consolidation to form steps, as it were, for its progress. Its physical signs indicate a sparse diffused

deposit near the lung-surface, and all morbid changes are slow of increase. Such patients almost always do well in hospital; they are free from the accidents and complications of phthisis, and a favourable prognosis is almost always verified by their progress. I take it that this form of disease is an apt illustration of the relation of symptoms to the distribution of morbid processes in the lung. The clinical facts and the physical signs harmonise; and, if we reason on the chain of events in the case, we find them accounted for by the local manifestations. Constitutional symptoms are in abeyance, because the structural alterations are neither continuous nor extreme. I would remark that dyspnœa is the chief complaint of the patient, for much cubical breath-space is interfered with.

I turn to a brief consideration of fibrous changes in the lung, before proceeding to consider the influence of hæmoptyses and of secondary infections.

Without doubt, the most important element in the chronicity of lung-disease is that change in the tissues which, by extension, blocks vessels, obliterates the cells, contracts the whole lung from centre to circumference, and, united to a thickened and altered pleura, contracts the entire side of the chest, giving rise to altered position of the heart and diaphragm, and liver, and to expansion of the opposite lung, if healthy. Such a lung has usually a cavity or two in its substance, and not uncommonly dilated bronchi. Its vitality is very low; for its nutrient and pulmonary vessels are generally reduced to impervious cords. For breathing purposes, it is useless. Both pulmonary and systemic circulations are diminished; the patient is breathless, often livid; his nails are bluish; his fingers, and often his toes, clubbed—partly from deficient circulation, partly from development of new fibroid tissue.

In dissecting the lung of such a case, you may find no tubercle at all. The lung is traversed by bands of fibrous tissue, with extensions to the pleura. The cavities are firm, and often shrunken; and there are commonly cicatrices in portions of the lung. Dilated bronchi are also found occasionally towards the middle of the lung. It will sometimes happen that such a lung is complicated with an empyema of old formation, which has opened irregularly into a bronchus, or is in communication with one of the chain of cavities often found to occupy most of the lung. Of this, I shall have occasion to treat again. Compare its physiological and pathological states. Such a lung is no longer a breathing lung. You will not find vesicular sounds anywhere, but plenty of bronchial sounds—showing, of course, the large tubes pervious; but the alveoli are broken down, and have disappeared. There is no proper pulmonary circulation, and the nutritive vessels are equally blocked. The reflection of this state is found, not in the phenomena of phthisis, but the patient lives with diminished breathing and lessened heat; and is wasted to a certain point, beyond which he never rises. He also has a daily, often pigmented, expectoration, more or less copious. But, as all active irritative processes have ceased in such a lung, so the symptom no longer exhibits irritative fever.

I cannot agree to call this a special form of phthisis; for there is no chronic form of that disease which does not exhibit some, more or less, of these phenomena, indicating fibroid change of tissues. A patient does not fall sick of a fibroid phthisis; but, if he outlive the earlier symptoms of ordinary phthisis, in any of its varieties, and should his case become chronic, such chronicity implies fibroid changes. Knowing the uneventful nature of such advanced cases, you may safely prognosticate for them a long extension of time.

Here, then, we have another instance of the subsidence and absence of systemic disturbance, as soon as active local irritation has ceased.

[*To be continued.*]

ARMY MEDICAL DEPARTMENT.—The following officers of the Army Medical Department have been selected to accompany the reinforcements proceeding from England to the Transvaal, viz.:—Brigade-Surgeon Sampson Roch, from Shorncliffe; Surgeons-Major J. G. Leask, M.B., and W. P. Smith, from Aldershot; C. H. Giraud, from Devonport; Alexander Thomson, M.D., from Ashton; D. A. Leslie, M.D., from Chatham; and James Scanlan, M.B., from Trowbridge; Surgeons Robert Drury, M.D., from Chatham; Dugald Blair Brown, from Dover; and Horatio R. O. Cross, from Aldershot. Several of these officers have returned from South Africa in the last few months after seeing service in the Zulu war. Surgeon-Major Leslie had charge of the Auxiliary Hospital at Durban, while Surgeon-Major Giraud went through the campaign in medical charge of the 57th Foot, while Surgeons-Major Leask and Smith, and Surgeons Drury and Brown were also employed in the late campaigns, the last-named doing duty with a field hospital of Wood's Flying Column.

ABSTRACT OF LETTSOMIAN LECTURES
ON
TROPICAL DYSENTERY AND DIARRHŒA.

Delivered before the Medical Society of London.

BY SIR JOSEPH FAYRER,
K.C.S.I., M.D., LL.D., F.R.S., Q.H.P., SURGEON-GENERAL.

LECTURE I.

MR. PRESIDENT AND GENTLEMEN,—When the Council of this Society did me the honour of inviting me to deliver the Lettsomian Lectures this year, it seemed to me that I might, without presumption, fulfil the object of the founder of these lectures, and at the same time turn the experience gained during service in India to account, by submitting some practical observations on certain forms of disease which are common in tropical and subtropical countries, and are not unknown here in their chronic forms; and this seemed the more appropriate, because the sequelæ of the diseases which I propose to describe are to be observed in our own country, in the case, chiefly, of persons returning from India, China, or the colonies.

The subjects, therefore, that I have selected are dysentery and diarrhœa, as observed in their acute and chronic conditions in India and the tropics.

In the ancient system of Hindoo medicine, the Ayurveda and the commentaries of Dhanwantari, Charaka, and Susruta, which carry us back nearly three thousand years, and in later Sanscrit writers, dysentery is described by the name of Atisar, under two forms, acute and chronic; these are subdivided into six varieties, ascribed by those sages to changes in air, bile, phlegm, food, or to perturbations of the emotions and passions; whilst the symptoms and treatment are detailed according to their notions of disease.

Herodotus refers to it in his writings. Hippocrates gave it the name of "Dysenteria", by which it is now known.

Official returns for 1878 show that in the European Army of India, with an average monthly strength of 56,475 men, there were in that year 2,784 cases of dysentery and 3,972 of diarrhœa; of the former, 98, and of the later, 4 cases proved fatal, or 1.73 and .07 per 1,000. The greatest prevalence (314) occurred in September; the lowest (186) in March. There were 49.3 cases of dysentery and 70.3 of diarrhœa per 1,000 of strength; whilst 3.52 of dysentery and .10 of diarrhœa died of each 100 treated; 125 were invalided for dysentery, and 30 for diarrhœa, or 2.75 per 1,000 of strength. Of 5,170 European women connected with the European regiments, there were 164 cases of dysentery, of which 7 were fatal; and 299 cases of diarrhœa, of which 8 were fatal—1.35 of dysentery and 1.55 of diarrhœa per 1,000 of strength. Of 10,423 European children, there were 289 cases of dysentery and 1,033 of diarrhœa; 40 of the former and 149 of the latter, or 3.84 and 14.30 per 1,000, were fatal. In the Native Army of 117,272 men, there were 9,622 cases of dysentery and 4,747 of diarrhœa; 191 of dysentery and 112 of diarrhœa proved fatal, or 1.63 and .95 per 1,000 respectively; 82 per 1,000 of strength were admitted for dysentery, and 40.5 for diarrhœa.

Of a gaol population of 127,914 persons (chiefly natives), there were admitted 14,487 for dysentery and 12,998 for diarrhœa. Of these, 2,326 proved fatal from dysentery, 1,865 from diarrhœa—being a fatality from both combined of 32.76 per 1,000, or of 15.25 of each 100 treated.

I have said enough, I think, to show that dysentery is almost universal, though more prevalent in certain parts of the earth than in others. It is not confined to the localities referred to in the official reports, but may be met with in Australia, the Americas, South Africa, Egypt, Arabia, the shores and islands of the Mediterranean, the South of Europe—in fact, anywhere; and is capable, under certain conditions, of becoming epidemic.

It appears to be less severe in hilly countries and above certain elevations; whilst in alluvial plains and valleys, especially where there is malaria, it is more so; and there are certain regions even in the tropics which, from some physical peculiarity of soil or of climate, seem to be exempt.

It is needless to occupy more time in describing the geographical distribution, and I shall now consider the question of causation.

First, let me define dysentery. It is a febrile disease, the result of the action of various noxious influences, or of a specific miasm, on the body, under certain predisposing conditions.

Constitutionally, it presents ill-defined pyrexial and nervous phenomena; locally, hyperæmia, inflammation, exudation, ulceration, or sloughing of the coats of the large bowel, with certain pathological changes in the glandular follicles, which in some cases extend into the ileum; nausea, tormina, tenesmus, scanty but frequent evacuations of gelatinous or sanguineous mucus, of sero-sanguinolent or of muco-purulent matter and blood, mingled with fæces of a peculiar odour; later, of shreds or masses of slough, sometimes involving large portions of the gut.

It may terminate in resolution and rapid recovery, or pass into ulceration, sloughing, or gangrene, when it is dangerous or rapidly fatal; it may cause a chronic condition of thickening, ulceration, and cicatricial constriction, which is tedious, and may be ultimately fatal. It may be complicated with other diseases.

Several forms are described: sthenic, asthenic, catarrhal, fibrinous, diphtheritic, sporadic, endemic, epidemic, acute, chronic, malarious, cachectic, hepatic, hæmorrhagic, erysipelatous, sloughing, gangrenous or malignant, typhoid, and so on. These merely express phases or complications of the same disease-process, which always involves some part of the large gut as the seat of the essential local expression of the constitutional disease.

There is a tendency to involve other organs or tissues—*e.g.*, the serous membranes, kidneys, lungs, liver, spleen, etc.; or there may be septic infection from the diseased intestine. Tropical endemic and epidemic dysentery differ from the sporadic form chiefly in degree. Under certain conditions, it would appear to be infective.

Fouquet says that the lesions that occur are a consequence of the spasmodic condition of the bowels, and not its cause; and he dwells on certain anatomical and physiological reasons, as seen in the muscular arrangements of the sphincter, the upper part of the rectum, and in the ileo-colic valve. He says the ulcerations and diseased intestinal glands are no essential part of the disease, and points to the undoubted fact that in many severe and fatal cases no ulceration is found. These views, which are peculiar, are well worthy of consideration, though they do not altogether coincide with those of other pathologists.

Its prevalence and severity in warm countries, where malaria, climate, food, and water, are instrumental in causing other diseases, seem to point to a similar origin. That there is something in tropical climates favourable to the development of dysentery, is certain. The severity and prevalence in different regions point to local conditions as factors in its production; whilst its occurrence in cold climates would indicate that the specific or exciting cause may depend on something independent of heat or malaria.

Food, defective in quantity or in quality (in the scorbutic form of the disease especially) is an important factor. Fermenting grain; unripe acid fruits; irritating drugs or articles of diet of any kind; excessive use of salt provisions; rancid or decomposing matters, especially fatty and albuminous articles; intemperance in alcoholic drinks, especially bad sour wines, impure spirits, or malt liquors, irritate and cause diarrhœa that is apt to pass into dysentery where the disease is endemic.

Vicissitudes of climate, exposure to sudden alternations of temperature, such as occur at the setting-in of the cold season, or when the transition from the heat of the day to the cold of night is intense; to cold damp winds, and the ill effects of the moisture of the rainy and drying-up season in September and October, when the air is loaded with watery vapour; exposure of the body, especially the abdomen, during sleep or when perspiring; the sudden laying aside of the flannel body-clothes, and so on—such proceedings being always pregnant with danger in the malarious or dysenteric region; even excessive dryness of the atmosphere, according to Mouat,—are effective adjuncts of the specific cause.

Impure air from putrefying organic matters, vapours from drains, cesspools, bilges of vessels, latrines and reservoirs of stagnant water, putrescent with animal or vegetable matter, or infected with microphyte germs, the emanations from ground that has been recently disturbed and from which vegetation has been recently removed, from swampy, malarious, and mephitic pools, whence fever, cholera, typhoid, and other evils are said to be derived, may become the predisposing if not the exciting causes of dysentery.

Symptomatology.—Dysentery generally commences with simple diarrhœa, probably accompanied or preceded by very little derangement of the general health. This may be of one or two days' or of longer duration. The evacuations are not at first attended with uneasiness or pain, indeed, they give temporary relief; but as the disease advances, the desire to empty the bowel becomes more urgent, and is accompanied by tormina and tenesmus, the dejecta consisting chiefly of gelatinous mucus. Little relief is now afforded by the act, which is rapidly repeated, whilst with each effort the feculent character is diminished, until at length gelatinous mucus, sero-sanguinolent fluid, or blood is discharged. Griping is severe, and there is pain on pressure over the tumid abdomen. The dejecta have an offensive and characteristic odour. The general symptoms are more or less marked, according to circumstance and the peculiarities of the case. There are lassitude, nausea or sickness, thirst, loss of appetite, and a pinched and sallow expression of countenance; yet in some cases the disease may have advanced into well-marked dysentery before the patient takes alarm, or desists from his ordinary avocations. The symptoms are more pronounced in the young and previously healthy, than in those who have resided long in the climate, and have suffered from previous disease or malarial cachexia. There may be, perhaps generally is, a certain amount of febrile disturbance, a slight rise in temperature, preceded by chilliness, sometimes a rigor, and general discomfort; but as, in malarious regions, fever is often present, it is difficult to say how far they may be due to this cause. As regards temperature, there is nothing that can be called typical of dysentery alone; the rise probably depends on periodic fever. The calls to stool are most frequent and severe at night; there is a sense of fulness and burning pain in the rectum, as though some foreign body were there, and pain extends over the whole abdominal surface, more severe over one part of the colon than another; whilst the constant efforts to defæcate, which are so urgent that the patient will hardly leave the stool, may extend to the bladder, cause strangury, great exhaustion, and nervous depression. Such is the condition in the catarrhal or congestive stage, and it is of the greatest importance that it should be dealt with at this period, for it may now be arrested and recovery rapidly take place. Indeed, acute dysentery, in previously healthy persons, if dealt with before the bowel has passed beyond the stage of catarrhal congestion, is most amenable to treatment, and need cause little anxiety. This condition may last for some days, and does not always readily yield to treatment; during its progress, the patient is worn and exhausted by suffering. Exacerbations take place during the night, which are disturbed by constant suffering. He becomes emaciated; his tongue is coated and white; the heart's action, which is often feeble when the disease progresses, either in the absence of due care and treatment, or from a natural tendency to get worse, as in the epidemic form, the symptoms become intensified. The evacuations are passed with increasing tenesmus, and become more bloody, serous, or mucous, mixed with decomposing blood and fæcal matter. The tongue now becomes dry and red, in some cases aphthous, or loaded with a coating of epithelium, which renders it white and swollen; there is great thirst. Shreds of sloughy tissue begin to appear in the discharges, which are passed with intense straining. The abdomen becomes more tender, the thickened gut can be felt through its walls, the strength fails, the face becomes pinched and sunken, the skin harsh, dry, and sallow, the voice depressed, whilst the patient presents all the appearance of great exhaustion, and, sinking lower and lower, death from asthenia may result. But the changes in the gut may progress rapidly; other organs may be involved, and the mischief spread to the peritoneum; peritonitis or perforation may occur, and cause rapid death; or, in the ulcerative process, vessels may give way, and copious hæmorrhage carry off the patient; or gangrene may set in, when he falls rapidly into a state of collapse, indicated by cold clammy sweat, eyes sunken, voice husky, absence of pain, thready rapid pulse, body and limbs cold, dark-coloured fœtid involuntary motions, muscular spasms and death.

The characteristic symptoms are modified by the type or form which the disease assumes.

In speaking of its pathology, I shall endeavour to illustrate the most characteristic pathological conditions of dysentery by clinical histories of recent cases, and by morbid specimens.

No line of separation really differentiates one type from another, but there are characters sufficiently well marked to distinguish them practically. The acute form presents generally the symptoms I have described, more or less severe, according to the circumstances of the case and the peculiarities of the individual. The symptoms that characterise the malignant or gangrenous, and also the chronic forms, have been referred to.

In malarious dysentery, the patient suffers from the effects of malarial poisoning, and the ordinary symptoms of remittent intermittent are superadded: where there are also complications involving the liver and spleen, portal congestion, anæmia, gastric irritability, or functional derangement of the abdominal viscera. Under severe impressions of the malarial poisoning, sloughing, phlegmonous, or erysipelatous dysentery may set in, proving most dangerous, and often fatal. Again, when the disease becomes epidemic among crowded troops in the field or garrison, especially when the circumstances are depressing and unfavourable, as from defeat or overwork, bad or defective food, and where there is want of proper rest

and shelter, the condition may become most deplorable, especially if to the camp-dysentery be added scurvy; anæmia, dyspnœa, lassitude, exudation into the areolar tissue, pain in the limbs, petechiæ, lividity following the slightest bruise, bleeding and sloughing gums, and fœtor of breath, with great general exhaustion, are added; ulceration in the great intestine, attended by hæmorrhage, makes the condition an exceedingly sad one, and though not so fatal as gangrenous colitis, causes great mortality; though, should more favourable circumstances arise, I mean improvement in the moral and physical condition of the men, supply of better food, prompt and careful treatment of all who present any indications of scorbutic taint, much alleviation is possible, and many lives may be saved. I saw such conditions among the beleagured garrison of the Lucknow Residency. Perhaps nothing, unless it be the gangrenous form of the disease, gives a more striking illustration of destruction of the vital powers and disintegration of the living tissues.

It is not always easy to distinguish hepatic complications from those of an ulcerated transverse colon; but the general concurrence of symptoms, such as rigors, sweats, the rise and fall of temperature, indications of pyæmia, and in large single abscess, which may take place insiduously, and with little pain or disturbance of temperature; the physical signs of increase of size, bulging, would aid diagnosis. The danger, of course, in all such cases is great. It is to be remembered, that the liver, even in health, is more prone to be affected in the tropics than in cold climates, and this may help to account for the cases in which dysentery and liver-abscess are coexistent.

It would appear, then, that in different climates, localities, and epidemics it is more or less frequent according to circumstances; but that there is a greater tendency to it in India than in any other climates. In malarious countries, liver-abscesses frequently occur in association with remittent fever without any ulceration of the bowel (Morehead). Macpherson gives the comparative frequency of liver-abscess in dysentery, as varying from 13 per cent. in the General Hospital, Calcutta, to that of nearly 60 per cent. (according to Annesley) as occurring in Madras. Perforation occurred in 11.7 per cent., and extension of mischief to the ileum in 13.2 per cent. (Moore).

In my next lecture I shall describe the pathology of dysentery, and illustrate it by clinical histories of recent typical cases, and by morbid specimens of recent cases.

ABSTRACTS OF LECTURES
ON
FURTHER INVESTIGATIONS ON ANTHRAX AND ALLIED DISEASES IN MAN AND ANIMALS.

Delivered at the University of London, December 1880.

By W. S. GREENFIELD, M.D., F.R.C.P.,
Professor Superintendent of the Brown Institution.

Lecture IV.

Dr. Greenfield discussed the microscopic anatomy and pathology of anthrax in man. The conditions found in the cattle which had died from drinking infected water were first described, and the identity of the organisms found in these animals with those in man were demonstrated. As a starting-point for the consideration of the disease in man, that in the lower animals was next briefly reviewed. The ecchymoses in various organs were shown to be almost invariably due to thrombosis of vessels by means of bacilli; and this might be almost the sole lesion discoverable. Frequently, however, a much wider distribution of bacilli, especially in the capillaries of the lung and spleen, occurred; and in some cases large numbers were found in the renal glomeruli, filling their capillaries. In rarer cases, only certain localities contained them; in some cases, they were limited to the bronchial walls.

In human anthrax, the bacilli were apt to be much more localised to the specially affected region, and were often very scanty in the blood. In the malignant pustule of the skin, they might remain limited to the local affection, or even to certain parts of it, penetrating only to the lymphatic glands, if they reached even so far.

In the form of internal anthrax known as woolsorters' disease, the pathological conditions, which were described in the previous lecture, were entirely distinct from those of any form which had been previously studied. The changes which were most constant and best marked were discovered in the trachea and bronchi and the bronchial glands, and were associated with pleural effusion and mediastinal cellulitis; and it was in these parts that the special and characteristic changes were discovered with the microscope. Dr. Greenfield found, in the lower part of the trachea and the larger bronchi, certain small regions in which masses of bacilli occupied the mucous and submucous tissues; in some places forming an almost continuous infiltration, and extending nearly to the surface. They occupied chiefly the lymphatic vessels, and did not at first extend into the vessels. In the early stages, no marked change was seen in the mucous membrane; but, with increased infiltration of bacilli, other processes were observed: first, inflammation with exudation beneath the epithelium, which became distended as an almost continuous layer; then extensive hæmorrhage into the substance of the membrane, producing a swelling of the substance, and occasionally reaching the surface; and, later, secondary inflammatory changes around. But, even before this stage was reached, the bacilli were found to penetrate the lymphatics; and they were discovered, especially in the lymphatic plexuses surrounding arteries, at a considerable distance from the bronchi. Similar changes were also discovered in medium-sized bronchi, but none in the smaller branches. In other parts of the lungs, bacilli were scarcely discoverable, except here and there, as in other parts of the body, in the blood in vessels; and, with the exception of some small patches of hæmorrhage, possibly derived from hæmorrhage into the bronchi, and some collapse and early bronchopneumonia, due mainly to compression of the lung, no other marked changes were found in the lung-tissue.

The bronchial glands were the seat of more or less extensive hæmorrhage in nearly all cases, in some the blood completely filling the capsule of the gland. Masses of bacilli were found in the vessels, especially at the periphery of the glands.

In other organs, no special change was found, except those common in other forms of blood-poisoning.

The connection of the disease with the supposed causes of infection from certain kinds of wool or hair was next considered. Numerous experiments made in various ways with the wool or hair, and the sewage containing its refuse, had failed to communicate the disease to animals. But, considering the numerous sources of possible failure in such experiments, Dr. Greenfield did not consider that these results were at all opposed to the view, maintained by very strong circumstantial evidence, that infected wool was the source of the disease.

The mode of entrance of the virus was a matter of some difficulty. The alimentary canal and the respiratory tract were the only possible sites of inoculation. It had been shown that large quantities of the virus might traverse the alimentary canal of very susceptible animals with impunity, although, as could be shown by inoculation with the contents of the intestine, the virus retained its activity. On the other hand, it had been shown that inhalation of the virus when in a dry form, with a suitable vehicle, set up the disease in a rapidly fatal form. These facts, together with the known inhalation of large quantities of dust, and the marked character and limitation of the lesion in the bronchi in woolsorters' disease, pointed very strongly to the possibility that inoculation took place through their walls. The objection that their mucous membrane might merely form a nidus for the growth of the bacilli, was opposed by their absence in other localities known to be equally favourable; by the mode of evolution of the lesion, which presented close analogies to malignant pustule of the skin; and by the fact that the bacilli occupied mainly the lymphatics, and not the muscles. Moreover, on this view, all the other changes peculiar to this form of disease were readily explicable; the secondary swelling of the bronchial glands, and pleural effusion as a sequel of this; other changes occurring when the bacilli had reached the blood.

The pathology of the various symptoms was next considered. The uncontrollable vomiting sometimes present, and not associated with any special change in the stomach as related to food, might probably be due to implication of the vagi and phrenic nerves. Convulsions and coma might be due directly to affection of the brain, or to toxæmia or carbonic-acid poisoning.

The diagnosis of the disease must at present be very difficult, except in the known presence of a source of infection, especially as death occurs in some cases very rapidly. The value of the discovery of the bacilli in the blood as an aid to diagnosis had been overrated; for they were frequently not discoverable in the blood of the general circulation until near the time of death, or even afterwards. Dr. Greenfield discussed the various modes of distinction of anthrax bacilli from organisms found in the course of decomposition, and insisted upon the importance of their discovery as a means of verifying the diagnosis after death.

In concluding the lecture, he summed up the various points which he had endeavoured to establish with regard to the pathology of anthrax, and which he believed to be of considerable importance in their bearing

on the study of other contagia, which, he thought, ought to be investigated in the same manner, even though the contagia should prove to be very different in their nature. The facts which he had detailed showed that this disease followed the same laws of non-recurrence, or of recurrence in a modified form, which held good of most known specific febrile diseases; that, in like manner, variable susceptibility or unsusceptibility had their due effect. The contagium had selective properties for sites of attack in different animals, and of vehicles of transport, and in many ways presented characters not unlike those of parasites. Further research amongst known contagia would, no doubt, lead to the discovery of properties which would be of the greatest value in their bearing on the prevention and cure of other diseases of which the contagia had not hitherto been discovered.

Lecture V

Was occupied by demonstrations of, and remarks upon, the specimens which Dr. Greenfield promised to show, to substantiate the hypotheses and observations he had promulgated in his four previous lectures.

He showed a series of micro-photographs—which had kindly been prepared for him by Dr. Maddox—illustrating the changes which the *Bacillus anthracis* undergoes in its growth, and the various stages it assumes during artificial cultivation. He also exhibited some of the blood and other fluids from cases of human anthrax (woolsorters' disease), as well as some from various other animals. These were most effectively shown with the lime-light by Dr. W. H. Stone.

In another room, a series of microscopical specimens were arranged, showing some very clear and beautiful specimens of anthrax bacillus under cultivation, in the various tissues of the human and lower animal bodies; also some specimens of other organisms which might be mistaken for those of anthrax.

CASE OF PROGRESSIVE MUSCULAR ATROPHY, WITH BULBAR PARALYSIS.*

By ARTHUR W. FOX, M.B.,
Physician to the Eastern Dispensary and Bellot's Mineral Water Hospital, Bath.

On December 4th, 1879 (by the advice of my friend, Mr. Michael, who most kindly transferred the patient to my sole care), I was consulted by H. E., who complained of loss of power in his hands and arms. The note of his condition was as follows. He was forty-five years of age, and was a master blacksmith. When a boy he broke his right arm, and when fourteen or fifteen years old injured the second finger of his right hand, which resulted in its loss through necrosis at the second joint. With the exception of "five or six touches of gout" he had always enjoyed excellent health. He had never been laid up a day through illness. (I subsequently learned from his wife that three years ago he fell back on the bed one morning in "some sort of fit", in which he was unconscious, and foamed at the mouth; "this occurred when he was passing urine".) He was always a steady man, "never a drinker". He never had venereal disease of any kind. He had been married for years. There was no hereditary tendency to nervous disease of any kind. He had not been exposed to any special mental worry.

There was nothing special in his general appearance: his hair was turning grey. He had been, from all accounts, a remarkably muscular man, with splendid arms. Until recently he could snap any ordinary piece of string by tying it tightly round his arm and then flexing his fore-arm, and causing his steel-like biceps to bulge. The weakness in his hands and arms began about two months ago, and the first symptom he noticed was difficulty in buttoning his clothes. At the beginning of these symptoms he perspired profusely; this was not the case at present. There was wasting of the deltoids, with fibrillary tremor. The grasp of the hands was feeble, but especially so on the right side. He was unable to oppose the right thumb to the little finger, or to flex either thumb into the palm; there was loss of power in the interossei on the right side, and there was a certain appreciable amount of wasting of the muscle of the ball of the right thumb. He could raise his arms, but with some difficulty, over his head; could join his hands behind his back, and could extend, flex, and pronate the fore arms. He could frown, show his upper teeth, laugh, whistle, and cough. There was free movement of his jaws. His speech was slightly husky. His wife stated that it was not his natural voice, and that she had noticed this change for about a month. He was able to articulate clearly and distinctly. He had noticed lately that when he ate there was a greater tendency for food to collect between his cheeks and gums. He was perfectly able to swallow. He stated that he was unable to move his tongue round between his gums and cheeks as well as formerly. He could protrude his tongue straight out, and move it to either side, and the tip up to the hard palate, but when it was protruded he was unable to turn the tip up towards the nose; there was no noticeable tremor or wasting of the organ. His pupils were equally contracted to a pin's point, and were totally unaffected by light. His vision appeared to be good, but his discs were not examined, as the extreme myosis would have necessitated the use of atropin, which would have inconvenienced him in his work. There was no affection of smell, taste, or hearing. There was no affection whatever of sensibility; the reflexes were normal. There was no ataxia. He could walk and stand with his eyes closed. During the last two months he had been troubled with constant yawnings and grinding of his teeth. During this month he had found a loss of sexual power. Pulse 88, small, feeble, and regular. Temperature 97.6. The respiratory and circulatory systems were normal. The hepatic and splenic dulness was normal. The appetite was very good. The bowels were lately costive. There was no affection of micturition. The urine was of specific gravity 1025, containing traces of sugar. He had no pain anywhere. His memory was good. He was neither emotional nor irritable. He slept well. I ordered him to take twice a day a quarter of a grain of nitrate of silver in pill, and to use galvanism. It is needless to say that the diagnosis was progressive muscular paralysis, with commencing bulbar symptoms.

Between this date and March 7th, 1880, I occasionally saw him. There was rapid wasting of the muscles of the shoulder and arm on both sides, including the deltoids, biceps, and triceps. His scapulæ assumed a somewhat winged appearance, from the serrati being involved. There was also rapid wasting of the muscles of his fore-arm and hands, especially of the muscles of the balls of both thumbs, and the interossei. For the last two months he had become so powerless from the loss of muscle in the hands and arms, as to be utterly unable to do anything for himself. His wife stated that every day the wasting appeared to get worse. He was troubled with incessant fibrillary quivering all over his body. Lightly tapping his muscles excited there contractions to a marked degree. There was no loss of muscle in his legs. His face assumed a haggard and aged appearance, with deepening of the furrow between the ala of the nose and the angle of the mouth. He was able throughout to keep his lips fairly closed, but not sufficiently tight to prevent the incessant dribbling of saliva, which greatly distressed him. This flow of saliva, making every allowance for his increasing difficulty in swallowing, was evidently increased in quantity, and was also occasionally tinged with blood. At Christmas time he was able to masticate a beef-steak, but for the last fortnight, from about the third week in February, his meat required to be minced very fine; evidently there was impairment of the pterygoid muscles. During February, deglutition became so affected as to render it impossible for him to drink thin liquids. His speech, which I noticed to be husky when I first saw him, rapidly became more and more difficult to understand, and by the middle of February it was to me perfectly unintelligible; it had a marked nasal tone, evidently from the palate being affected. He was still able with difficulty to protrude his tongue a little beyond the lip, but was apparently unable to move it in any other direction. There was no visible wasting of the organ, nor wrinkling of the upper surface. His sexual desire had completely disappeared. He suffered from profuse perspirations. His wife noticed that latterly his perspiration was "peculiarly unpleasant, as if he were dead". The extreme myosis was present from first to last. On March 10th his wife noticed that he was more restless than usual; he smoked a pipe in the evening, which shows the amount of power he still retained in his orbicularis oris.

On March 11th he went out in a chair in the morning, but upon his return became so much worse that they sent for me. As I was out of town my friend, Mr. Green, kindly saw him, and took the following notes of his condition.

"March 11th. At noon to-day I was called to see H. E., a patient of Dr. Fox, who was out of town. He appeared to be dying. He was sitting in a chair, his face was of a dusky pallor, his lips of a purple colour. There was very little power to raise the drooping eyelids. Both his arms were completely paralysed, and when about to ascertain if a similar condition existed in his legs, he immediately stood upright without support, and even walked across the room with slight support, in order to show me that he had no loss of power in his lower extremeties. Sensation was perfect in both arms and legs, but he complained of great pain in both legs. There was some twitching of the adductor pollici, and also of the facial muscles, and extreme myosis of both pupils, which were evenly contracted to a pin's point. The

* Read before the Bath and Bristol Branch.

ribs were perfectly immobile, and the respirations were abdominal, 30 per minute, very shallow, and effected without any spasmodic effort. His bronchial tubes were filled with mucus, and this appeared to be killing him. Not once during my visit did he cough or make any effort to expel the mucus. He once assumed the horizontal position, which caused great distress, and was quickly abandoned. His pulse was 80, with good power. The feet were quite warm. The intellect was unaffected. A dribbling of saliva, which had been present during his illness, had ceased during the last twenty-four hours. I could not help being struck at seeing him dying, and yet being able to stand without support, and even to walk with only slight assistance. He died six hours after my visit, asphyxiated."

Permission was given to examine the brain and spinal cord, which were removed, in my presence, by my friend Mr. Scott, on March 12th, twenty-two hours after death.

The brain, its membranes, and vessels, were perfectly normal to the naked eye; and the same with regard to the cranial nerves; there was certainly no appreciable wasting. The pons, medulla, part of the cerebellum, the whole of the cord and its membranes, were first placed by Mr. Scott in alcohol; and on March 15th, after making sections an inch apart, they were placed in Müller's solution; when, after allowing them to harden for some days, I availed myself of my friend Dr. Shingleton Smith's kindness and well-known skill, and submitted them to him for an exhaustive examination. The following is the report with which he has most kindly furnished me.

Report on Spinal Cord and Medulla Oblongata.—The specimens had been divided transversely at frequent intervals, and preserved in Müller's fluid. On naked eye examination, nothing very decided was visible externally. The whole area of the cord did not appear to be diminished; the natural shape of the cord was retained; there was no grey degeneration visible on the posterior aspect. The membranes were not unduly adherent, and there was no visible atrophy of the roots of the nerves. On examining transverse sections of the cord in the different regions, the following changes could be made out.

In the cervical, the substance was decidedly softer than in the normal state, after similar treatment with Müller's fluid, the grey matter being softer than the white; the horns were quite distinct in outline, but the right anterior was smaller than the left; the right half of the grey matter was also much softer than the left, and was easily disintegrated. At the lower cervical region, in the cervico-brachial bulb, the left half appeared to be softer than the right, and the outline of the anterior horns was indistinct on both sides. A short distance below, the cord was slightly flattened in shape on its anterior aspect. The grey matter was scarcely visible, and the whole substance tore readily on endeavouring to make sections.

In the upper dorsal portion, softening was present, more particularly the anterior portion; the anterior horns were indistinct in outline, and were pale in colour, but not disintegrated. The posterior columns, and the lateral columns, were of a greyish colour, but equally so on the two sides.

In the lumbar region, the cord was of normal consistence and appearance. The outline of the grey matter was well defined, and no difference could be perceived between the two sides.

The medulla oblongata and pons Varolii did not present any abnormal appearances.

On microscopic examination, it was found that the grey matter was the part chiefly involved, and more particularly so in the lower cervical and upper dorsal regions; where the disease was most advanced, the grey matter had become much fissured and lacerated in the process of making sections and mounting; here the vessels were found to be very numerous, the whole mass of grey substance became deeply stained with aniline; but no normal nerve-elements could be distinguished. The mass presented a granular appearance, with numerous darkened spots scattered throughout, some of which were blood-vessels in section, others were the remains of nerve-cells, and some were inflammatory products. The central canal was much enlarged, and its cavity occupied by a mass of rounded granular epithelial cells. The nerve-cells of the anterior cornua had lost their processes and nuclei, and become much atrophied and granular. The trabeculæ of neuroglia were too numerous, running through the white matter; but the axis-cylinders of the fibres in the white matter were quite distinct, close up to the edge of the grey substance. No inflammatory products were visible in the white substance, and no amyloid bodies could be made out.

In the upper dorsal region, the disintegrating process had given rise to the formation of spaces in the grey matter, lined by a false membrane, and occupied by inflammatory *débris*; one such space was in immediate proximity to the central canal on its right side, and another, less defined, was near the tip of the right anterior horn. The cells of Clarke's column were less numerous and smaller on the right side than on the left. A few multipolar cells could be made out in both anterior cornua. The central commissure was thickened antero-posteriorly; the central canal was obliterated by epithelial proliferation; the vessels around it were large and numerous. The anterior, lateral, and posterior columns, contained a small mass of blood-vessels, and of trabeculæ of neuroglia, but the nerve-fibres were healthy.

In the lumbar region, the central canal was expanded laterally, its cavity obliterated, and its position occupied by a mass of granular cells and granular *débris*. The grey matter became less deeply stained than that in the dorsal region; there were no patches of disintegration, and the blood-vessels were less numerous. In the anterior horns, groups of well-formed nerve-cells, with processes, were visible on each side; but other cells, smaller in size, without processes, not stained, and containing yellow pigment, were also present; and other bodies, looking like amyloid corpuscles were scattered sparsely throughout the grey matter, and a few also in the anterior white columns. In the posterior columns the trabeculæ were slightly thickened, but the axis-cylinders were well stained, and of uniform size.

In the medulla, below the decussation of the pyramids, the grey matter was found to be riddled with small cavities, and a circular patch, surrounding the central canal, became deeply stained with aniline. The canal was much elongated antero-posteriorly, and its cavity was obliterated by epithelium. The anterior pyramids and the olivary bodies presented no abnormalities. At the higher portion of the medulla, the sections presented no abnormal staining; there was no excess of blood-vessels, and the nerve structures were perfectly healthy.

To sum up, the appearances were those of myelitis affecting the grey matter, more particularly that of the anterior cornua, most marked at the upper dorsal region, but extending upwards around the central canal into the medulla, and terminating below the calamus scriptorius.

REMARKS.—It would take up too much time this evening, and probably only weary you, if I were to attempt to discuss all the various theories in connection with this interesting disease. Whether it is from the first a central affection of the spinal cord, in which the large multipolar cells in the anterior horns are involved, or whether it is primarily a peripheral condition, beginning in the muscles as a chronic myositis, affecting secondarily the intramuscular nerves, and, through an ascending neuritis, giving rise to myelitic processes in the cord itself; or, thirdly, whether it is an affection of the sympathetic, a fatty degeneration, as Jaccoud, Remak, Swarzanski, and others maintain.

Excepting Friedreich, and some others of the German school, who persistently cling to the myopathic theory, and who consider that only by this theory can the great varieties of the morbid conditions found in the nervous system be explained; the majority of pathologists in this country and abroad, including Lockhart Clarke and Charcot, are agreed, that in most instances the cord itself is primarily at fault, and the disease essentially is a degenerative atrophy of the large cells in the anterior horns; and that, when there is a development of bulbar symptoms, there is an extension of this primary process to the group of nuclei in the medulla oblongata.

Still, as Wilks remarks (*Diseases of the Nervous System*, page 251), cases occur in which the disease appears to have had its starting point at the periphery; and he refers to the case of a man, whose arm after an injury became wasted, and whose other arm and leg after a time became involved; and at the present time, I have under my care a young girl who presents a typical clinical picture of progressive muscular atrophy, and whose symptoms date from her having been violently swung round by the hands by another girl, who suddenly let go of her, the result being, that she fell to the ground, and was stunned. And lending some apparent support to this view, is the fact that mechanics are frequently the victims of this disease; Hammond (*Diseases of the Nervous System*, page 669), mentions the case of a ballet-dancer in whom the sural muscles were affected, and Hamilton (*Nervous Diseases*, page 259), has seen the same limited atrophy in a cigar-maker and a compositor, who used certain groups of muscles almost constantly. In H. E.'s case, it is important to bear in mind his occupation; that he was a blacksmith, who did a large amount of manual work himself, and that his disease at the commencement was most marked in his right hand and arm; this might lead one naturally to suppose that overwork of a muscle may cause its subsequent atrophy, but it may equally be said that the same overwork and fatigue may give rise to a degenerative atrophy of the delicate nerve-centre in the cord, which rules over the nutrition of the muscle. And opposed, I consider, to the theory that the lesions in this patient's cord are the final results of a myositis through overwork, which affected secondarily the nerve-paths, and through a continuation of the inflammatory process, as an ascending neuritis, caused the changes in the cord, as will see under the micro-

scope, is the fact that neither to the naked eye nor upon microscopic examination did Dr. Smith find any changes worthy of notice in the anterior roots; and this appears to me to be an argument of some weight against the supposition that the disease in this man began at the periphery. An additional evidence in favour of its being primarily a central affection was the early development of symptoms pointing to an implication of the nuclei of the hypoglossal, the vagus, and the spinal accessory nerves; and after a while the fifth, and to some extent the seventh. As related in my report, when he first came to see me, I noticed that his voice was husky, and the movement of the tip of his tongue upwards was not as free as it ought to have been.

Among the clinical features presented by this case may be noted, firstly, the duration of the disease, its comparative rapidity, which can easily be accounted for by the extension of this polio-myelitis of the cervico-brachial bulb upwards to the medulla, and the involvement therefore of the respiratory centres; secondly, the extreme degree of atrophy, which Eulenberg states (*Ziemssen's Cyclopædia*, vol. xiv, page 127) to be a very rare complication of progressive muscular atrophy; as Duchenne, among several hundred cases, never once met with this phenomenon. With regard to the perspiration from which H. E. suffered throughout his disease, its appearance in the initial stage, before there was any high degree of muscular atrophy, tells forcibly against Friedreich's explanation that it was the result of a collateral fluxion to the cutaneous vessels, caused by obliteration of a large number of the finer muscular vessels in the rapid atrophy of the muscles. The probability is, that it was due to the amount of disease in the cilio-spinal region. Whether there was any rise of temperature during these sweats I am unable to say.

An interesting fact in connection with this case, was the absence of dribbling of saliva for the last twenty-four hours of his life. Whether or no there is an actual increase of the amount of saliva secreted in these cases of bulbar disease, authorities differ. Both Erb and Kussmaul consider that there is an increased secretion; and Schultz estimated in one case a six or eight-fold secretion. Granting, however, the truth of Gruetzner's experiments, which go to prove the existence of a centre of salivation in the medulla, irritation of which causes active salivation, it is difficult to understand, as Erb remarks, how, in a case of bulbar disease, there can be irritation of this centre, when all the other bulbar functions are paralysed.

With regard to the treatment of this case, I gave nitrate of silver, because Kussmaul recommends it in preference to any other medicine; but I am afraid that, in our present state of ignorance, but little can be said in favour of any drug doing any permanent amount of good. In a case which was reported in the April number of the *London Medical Record* for this year, of progressive muscular atrophy, apparently of syphilitic origin, a remarkable improvement, amounting almost to complete recovery, followed the administration of iodide of potassium; but no mention is made as to whether or not electricity was used, and this is an important omission, for probably more benefit may be expected from the stimulating effect of electricity upon the trophic cells than any other remedy. Erb recommends the galvanic current; and so does De Watteville, with faradisation for the muscles.

Concerning the pathological appearances found by Dr. Smith in the spinal cord, it is unnecessary to detain you any longer, as you have the opportunity of inspecting for yourselves the beautiful sections he has been so kind as to bring with him this evening.

Since writing the foregoing, I have found that Feinberg's experiments on rabbits [illegible] the paralytic symptoms result from peripheral irritation without inflammation of the nervous structures themselves, therefore, instead of this change in the grey matter of the cord being due to a continuation of the inflammatory process as an ascending neuritis, it is caused by some reflex influence through the vaso-motor system.

WHITECHAPEL. In the third quarter of 1880 there were 590 births and 331 deaths in Whitechapel, to which must be added an unknown number of deaths of residents in public institutions outside the district. Ninety-eight deaths occurred from zymotic diseases, the larger portion of these (70) being due to diarrhœa. The deaths amongst children under one year of age were 138, or 24.8 of the total mortality, and the deaths amongst children under five years 247, or 42.4 per cent. of the total deaths. In speaking of the prevalence of enteric fever in London, Mr. Liddle has some very interesting observations on the influence of filth in the causation and spread of the disease, in which he urges the great importance of vigilance on the part of the sanitary officers.

ON WOUND-TREATMENT: PRINCIPAL AND ACCESSORY.*

By SAMPSON GAMGEE, F.R.S.Ed.,
Surgeon to the Queen's Hospital, Birmingham.

AT the opening of this session, I addressed to our colleagues in the Birmingham Branch some discussions on the relative merits of different methods of wound-treatment, which were favoured with the valued privilege of prompt publicity through the columns of our JOURNAL (BRITISH MEDICAL JOURNAL, October 30th, 1880).

As the date is so recent, and the subject so interesting, I trust it is not presuming too much to take for granted that most of those whom I have the pleasure of addressing are acquainted with the substance of the paper referred to. It has evoked numerous expressions of general agreement, and, to my knowledge, only one of dissent. But that one is of peculiar significance, and has placed me under the deepest obligation; for it emanated from a critic distinguished by acumen and experience. He "thinks it quite as likely that I should prove right in the matter as anyone else, but I have not proved my case in the least. I have not even touched the fringe of the matter. No one doubts that excellent results can be secured by rest and dry dressing; but the real test must be a set of psoas abscesses; open them with all Listerian antiseptic precautions, and without them, and see what becomes of dry dressings and of the poor patients." As my writer went on to disapprove the tone in which I had referred to Mr. Lister, I take this opportunity, the earliest public one I have had since the publication of my paper, to express sincere regret if in form or substance my criticism unintentionally exceeded the bound of professional courtesy and of true friendship.

The former communication disclaimed all pretence to completeness; and was avowedly sketchy and suggestive for purposes of debate. It is hoped that it may be usefully supplemented by the observations which I am about to address you; but it will be impossible, even now, to do much more than touch the fringe of a subject, the boundaries of which are practically conterminous with the surgical domain.

I may at once disclaim intention of attempting to illustrate the essentials of wound-treatment from the consideration of psoas abscesses which involve special pathological conditions.

An incision through the scalp to turn out a cystic tumour, and an opening of similar dimensions in Scarpa's triangle to evacuate a collection of pus, which has travelled down from a centre of decaying bone in the spine, differ so widely as to preclude comparison, without violence to the first principles of scientific reasoning.

Having published the circumstances of a case in which I opened a fœtid spinal abscess under the carbolic spray, with the most signal benefit, I venture to ask your attention to the remarks which I appended to it.

"The result in the brilliant case just recorded, is unquestionably due to the measures adopted,—carbolic spray dressing and immobilisation. I shall not here stop to inquire whether the spray acted by intercepting and destroying the atmospheric germs, or by a chemical or pickling action. What I contend is, that it is an error to deduce from any number of such cases of fœtid spinal abscess, rules applicable to the treatment of wounds in healthy structures. *A priori* predication from physiological to pathological conditions has been one of the most fertile sources of error in the whole range of medical science. It cannot be conceded that the results of experiment in pathological conditions and dead organic matter, should *a fortiore*, be held to apply to healthy states and living structures". (*Lancet*, 1879, vol. ii, p. 457.)

It is in the simplest injuries in healthy tissues, and in parts of the body accessible to accurate co-aptation, drainage, and pressure, that we can best study the phenomena of traumatism and repair, and the action of therapeutic resources, so as to form a sound judgment on wound-treatment, principal and accessory.

Let us assume a series of cases of injury of the fore-arm, such as you are all certain to have seen repeatedly in practice. Firstly, a case of fracture of radius and ulna, about the middle, without complications, comes under treatment directly after the accident. Immediate reduction and careful adjustment is followed by consolidation, which is painless and rapid in direct proportion to the perfection of the apparatus. To secure absolute rest, the joints above and below the seat of injury must be fixed, and muscular action controlled effectually. The less the part is disturbed, the better; union takes place without swelling of the soft parts, and without thickening of the bone. As Percival Pott long since pointed out, simple fractures unite by direct intervention of

* Read before the Staffordshire Branch.

the animal juices, just as wounds in the soft parts heal by the first intention. But let a few hours elapse, and the broken fore-arm soon swells; delay reduction, the swelling increases and becomes more solid, to soften and gradually disappear so soon as the parts are restored to their normal relation, immobilised and uniformly compressed. A clean-cut wound, through the skin and muscles of the fore-arm, heals as the simple fracture does: painlessly and solidly when the edges are brought together and kept so. Let the edges remain for some hours asunder, and become irritated by any cause, and the phenomena of inflammation rapidly develope. The subsidence is certain, though gradual, so soon as the part is placed at perfect rest, and the excited nervous and vascular conditions controlled. Though the inflammatory symptoms may have advanced so far that the hand is like a boxing-glove, the bony outline of the wrist and elbow-joints effaced, the skin of the fore-arm red and doughy, red streaks extending on the inner side of the arm and to the axilla, raise the hand, pad and evenly compress the limb, employ digital compression on the brachial, and the subsidence of symptoms will be rapid as their rise. Under such treatment, experience will soon convince you that incisions in diffuse cellulitis are destined to be looked upon as opprobria of the past. Take again a case of sprain of the wrist from falling on the hand: if seen immediately, and if the joint be at once immobilised and compressed, subcutaneous extravasation of blood will be checked, inflammatory phenomena prevented, and torn subcutaneous structures will heal. Let a few hours pass before the joint is properly treated, or let it be poulticed and fomented, and the swelling increases and consolidates, to disappear as rapidly under appropriate treatment, with immobilisation and pressure, or cold, or both. If the swelling and pain be great in the irritated wound of the fore-arm, or in the sprain of the wrist, raise the hand vertically above the head, and compress the brachial artery, surround the hand and fore-arm with elastic pads, immobilise with soft paste-board splints and pressure, fixing the limb with the elbow at the side, bent at an acute angle, with the tips of the fingers corresponding to the middle of the clavicle on the injured side, and you and your patient will be charmed with the rapid relief of pain and subsidence of swelling. Similar treatment will be attended with equally happy results in an ordinary compound fracture of the fore-arm. The sooner it is reduced, the better. Close the wound, making provision for drainage, according to circumstances, immobilise and compress, with all attention to physiological conditions, and you will effectually control the dynamics of the circulation, prevent the development of pathological states, and insure rapid, painless, and solid physiological repair.

These pads of absorbent gauze and cotton have the advantage of carrying off discharges from the surface of wounds by capillary attraction; while, in virtue of their great and almost indestructible elasticity, they are a means of effectual and safe compression. By pressure and position, the afflux of blood is so effectually controlled that parts dry and shrivel—so that you arrest the development of pathological processes by starving them of their supply. By immediate reduction and co-aptation of parts in wounds, sprains, and fractures, you remove the great cause of irritation; and, by maintaining absolute rest, and controlling the afflux of blood, you continue to act on the same sound physiological principles, and prevent the origin and growth of pathological states. Experience and science concur in justifying the wisdom of the two ancient aphorisms: "Ubi stimulus, ibi fluxus", and "Sublatâ causâ tollitur effectus".

In one and all of the conditions we have been considering, it is demonstrably evident that the causes of irritation are, in the main, within the part injured; and that their development can be checked or encouraged according to the manner in which it is treated.

Consider, for the moment, the case of a mamma during the early stages of lactation. The gland is in a hyperæmic condition, when, from some cause or other, a slight obstruction takes place in some part of its structure. The block is an immediate cause of nervous and vascular irritation; blood flows to the part; swelling increases, with it more pain; and, with the aggravated nervous excitement, the concentration of the blood-flow becomes intensified. Apply a poultice, and in due course the centre softens; and, by the knife or spontaneously, pus flows out. If, in the first instance, the breast had been suspended and uniformly compressed under elastic pads, to simulate the elastic pressure which is the normal condition of the frame, pain would have been at once relieved, the vascular flow repressed, and the breast, instead of swelling out and shining, would have shrunk, and the skin would have become pale, dry, and puckered. When a mammary abscess discharges, suspend and compress the breast under absorbent elastic pads, and the charming result for the patient and the attendant will, as a rule, be immediate and infallible.

Similar cases can be multiplied indefinitely. They constitute the vast bulk of the surgical injuries and conditions which come under our care: but, in dwelling on the general sufficiency of such principal therapeutic resources as absolute rest, physiological position, and elastic pressure, I do not exclude the value of such accessories as antiseptics, in a variety of forms. In contending for the value of dry dressing to wounds, it is chiefly as opposed to water dressings and to poultices, and to illustrate the necessity of perfect drainage, and of securing the dry condition of parts around the wound, which experience teaches attends upon reparative consolidation. Glycerine, alone, or with astringent combinations—borax, zinc, and copper, tinctures and mastics—all have their uses as accessories to wound treatment; and so do a variety of acids, carbolic amongst the number. In exceptional conditions, when perfect drainage is impossible, when matter necessarily lies in sinuous cavities, exposed to all the conditions of putrefaction—to wit, in a psoas abscess, or in an empyema—exceptional measures must be taken to counteract putrefaction within the body, and all its attendant evils. Probably no measure, under similar circumstances, will be found to equal those which are so closely identified with Mr. Lister's name; but that concession, which is made with unreserved sincerity and pleasure, justifies insistance on the importance of attention to therapeutic principles, of the potency of which many only have an inadequate appreciation. Take, as I have done, two elbows for excision—the one under the carbolic spray, the other under absolute immobility, dry dressing, absorbent pads, elastic pressure, and infrequent dressing. Carbolic acid, even dilute, is an irritant, and causes free effusion; when this permeates the dressings, they have to be changed from time to time, whereas, under the dry elastic pressure, the limb shrinks, discharge is stemmed, and the patient lies at perfect ease compared to the one treated by the spray. Only economise the powers of life, act as sound physiological surgeons, delicate manipulators, and effective mechanicians; and you will find that the repair of injuries, on the principles on which I have insisted, is at once easy, safe, and certain.

For obvious physiological reasons, the state of the atmosphere in which our patients dwell is of very great importance: but, as a general proposition, it is important always to bear in mind that the principal obstacles to the repair of injuries, the chief causes of sequential disturbance, local and systemic, are in the part injured. To remove and mitigate them, act upon the part itself.

Comparatively few and imperfect as are the facts, thoughts, and suggestions embodied in this paper, they will, I hope, not be denied some value, if for nothing else, as a theme for wider and deeper study, which the wound-treatment question pre-eminently requires. The numerous, broad, and many-sided facts involved must be observed and compared, severely scrutinised, and dispassionately weighed, as a condition precedent to the formulation of theories and systems. Such facts will prove "the surest antidote to the paralysing influence of prejudice on the one hand, and on the other they will act as the healthiest stimulus to appetite for more and purer knowledge".* To use the words of a distinguished American writer: "Take not a portion for the whole, and call the whole a part", but observe and experiment with a variety of methods under the multiplicity of conditions which present themselves in actual practice, and you will arrive at conclusions clearly intelligible and practically reliable, as to the relative value of principals and accessories in wound-treatment.

The results of experiments with millboard splints, carried out since the preceding paper was read before the Staffordshire Branch, may not be uninteresting. The millboard splints described in my former communication on wound-treatment (BRITISH MEDICAL JOURNAL, October 30th, 1880), though very effective, are liable to the objection that their preparation requires time and practice. By soaking light rough millboard in a strong solution of boiling dextrine, and then exposing it to dry, a very good splint material is produced. It is strong, and easy of manipulation, and can be kept ready for immediate use in a variety of sizes. The prepared hard splints become soft and mouldable to any shape, by placing them on a dish or tray, and pouring over them just enough boiling water to cover them. Soaking for two minutes is quite sufficient. By the same process, the splints, once used and hardened, can be moistened and used more than once. Any strength can be secured with two or three thicknesses; and, during the drying process, a piece of the dry gummed millboard bandaged on the outside gives as much stiffness as a wooden splint, and is much less cumbersome. When used with the absorbent gauze and cotton pads, the prepared splints dry much more quickly and firmly than with the ordinary cotton bandages and cotton wadding.

I shall have much pleasure in forwarding specimens of these splints to any professional brother who may wish to try them.

* *Clinical Lectures on the Treatment of Wounds*, by Sampson Gamgee. London: Churchill, 1878. p. 151.

HEPATIC ABSCESS OPENED ANTISEPTICALLY: RECOVERY.

By ARTHUR T. WEAR, M.R.C.S., etc.,
Formerly Surgeon to the Newcastle-upon-Tyne Dispensary.

In August 1879, Mrs. L., aged 45, a milliner, first complained of feeling ill and generally out of sorts; she had slight headache, and loss of flesh and appetite; the bowels were constipated. She was a thin medium-sized woman, of a nervous anxious temperament. After taking a couple of col cynth pills, she was attacked by severe enteritis, with vomiting, purging, tenderness on pressure, and great tenesmus.

At the end of a fortnight, the diarrhœa having ceased, the patient was somewhat improved; but the emaciation continued, and at last was extreme. In the beginning of September, she had slight jaundice, and complained of pain in the right side and in the epigastrium. On September 15th, a tumour was felt by palpation in the right hypochondriac region, tender to the touch, and giving an indefinite feeling of fluctuation. The swelling began below the costal cartilages, descending about two and a half inches, extending back to about an inch beyond the nipple-line, and reaching forwards to within an inch and a half of the median line of the abdomen. The swelling rapidly increased in size, until it reached four and a half inches below the costal cartilages, and forwards to within an inch of the median line.

On September 18th, the temperature was 102°, and pulse 118.

On September 20th, the temperature was 102.4°, and pulse 108.

On the 21st, she had a rigor, and complained of a sense of great constriction around the diaphragm, which caused severe dyspnœa. By this time, the tumour was bulging out, and fluctuation could be distinctly felt through the abdominal wall. At my evening visit, she earnestly begged that something might be done to ease her.

On the morning of the 22nd, my friend Dr. Wicks using the hand-spray, I made a preliminary incision through the skin with a bistoury, and plunged a trocar and cannula into the most prominent part of the swelling. About thirty ounces of pus mixed with bile passed through the cannula, and the patient expressed herself as greatly relieved. The temperature fell to 99.2 by the evening, and her pulse 84; she was almost free from pain, but still the tumour did not entirely disappear. During the night, she slept well; but, on the 23rd, the temperature rose, and, on the 25th, stood at 103.4°. She had a rigor, and passed a bad night. On the 26th, by means of Potain's aspirator, I removed six ounces of pus and bile, which had reaccumulated, and, by the evening, her temperature was 99.5°. For many days, the temperature remained about 102°, and, on October 5th, it rose to 103.4°; but it gradually fell, until, on October 28th, the temperature was normal, and the pulse likewise. By the end of November, she had gained much strength, and was mending rapidly. Now all trace of the swelling has entirely disappeared. She is in capital health, and works hard at her occupation from early morning till late at night.

EMPYEMA INCISED ANTISEPTICALLY: DEATH FROM PERICARDITIS.

By G. H. PHILIPSON, M.A., M.D.Cantab.: F.R.C.P.Lond.,
Senior Physician to the Newcastle-upon-Tyne Infirmary; Professor of Medicine in the University of Durham.

A. G., a baker, aged 27, was admitted October 30th, 1879. He stated that he had always been strong and healthy. On October 28th, he was suddenly seized with severe pain in the left side of the chest. The pain became gradually worse, and was accompanied with great difficulty in breathing. At the time of his admission, friction-sound was readily heard upon auscultation of the left side of the chest. The temperature was 102 Fahr., the pulse 120, soft and compressible. Hot fomentations were ordered to be applied to the chest, and antiphlogistic remedies were administered.

On November 8th, the friction-sound had disappeared, the percussion-note was clear at the left base, and the temperature was 98° Fahr.

In the first week of December, he complained of a return of the pain, and of the difficulty of breathing. The temperature again became high, especially in the evening, and on December 13th, 103° Fahr. was registered. Dulness upon percussion at the left base was at this time detected. Flying blisters were applied, and the iodide of potassium was administered internally.

On January 3rd, 1880, as the dyspnœa had become urgent, and as there was clear evidence of fluid accumulating in the left pleura, the heart's impulse being under the right nipple, it was determined to afford relief by paracentesis. This was done by the senior house-surgeon (Dr. J. D. Dixon) with the aspirator, when fifty-six ounces of serosity were withdrawn, with immediate and marked relief.

After this, the pleural cavity rapidly refilled, and the temperature continued persistently at 102° Fahr., and there were irregular shiverings; it was decided to have recourse to free incision, and the introduction of a drainage-tube. On February 1st, this operation was performed, under the antiseptic spray, by Dr. Dixon, when five pints of sero-purulent fluid were evacuated. The side was daily dressed, under antiseptic precautions, but the pleural cavity was never injected, the discharge never indicating decomposition. In May, Lister's silver tube was substituted for the flexible one. He progressed very favourably, and in July was able to go into the infirmary garden. About the beginning of August he began to complain of pain in the centre of the chest, and renewed difficulty of breathing, and a tendency to faintness. It was then surmised that the pericardium had become implicated. He gradually became weaker, and died on September 20th.

At the necropsy, it was with the greatest difficulty that the sternum was raised, on account of the density of the adhesion. The right lung was found to be free, mottled, and slate-coloured on section; the apex was found to contain a cavity, of the size of a large walnut, filled with caseous matter. The contents of the left chest were so strongly adherent to the ribs, the left lung being compressed upwards and backwards, that it was necessary to remove them, with the heart, in one mass. Upon examination, it was found that the pericardium was greatly thickened and distended, and contained half a pint of sero-purulent fluid. Both visceral and parietal layers were covered with recent lymph, resembling "calf tongue" or "tripe". The costal and parietal pleuræ were greatly thickened, and firmly adherent together, except at one point, corresponding to the external sinus, the place of incision, where there was a space about the size of a small apple, containing pus. On incising the left lung, a cavity of about the size of a large hazel-nut was found in the apex. The lung was collapsed. The heart was small and shrivelled. The liver was firm on section, resembling nutmeg, and weighed six pounds. The kidneys were normal. The spleen was enlarged, and weighed ten and a half ounces. The peritoneum was free from tubercle.

REMARKS.—The chief interest of this case is the exemplification of a cure of empyema, the costal and parietal pleuræ having become firmly adherent; further, that this process was accomplished without the causes of injections. The case, likewise, illustrates the importance of the early performance of the operation of incision; and also, that complete drainage may be effected by one incision.

THERAPEUTIC MEMORANDA.

ON INGLUVIN.

THIS preparation, much lauded by American authors for its power of arresting the vomiting of pregnancy, deserves, so far as I have been able to judge from a careful and constant use of it in many dyspeptic cases, a very much wider trial than has yet been accorded it. In the vomiting of pregnancy, it has seemed to me, given before meals in doses gradually increased from five grains to a scruple, to act more especially well in those cases in which a certain degree of anæmia was present. My experience has been that, where marked plethora exists, or a full habit of body obtains, the effect of ingluvin is very uncertain, and is not maintained after the drug is withdrawn or the dose lessened. But for the anæmic, and particularly in first pregnancies, it may be said to act now and then like a charm.

I do not myself find that the best way to give it is before *each* meal, or that it is necessary that it should be taken three times a day. I believe the following to be the best method to adopt. As early as possible—say 5 A.M. or 6 A.M.—a commencing dose (ten grains) is given in water; at 8 A.M. or 9 A.M., fifteen grains more are given; and an hour after this second dose a breakfast of iced soda-water and milk with dry toast is taken. That finishes the day's drug-taking. On the second morning, fifteen grains are given very early, and twenty grains three or four hours subsequently (again before food); and on the third day, two twenty-grain doses at the same hours. I then drop the dose—for by this time (as, in my experience, the drug acts quickly) the vomiting will have lessened—to ten grains before each meal for three more days; and I then stop the administration of the powder altogether. But I believe that the dyspepsia of phthisical patients is more uniformly affected by this drug than by any other remedy. I speak of the forms of dyspepsia in the phthisical in which these two symptoms are the most prominent, viz., epigastric pain and flatulence. It must be in the experience of most medical men how annoyingly, over and over again, the putting on of flesh is arrested by periods of dyspepsia; and it is precisely in these cases I believe that, if the following treatment be

adopted, the least loss of strength and flesh possible will be entailed. With the onset of a dyspeptic attack, in the course of a case of threatened phthisis, it is often necessary to cease cod-liver oil, iron, quinine, and tonics; they cannot be digested. Now if, *before* each meal, a dose of Dr. Larmande's tonic glycerine be given, the formula for which will be found at p. 486 of the December number of the *London Medical Record*, and if, *after* each meal, simple doses of ingluvin be administered, I believe the duration of the attack will be markedly cut short, when compared with the duration of similar attacks under treatment by acid and pepsine, bismuth, or even lacto-peptine. The use of ingluvin would seem to be limited to cases in which diarrhœa is absent—at all events, in phthisical patients.

I have also tried ingluvin in cases of dyspepsia which are not purely of the atonic type, among patients who are not the subjects of phthisical treatment; but, as a general rule, I find that the more nearly the symptoms tally with atonic dyspepsia (by this I mean weight and tension during digestion, flatulence, feebleness of pulse, and constipation), the more satisfactory is the ingluvin treatment. It may be urged, and with reason, that the practical effect of the administration of ingluvin for the vomiting of pregnancy, in the manner in which I prefer to give it, is to starve the patient early in the day; and it may be doubtful whether any treatment would not be equally successful which involved this principle. To this I would reply that, in my experience, the treatment of the vomiting of pregnancy by deferring any great or substantial meal until midday has not been a successful practice; and I have found that the vomiting need not be limited at all to the early morning, but may continue till, or recur at, any subsequent hour of the day; and that I have experienced too great satisfaction from the ingluvin treatment to doubt that *post hoc* is *propter hoc*.

Finally, I would rather not extend my very marked preference for ingluvin over all other remedies to those cases in which nausea without vomiting is a symptom, but to those only in which vomiting absolutely takes place. There are cases in which nausea all day long takes the place of morning sickness; these will not yield the satisfactory results from ingluvin which I have mentioned. But let me not be understood to mean that the vomiting which ingluvin aborts will result in a profound nausea in which it is powerless.

G. H. R. DABBS, M.D., Shanklin, Isle of Wight.

BIRKENHEAD.—During 1879, the returns of the local registrars recorded 3112 births and 1631 deaths in this borough, against 2932 and 1656 in the previous year. The death-rate for the year was 19.23 per 1000, which was less than that of any of the fifty large town districts whose figures are given by the Registrar-General, with but one exception. Of the total mortality the deaths of infants accounted for 651, of children and young persons for 155, of adults for 497, and of old people for 328 deaths. These figures represent the local mortality in a very satisfactory light, and it is satisfactory to observe that they compare also favourably with the mortality returned for Birkenhead in previous years. The death-totals were much higher in the first and fourth than in the intervening quarters: bronchitis being very fatal in the first, and scarlatina very prevalent in the fourth quarter of the year. The proportion of zymotic diseases to the whole number of deaths was 18.8 per cent. Measles caused 23 deaths, scarlatina 125, diphtheria 19, whooping-cough 14, fevers 34, and diarrhœa 33. Of the 34 deaths from fevers 15 were described as typhus, cases of which occurred at intervals during the last nine months of the year. A "wake" held on the body of one of the fatal cases no doubt proved a fruitful source of contagion. Only one case of small-pox was recorded; the patient, a foreign seaman, succumbing to the disease. Diathetic diseases accounted for 49 deaths, of which 34 were due to cancer; and tubercular diseases for 152, of which 115 were due to phthisis pulmonalis. The number of inquests held during the year was 114, but no less than 54, or 3.3 per cent. of the deaths were nevertheless uncertified. Mr. Vacher truly says that it is sad to reflect that the proportion of these uncertified deaths does not diminish year by year, but rather tends to increase; and that the sum total is largely made up of infants. "It is not beyond the truth to say that, in any case in which the services of a medical man are not procured, they are probably not sought. . . . One is tempted to ask, What was the real cause of death in the fifteen cases (all babies) referred to convulsions? In some cases it must have been tubercle, in some syphilis, in some improper food, in others possibly *coup de soleil*, patent teething powders, or even choking. Then as to the fifteen cases entered to premature birth, mainly on the representation of irresponsible midwives, it is difficult to avoid the question, Were any of the deaths due to the use of abortifacients?" This question of uncertified deaths is indeed one that needs the early and anxious consideration of the Home Secretary as well as of the Local Government Board.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

MIDDLESEX HOSPITAL.

CASES OF EPITHELIOMA.

(Under the care of Mr. HULKE).

THE local, as distinguished from the constitutional, origin of cancer, —using the term constitutional as equivalent to dyscrasial, implying a specific faulty state of all the tissues, including amongst these the blood, a taint of the whole being—finds strong support in the genesis of epithelioma. In the life-history of many cases of this form of cancer, there are to be recognised, first, a faulty, damaged condition of the part where the cancer makes its appearance; next, general tissue-changes incidental to advanced age; and thirdly, an extraneous local injury or irritation. Neither of these factors is in itself sufficient, but the concurrence of all three seems necessary for the evolution of an epithelioma.

The origin of epithelial cancer in scars has been so frequently observed, that the association cannot be of the nature of a mere coincidence. Its very frequency shows that this association is not fortuitous, and justifies the conviction held by many authorities that the relation is really causal. If it be inquired, whether some sorts of scar are more prone than others to become the seat of epithelioma, and if so, what kinds of scars have this greater liability; the answer is to be found in the scar itself, rather than in its cause. The more perfect its imitation of the natural structure, the less appears to be its proclivity; and the more it falls short of this pattern, the greater is the probability that epithelioma may arise in it. The nature of the original injury does not appear to be of moment, except in so far as it influences the rate and degree of repair. Where cicatrisation has very slowly progressed, the scar has long retained its early vascularity, and its cuticle is very thin, then epithelioma may be expected, rather than where a wound has cicatrised quickly, the scar has soon lost its primitive vascularity, and its epidermal layer closely resembles that of the surrounding skin.

In illustration of this, two cases, some time since in the Middlesex Hospital may be briefly cited.

CASE I. A middle-aged woman was admitted with an ulcerated warty epithelioma of the size of the palm, on her back, in the middle of an extensive scar which reached from the shoulders nearly to the hips. Her history was, that she had been severely scalded in childhood, the wound had healed very slowly, and the middle of the scar had long remained bluish and tender. Nothing, however, befell it till she had reached middle life, when, a few months previously, a lunatic whom she was nursing pushed her roughly against a chest of drawers, one of the corners of which chanced to strike the tender part of the scar, slightly grazing it. Soon afterwards, she received another slight injury at the same spot. These little hurts, had they happened to sound integument, would very probably not have been productive of evil, but falling on the scar were soon followed by a warty outgrowth, which rapidly increased, and before long gave unmistakable evidence of being an epithelioma. Here the scar resulted from a burn.

CASE II. A farm-labourer, aged 60, was admitted into Forbes ward with a warty ulcerated epithelioma, implicating a large part of the back of his forearm. He said that in boyhood his forearm had been crushed by a waggon-wheel. The bones were badly broken, and the flesh much squeezed and torn. The wounds, he was told, did not heal for about two years. In spite of a crippled limb, he had done the work of a country labourer. One part of the scar was thinner than the rest, and more tender; and here, when he was past middle life, a small wart grew up. This, when it became troublesome through its size, he was wont to pare down with his knife. At first no blood was drawn in doing this, but after some time the wart bled when he pared it. After this it grew very quickly, and before long, was unmistakably an epithelioma.

CASE III. *Epithelioma in the Calf.*—In the following case, the scar resulted from what was probably a syphilitic gumma. The patient was younger in years than those first mentioned, but older in tissue-degeneration. She was clearly not a favourable subject for any operation, but it did not appear to be right, in face of her great suffering, to withhold amputation. She was admitted on April 20th, 1880, into Queen ward, with a large warty ulcer of the right leg. It had destroyed the whole calf, and encroached upon the sides of the leg.

The floor of the sore was very irregular, in some places greyish and sloughy, in other parts beset with masses of more than usually exuberant granulations. The discharging was very profuse, ichorous, and stinking. The skin from the knee nearly to the ankle was eczematous. The patient was a stout blonde. She had always lived very freely, and latterly had been driven by sleeplessness and suffering to take large quantities of alcohol. She had acquired syphilis from her husband soon after marriage, in her twentieth year. She had borne two dead children; her hair had fallen off, and she had had an ulcerated throat. Six years later a knot — from her description probably a gumma—came in the right calf, which broke, and was long an open sore, healing several times unsoundly, and breaking open again before it finally perfectly healed. In this scar the epithelioma began as a wart, to which she did not for some time pay much heed; indeed, she had only thought it of importance about three months previously, when its progress became very rapid, and she began to suffer much. On May 12th, the limb was amputated just above the femoral condyles. Very little blood was lost, but the shock was very great. Her temperature during twenty-four hours was under 96° F., and her face and surface generally were bedewed with a profuse cold sweat. After rallying from this, with the exception of occasionally being sick after taking food, she made fair progress, the stump looking well, until June 1st, when she became rather suddenly breathless, the wrist-pulse was soon imperceptible, a cold sweat broke out, and she quickly died. At the examination of her body, an *ante mortem* clot was found in the pulmonary artery, reaching into its larger branches, and in the right ventricle. Both the pulmonary artery and aorta were atheromatous.

Case iv. *Epithelioma of the Lower Lip.*—In few cases of cancer can surgery offer a longer respite than in those of epithelioma of the lower lip, where excision is practised very early and freely whilst the cancer is still limited to the border of the lip, and the glands are uninfected. Even in a somewhat later stage, when the epithelioma has spread into the lip beyond its free border, and even where near-lying lymphatic glands are involved, free excision, unless there should be other circumstances forbidding it, will frequently be preferable to allowing the cancer to run its course, which is what, in the present state of our art, really happens when operative interference is withheld. The terrible distress which cancer in its later stages when occurring in this situation entails (scarcely less than when situated in the mouth) is well shown by the following case, where, deluded into false security by illusory promises held out to him, the patient's condition had become perfectly hopeless at the time he entered the Middlesex Hospital. Nothing remained but to soothe his sufferings by opium and nourishment, and to destroy the fœtor with iodoform. He survived his admission only four days.

A waxy, pale, sallow-faced man, aged 39, in a state of extreme exhaustion, was taken into Handel Ward on the first day of this year (1881). His entire lower lip and the soft parts of the chin had been eaten away by ulceration, laying bare the teeth and the body and symphysis of the jaw. Patches of necrosed bone, bunches of coarse warty granulations, and grey sloughy shreds formed the bottom of this great gap. Its edges were sharp, raised, indurated, and of a dusky reddish tint; characters which had no abrupt definite limit, but which, spreading into the cheeks and under the chin to considerable distances, gradually disappeared. At the angle of the jaw and in the neck were large prominent bosses—infected lymphatic glands. A copious stinking ichor, poisoning the air he breathed, mingled with saliva, which, in the absence of the lower lip, incessantly dribbled, saturated his clothes. A more ghastly piteous sight could hardly be conceived. He said (and his statement was confirmed by his friends) that his disorder had begun, about twelve months before, as a little knot, of the size of a pea, upon the red edge of the lower lip. A surgeon, whom he consulted, advised him to have this removed; but he shrank from having this done, and went to a hospital where cancer is alleged to be cured without the use of the knife, which he continued to attend during seven months. At the first visit, the surgeon by whom he was seen told him, he said, that he could cure him, and this assurance was given him on several subsequent occasions, and even as recently as between one and two months ago.

Case v. *Epithelial Cancer of the Palate.*—It is an interesting question in this case, whether the man's calling had any causal relation to the occurrence of the cancer (he was a sweep); or whether the association was a merely fortuitous coincidence. It is a well established fact that, since climbing has been stopped, and the importance of greater cleanliness has been recognised by sweeps, epithelioma of the scrotum has become much less frequent than formerly. However careful a sweep may be, it is scarcely possible that, when working in a soot-charged atmosphere, some should not enter the nasal passages and mouth in inspiration; and, if so, irritation of the surfaces of the velum palati is very probable. That such irritation, when frequently renewed, might, with the concurrence of other factors—*e.g.*, age, large glandular development of the mucous membrane in this situation—become sufficiently intense to provoke the evolution of an epithelioma, will scarcely be denied.

——, aged 53, a sweep, whose face was much pitted with the scars of small-pox, was taken into Handel Ward on December 7th, 1880. The soft palate was split, in its whole depth, by a ragged ulcer, the edges of which were raised, very swollen, and hard. The lateral remnants of the velum were very thickened; their buccal surface was tuberous; they had wholly lost the suppleness natural to them, and were stiff and rigid. This hard infiltration had extended to the faucial pillars and the tonsils; and the lymphatic glands under the angle of the jaw and along the sterno-mastoid were also swollen. He related that about a year before, whilst at work, he was startled by bleeding from his nose and mouth. This ceased some time later. On consulting a medical man, for what he had supposed to be a cold, he was told that his throat was ulcerated. This had been thought to be syphilitic; and, on this supposition, mercury had been given to him, in spite of which the disease progressed.

At the time he entered the Hospital, the amount of infiltration about the ulcer made its being mistaken for a syphilitic ulcer no longer possible. The extension of the infiltration to the muscles of the jaw has now nearly fixed it. He has been much exhausted by a profuse hæmorrhage, and the end is evidently not far off.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

Tuesday, January 4th, 1881.

Jonathan Hutchinson, F.R.C.S., President, in the Chair.

Enlargement of the Median Nerve.—Dr. Ormerod exhibited a woman, aged 23, who presented an enlargement of the left median nerve in the upper arm. The nerve was thicker than a quill. The muscles supplied by it were wasted, and the two last joints of the index and middle fingers, and the last joint of the thumb, were anæsthetic. The skin of the last joint of the index finger had been red, glossy, and ulcerated, but these conditions had passed away under treatment. There had been an attack of pain in the nerve five years ago, but this had passed off, leaving no permanent damage. Two and a half years ago, the pain had recurred, leaving the present condition. The patient presented several unequivocal signs of congenital syphilis, and the question arose whether the neuritis was due to the syphilis. In favour of this view were the facts that no other cause could be assigned; that the ulcer had healed under iodide of potassium; and that deafness had much increased during the few months preceding the last attack of neuritis.—The President thought the condition was probably dependent upon the syphilis; but he had never seen a similar case in congenital syphilis, although he had seen an example of neuritis of one of the nerves of the arm from the acquired disease.

Ununited Fracture of the Olecranon.—The President exhibited a man who had fractured his olecranon ten years ago, and had been treated for it with the arm in a state of acute flexion. The whole of the olecranon was firmly fixed to the back of the humerus, and there was a wide gap between it and the ulna. There was partial paralysis of the ulnar nerve, with wasting of the muscles supplied by it.

Transverse Separation of the Lower Epiphysis of the Humerus.—The President exhibited a living specimen of this condition.

Pathology of Molluscum Contagiosum.—Dr. Thin described the appearances he had observed in sections prepared from more than fifteen molluscum contagiosum tumours. With one exception, no hairs or sebaceous glands were found in all these sections. It followed, therefore, that the development of these tumours was attended by falling out of the hairs, and disappearance of the sebaceous glands. The molluscum formation had no duct—a breaking down of the central cells having been mistaken for a duct by some observers—and there was no sebaceous secretion in the cells. The tumour was composed of rounded epidermic masses, and not of glandular elements. It was formed by a small number of independent growths, which began on the free surface of the epidermis, close to each other. These coalesced as they grow, and formed one tumour. In a fortunate section, the primary point of origin was traced to a hair-follicle; and, basing his opinions on appearances found in one of these tumours, Dr. Thin, following Virchow, assigned the first abnormal action to the cells of the internal root-sheath. The hair dropped out of the distended follicle, the sebaceous glands atrophied, the follicle became enormously widened, and new growths bulged out from the

epidermic root-sheaths of the hair. The small group of separate independent points of development, which coalesced to form the tumour, probably originated by being inoculated by molluscum-cells, which escaped from the distended follicle. As, however, the morbid process could develop from the free surface of the epidermis, its origin in a follicle might be not invariable. When a molluscum body developed from an epidermic cell, the cell first filled with granules, clear spaces becoming visible in different parts of the cell. These granules enlarged, and finally coalesced into a homogeneous mass, the muscles being pushed aside, and finally disappearing. When the development was complete, an epidermic shell contained a mass of homogeneous substance, which had special physical and chemical properties. This substance was a new product, which was foreign to the healthy cell. It sometimes fell out, and the epidermic cell-wall remained, and retained its shape and consistence. The molluscum body, therefore, remained an epidermic cell from the beginning to the end, its natural evolution having been interfered with by an unknown cause acting from without. This morbid agent lodged first in the follicle, and there developed and multiplied, and infected the epidermis in the immediate neighbourhood of the follicle. Dr. Thin considered that it was not unreasonable to hope that special investigation, undertaken by the help of modern methods of research, might succeed in bringing the morbific agent within the scope of our more direct knowledge.—Dr. RADCLIFFE CROCKER showed a series of microscopical specimens of the same disease. These tended to show that the disease began in the hair-follicles, the molluscous change beginning in the cells of the internal root-sheath, and gradually advancing to the corneous layer of the skin, and to the upper part of the rete Malpighii. In the lower part of the rete Malpighii, there was a gradual transition to granular cells, as described by Dr. Thin. His observations confirmed those already given to the Society by Dr. Thin.—Dr. MORRISON had examined a series of specimens of the disease, and had concluded that the disease began in the sebaceous glands, and that it led to great hypertrophy of the rete mucosum.

Obstruction of the Superior Mesenteric Artery and Vein.—Dr. FREDERICK TAYLOR exhibited this specimen, taken from a child, aged 5 years, who was seized one morning with great pain in the abdomen, accompanied by vomiting. Next day it died, in a state of collapse. *Post mortem*, blood was found in the peritoneal cavity. The small intestines were of a deep claret colour. In the upper part of the abdomen was a thin loose band passing from the hepatic flexure of the colon to the mesentery, beneath which passed the jejunum. The part of the jejunum above the band was displaced, leading to a sort of bending of the mesentery upon itself, and in this bend were caught the superior mesenteric artery and vein. The artery was found to be completely obstructed by a mass of tissue, semicartilaginous and semifibrous. At the same spot, the mesenteric vein was occluded by a recent thrombus. Dr. Fagge had recorded a case in the Society's *Transactions*, in which the same symptoms and *post mortem* appearances had been produced by thrombosis in the portal and superior mesenteric veins.

The following specimens were exhibited by card.

1. Mr. SHATTOCK: Tumour of Heart from a Child.
2. Dr. LEDIARD: Epulis containing Hyaline Cartilage.
3. The PRESIDENT: Diseased Kidneys from a Boar-pig—Kidneys sacculated and Ureters dilated, the result apparently of an enlarged Prostate.
4. The PRESIDENT: Rheumatism and Gout in the same Subject; Urate of Soda-deposit in the Great Toe-joints; combined with the special Changes of Rheumatoid Arthritis in the other Joints.
5. Dr. BURNETT: Calcareous and Sacculated Aorta.

The Society then proceeded to the election of officers for the coming year, and to the other business of its annual meeting.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, DECEMBER 18TH, 1880.

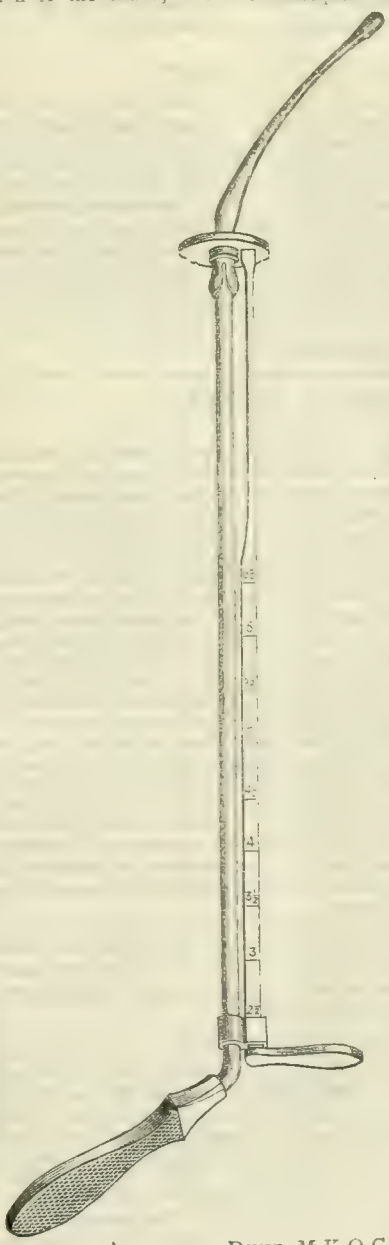
A. W. FOOT, M.D., President, in the Chair.

Fracture of Costal Cartilages.—Dr. E. H. BENNETT showed the thorax of a man, who was killed by being crushed between a railway carriage and the buttress of a wall. The unfortunate man was rolled along the wall for some distance by the moving carriage. He died in a few hours from respiratory distress. There was no evidence during life of the occurrence of hæmatothorax; but the upper true ribs on the right side fell in and out with every act of respiration. The pelvis was broken on the right side. There was a fracture of the ramus of the pubes, and of the corresponding sacro-iliac articulation. The second, third, and fourth right costal cartilages were broken sheer across, about three-quarters of an inch from the sternum. Considerable hæmorrhage had taken place into the anterior mediastinum. The pleura was adherent, and so the non-occurrence of hæmatothorax was explained. Injuries had also taken place on the left side of the chest, where there was luxation of the sternal end of the clavicle, with fracture of the cartilage of the first rib.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

NEW UTEROMETER.

THE plan of measuring the depth of the uterine cavity by the introduction of the sound, and the subsequent insertion of the finger-nail of the operator into one of the notches marked in that instrument before withdrawing it, has been, to say the least, uncertain in its results, and decidedly inconvenient.



The accompanying woodcut represents an instrument which will, I think, prove useful to the gynæcologist.

It consists of an ordinary uterine sound (without the notches), but with sliding scale attached, graduated in inches and half-inches, which can be read off exterior to the vagina, and can be used with or without the speculum. The point being introduced in the ordinary way into the uterine cavity, any deviation from its normal depth will (unless the os be exceedingly patulous) have the effect, on coming into contact with it, of pushing down the measuring scale, and thus registering the result outside; or, if the operator prefer, he can draw down the scale before introduction, and, when the sound has penetrated to the fundus, slide the scale upwards till it meets the os: the projecting portion will, as by the former plan, give a similar result.

The plate, which comes into contact with the os, is represented badly in the woodcut, as it should be of a larger size.

The simplicity of the instrument will, I fancy, recommend it. The maker is John Whyte, Dublin.

ALEXANDER DUKE, M.K.Q.C.P.I., Assistant Physician Rotunda Hospital.

WYETH'S COMPRESSED TABLETS OF SODA-MINT.

THESE soda-mint tablets contain each four grains of bicarbonate of soda, a quarter of a grain of ammonia, and one-eighth of a drop of peppermint. This is obviously a very efficient combination, and the tablets themselves are manufactured with the utmost neatness and perfection. The very convenient form in which they are presented facilitates their use by travellers, business and professional men of all kinds, inasmuch as they are highly portable, and easily carried in the waistcoat-pocket. They are particularly to be employed in cases of flatulence, heartburn, sick-headache, and for dyspepsia arising from acid secretions of the stomach.

HAY'S GINGER CHAMPAGNE.

THIS so-called ginger champagne, made by Mr. Hay of Hull, is manufactured with his well-known soluble essence of Jamaica ginger, and is a modified form of ginger-beer. It takes rank among its class as a pure, wholesome, stimulating, and non-alcoholic beverage.

AN INVALID'S DOOR-BOLT.

SIR,—Possibly others, as well as myself, have had aged or invalid patients who, sleeping in a room alone, would still persist in locking their doors. In order to relieve the anxiety of friends, and at the same time give the individuals their sense of security, Messrs. Stark of this place have, at my suggestion, constructed a "lock-chain bolt", of which a specimen has been sent to you. In every respect, it resembles an ordinary chain-bolt, but with a lock in the middle, to be opened only by a key in care of some member of the family, so that, in case of sudden illness, there need be no difficulty in effecting an entrance to the room. As, of course, only the person having the key could unlock the door, the "lock-chain bolt" is as secure as the ordinary kind.—I remain, sir, yours faithfully,

SPENCER THOMSON, M.D.

Ashton, Torquay, January 8th, 1881.

NOTES ON BOOKS.

The Index Ledger. Sang and Barker, Barony Street, Edinburgh.—A system of business books which economises time and ensures correctness is a great desideratum to the busy general practitioner. The form of ledger or book in which the month's work can be briefly entered is therefore of importance. The want, long felt by the profession, appears to us to be well met in the form of ledger which the firm above mentioned has forwarded as a specimen copy. We will describe it. The ledger (at least, the copy sent—is by no means a ponderous tome, and is arranged alphabetically, additional space being afforded to those initial letters which experience has shown most frequently occur. Each space for a patient's name is ruled for four years, and divided into months; at the end of the line for months is a space for the insertion of the aggregate amount claimed for attendance during the year, and on a corresponding line on the next page is a space for the insertion of extra attendances, such as labours, operations, etc., or medicines; following out the line, you note a space for the insertion of the amount of the account, and also the amount received; the date, if paid; the arrears, if any, for carriage to the corresponding account of the next year. Messrs. Sang and Barker also supply a form of visiting-list and register, for which they claim that it serves the purposes of a visiting-list and day-book in one; not that it is necessary to the adoption of the Index Ledger that the ordinary day-book should be discarded, if the practitioner desires to retain its use.

From a careful examination of this novel method of medical book-keeping, we opine that those practitioners, and such other members of the profession as are not paid before the time of visit, will find the Index Ledger will supply a ready means for recording their daily work and earnings at a minimum expenditure of time.

BEQUESTS AND DONATIONS.—Sir Francis Lycett has bequeathed £500 each to the Brompton Hospital for Consumption, the Royal Hospital for Incurables, the Earlswood Asylum for Idiots, King's College Hospital, and the Victoria Park Hospital for Diseases of the Chest, £200 each to the Royal Free, and Consumption Hospitals, and £100 each to the Truss Society and St. Mary's Hospital, all payable out of his residuary estate. The late Mr. Turner has given £100 to the Charing Cross Hospital. The Cocoa and Coke Company have given one hundred guineas to the Middlesex Hospital. Mr. John F. Swaffield, J.P., D.L., F.R.S., of North Bank, Regent's Park, has bequeathed £5,000 to St. Mary's Hospital, Paddington, to build a new wing in memory of Mr. Swaffield, and to bear her name.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JANUARY 15TH, 1881.

THE ALLAHABAD LIBEL CASE.

THIS very important case, which has excited great interest in medical and legal circles in India, has at last been settled on appeal before the High Court, North-West Provinces. Although a full report of the trial before the Magistrate's Court at Allahabad has been in our possession for some time, we thought it best to await the final settlement of the matter by the Court of Appeal, before inviting the attention of our readers to a case having important bearings on professional conduct, and the freedom of reasonable criticism in India. The facts of the case are exceedingly simple. In the *Indian Herald*, a newspaper published at Allahabad, there appeared an advertisement, headed "Allahabad Eye Hospital", setting forth the number of patients who had been treated in it, the number of operations, the almost invariable success of the operations, and inviting subscriptions, which, the advertisement stated, will be thankfully received by Dr. Geoffry C. Hall, Central Prison, Allahabad. Dr. Hall is a medical officer in the Bengal army, then, as now, holding the appointment of civil surgeon at Allahabad. In setting forth in the advertisement the work done in the Eye Hospital by himself, Dr. Hall, the advertiser, stated that "there have been 180 major operations, including 95 cataract operations, 31 iridectomies; with one exception, these have all been successful". On this advertisement, Surgeon-Major Kenneth McLeod, in the *Indian Medical Gazette*, edited by him, thus commented: "Our attention has been drawn to the fact that a medical officer, serving in a large town in the North-West Provinces, is in the habit of soliciting, by advertisement, subscriptions to an Eye Hospital which he has established. The medical transactions are set forth in the advertisement." Dr. McLeod here quotes the figures given above, and continues: "The advertiser is certainly entitled to be congratulated on this marvellous success, but it is hardly consistent with the feelings and usages of the medical profession to herald them forth in this fashion. We are not surprised to find that the line he has elected to adopt has not met with the approval of his brother officers serving in the same province; and we have no hesitation in pronouncing his proceedings in this matter unprofessional."

As soon as this criticism was brought under Dr. Hall's notice, without giving or asking explanations, he was ill-advised enough to institute criminal proceedings against Dr. McLeod, the editor, and Mr. Wyman, the publisher, of the *Indian Medical Gazette*. The case came on for trial before the magistrate of Allahabad, the most eminent counsel at the Calcutta Bar being employed on both sides. The action was brought for the offence of defamation, under Section 499 of the Indian Penal Code, with its "explanations" and "exceptions". The magistrate convicted the two defendants, Dr. McLeod being sentenced to pay a fine of 300 rupees, or, in default, to suffer imprisonment for one month; and Mr. Wyman, the publisher, to pay a fine of 150 rupees, or, in default, to suffer imprisonment for fourteen days. The ground on which this judgment was based was most extraordinary, and excited astonishment in legal circles. According to the judgment of the magistrate, the question turned, not on the point whether the remarks in the *Indian Medical Gazette* came fairly under the clause in the Penal Code under which the action was brought, but on the quite irrelevant question whether Dr. Hall's conduct was "professional" or "unprofessional". The

magistrate came to the conclusion that Dr. Hall's conduct was "professional", and that to say it was otherwise was a criminal libel! That, in a few words, when stripped of the legal verbiage in which it was wrapped up, was the gist of the judgment. Against this judgment, the defendants appealed to the High Court of the North-Western Provinces; and, after argument, Sir R. Stewart, C.J., gave judgment, to the effect "that the conviction before him in this appeal cannot stand, but must be, and is, set aside; the sentences are quashed, and the fines imposed on the defendants are remitted". Sir R. Stewart did not think that Dr. Hall's advertisement deserved to be thought unprofessional, and did not approve the terms in which it was criticised; but he laughed at the attempt to bring it within the 499th section of the Penal Code, and showed that Dr. McLeod's observations came fairly within the "exceptions" to that section. The judge, after saying that the prosecution had utterly failed, expressed a strong opinion that it ought never to have been undertaken; adding that, if Dr. McLeod's criticism was to be made the subject of legal complaint at all, it might more appropriately have been considered by a civil court; although he was careful to add, "that, if this course had been followed, he did not think, if Dr. Hall had been plaintiff in a civil court, he would have had a better chance of success than he has had in these proceedings".

We congratulate the defendants on this just termination to their anxieties and troubles. It is not too much to say that, if the judgment of the magistrate had been upheld, the editing and publishing a professional journal in India would have been surrounded by so many terrors, that no sane man would undertake one or the other. We cannot but agree with the judge in what he said as to Dr. Hall's conduct in this matter. We do not say that one brother officer should never, under any circumstances, bring an action for criminal defamation against another, for cases might arise in which no other course was open to a man deeply injured in reputation; but we do say that, to drag a brother officer into a criminal court on such a trumpery charge as this, was a proceeding of which we highly disapprove. Dr. Hall might have known that the columns of the *Indian Medical Gazette* were open to him to give such explanations as he might desire; having done so, he might with great propriety have left the matter to the judgment of his brother officers and the profession generally. The course he adopted was unusual, if not unprecedented, in military life, and we feel sure will not be approved by his civil brethren in this country.

THE SMALL-POX HOSPITAL QUESTION.

Mr. N. C. Collier, Medical Officer of Health for the District of Fulham, reports to his board against the policy of the Asylums Board in deciding to increase their accommodation at the Fulham Small-pox Hospital by 250 beds. Mr. Collier thinks that, by the contemplated action of the Asylums Board, small-pox may be introduced into the Fulham district by means of the officials who convey the cases to the hospital; by means of the officials at the hospital itself; and by means of infected persons, relatives of patients, visiting at the hospital, and taking refreshments in the locality, where, he thinks, they might spread small-pox by passing infected money. Mr. Collier does not think that the disease is propagated by atmospheric infection; but says, truly enough, that "it is of little consequence to the inhabitants of a district whether the disease is spread from or through the hospital. The important question for them is: Whether the disease occurs in the district as a direct, or as an indirect, result of the hospital? Their lives and fortunes are equally sacrificed in either case". Just so. Let all this be granted. What is the objection to those, whose lives and fortunes are in danger from the presence of small-pox hospitals, protecting themselves by efficient vaccination and revaccination? This, properly done, is a remedy ready to everybody's hand, and the protection which it gives is practically absolute. As Dr. Collie said, in a recent paper on this subject: "If the vaccinated child may safely suckle from its small-pox mother, and the vaccinated nurse safely tend the small-pox patient, a small-pox hospital will be no source of danger in a properly vaccinated neighbourhood." That small-pox hospitals are some danger to the public, will probably be admitted by all reasonable persons. This is not the question. The real question is: Whether such necessary dangers as may attend them are or are not, more than a little, fully compensated for by their advantages? The street traffic is a danger, and one of no mean order, to the public; but, does any person propose to have it stopped? Travelling by land and sea is a danger to the public; but, does any person propose to give up this means of locomotion? Briefly, almost every act of our lives involves some risk; but, just as no sane person proposes that we should commit suicide to escape the risks attendant upon living, so no sane person proposes to endanger the lives and fortunes of, possibly, a whole community, to escape the risks to a few, even if the risks be those arising from a small-pox hospital, leaving altogether out of account the absurdity of people crying out about a danger from which they may save themselves by a few scratches on the arm.

It is apparently just now the fashion to think only of the danger attaching to small-pox hospitals; their great value is apparently entirely forgotten.

A CORONER'S VERDICT.

A strange story of a coroner's inquest reaches us from Worcester. James Bateman, a furniture broker of the town; his wife (a stout woman aged 45), to whom he had been married many years; Mrs. Bateman's father; and a little girl (Ellen Snape), adopted by the Bateman's, spent the evening of the 14th of December together, at the private residence of James Bateman. At 10.30 P.M., Mrs. Bateman went to bed. From the evidence, both of her father and of the little girl, it is certain that, on the evening in question, Mrs. Bateman was intoxicated—apparently no unusual condition for her. At 11 o'clock, James Bateman went to bed. At half-past 12 the next day (the 15th), James Bateman sent for Mr. Brown, a surgeon, to see his wife. On his arrival, he found her lying on the bed dressed, breathing stertorously, and mucus issuing from her mouth and nostrils. Her right eye was black and swollen, but there was no abrasion of the skin. This was the only injury Mr. Brown noticed. In reply to Mr. Brown, the husband answered (in substance) that "on awaking at about four or five o'clock, he heard his wife breathing loudly. He then got up, lit the gas, and looked at her. He thought she was breathing heavily. He then put out the gas and went to bed. At eight o'clock, he got up and went about his business, leaving her asleep, thinking it best that she should have her sleep out. After this, she got up and attempted to go upstairs, but in doing so had fallen. He then picked her up and laid her on the bed". She died on the evening of the 15th. Mr. Brown very properly communicated with the coroner, who directed him to make a *post mortem* examination. This he did, assisted by two other medical men, Dr. Crowe and Mr. Wilding. "On opening the scalp, there was a bruise noticed just above the right ear. There was a good deal of blood underneath the bruise, and on the surface of the skull. The skull was not fractured. There was a bruise on the external part of the head, but no abrasion of the skin. On the right side of the dura mater, there was great extravasation of blood. The liver showed that the deceased was a woman addicted to drink."

The question was: Did the deceased die from apoplexy, or from the effects of an accidental fall; or, was the cause of her death homicidal violence?

The coroner (Mr. R. T. Rea) held his inquiry. From the evidence of a single witness (to use his own written words), "he considered that a *primâ facie* case of murder had been made out against the husband of the deceased". He at once adjourned the inquiry; and directed that James Bateman, the husband, should be taken into custody. He refused bail, on the ground that a coroner had no power to grant it. At the adjourned inquest, evidence was tendered by the prisoner's solicitor, to prove the drinking habits of the deceased; but this the coroner refused, as immaterial to the inquiry. He allowed a solicitor, however, to appear for the prisoner; but declined receiving nearly all the evidence he wished to offer—even that of the two other medical

men present at the *post mortem* examination. The coroner *read* his summing up; in other words, he placed before the jury a summary of the evidence prepared before it had been given. The summing up of a judge (and a coroner holds the position of a judge in his court) is for the purpose of assisting a jury to a proper verdict on the evidence given. It is not his business to do the work of the jury—nor even to suggest to them what their verdict should be. How far Mr. Rea's summing up fulfilled these conditions, we leave our readers to judge. He says:

"Now for the grounds of the conclusions at which I have arrived. The first question in this case was and is: Is there a homicide? and the answer to that, to my mind, is: There is, by a blow; and I believe two blows were given to the deceased. Next, Who is the homicide? and the answer to that is, The husband of the deceased. Why? Because he is the only person capable of giving such blow or blows that was in the house with the deceased on the night in question; and is the person suspected of doing so from the facts. Then: Has he relieved himself of the legal presumption arising from the killing? and my answer to that is, No; consequently, he is presumably guilty of murder; and I so direct you to find by your verdict." The jury, however, declined; and passed a verdict that "the deceased died from the effects of a fall or falls, whilst in a state of intoxication".

The coroner, however, *on his own authority*, ordered the sergeant to take the husband before the magistrates, and charge him with the wilful murder of the deceased. Three days later, James Bateman was brought before the bench, but the charge was unanimously dismissed; the magistrates adding, that Bateman left the court without a stain upon his character.

We ourselves are at a loss to see in this case a particle of evidence to suggest homicide. There are cases of this kind, we admit, where difficulties occur; but we fail to see them here. Nor, indeed, do we quite follow or admit the argument of Mr. Brown (which appears to us rather to favour the notion of a blow having been given), that the injury to the eye was too great to have resulted from a fall on the carpet; but too slight, considering the absence of abrasion, to have been caused by a fall on the stairs. The case seems to us clear enough; and we agree with the decision of the coroner's jury and of the magistrates. But other considerations of a wider nature arise out of this case. A coroner, we know, is supreme in his court to hear or refuse whatever evidence he pleases; but, in refusing evidence, he takes upon himself a responsibility which no wise man would think of. A coroner, again, however great his power and authority, is not the jury; and the verdict must be given by them, and not by him. A summing up means a recall of the evidence as a whole, and the bearing of one part on the other; but the conclusion or conclusions to be drawn from it, is no part of a summing up.

Further: Every day the necessity seems becoming more marked, that coroners and juries should clearly bear in mind that the one object of "an inquest" is to discover the cause of the death of the person on whom the inquiry is being held. There is no need for a coroner's inquest to clash with a magisterial inquiry. At the inquest, the only question before the jury is: What was the cause of death? Before the bench, the question is: Whether a criminal charge can or cannot be fixed on the case under review? Admitting that these questions do occasionally overlap and interlace, and that, therefore, no rigid lines should be drawn as to coroners' inquiries; we, nevertheless, think there are bounds which coroners should not pass; and that, in the case we are now considering, these bounds have been greatly exceeded.

It needs great judgment to conduct an inquiry where the question of murder or no murder is involved. Such investigations as those at Worcester would tend to bring discredit on inquests generally; and peril the dignity, and perhaps the ancient office altogether, of the presiding officer.

THE REGISTRATION OF INFECTIOUS DISEASE IN IRELAND.

THE effects of the energetic action taken by the Dublin Branch of our Association in the matter of the compulsory notification of infectious disease have speedily made themselves felt. Amongst the earliest of the Bills printed this session is one backed by the names of Mr. Edmond Gray, Mr. Brooks, and Mr. Dawson, proposing to make such notification compulsory in all places where the local authorities desire it. The Bill, which to a large extent follows the language of the model clause prepared by Mr. Ernest Hart for the Parliamentary Bills Committee of the Association in October 1879, recites that "it is desirable that due notice should be given to sanitary authorities in Ireland of the existence of dangerous infectious diseases within their district"; and proposes to enact that, upon the application of any sanitary authority, the Local Government Board for Ireland may declare the Act to be in force within the district, or any part of the district, of the authority (Section 3). If any inmate of any building used for human habitation in such district be suffering from small-pox, cholera, scarlatina, typhus, typhoid, puerperal, or relapsing fever, diphtheria, measles, or erysipelas, the medical attendant—or, if there be no medical attendant, the occupier or other person having the management or control of the building—is forthwith to inform the sanitary authority of the case, giving particulars as to the name of the inmate, the situation of the building, the name of the occupier, and the nature of the disease (Sections 4 and 5). Forms for certificates by the medical attendant are to be supplied gratuitously by the sanitary authority, who are to pay a fee of a shilling for each such certificate. More than one fee is not to be payable within an interval of thirty days to the same medical practitioner for certificates given by him in respect of the same disease occurring in the same building; and in the case of workhouses, gaols, and public hospitals, no fee is to be payable (Section 6). The sanitary authority may from time to time, subject to the approval of the Local Government Board, include any other acute infectious disease within the provisions of the Act (Section 7); and the maximum penalty for non-compliance with the Act is fixed by Section 8 at five pounds.

We believe we are correct in saying that, by the introduction of this Bill, the important question of the compulsory notification of infectious disease is now for the first time formally brought before the House of Commons. Looking to the growing desire of sanitary authorities throughout the kingdom, for powers such as Mr. Gray's Bill would confer, it may be worthy of consideration, whether this Bill should not be referred to a representative Select Committee of the House, in order that the whole question may be thoroughly sifted, and that the form which future legislation shall take may be settled. The opinion of the Government, which Mr. Forster told a recent deputation he would take upon this matter, has not yet been formulated; nor does it seem likely to be whilst subjects more immediately pressing monopolise the attention of the Cabinet. A Select Committee would bring out just the points upon which the Government will doubtless desire further information, and would usefully pave the way for the introduction by the Ministry of a measure, making the notification of infectious cases, in its most desirable form, a bounden duty upon every law-abiding citizen.

AT the meeting of Convocation of the University of London, which is to be held on Tuesday next, it will be proposed that female graduates be admitted to Convocation.

DURING the thirteen weeks ending on Saturday, 1st instant, the metropolitan death-rate averaged only 20.9 per 1,000, against 23.7 and 24.4 in the corresponding periods of 1878 and 1879.

BY the will of the late Mr. Stanford, F.R.S., recently deceased, a munificent bequest is made to St. Mary's Hospital of the sum of £25,000. With this fund a wing will be erected, which will bear the name of his mother, Mary Stanford.

At the meeting of the Academy of Medicine in Paris on December 14th, M. Legouest was elected President, and M. Gavarret Vice-President, for the ensuing year.

The *Allgemeine Wiener Medicinische Zeitung* celebrates its twenty-fifth anniversary. Under the direction of Dr. Kraus, its editor and proprietor throughout the whole period, the *Allgemeine Weiner Medicinische Zeitung* has reached an important position in journalism, and largely influences medical opinion and aids the progress of medical science at home and abroad.

In consequence of the prevalence of scarlet fever in Truro Union, the medical officer of health for the district, Mr. G. H. Whitley, has recommended the sanitary authority to impress on the Burial Board and the ministers of the various religious bodies the inadvisability of taking the body of any one who has died from an infectious disease into any church or chapel, as such a proceeding in his opinion would be most unwise.

The Recorder of Hull has given his decision in a case which had been heard at the previous sessions, and in which damages were claimed from the School Board authorities. While correcting a boy, a pupil teacher let a steel pen drop from behind his ear, and the pen, falling into the eye of another boy, named Cherry, caused injuries which resulted in depriving the eye of sight. The Recorder held that the board came under the provisions of the Masters and Servants Act, and assessed the damages at £100. The question of using steel pens in schools has been under consideration in France, as we have already noted in these pages.

HOSPITAL SATURDAY FUND.

At the annual meeting of the Board of Delegates connected with this Fund at Charing Cross Hospital, Mr. S. Morley, M.P., in the chair, Mr. J. W. Parr, the secretary, read the seventh annual report of the council, which stated that the last annual collection realised £6,604, of which £1,398 was raised by street collections, and £5,206 by means of *employés'* sheets, etc. The total was an increase of £452 upon the previous year. Beyond doubt, the movement was spreading. The representative body of working men, by whom the fund was managed, had been elected by a constituency numbering many thousands of the industrial classes. The awards to the various hospitals and dispensaries of the metropolis by the Hospital Saturday Fund now reached a total of £33,251, of which £20,000 had been collected by workmen in their different workshops. Through representations made by the council, ten hospitals and twelve dispensaries had made special provision for the attendance of patients after working hours, and other kindred institutions were considering the question. Nearly 9,000 "letters" were received from the various hospitals and dispensaries which participated in the awards last year, and these letters had been carefully distributed. The president, in moving the adoption of the report, alluded to the expenses of conducting the movement, which had diminished from a percentage of 29.81 in 1874, to 14.73 in 1880. He recommended that they should rather seek to increase and develop the workshop collection than expand the street collection. He was glad to see that they had succeeded in securing the attendance of medical men in the evening at the hospitals, etc., so that workmen might not suffer in pocket by their having to visit those institutions in the daytime. Mr. R. Fremer, chairman of the council, seconded the motion, which, after some discussion, was passed unanimously.

PROVIDENT DISPENSARIES AND INFECTIOUS DISEASES.

London officers of health do not seem to regard with much favour the provident dispensaries set up in various parts of the metropolis, where the independent poor receive medical advice, or at any rate medicine, at a very low figure. Speaking of these dispensaries, in a recent report to the vestry of Kensington, Dr. Dudfield observes: "I regret to have to say that I do not think such institutions have proved of any benefit in this parish in the way of preventing the spread of infectious disease, *e.g.*, by increasing facilities for the poor obtaining medical advice at a cheap rate. On the contrary, many cases of illness have occurred in connection with these establishments which, but for their existence, would have come under the observation of the district Poor-law medical officers, and would have been removed to hospital. We have not received information of illness from their proprietors, and I cannot say that they have shown any great anxiety to further the efforts of the vestry's officers to remove the cases to hospital when discovered, but rather the reverse. It is reported, moreover, that, in some instances at least, the medical assistance rendered to sick children is of a nominal character: the practice being for the mothers to report progress at the dispensary from time to time, when fetching fresh supplies of medicine. During the four weeks covered by this report, seventeen out of fifty-two cases of scarlet fever in the north district were 'dispensary' patients; three of them died, and not one was removed to hospital. Nor did we receive information of the illness in a single instance."

CLINICAL SOCIETY OF LONDON.

The following is the list of officers and council of the Clinical Society of London, proposed for election for the year 1881. *President:* *Joseph Lister, D.C.L., LL.D., F.R.S. *Vice-Presidents:* *W. H. Broadbent, M.D.; T. Buzzard, M.D.; A. Clark, M.D.; R. B. Carter; *G. Lawson; T. Smith. *Treasurer:* Christopher Heath. *Council:* J. Althaus, M.D.; T. Barlow, M.D.; *J. Cavafy, M.D.; J. Goodhart, M.D.; *W. R. Gowers, M.D.; *W. S. Greenfield, M.D.; G. V. Poore, M.D.; E. S. Thompson, M.D.; A. Wiltshire, M.D.; *J. Burney Yeo, M.D.; M. Beck, M.S.; W. B. Dalby; *H. G. Howse, M.S.; C. Macnamara; *F. Howard Marsh: *E. Nettleship; L. W. Sedgwick, M.D.; W. F. Teevan; *E. T. Watkins, M.D.; W. Spencer Watson. *Honorary Secretaries:* Frederick Taylor, M.D.; *J. Warrington Haward. The election will take place at the annual meeting, which will be held this (Friday) evening. The gentlemen whose names are marked with an asterisk (*) were not on the council or did not hold the same office during the preceding year.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

At the annual general meeting held January 10th, 1881, the following members were elected as officers and councillors for the year 1881. *President:* T. A. Rogers, Esq. *Vice-Presidents* (Resident): J. Walker, Esq.; J. S. Turner, Esq.; C. S. Tomes, Esq. (Non-resident): Alfred O'Meara, Esq. (India); J. E. Rose, Esq. (Liverpool); S. L. Rymer, Esq. (Croydon). *Treasurer:* J. Parkinson, Esq. *Librarian:* F. Weiss, Esq. *Curator:* S. J. Hutchinson, Esq. *Honorary Secretaries:* J. H. Mummery, Esq. (For foreign correspondence): F. Canton, Esq. (Council); T. F. K. Underwood, Esq. (Society). *Councillors* (Resident): J. Oakley Coles, Esq.; W. H. Woodhouse, Esq.; E. Saunders, Esq.; T. C. White, Esq.; G. Wallis, Esq.; W. F. Henry, Esq.; A. Coleman, Esq.; H. Moon, Esq., J. Stocken, Esq. (Non-resident): W. A. Hunt, Esq. (Yeovil); T. W. G. Palmer, Esq. (Cheltenham); T. J. Browne-Mason, Esq. (Exeter); W. Williamson, Esq. (Aberdeen); J. E. Palmer, Esq. (Peterborough); W. Fothergill, Esq. (Darlington).

ALLEGED DEATH FROM VACCINATION.

At a recent meeting of the Truro Board of Guardians, a letter was read from Mr. F. G. H. Whitley, public vaccinator to the St. Agnes district, in reply to a letter read at the previous meeting from Mr. Cragoe, alleging that a child had died in the district as the result of vaccination. Mr. Whitley stated that, as he vaccinated the infant, he felt it his duty to state that death was caused by scarlet fever, and not by vaccination, as stated by Mr. Cragoe. Mr. Wm. Whitworth attended the child, and certified to the death as "scarlet fever". Considering that the fever appeared eighteen days after vaccination, and therefore twelve days before the effects of the vaccination could have passed off, he did not wonder that the child's arm was subject to inflammation and abscess. Several other children were vaccinated from the same lymph, and in all

cases the vaccination ran a healthy and mild course. Had this child escaped the other disorder, he was sure no fatal result would have happened.

MEASLES AT WELLINGBOROUGH.

AN outbreak of measles of extraordinary dimensions and of unusually malignant type has lately occurred at Wellingborough. During November and December, no fewer than sixty deaths occurred from this disease alone, in a population of about thirteen thousand persons. The greater number of the fatal cases appear to have been of children between the ages of one and two years. Energetic measures have been taken for the repression of the epidemic, and it is now dying out.

MANCHESTER MEDICAL SOCIETY.

AT the annual meeting of the society, held at Owens College on January 12th, the following office-bearers and members of committee were elected for 1881. Those marked (*) did not hold office the previous year. *President:* *E. Lund, F.R.C.S. *Vice-Presidents:* *J. Broadbent; *J. Hardie, M.D.; *G. Stevenson, M.D.; and Walter Whitehead. *Treasurer:* F. A. Heath. *Secretary:* C. J. Cullingworth. *Honorary Librarian:* T. Windsor. *Other Members of Committee:* *H. Ashby, M.D.; J. Dreschfeld, M.D.; *A. Gamgee, M.D., F.R.S.; C. E. Glascott, M.D.; *R. Hopwood (Stalybridge); T. Jones, M.B.; *J. D. Mann, M.D.; *H. C. March, M.D. (Rochdale); *S. Moritz, M.D.; J. C. Peatson, M.D.; *E. Rayner, M.D. (Stockport); *W. Yeats, M.D. The above, with the past presidents of the society and two representatives from the council of Owens College, form the committee. The following were appointed auditors: *A. M. Edge, M.D.; and *A. Hodgkinson, M.B. Dr. Glascott is the editor of the society's proceedings. The report stated that the number of members now on the roll was 219, as compared with 208 last year. During the past year, 1,357 volumes had been added to the library, which now numbers (excluding duplicates) 25,252 volumes.

CAMBRIDGE MEDICAL SOCIETY.

THIS Society, which was formed only about a year ago, and now comprises most of the medical men in the locality, held its anniversary meeting on Friday, the 7th instant; and, after considering the serious business of the day, adjourned to M. Brauvet's Restaurant in Cambridge, for a social gathering. About twenty-five gentlemen sat down to a most elegant dinner, including several guests, among whom was the Mayor of Cambridge. Professor Paget, M.D., took the chair, and several toasts were proposed. Dr. Paget gave "The Health of the Society"; Dr. Bacon that of "The President"; and Dr. Latham, Dr. Bradbury, and others spoke. Altogether, the meeting was of a very pleasant character, and showed a, perhaps, unusual amount of friendly feeling amongst local practitioners. A review of the year's contributions to the Society shows an unusual amount of valuable material considering the age and size of the Society. We wish it every success. Dr. Paget's presidency is popular, and his health was received with the most evident cordiality.

THE PARKES MUSEUM OF HYGIENE.

IN connection with the course of lectures on Dwelling-Houses which is now being given at this Museum, Mr. Edward C. Robins lectured on Saturday last on "Ventilation, Lighting, and Warming". Mr. Robins recommended the study of the works of reference in the Museum library, particularly the works of the late Dr. Parkes. The principles which should be carried out in providing for the ventilation of dwellings were explained, and illustrated by the many kinds of apparatus exhibited in the Museum, such as the Arnot and Sheringham valves, Verity's water-power ventilator, the Currall ventilator, and the architrave ventilator —an adaptation of the Currall patent. The system known as "Tobin's" was shown to have been introduced a hundred years ago, by Mr. Whitehurst of Oxford. Lighting and warming were considered as part of the subject of ventilation. To light or warm properly, it was necessary to provide for the exit of the products of combustion. Benham's and Faraday's ventilating gas-lights were explained and commended; and, in connection with oil-lamps, the Libra lamp (Hopkinson's patent) was shown. The Libra lamp, it was said, would burn for upwards of eighty hours without any attention after lighting. Several old and new stoves were shown and described. Mr. Robins was repeatedly applauded during his lecture, which was listened to with evident attention and interest by a full audience, numbering a proportion of ladies.

THE SANITARY ASSURANCE ASSOCIATION.

THE Board of Trade have provisionally approved the memorandum and articles of association under which this Association is to be incorporated and the following gentlemen have been elected on the Honorary Council: Sir Richard Temple, Bart.; Sir Garnet Wolseley, K.C.B.; R. Brudenell Carter, F.R.C.S.; Andrew Cassels; Arthur Cates, F.R.I.B.A.; Dr. R. Farquharson, M.P.; Professor E. Frankland, F.R.S.; Captain Douglas Galton, C.B.; R. B. Grantham, M.Inst.C.E.; Hon. Chandos Leigh; J. Norman Lockyer, F.R.S.; Professor John Marshall, F.R.S.; Dr. W. S. Playfair; Dr. G. V. Poore; Professor G. Rolleston, M.D.; George J. Romanes, F.R.S.; William Spottiswoode, Pres. Roy. Soc.; H. P. Symonds, F.R.C.S.; Major H. Tulloch, R.E.; Professor John Tyndall, F.R.S.; John Whichcord, Pres. Roy. Inst. B.A.; and Colonel Yule.

DR. STENHOUSE.

THE death is reported of Dr. John Stenhouse, F.R.S., who died on December 31st, in the seventy-second year of his age. *Nature* mentions that he was a native of Glasgow, where he was educated and long resided. A pupil of Graham and of Liebig, he devoted all his time to research work in the domain of organic chemistry. He was a Royal Medallist of the Royal Society; LL.D. of Aberdeen; and one of the founders of the Chemical Society. On removing to London, he was appointed Lecturer on Chemistry in St. Bartholomew's Hospital, London, but was obliged to resign in 1857, owing to a severe attack of paralysis. This, however, did not deter him from continuing his scientific studies, which were a labour of love to him. He was the inventor of the charcoal respirator, of the charcoal ventilator for sewers, and of a process of rendering fabrics waterproof by means of paraffin. In 1865, he succeeded Dr. Hofmann as non-resident assayer to the Royal Mint, but was deprived of the appointment when the office was abolished by Mr. Lowe in 1870.

HOSPITAL MISMANAGEMENT.

AT a meeting of the Norfolk and Norwich Medico-Chirurgical Society, held at Norwich, on January 4th, 1881, the following resolution was moved by Mr. Alan Reeve Manby, seconded by Dr. Bateman and Mr. Cadge, and agreed to unanimously: "That this meeting, reprobating the systematic exclusion of the medical officers from the government of hospitals, tenders its sympathy to the medical staff of Guy's Hospital in the present crisis." The resolution is timely, and well conceived. This principle has been conceded in the recent changes at the York Road Hospital, on the basis laid down by the medical officers, Dr. Fancourt Barnes and Dr. Hayes. They have succumbed in the fight; and have received scant kindness and but little consistent support from some of their professional brethren in London, from whom they might have reasonably expected a more fruitful sympathy. Nor, as the resolution of the Committee of the Metropolitan Counties Branch, referred to in Dr. Habershon's letter, published in to-day's JOURNAL, indicates, do they seem likely to receive any redress from appeal to the tribunal so constituted. The result obtained, however, has been a substantial gain for the general career of good hospital government; and the establishment of an important precedent for the removal of an objectionable *régime*, by the admission of the acting physicians as members of the weekly board, and the direct subordination to them of the nursing administration. This result has only been achieved at the cost of a direct personal injury to Dr. Fancourt Barnes and Dr. Hayes, by preliminary resignation; and that others have been found, temporarily and permanently, at once to step into their places, is not encouraging, to say the least. But the resolution of the Metropolitan Branch Council shows

that, at least, greatly to our surprise, they see nothing unsatisfactory in it; nothing which calls for any expression of other than approval, and that they decline to sustain any charge or complaint arising out of it. The grounds of the verdict of acquittal do not appear, but its terms admit of no doubt. —The fight at Guy's is progressing more satisfactorily than some people suppose, although it is yet far from being ended. A false move on the part of the medical officers laid them open to a serious check, and some public and professional reproach; but there is no doubt of their earnestness and determination, any more than there is of the reasonableness of their cause, and the moderation and firmness with which they are prepared to maintain it, and of the sympathy with which the entire profession and the public will follow them. It is well known that serious reasons exist for apprehending a similar difficulty at the London Hospital. Without entering prematurely into details of the present state of affairs, which is one of a threatening character, it may suffice to say that the pretensions of the nursing department, headed by the matron, are being raised there to a standard which threatens the medical efficiency of the institution, and the independence of the staff in the exercise of their necessary discretion for the welfare of the patients. The London Hospital staff may rely upon the unanimous support of the profession; and it is certain that public opinion will not tolerate the pretensions which are now being put forward by half-educated persons, and by supporters of special forms of religious observances, to make the nurses, who should be the instruments of the doctors and the attendants of the sick, virtually the rulers of the wards.

CHOLERA IN BRITISH BURMA.

THE epidemic of cholera in Burma, to which we referred on page 1034 of the second volume of the JOURNAL for 1879, seems now to have, to a large extent, died out. The epidemic, which commenced in 1876, and reached its maximum intensity in July 1878, continued during the early part of 1879, although it could then hardly be termed epidemic. The disease caused 445 deaths in January, and gradually diminished, only 31 deaths in November and 60 in December having been recorded from it. The towns of the province enjoyed special immunity. Rangoon, with nearly a hundred thousand people, had only 21 deaths; and it is worthy of note, that one of its most thickly peopled quarters has been free from cholera ever since the new water-supply was brought thither. In five districts, there was some cholera; and the district of Mergui suffered severely. As far as can be judged, this freedom from epidemic cholera was due mainly to the circumstances of the season; but it was in part also due to the sanitary improvements which have already been effected in the larger towns.

SANITARY PROGRESS IN BRUSSELS.

THE recently published report on the operations of the Health Department of Brussels during 1879 is a very valuable document, and gives a number of highly interesting particulars with regard to the different departments of municipal work carried on in the city. The vaccine department, open every day in the year, performed 3,003 vaccinations and revaccinations gratuitously, or 442 more than in 1878. For the vaccinations, the animal lymph of the Milan institution is used. For four years this lymph has been employed, and it continues to afford remarkable success. Medical men and public bodies, recognising the efficacy of the lymph, made frequent requests for it, and 752 charges were, in 1879, disposed of in this way. The sanitary inspection of schools was continued, and it is stated that the importance of this branch of the department's work increases from year to year. The inspection of the schools is now entrusted to eleven medical men, or three more than in the previous year. There seems to be a system of "preventive medication" carried on in the schools, as well as a dental department. During the year, the number of detailed inquiries into cases of infectious disease rose from 159 in 1878 to 248. The supervision of processes of disinfection was, as in former years, entrusted to special agents attached to each division of police. In no case was any opposition raised by the householders to the performance by these officers of their somewhat inquisitorial duties. A total of 324 deaths was registered from zymotic diseases, or 45 more than in the previous year. An epidemic of measles was prevented from spreading beyond the district where it first broke out by the prompt action of the sanitary officers. An ambulance of an improved model has been constructed for infectious disease, and a police ordinance prohibiting all public vehicles from taking any passengers suffering from infectious diseases is now in preparation. A comparatively large number of deaths due to delirium tremens and intoxication were registered, the total being 26, against 21 in 1878. The growing habit of intemperance amongst a portion of the inhabitants is noticed with regret. The infant mortality of Brussels is unduly high, and, with the view of remedying this state of affairs, the department has issued some plain and simple instructions to mothers as to the care of infants, and the dangers of certain popular prejudices. These instructions have been distributed broadcast, and a copy is given whenever a birth is registered. Three murders were registered; and 51 suicides (9 of women), against 35 in 1878. No fewer than 46 stations, spread over different quarters of the city, have been provided with the necessary apparatus for the assistance and transport to hospital or home of persons who have met with accidents or become suddenly ill. Four prosecutions were instituted during the year against irregular medical practitioners: an example which our English authorities would do well to follow. A total of 675 samples were examined by the public analyst, and proceedings were taken against 39 persons for adulteration. A total of 47,227 kilogrammes of meat were seized by the inspectors of markets as unwholesome and not fit for the food of man, besides a large quantity of different kinds of fish. Sanitary works were carried out in 446 houses, and 199 places were disinfected which had been occupied by persons suffering from infectious disease. As in former years, a general inspection was made of the schools, hospitals, prisons, slaughter-houses, markets, public baths, theatres, and other public establishments, with the result of once more finding that notable sanitary and other improvements have been made in them. Action so thorough and complete as the above facts indicate may well make the more earnest of our English municipalities envious. On the Continent, the Brussels system is now being largely followed, the towns of Havre, Rheims, Nancy, and Marseilles having, amongst others, lately set up sanitary departments on the model of that at Brussels.

PUBLIC HEALTH IN SPAIN.

SPAIN has, in recent years, been one of the few European countries relating to which no satisfactory vital and mortal statistics are available. We are, however, in receipt of a monthly return of mortality statistics for November, relating to the whole of Spain, which affords conclusive evidence that the value of such information is now fully appreciated by the Government of that country. In the publication of a monthly return of mortality statistics for the entire kingdom and each of its forty-nine provinces, with certain information as to the ages of the decedents and of the causes of death, Spain places itself ahead of most of the other European countries as regards statistical enterprise. Spain, according to a recent census, has a population of between sixteen and seventeen millions of persons; the population of the forty-nine provinces ranging from 93,861 in Alava to 838,214 in Barcelona. There is one statistical defect in this monthly bulletin, which will probably ere long disappear. The rate of mortality given in the return before us is the proportion of deaths in November (or rather in the four weeks ending November 28th) to 1,000 of the enumerated population. Such a rate is obviously of little value for comparative purposes, as, if weekly, monthly, quarterly, and annual rates were all calculated in this way, it would be necessary to keep in mind four standards of death-rates by which to judge them. Thus the Spanish return makes the death-rate in the kingdom during the four weeks of November 2.003 per 1,000; this is equivalent to an annual rate of 26.1 per 1,000. This rate shows a marked excess upon the average rate during the same period in the twenty large English towns. It is evident, moreover, from the rates prevailing in some of the provinces containing the largest towns, that urban mortality in Spain must be very excessive. For instance, the November annual death-rate in the province of Madrid was equal to 36.8 per 1,000; in

Cadiz, 34.2; and in Valladolid, 34.1. As in most of the southern countries of Europe, the rate of infant mortality in Spain is terribly high. During November, the mortality of infants under one year of age was equal to 242 per 1,000 of the recorded births, not far short of twice the rate prevailing in England and Wales. If we may accept these November figures as representing an average return, the excess of Spanish mortality is mainly due to the fatality of zymotic diseases. The 33,457 deaths from all causes during November included 8,092 from what are classed as infectious diseases, of which 1,043 were referred to small-pox, 961 to diphtheria and croup, 959 to typhus and typhoid fevers, and 1,286 to dysentery. In addition to these, 2,096 resulted from intestinal catarrh and infantile cholera. Thus no less than 33 per cent. of the deaths would be classed as zymotic, in accordance with the Registrar-General's system of classification, equal to an annual rate of nearly 8 per 1,000. Very few of the Spanish provinces were free from fatal small-pox, which caused 113 deaths in Madrid, 105 in Oviedo, and 127 in Orense. Typhus fever appears to be more fatal in Spain than enteric fever, and caused 95 deaths in Barcelona, and 71 in Oviedo. The return, on the whole, is a most valuable statistical contribution, and can scarcely fail to afford invaluable assistance to the cause of sanitary progress in Spain. To attain this end, annual rates should be substituted for the proportions of the monthly deaths to the population.

SMALL-POX IN THE METROPOLIS.

THE managers of the metropolitan asylums, have been in active correspondence with the Local Government Board, with regard to the steps to be taken to provide for the great increase of small-pox in London—an increase still going on. A special meeting of the managers has been held, under the presidency of Dr. Brewer, to consider an important letter from the Local Government Board. This was in reply to communications which had been made to the central authority by the managers, pointing out the peculiar position in which they were placed by the law proceedings in the case of "Hill *v.* the Metropolitan Asylums Board." By the great delay which had arisen in the hearing of the appeals with regard to the managers' power, the Hampstead Asylum, with its 300 beds, had been shut from the use of the poor committed by the Act of 1867 (Gathorne Hardy's Act) to the special charge of the managers, and they were unable, by threats of like proceedings, to take fresh sites. As the epidemic of small-pox was increasing at a rapid rate, the managers laid the matter before the Local Government Board, and sought to ascertain what steps should be taken to provide additional accommodation—whether it should be afforded by building fresh wings to the Deptford Asylum, by erecting temporary buildings, or in any other way. In reply, the President of the Local Government Board stated that he had considered the representations made to him as to the difficulties caused by the action of the courts, in depriving the managers of the means whereby the sufferers from small-pox could be isolated instead of being in the various localities—a deprivation of the utmost importance to the community at large. The Local Government Board deprecated the proposal of the managers to increase the beds by permanent buildings, on the sites of existing asylums, and held that it would not be well to build galvanised iron pavilions. They thought that wooden huts might be erected in the grounds of the asylums at present in work, and they gave the managers the necessary authority to do this in such cases as might be found necessary. Mr. Jebb, the clerk, then described the condition of the metropolis at the present time. During the last three weeks, there had been 287 admissions of small-pox patients to the hospitals of the managers at Homerton, Stockwell, Fulham, and Deptford, and 143 discharged, while 42 had died. The number remaining under treatment, 442, showed an increase of 119 over the last return. Of these patients, 140 were at Homerton (where there were no beds vacant, this asylum having to take all the cases which would go to Hampstead), 107 at Stockwell, with only 13 beds vacant, 64 at Fulham, and 131 at Deptford. The Board had also 404 fever cases (78 of which were of enteric fever, and the remainder scarlet fever cases) against 444 at the date of the last return. On the presentation of these figures, the managers agreed to erect huts for 70 small-pox patients and staff in the grounds of Deptford Asylum. Sir E. H Currie and Inspector-General Bostock urged that the chairman should, through the press, inform the public of the causes which rendered the managers powerless, in face of the hampering action of the law, to provide for the cases which the vestries are anxious should come under the charge of the managers—namely, the non-pauper cases of fever and small-pox, for whom the vestries are empowered to make provision. The work of caring for the cases now sent under the relieving officers' orders taxed greatly their energies, it was remarked; and, until the law was determined, the managers could do no more even for the pauper poor than utilise to the utmost the space at the existing asylums.

REVISION OF THE GERMAN PHARMACOPŒIA.

THE revision of the *German Pharmacopœia* began on October 15th, on which day the Commission appointed for the purpose commenced a series of sittings, presided over by Dr. Struck, for the purpose of making preliminary arrangements, and concluded their work on the 25th of the same month. A further meeting of the Committee will be held, probably next Easter, for the final revision of the text; meantime, the editing is intrusted to the chemists and pharmaceutists of the Commission, with the addition, as medical experts, of Professors Ziemssen, Gerhardt, and Eulenberg. The composition of the Commission is very comprehensive, and is considered in Germany to be very happy, including the representatives of all those who are interested in the work—physicians, public medical officers, clinicists, pharmacologists, chemists, and apothecaries. We quote it here because it is interesting as compared with that of our British Pharmacopœia Committee. The clinical and pharmacological departments were represented by Herren Binz (Bonn), Eulenberg (Greifswald), Fraentzel (Berlin), Gaethgens (Giessen), Gerhardt (Würzburg), Husemann (Göttingen), Jaffe (Königsberg), Jürgensen (Tübingen), Nothnagel (Jena), Rossbach (Würzburg), Volkmann (Halle), Ziemssen (Munich); the medical practitioners and district physicians by Herren Housselle (Berlin), Kersandt (Berlin), Kerschensteiner (Munich), Koch (Stuttgart), Reinhardt (Dresden), Salzer (Carlsruhe); chemists and pharmaceutists by Herren Fehling (Stuttgart), Flückiger (Strassburg), Hilger (Erlangen), Otto (Brunswick), Voleck (Breslau), Reichardt (Jena); the apothecaries by Herren Brunnengräber (Rostock), Dugend (Varel), Jassoy (Frankfort), Schacht (Berlin), Wolfrum (Ausburg), and Wimmel (Hamburgh). The imperial Prussian War Ministry was also represented by Chief Staff-Surgeon Wolff (Berlin), Staff-Surgeon Preusse (Berlin), and Apothecary Körner (Altona). Many of the conclusions adopted are of interest in reference to the probable revision of the *British Pharmacopœia*. The new pharmacopœia, unlike the old Prussian, Austrian, and Swiss pharmacopœias, will be published in the German language, including the heading of each article, to which, however, the Latin titles will be added. The title of the new edition will be *Arzneibuch des Deutschen Reiches*. Only two voices were raised, it is said, against this resolution; those, it is believed, of Flückiger and Poleck, who considered it might be inconvenient not to have the pharmacopœia in the international Latin tongue, especially in reference to the possibly approaching international pharmacopœia. This was overruled, however, on the ground that such an international pharmacopœia is still far distant; and that, even if it should be published, it will certainly very rapidly be translated into the language of each country; just as all Latin pharmacopœias have always had alongside of them translated pharmacopœias of much greater popularity. The Commission has treated the question of striking out unnecessary drugs and preparations in a very radical fashion. It is said that, of 797 articles in the *German Pharmacopœia*, no fewer than 370—that is to say, nearly a half—are eliminated by this Commission. Among them are acetum colchici, aconitin, ammonium carbonicum pyro-oleosum, valerianates of bismuth and of quinine, bromine, prepared shells, elemi, dry and inspissated ox-gall, several preparations of iron, kino, logwood, mastich, acetate of morphia, santonate of soda, oxymel of colchicum and of squills, guaiacum and scam-

mony resins, lactate and valerianate of zinc, etc.; as well as about half of the hitherto officinal distilled waters, plasters, extracts, ethereal oils, tinctures, and ointments. They are proceeding much more cautiously in adding new agents to the pharmacopœia. They have added salicylic acid, nitrite of amyl, apomorphin, physostigmin, jaborandi, and pilocarpin; on the other hand, they have rejected condurango, coto bark, quebracho bark, leaves of eucalyptus and the preparations thereof, araroba and chrysophanic acid, butyl-chloral, bromide of camphor, gelsemium, etc. In the matter of antiseptic dressing, materials have been added, as concentrated carbolic solution, and carbolic water prescriptions formulated for absorbent cotton-wool; catgut in three strengths, gutta-percha paper, thymol, and acetate of alumina. The constitution of this Committee appears to have enabled it to set to work with great vigour, and get through it with rapidity.

SCOTLAND.

By appointment of Her Majesty, Dr. James Law, a graduate of the University of Aberdeen, has become physician in attendance at the Court, and will at once enter on his duties, in succession to Dr. Marshall.

The Council of the Faculty of Physicians and Surgeons of Glasgow, have agreed to consider at their next meeting, in the beginning of February, any applications which may have been made for the position of Faculty Lecturer for 1881. The Lectureship, which is open to the whole profession, was established several years ago, mainly for the purpose of encouraging original research. The subject may be on any department of medicine, theoretical or practical. In past years, the lectureship has been held by Dr. B. W. Richardson, and Professor McKendrick.

ABERDEEN UNIVERSITY MEDICAL STUDENTS' SOCIETY.

This society met in Marischal College on Friday night. The subject for the evening, "the Telephone," was discussed by Mr. T. M'Kenzie Davidson. He introduced his subject by a reference to the fundamental laws of sound and electricity. After illustrating some of the phenomena by experiments, he proceeded to give an account of the first telephone, as constructed by Reiss of Friedrichsdorf, near Homburg. Reiss first conceived the notion of his instrument from a study of the mechanism of the organ of hearing. The telephone is adapted to the transmission of a great range of tones, and can thus transmit a melody. Professor Graham Bell, of Boston, improved considerably on the original instrument. With Bell's telephone, not only can well-known melodies be sent from a distance, but conversation carried on in an ordinary tone of voice. The telephone, he said, was undoubtedly one of the greatest scientific achievements of our time. A cordial vote of thanks, on the motion of the chairman, was awarded to Mr. Davidson, and the meeting terminated.

THE GLASGOW MATERNITY HOSPITAL.

The new buildings for the purposes of the above institution are now nearing completion, and will soon be ready for occupancy. The hospital is erected upon the site of the former building, and the situation is a very eligible one in every respect. The out-buildings, which consist of laundry, washing-house, and disinfecting-room, are commodious and complete, and are entirely detached and clear of the hospital itself. The lower storey of the main building is to be used as a lecture-room for students. On the ground floor, there are rooms for the different officials of the hospital, together with a board-room and reception-room for patients. Proceeding up the main staircase, admission is got to the first and second floors, which are occupied by wards for patients, and by nurses' rooms. The wards give accommodation for eighteen patients on each floor, allowing about 1,500 cubic feet of space for each patient. The ceilings of the wards are 13 feet high. The upper floor of the hospital consists of sanatorium and bedrooms for pupils, nurses, and servants. The lavatories for the several floors are placed in a wing behind, and are entirely disconnected from the main building, having a well-lighted and ventilated lobby between them and the hospital, cut off by double doors. The buildings are heated and ventilated after the most approved methods; and everything has been done in the construction of the hospital to render it salubrious, and suited for the class of cases that will be treated in it.

MEDICAL OFFICER OF HEALTH FOR ABERDEEN.

The question as to the appointment of a successor to Dr. F. Ogston, sen., as medical officer of health to the city of Aberdeen, came before a meeting of the Public Health Committee of the Aberdeen Local Authority on January 5th, on a special remit from that body. A considerable amount of discussion took place over the subject, the general feeling of the committee being that, if practicable, the duties of medical officer of health, police surgeon, public analyst, etc., offices which are held under the Town Council, and the duties of which are at present discharged by separate individuals, should be combined, and the entire services of a competent medical man retained for that purpose. A remit was made to a small sub-committee to report to a future meeting as to the duties and emoluments at present attached to the various medical appointments held in connection with the Town Council.

GLASGOW PHILOSOPHICAL SOCIETY.

At a meeting of the above society, held on the evening of January 5th, Professor McKendrick gave an address on the "Physiological Action of Anæsthetics", being chiefly an account of the investigations by the Glasgow Committee of the British Medical Association, a full report of which recently appeared in the JOURNAL. We think Professor McKendrick has acted wisely in thus still further directing public attention to a matter which is of such importance to the general public, seeing the great extent to which anæsthetics are employed in the present day.

ENTERIC FEVER AT EAST KILBRIDE.

Dr. Russell has recently submitted to his authority the following particulars with regard to a somewhat extraordinary outbreak of enteric fever at a dairy-farm in East Kilbride. During the last few weeks, facts, from time to time, came to his knowledge, relative to the risks attending the milk-supply of Glasgow, and therefore of towns in general, the best use of which seemed to him to be that they should be made public, On November 22nd, proceeding on private information, he despatched an inspector to the farm of ——, East Kilbride. He found the farmer and five of his family ill of enteric fever. The byre contained twenty-six cows, of which, however, only a few were in milk. There were fourteen inmates. Of these, six were ill of enteric fever; those in health were five children, a man-servant, a maid-servant, and the farmer's wife. There were, therefore, the wife and the maid-servant to nurse six sharp cases of enteric fever, milk and tend the cows, and carry on all ordinary household work. The milk was churned, and the products sold from the cart every fourth day in the streets of Bridgeton. The inspector requested the discontinuance of this trade, which was at once agreed to. On December 10th, Dr. Russell made a personal visit. Three more of the family were then ill. The general history of the outbreak was as follows. The farmer sickened on September 23rd. On October 31st, four daughters, aged 3, 13, 17, 18, and a son, aged 16, sickened. On or about November 26th, two sons, aged 7 and 15, and a few days later another son, aged 12, fell ill. The sanitary meaning of this is best expressed by describing the relative position of the house, its inmates, and internal economy, as at one point of time. There are five apartments, including the kitchen, only one of which—the attic-room, occupied by the man-servant—can be entered apart from the rest. The three family rooms (one in attic) all have their access from the kitchen. The farmer sat at the kitchen fire, being convalescent; in one room was a son, in another two, and in the third four more of the family, all in different stages of well-marked typical enteric fever. The youngest patient was also convalescent, and running about. The kitchen was therefore the common vestibule to the sick-rooms, through which all discharges and changes of

linen must be conveyed. From this a passage ran past the milk-house, through the scullery, to the byre. The scullery contained one boiler, and was the sole provision for domestic washings and for dairy purposes. A washing was in progress, the whole pavement was out of repair, and pools of soapy water were plentiful, extending outside over the spot in the yard pointed out as the site of the well. The mother and the maid-servant were the only agents for the performance of the whole duties of this household, situated as described; in addition to which, there was no convenience provided for this family of fourteen. In fact, all the conditions for the dissemination of the fever were perfect.

ROYAL INFIRMARY, EDINBURGH.

At the annual meeting of the contributors to the Royal Infirmary, held in Edinburgh last week, the report for the year, from October 1st, 1879, to October 1st, 1880, submitted, showed that, during that time, 5,013 cases had been admitted, which, added to the 302 cases in the infirmary on October 1st, 1879, gave a total of 5,315 for the year. Of this number, 2,559 were dismissed cured, 1,439 relieved, 423 dismissed on other grounds, while 436 died—thus leaving in the infirmary 458 at the end of the year. Medical cases contributed 2,189, surgical cases 2,310, and fever 358, of which 68 were scarlet fever. The majority of children were treated in the surgical wards. The daily average number of cases in the hospital was 469; the greatest number in at any time was 525; while the lowest was 208—this being when the number was reduced, as far as possible, to facilitate the removal from the old to the new buildings. The average duration of the cases was 31.6 days—this being a fraction under the duration during the previous year. Compared with the previous year, 126 more patients were treated during the past year. Edinburgh contributed 2,308 cases, Leith 297, and the country generally 2,252. The cases in which death occurred within forty-eight hours after admission numbered 85, being mostly those of severe injury, and almost hopeless from the beginning; and, when these are subtracted from the total deaths, the percentage mortality was 6.6. As to the Convalescent House at Corstorphine, there was an increase of 79 admissions on those of the previous year—822 convalescents having been admitted there; the average period of residence was 19.2 days, and the average number 43.3. In the out-door department, 15,000 patients received treatment. Financially, the year has shown considerable improvement; the ordinary income for the year being £21,540, compared with £18,699 the preceding year. The students' fees alone this year amounted to £4,179, showing an increase of £1,535 during the past year, due partly to increased number of students, and to the slightly larger fee charged. But, while the income has increased, the expenditure has also done so considerably, amounting to £27,818, as against £24,176 the previous year. This was, of course, to be expected, considering the increased requirements of the new buildings. The difference between the ordinary income and the actual expenditure is paid out of donations and legacies; and, after doing this, there was added to the capital of the institution £11,978. There was an increase of £10,413 in donations and legacies of over £100 on those of the previous year. The maintenance, in a certain portion of the old buildings, of a hospital for infectious diseases, has caused a considerable expense; but of a portion of this the managers will be relieved, when the city authorities carry out their intention regarding a fever hospital for the city, and which is at present under their consideration. The court of contributors has the power of electing six managers; and this was done by re-electing those who had acted as such last year. The report was not discussed in any way, as anything of that kind is left to a committee of contributors, who examine it, and report to a meeting to be held on January 17th.

REGISTRAR-GENERAL'S RETURNS.

From the returns of the Registrar-General for the week ending January 1st, it appears that the death-rate in the eight principal towns was 22.5 per 1,000 of estimated population. This rate is 2.6 under that for the corresponding week of last year, but 1.7 above that for the week immediately preceding. The lowest mortality was recorded in Paisley—viz., 19.1 per 1,000; and the highest in Leith—viz., 25.8 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.7 per 1,000, being exactly the same as for the previous week. Scarlet fever was again the most fatal, and caused 12 deaths in Edinburgh. Acute diseases of the chest caused 141 deaths, being an increase of 17 on the number for last week. The mean temperature was 32.6°, being 1.5° below that for the week immediately preceding, and 7.1° below that for the corresponding week of last year.

HEALTH LECTURES IN EDINBURGH.

The lecture specially addressed to women, in the course of health lectures at present being given to the working-classes, was delivered on Saturday, by Dr. Angus Macdonald, in the Free Assembly Hall, Edinburgh. Although none but women were present, the hall was completely filled. The chair was occupied by Miss Louisa Stevenson. The lecture was arranged under three heads: The Girl, the Young Woman, the Married Woman and Mother; and entered into the factors that constitute a healthy physical and moral training, the effects of recreation, education, dress, and employment; and the necessity for such conducing, as far as possible, to a healthy physical condition. The lecture was eminently practical in its bearings, especially that portion of it devoted to married women. The success of this course of lectures fully justifies the bringing of it into existence, and is, in itself, a reward to those members of the profession who have devoted time and trouble to it.

DUST, RAIN, AND FOG.

At a recent meeting of the Royal Society of Edinburgh, an important paper was read on "Dust, Rain, and Fog," by Mr. John Aitken, of Falkirk. The communication was very interesting, and was illustrated by a number of successful and conclusive experiments. Mr. Aitken's results may be briefly summarised as follows. A vapour does not condense under ordinary circumstances when cooled below its boiling point, except on a free surface; that is to say, that if steam, for instance, be blown into a receiver filled with ordinary air, a white cloud is immediately formed by the condensation of the vapour on the innumerable particles of dust; but if a jet of steam be blown into a receiver filled with air which has been filtered through cotton-wool, no cloud is observed. The same fact was demonstrated by means of another experiment. A large inverted flask was fitted with a cork, through which passed a tube communicating with the air-pump. Over the interior surface of the cork was placed a little water. When the flask was filled with filtered air, no effect was produced by exhausting with the pump; while, with the flask filled with ordinary air, a cloudiness was immediately apparent, which increased in density when the working of the air-pump was continued. By using a flask containing air not perfectly free from dust, an effect resembling a shower of rain in minute drops was produced on rapidly withdrawing a portion of the air. Among other things, it was shown that the fumes of burning sulphur (sulphurous acid will not do) have a powerful effect in producing fog. Into a receiver in which a grain of sulphur had been burned, a jet of steam was blown. This instantly caused a dense fog, through which nothing could be seen, and which continued to fill the receiver for a much longer time than if the atmosphere had simply consisted of unfiltered air. From these and other observations which Mr. Aitken has made, he concluded that, if the air were free from dust, we should have no clouds, rain, or fogs; but that the excessive moisture would slowly condense on the surface of the earth, on the trees and houses, keeping them constantly wet. He was also of opinion that the large amount of sulphur daily burned in the coal-fires in London was a principal factor in the production of "pea-soupy" fogs in that city.

The Meteorological Society.—The annual general meeting of the Society will be held, by kind permission of the Council of the Institution of Civil Engineers, at 25, Great George Street, Westminster, on Wednesday, the 19th instant, at 7 P.M., when the Report of the Council will be read, the election of officers and Council for the ensuing year will take place, and the President will deliver his address.

IRELAND.

THE gross receipts from the Bazaar and Fancy Fair, recently held in aid of the funds of the Belfast Royal Hospital, amounted to £1,333 2s. 7d.

THE Queen has appointed Dr. Benjamin George M'Dowel one of the Physicians in Ordinary to Her Majesty in Ireland, in room of Dr. Alfred Hudson, deceased.

THE death is reported of Dr. John Lever, of Gowran, county Kilkenny, which took place on the 23rd ult., aged 48. Dr. Lever was medical officer to Gowran Dispensary District, and visiting physician to Gowran Fever Hospital.

NOTIFICATION OF INFECTIOUS DISEASES.

ARISING out of the action taken by the Dublin Branch of the Association, Mr. Gray, M.P. for Carlow and ex-Lord Mayor of Dublin, has given notice of a Bill to provide for the better information of sanitary authorities in Ireland in cases of outbreaks of dangerous and infectious diseases.

THE HEALTH OF DUBLIN.

ALTHOUGH the epidemic of small-pox which Dublin has so long suffered from has gone, it is to be feared that the disease has almost become endemic in the city. Not a week elapses without one or two admissions of small-pox cases into Cork Street Fever Hospital. There is as yet no material diminution in the number of admissions of typhus cases, some of which are of a very serious form. One hundred and sixty-three cases of typhus were under treatment in Dublin hospitals on the 1st instant.

BELFAST HOSPITAL FOR SICK CHILDREN.

THE committee have received donations amounting to upwards of three hundred guineas, in response to the late special appeal made for funds to pay off the debt existing on the building fund of the institution. The debt now due amounts only to £100—a sum which, we trust, will be obtained before the annual meeting of the friends of the hospital, which has been arranged to be held on the 28th instant.

DETERIORATION OF WATER.

AT a monthly meeting of the Chemico-Agricultural Society of Ulster, held last week, Dr. Hodges said that the most remarkable analysis he had made during the past month was the water of a well at Castle Upton. The water in July last was examined, and found excellent; but a specimen now gave a total of 371 parts of solid matter—171.5 minerals, and 131 of chlorine. He suggested the probability of a bed of salt being in the vicinity. Some years ago, chalk was found there; and chalk was sometimes accompanied by salt, which would explain the impurities of the water at present.

OUTBREAK OF FEVER AT TANDRAGEE.

AN alarming outbreak of fever has recently taken place at Tandragee, county Armagh, upwards of one hundred persons being attacked. Twelve deaths have taken place within three weeks. The exact character of the fever does not appear to be understood; one suggestion being that it is a form of enteric fever due to contaminated water; and another, that the cases are examples of blood-poisoning, known as splenic fever among the lower animals, and in the human subject as woolsorters' disease. Impure water is most probably the exciting cause of the outbreak.

GUY'S HOSPITAL.

AT a meeting of the council of the Metropolitan Counties Branch, held on January 10th, the resolutions passed at a special general meeting of the South London District, held on December 14th (see BRITISH MEDICAL JOURNAL, December 18th, 1880, page 997, col. 1), were taken into consideration, and the following resolution was adopted by a very large majority: "That this council regrets that the second resolution passed at the South London District meeting on December 14th, being at variance with Law 19 of the branch, should have been permitted to be proposed to and passed by the said meeting."

MEDICAL REFORM.

CONSIDERABLE progress has been made, in the course of the conferences which have been held during the last few weeks, among the leading representative bodies in the medical profession, chiefly at the instance of Dr. Jacob, representing the Irish Medical Association, towards a general understanding on points of medical reform. As the result of the conference, Dr. Waters of Chester, the Chairman of the Reform Committee of the British Medical Association, acting in sympathy and concert also with other allied bodies, has promoted a Bill to amend the Medical Acts, which will be introduced in the House of Commons by Mr. Hardcastle, M.P., of which notice was duly given on the first day of the sitting of Parliament. It may be hoped, and there is reason to believe, that this will be the only Bill—a Bill which will in the main represent the views of all parties. It will include all the main points of medical reform on which the profession has pronounced with so much force and general unanimity, while the views of the Scotch and Irish universities and corporations will be respectfully considered. It would be premature to say more at this moment; but we believe that the prospects of medical reform are at the present moment more encouraging than they have been for the last twenty years; and that the views of the profession will be so represented in the Bill of Mr. Hardcastle, that it may hope to escape opposition of any serious character from any quarter whatever.

THE BRITISH MEDICAL BENEVOLENT FUND.

As a new year's message, we would beg leave to repeat this week the appeal which we have already made on behalf of the British Medical Benevolent Fund, one of the most valuable institutions of the kind connected with the profession, and one in which the members of the British Medical Association will always feel a particular interest. We should be glad to bind more closely the ties which associate the British Medical Association with this valuable and beneficent organisation, and with that view shall be glad to publish from week to week lists of contributions. We hope during the ensuing year to be able to devise some plan by which the connection between our Association and the British Medical Benevolent Fund may be made much more fruitful in good, much more extensive, and much more productive than it has been of late years. With that view, we publish to-day a list of contributions, and shall be happy from time to time to find space for further lists. We hope that the offering may show that the hearts of our associates are inclined to mercifully consider the wants of those whose sufferings may be mitigated and soothed by the free-will offerings of those who can give freely of their abundance, or who, with yet more gentle self-denial, can spare something from their more modest competence to gladden the hearts of the sick, the distressed, the widowed, and the orphan. The good gifts of the British Medical Benevolent Fund are distributed with the utmost discrimination and without any office expenses, by an organisation which consists almost exclusively of voluntary workers.

First List of Contributions.	£	s.	d.
Sir Thomas Watson, Bart.	10	10	0
Sir James Paget, Bart.	10	10	0
Prescott Hewett, Esq.	10	10	0
W. S. Savory, Esq., F.R.S.	10	10	0
Dr. George B. Brodie	10	10	0
Edwin Saunders, Esq.	10	10	0
Dr. George Johnson, F.R.S.	10	10	0
Dr. Chadwick (Tunbridge Wells)	10	10	0
Dr. C. B. Radcliffe	10	10	0
The Editor of the BRITISH MEDICAL JOURNAL ...	10	10	0
Erasmus Wilson, Esq., F.R.S.	10	10	0
Dr. Habershon	10	10	0
William Allingham, Esq.	10	10	0
William Bowman, Esq., F.R.S.	10	10	0
J. Cooper Forster, Esq.	10	10	0
Dr. W. O. Priestley	10	10	0
Dr. H. J. Haviland (Cheltenham)	10	0	0
T. H. Hills, Esq.	5	5	0
Henry Burdett, Esq.	5	5	0
Dr. Bucknill, F.R.S.	5	5	0
S. W. Sibley, Esq.	5	5	0
Dr. Waters (Chester)	5	5	0

Mr. and Mrs. Lawson Tait (Birmingham)	5	5	0
John Marshall, Esq., F.R.S.	5	5	0
Jonathan Hutchinson, Esq.	5	5	0
Professor Humphry, M.D., F.R.S. (Cambridge)	5	5	0
Alfred Willett, Esq.	5	5	0
Surgeon-major R. F. Tobin (Netley)	5	0	0
C. V. (Brighton)	5	0	0
Thomas Bryant, Esq.	3	3	0
Samuel Cartwright, Esq.	3	3	0
A Gift from Malvern	3	0	0
Dr. Granville Bantock	2	2	0
W. Morrant Baker, Esq.	2	2	0
Dr. Lionel Beale, F.R.S.	2	2	0
Charles Arnison, Esq. (Darlington)	2	2	0
Reginald Harrison, Esq. (Liverpool)	2	2	0
A Physician (*per* Jonathan Hutchinson, Esq.)	2	2	0
Dr. Fancourt Barnes	1	1	0
R. Lord, Esq.	1	1	0
Dr. J. Althaus	1	1	0
W. H. A. Jacobson, Esq.	1	1	0
George H. Rogers, Esq.	1	1	0
George Eastes, Esq.	1	1	0
Dr. Edmund Shaw (Southport)	1	1	0
Dr. F. H. Spencer	1	1	0
Dr. T. W. McDowall (Morpeth)	1	1	0
A. Rund, Esq.	1	1	0
F. Manser, Esq. (Tunbridge Wells)	1	1	0
C. W. Chaldecott, Esq. (Dorking)	1	1	0
T. Hickes, Esq. (Cheddar)	1	1	0
Dr. W. Jelly (Madrid)	1	1	0
W. Carmichael, Esq. (Hastings)	1	1	0
Dr. Percy Boulton	1	1	0
Dr. C. Holman (Reigate)	1	1	0
Camphor	1	1	0
M.R.C.S. (*per* Jonathan Hutchinson, Esq.)	1	1	0
A. R. Manby, Esq. (East Rudham)	1	0	0
Dr. G. C. Dale (Upper Tooting)	1	0	0
Surgeon-major J. N. Davis, M.D. (*per* Dr. Duffey, Dublin)	0	16	0
Surgeon-major H. H. Maclean	0	10	6
Dr. J. Candy	0	10	6
John Holden, Esq. (Preston)	0	10	6
Dr. J. W. Miller (Dundee)	0	10	6
Dr. Stanley Haynes (Malvern)	0	10	6
Dr. O. R. Prankerd	0	10	6
Benjamin Barrow, Esq. (Ryde)	0	10	0
Dr. W. Marshall (Osborne)	0	10	0
G. Chater, Esq. (Tenby—*per* Dr. S. Haynes)	0	10	0
Henry Thomas, Esq. (Sheffield)	0	10	0
Dr. Andrew Davies (Cardiff)	0	10	0
T. Drake Leigh, Esq. (Liverpool)	0	10	0
J. Roche Lynch, Esq.	0	10	0
Dr. J. Y. Totherick (Wolverhampton)	0	10	0
Dr. Alfred Pullar (Cheltenham)	0	10	0
Dr. Spencer Thomson (Torquay)	0	10	0
J. Mitchell Wilson, Esq. (Doncaster—annually)	0	5	0
Dr. C. D. Connor	0	5	0
W. Berry, Esq. (Wigan)	0	5	0
W. Bartlett, Esq. (Deal)	0	5	0
Dr. Mackintosh (Glasgow)	0	5	0
W. Yates, Esq. (Falmouth)	0	5	0
Dr. A. J. Barker	0	5	0
W. H. Roots, Esq. (Kingston-on-Thames)	0	5	0
W. P. Lewis, Esq.	0	5	0
Dr. W. H. Allchin	0	5	0
R. Hewetson, Esq. (York)	0	5	0
J. Jamieson, Esq. (Edinburgh)	0	5	0
Dr. H. F. Williams (Southsea)	0	5	0
W. Vance, Esq. (North Woolwich)	0	5	0
T. Wilson, Esq. (Wallsend-on-Tyne)	0	5	0
C. A. Walters, Esq. (Cheltenham)	0	5	0
Dr. W. Fairbanks (Wells)	0	5	0
Dr. C. R. Bree (Colchester)	0	5	0
A. S. Underhill, Esq. (Great Bridge, Tipton)	0	5	0
Deputy Surgeon-General D. Cullen (Carlisle)	0	5	0
Dr. A. H. Balfour (Edinburgh)	0	5	0
W. P. Lewis, Esq. (Anglesey—*per* S. Haynes)	0	5	0
W. Harrison, Esq. (Matlock)	0	5	0
J. Gardner, Esq. (Bungay)	0	5	0

These amounts have been paid over to the Treasurer of the Fund, who will have forwarded to each donor a separate receipt. We trust that further subscriptions and donations will be largely forthcoming, and that, in an early issue, we may have the satisfaction of publishing a second list.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE quarterly meeting of the Council of the College was held on Thursday, the 13th instant. The minutes of the ordinary council meeting on the 9th ultimo, were confirmed. The report from the committee on further examinations for the Fellowship and Membership was received and adopted. In this it was recommended: 1. That there be four, instead of two, examinations in Medicine; 2. That the examination on the Principles and Practice of Medicine, both written and *vivâ voce* be extended, and do include the examination of patients; 3. That from and after the 1st January, 1882, every candidate presenting himself for the final examination, whether for the diploma of Member or Fellow, be required to pass an examination in Midwifery, unless he shall possess a recognised qualification in Midwifery, or before obtaining the diploma shall produce a certificate of having passed the necessary examinations entitling him to a recognised qualification in Midwifery; 4. That there be two examiners in Midwifery; 5. That the examination in Midwifery be partly written and partly *vivâ voce;* 6. That candidates who have passed the examination in Midwifery for the Membership, or any equivalent one, shall be exempt from it for the Fellowship. The report of the committee on preliminary examinations was received and adopted. The committee recommended to the council that the preliminary examinations for the diplomas of Member and Fellow of the college, conducted by the College of Preceptors under the authority of the college, should cease from and after the 31st December, 1881, and that in future candidates for the diploma of Fellow be not required to undergo any preliminary examination beyond that required for the diploma of Member.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.—The next meeting of this District will be held at the house of Stephen Alford, Esq., 61, Haverstock Hill, on Thursday, January 27th, at 8.30 P.M., when the following papers, etc., will be read. Dr. Potter will bring forward for discussion the propriety of establishing a home hospital for North London. Mr. Pearce Gould will exhibit a patient upon whom he has operated and cured of a varicocele; and will explain his mode of operating. Mr. Lennox Browne will read a paper on the Differential Diagnosis of Cancer, Syphilis, and Phthisis in the Throat, illustrated by drawings from nature thrown on a screen by means of the Oxy hydrogen Magic Lantern.—T. STRETCH DOWSE, Honorary Secretary, 14, Welbeck Street, January 12th, 1881.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting of the above District will be held on Thursday afternoon, the 20th instant, at the Bow and Bromley Institute (adjoining Bow Station on the North London Railway) at half-past four o'clock; Cornelius Garman, Esq., in the chair. Dr. Herman will read a paper on "Prolapse of the Ovaries". Oral communications on cases of interest will be made by the chairman, Dr. Daly, and Mr. Greenwood.—FREDERICK WALLACE, Honorary Secretary, 243, Hackney Road, E.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.—The next meeting will be held in the Board-room of the Infirmary, Worcester, on Thursday, January 20th, at 2.30 P.M. Members willing to read papers or cases will please communicate with the Honorary Secretary some days beforehand. The following papers are promised: 1. On some points on the Chemical Examination of the Urine: Dr. Swete. 2. General Results of one hundred cases of Chorea treated in the Worcester Infirmary: Dr. Strange. 3. The use of Belladonna in certain cases of Hernia: Mr. Batten. Dinner at Mountford's, High Street, at 4.45 punctually. Tickets, exclusive of wine, four shillings. Members intending to dine will please intimate same to the Honorary Secretary, Dr. CROWE, Worcester.

DUBLIN BRANCH.—The fourth annual general meeting of this Branch will be held in the Hall of the King and Queen's College of Physicians in Ireland, Kildare Street, on Thursday, January 27th, 1881, at 4 P.M. Dr. Robert McDonnell, F.R.S., President of the Branch, will deliver an address; and the officers and council for the ensuing year be elected. By the kind permission also, of the President and Fellows, the annual dinner will be at the College of Physicians, at 7 P.M. on the day of the meeting; the incoming President of the Branch, Dr. Hayden, in the chair.—GEORGE F. DUFFEY, M.D., Honorary Secretary, 30, Fitzwilliam Place, Dublin, January 1st, 1881.

BATH AND BRISTOL BRANCH.—The third ordinary meeting of the session will be held at the Bristol Museum and Library, on Thursday evening, January 20th, at half past seven o'clock; Wm. Wait, Esq., President. The following communications are expected. 1. Discussion on Dr. Goodhart's cases of Pseudo-Hypertrophic Muscular Paralysis, and Dr. A. W. Fox's case of Progressive Muscular Atrophy. 2. Exhibition of a new Freezing Microtome and other Histological Apparatus: R. Rowlands, M.B. 3. Primary Healing and Antiseptics: J. Greig Smith, M.D. 4. Notes of three cases of Antiseptic Ovariotomy: N. C. Dobson, Esq. 5. Transference of Senses: J. G. Davey, M.D. E. MARKHAM SKERRETT, R. S. FOWLER, Honorary Secretaries, Clifton, January, 1881.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT.

AN ordinary meeting of the above District was held on December 8th, 1880, at the George Hotel, Portsmouth. Dr. ERNEST ELLIOTT of Purbrook occupied the chair; and twenty-five gentlemen were present.

New Members.—Five new members were elected.

The Case of Mr. O'Brien Jones.—The following resolution was unanimously adopted: "That the warmest sympathy of the members of the South-East Hants District of the Southern Branch be presented to Mr. A. O'Brien Jones, with reference to the recent law-suit in which he has been involved; and that all the members be invited to contribute to the fund which is now being raised for the purpose of indemnifying him for the great pecuniary loss he has sustained."

Communications.—The following communications were made,

1. Dr. Brook exhibited a specimen of Cancer of the Cardiac Orifice of the Stomach.

2. Mr. G. H. Snowden exhibited a number of Gall-Stones, taken from a patient who had never manifested any hepatic symptoms.

3. Mr. F. Morley showed a Fœtus, in which the Abdominal Walls were completely fissured in the median line. The cord was attached to the right side of the fissure, and the whole of the abdominal viscera protruded externally. The heart, covered with the diaphragm, appeared below the ribs. The bladder and uterus were entire, and their surfaces exposed; the liver had fallen over to the left side, and formed the presenting part—the feet lying close to the right side of the head. It was the first child of a well-made woman of twenty, with no history of fright or accident during pregnancy. The child was still-born.

4. Mr. W. C. Bland, Superintendent of the Borough Lunatic Asylum, Portsmouth, read a paper on a Case of Long-maintained fixed Position.

SPECIAL CORRESPONDENCE.

MANCHESTER.

Threatened Small-pox.—Small-pox Hospital at Bury.—Alterations in Manchester Royal Infirmary.—Medical Society of Manchester.

IT is now four years since the last serious outbreak of small-pox occurred in this city and surrounding neighbourhood, sacrificing some hundreds of lives. At the present time, Manchester, which has for many months been absolutely free from this disease, appears threatened with another outbreak. At Bolton, Walkden, and some other places within the Barton rural sanitary authority, and especially at Bury, some alarm has already been created, and it were well for the inhabitants of this city, generally, would they but be wise in time, and protect themselves by a prompt revaccination. Judging, however, from past experience in this matter, it is to be feared that this protection will be but very partially made use of, so that when the loathsome pest shall once have found its way here, there will be plenty of material ready for it on which to thrive and spread.

The corporation of Bury have bestirred themselves, and have recently acquired the largest of the wooden structures lately used by the Manchester Royal Infirmary (pending the structural alterations of that building), and are rapidly removing it to Bury for use there, as a small-pox hospital, to meet the present emergency.

The alterations within the infirmary are now completed, and all the patients have been removed from the huts to the interior of the building; but not yet is Manchester to altogether lose the unsightly wooden buildings which have so long disfigured the centre of the city; the one on the eastern side of the infirmary is to be retained as a temporary nurses' home, until a more permanent building is erected for the accommodation of the nursing staff; but a serious obstacle to the completion of this is the impoverished condition of the infirmary funds. Already nearly £20,000 have been expended upon alterations and additions out of capital account, in addition to a considerable excess of ordinary annual expenditure over income; and the appeal, which was put forward to the public by the board of managers for increased support, has not hitherto been responded to in anything like a satisfactory manner. It is, however, to be hoped, that in this wealthy city, and with an improved state of trade, the required help will not long be withheld from Manchester's oldest and largest charity.

The last meeting of the Medical Society was an unusually large one, the attraction being a series of nervous cases, chiefly of spinal sclerosis. Dr. Morgan read a paper on lateral sclerosis, and illustrated his remarks with several cases in various stages of the disease, whilst Dr. Dreschfeld showed, by means of the oxy-hydrogen light, some sections of a cord taken from a patient lately under treatment in the infirmary.

CORRESPONDENCE.

THE GENERAL LYING-IN HOSPITAL.

SIR,—I have the pleasure of sending, for publication in the BRITISH MEDICAL JOURNAL, a copy of the Report of the Subcommittee appointed by the Council of the Metropolitan Counties Branch to consider the conduct of Dr. W. C. Grigg in taking charge of the General Lying-in Hospital. The report was presented at a largely attended meeting of Council held to-day, and was unanimously adopted.—I am, yours truly,

S. O. HABERSHON,
President of the Metropolitan Counties Branch.

70, Brook Street, W., January 10th, 1881.

(*Copy of Report.*)

The charges contained in the letter of Dr. Fancourt Barnes in reference to the conduct of Dr. Grigg in connection with the General Lying-in Hospital have been investigated by the Subcommittee, and they report to the Council, that they find the charges are not substantiated; and they believe that, in the course which Dr. Grigg has followed, he has not been guilty of anything inconsistent with professional propriety. (Signed) S. O. Habershon; A. P. Stewart; C. Macnamara; E. Hart Vinen; Walter Dickson; Septimus W. Sibley; Andrew Clark; Charles Davidson.

GUY'S HOSPITAL.

SIR,—The medical officers of Guy's have been unwilling for many reasons to discuss their affairs in public, although the most erroneous impressions are afloat as to their conduct. They had hitherto thought, however, that they were receiving the sympathy of the profession, but now it seems, because there has been no shout of victory, that they are to be charged with supineness or even cowardice. Every one is at liberty to form his own opinion on our conduct, but I would suggest that it would be wiser for him to obtain a knowledge of the facts before he puts it before the profession. If Dr. Stewart had done this, he would not have penned his most inaccurate and misleading letter. I do not want a controversy with him, but must entirely repudiate his gratuitous statement that after the retirement of our senior colleagues the unanimity of the staff had ceased. If he had taken the pains to inquire of any one of the thirty teachers at Guy's, he would have learned that we have been occupying much time, and been holding numerous meetings, in the pursuit of the course which we have always had in view. I can assure him and others that the work of reformation, so ably commenced by Dr. Habershon, is still being carried on, and that we shall not desist until we have placed our hospital on the basis which we first proposed.—I am your obedient servant,

SAMUEL WILKS.

Grosvenor Street, January 12th, 1881.

SIR,—The letter of Dr. A. P. Stewart, like those of all writers on the Guy's dispute, fails to convey a complete view of the whole affair. It is impossible for your readers to understand the true position until a full account is given. I protest against the conclusion drawn from the imperfect accounts which have appeared. When the time has arrived, of which you must leave us the right of judging, we shall make a statement respecting the dispute, and our position; till then, we must beg your readers to suspend their opinions, and not in the meantime to conclude that we have accepted a position derogatory to the dignity of our profession.—I am yours obediently,

J. BRAXTON HICKS.

PHYSICIANS TO PROVINCIAL HOSPITALS.

SIR,—Allow me to thank you for ventilating this subject in the manner in which it was discussed in a recent number of THE BRITISH MEDICAL JOURNAL; and, at the same time, to endorse the remarks of "A Provincial Physician" in the number for January 1st.

In furtherance of these, I would suggest another advantage, both to the public and to the profession, of the adoption of such a scheme.

I can call to memory three or four large provincial hospitals which have vacancies in the medical staff, owing to the conditions which necessitate withdrawal from general practice of any hapless candidate; and, as a consequence, the posts are likely to remain unfilled indefinitely. Inasmuch as the hospitals in question are general, and the staff is composed entirely of surgeons in general practice, who are mostly elected in consequence of extra proficiency in surgical work, it follows that the large number of purely medical cases which must necessarily be admitted become the patients of surgeons, who have little taste for, or who are ill qualified to undertake the work

which should belong to those who have made medicine their special and favourite study. On the other hand, there are many able and highly qualified practitioners in the neighbourhood who would gladly accept office as assistant-physicians, and undertake the purely medical cases with more ability, and the benefit to the patient and physician would be considerable and mutual. May not this fault be in some measure remedied by the British Medical Association, by bringing up the subject at some of the Branch meetings, and by passing resolutions which should be sent to the governors of the hospitals where any such grievance is found to exist?

I certainly think that a little judicious agitation of this kind would bring about reform in this respect, and is well worth trying.—Yours faithfully, A LONDON GRADUATE.

SIR,—I am glad to see, from the letter of "A Provincial Physician" in the JOURNAL of January 1st, that the question of having at least one or two of the physicians to provincial hospitals chosen from among the general practitioners in the neighbourhood is coming to the front. It is very hard for one or two old or middle-aged men to be allowed to take entire charge of the medical wards of a large hospital, and leave unused a large quantity of material which would prove very valuable in the hands of younger men, who necessarily have more time and energy than their elder brethren. Instead of our provincial hospitals being made the means of increasing our knowledge of pathology and therapeutics, they are in many cases used as a kind of advertising medium for the physicians, who, while they profess to conform to the "rules" which exclude general practitioners, are themselves general practitioners in everything but the name. I could myself bring forward evidence of the truth of this statement; but such is not required, as there are very few of your readers who are not acquainted with the fact.

The pure consulting physician will soon be extinct in all towns unprovided with a medical school; and, if such be the case, it is high time that the rules excluding general practitioners from holding the appointment of physician should be abolished in such places.

I really cannot see how the dignity of the profession is increased by debarring men from any kind of honourable practice; and I agree with "A Provincial Physician" that men appointed under such exclusive rules do lose a great deal in not having an opportunity of becoming acquainted with simple ailments.

There are a great many young men, possessed of every necessary qualification, full of enthusiasm and a love of their profession, anxious to participate in the splendid opportunities for original clinical and pathological work which only a hospital can afford, who are compelled to spend the best years of their life waiting until kind fate enables them to accumulate enough money to allow them to devote their time to pure consulting practice; but, when that time arrives, they are far advanced in years; the enthusiasm is dimmed, and the accurate knowledge gone, which at an earlier date might have been utilised for the good of the profession and of the public.

I believe that if the number of physicians were doubled at all our provincial hospitals, and general practitioners allowed to compete for the appointments, the profession and the public would gain a great deal.—I am yours, etc., A GRADUATE IN GENERAL PRACTICE.

LUNATIC ASYLUMS IN IRELAND.

SIR,—I should like to make some comments on an article in the BRITISH MEDICAL JOURNAL of 25th December last, headed, "District, criminal, and private lunatic asylums in Ireland," and which mainly reviews the last published report of the inspectors, the heads of the department, who as such exercise the functions of commissioners. The article dilates upon two topics, the composition of the department, and the composition of the report. With regard to the first, it advocates an assimilation to the English and Scotch systems, trusting that the lines indicated in the Local-law commission of two years ago will not be followed. The Irish system seems to have been since its establishment peculiar. It started with some promise of development, but it appears to have always existed in a blighting atmosphere; at any rate, instead of expanding, it has contracted. I need not now trace the causes step by step; suffice to say that upwards of twenty years ago an attempt at re-organisation upon a principle similar to the one enunciated in your article was made, when the staff was larger and the asylums less. The proposed reform is a thing of the past—the voluminous blue-book remains. Even the examination of accounts was taken away from the department, and committed to the Local Government Board; hence, I presume, the origin of the proposal made a few years ago to "amalgamate" the department in its entirety with that board, whether as a distinct branch or otherwise, never appears to have come to the knowledge of outsiders. Later still, what is known as the "French Commission" sped—the result being, again, a blue-book, voluminous and statistical. In your article it is stated that the inspectors have, doubtless, exercised a very salutary influence on asylums in the past. It is quite true they have done so; under them new asylums have been built, and patients have greatly increased; the medical staff is also much indebted to them for their fostering care of their interests, and most likely now their supervision will continue to be exercised as long as they live, and a milder or kinder sway could not be wielded; but it is reserved for new men to do what your article suggests in matters of reform, and bring things to the surface. Seeing, therefore, no hope in the present—not alone on account of "the disturbed and anarchical condition of Ireland", as you may perceive, it remains only to "keep reforms in view", ever mindful of the fact of which your article takes no account, that there is another influence, which must either be propitiated or convinced by argument of a solid character—I refer to the Treasury, which has now in the matter a power which it had not under old schemes of reform. As you say, there can be no doubt that the formation of a board of three commissioners, not quite on the same level, something like the Irish Prisons Board, carefully selected for high-mindedness, efficiency, and different professional attributes, would meet the requirements of the case, carry weight with the Government, and secure public confidence. They would provide in a wise, moderate, and deliberate manner all needful reforms—not on the "new broom sweeping" principle, or from the point of view of their own variety—for it is to be regretted that pushing men of some ability, securing a start in the race, artfully insinuate themselves into the good graces of the powers, and generally carry off the prizes. They then give full swing to the motive power of all their acts, and unless their authority is carefully limited and defined, they soon degenerate into irresponsible autocrats. I fear now that the Treasury could not be induced to pay the cost of so expensive a machinery as that indicated; and, as an alternative arrangement, it might be suggested to merge the functions of commissioners in the executive. Two or three local inspectors, medical men, who would be rigidly restricted to the duties of inspection, in the same manner as the inspectors under the Local Government Board are, and a secretary as intermediate to carry on and control the office work, would have, no doubt, been found to supply all that is wanted in Ireland. Nothing need be said again in support of the plan of amalgamation, which appears to have collapsed.

Now with regard to the composition of the report, which you admit to contain much interesting information, though, as you go on to say, you rarely ever perused a public document presented to Parliament "which was composed in so slipshod a fashion, or which embodied more debatable matter," I may stop here in my quotations, as your strictures strengthen as they proceed. Debatable matter is, I presume, justifiable, if intended as such, to invite inquiry or provoke controversy; but I can make no attempt to defend your quotations generally from the severity of your criticisms; perhaps the writer could. I may only remark that a love of fine and hazy writing, characteristic as it is of the literature of our age, seems also to have infected the compilers of blue-books. It is not perhaps duly discriminated that a man may be a very able and impartial administrator, and have no great capacity as a writer, and *vice versâ*. Display upon paper covers a multitude of official sins, and self-seeking is promoted thereby. There are, of course, people who rush into the other extreme from precisely the same motives, and say, writing avaunt! Between two such stools, the result is what it should be.

Ten or twelve years ago the reports of the Irish inspectors were instructive documents, they had even pretensions to literary style; you have found the source of recent confirmed falling-off in the straining after originality, *namely* apologised for in the paragraph to which you refer; the level of the common-place and intelligibility being all that is required, and easy to preserve. Soaring above this, especially in erratic flights, the wings must melt. Keeping on the ground of facts is always safe. As you imply, the government does not look for literary merit in its officials, only capacity to draw up in the plainest language, and within the briefest limits, such statement of selected facts as will "check off" progress and suggest improvement. The report you have criticised, I am sure you will admit, certainly exhibits evidence more than enough to show that such capacity is not wanting, if only an appreciation of the situation and common-sense are allowed more voice in the matter.

At any rate, let us look forward with hope that at some one time we will be favoured with such a review of facts clearly and unpretendingly grouped, by which the great body of the public, as well as Government and Parliament, would obtain some degree of enlightenment as to the state of a department, which, as you are perhaps right in assuming for the reason mentioned, may attract a larger share of public attention at

no distant day. I need add nothing further to your trenchant comments; and, apologising for occupying so much of your space,—I remain yours faithfully, SCRUTATOR.

THE WORK OF THE ASSOCIATION AND INDIVIDUAL EXPERIENCES.

SIR,—Several suggestions have been made at different times with regard to collecting the fragments of knowledge accumulated individually by the members of the British Medical Association. I do not know whether the following plan has been brought forward. Supposing a committee, composed of men whose time from practice enabled them to study the various branches of medical science more deeply than their fellows, decided twice a year upon some subject which most required, and would be most profited by, the separate opinions and experiences of large numbers of medical men. At the next meeting of the various Branches of the British Medical Association throughout the country, this subject, among others, should be introduced and discussed, and facts and opinions collected upon it. This local material should then be sent up by the various secretaries to the central committee, and before the next half-yearly meeting the evidence collected should be embodied in some definite conclusions which could be submitted to the profession, through the JOURNAL. If this plan were adopted, I believe that some very valuable results would follow; at any rate, that it would not be the least of the advantages arising from our Medical Association.—Yours,

T. FREDERICK PEARSE, M.D.

LONDON STREETS.

SIR,—Allow me to draw the attention of the sanitary authorities, through the medium of your widely circulated paper, to the horrid filth allowed to remain in the streets of this city; not in by-ways, but in some of the largest and most fashionable streets. Filth of all kinds and description; ordure, both human and animal, is allowed to remain for days together, and no attempt is made to remove it, except that sent by nature in the shape of a shower of rain.

The different vestries might surely employ men of the able-bodied paupers, who are used for road-scraping, to extend their sphere of usefulness to the pavements as well.

I have only lately returned to the city after an absence of many years, and I cannot say that in this particular instance London has improved; it has rather retrograded, for I never remember a state of affairs so bad before. It reminds one more of an eastern city, than that of a civilised country.—Your obedient servant, T. d'O. PARTRIDGE.

London, January 10th, 1881.

DEATHS FROM ANÆSTHETICS.

SIR,—In the JOURNAL of December 18th, you publish a tabulated list of deaths during the administration of chloroform, ether, etc., and I observe that you say the list "shows how imperfectly deaths are reported. As several of our large surgical centres, such as Guy's and St. Bartholomew's hospitals, where the number of chloroform administrations must be very great, hardly figure in the list, although there is no reason to believe they have greater immunity from such accidents. ... It would be very desirable to ascertain the total average number of administrations in the hospitals of England, as, in that case, we should have an unequalled opportunity of ascertaining the real mortality from chloroform."

Now, sir, I think with you, that it is most important that not only the number of deaths, but also the number of administrations should be reported, and I do not consider that the statistics of any hospital are complete without the chloroform statistics.

For the chloroform statistics of St. Bartholomew's Hospital, where, as you surmise, the number of chloroform administrations is very great, I beg to refer you to the hospital statistical tables, which are published annually, and which are also appended to the *Hospital Reports*.

Statistical tables: 1875, p. 69; 1876, p. 112; 1877, p. 110; 1878, p. 116; 1879, p. 119. The statistics for past year not yet published.

"During the year 1880, anæsthetics were administered 2,542 times. Of these—

Chloroform was administered	1,055
Nitrous oxide gas, alone...	99
Ether, alone	43
Ethidene, preceded by nitrous oxide	41
Ether, preceded by nitrous oxide	1,304
	2,542

A man aged 61, suffering from strangulated inguinal hernia, died under the influence of ether. He had been delirious during the previous night. His pulse was irregular and very feeble; he had constant vomiting. The pulse became imperceptible, and finally respiration ceased. At the necropsy, the heart-substance was found to be slightly fatty; the cavities were nearly empty; no clots. The lungs were emphysematous, all the posterior parts were engorged with blood.

It will be seen from these references that during the six years anæsthetics have been administered in this hospital 11,721 times, and that of these chloroform was administered 4,810 times with two deaths; and that ether was administered 6,440 times with two deaths.

I might mention with regard to my own statistics, that in over 9,000 administrations I have met with but one death, and that was during the administration of ether to a man aged 47, suffering from intestinal obstruction, for which lumbar colotomy was undertaken. In the morning, he had a severe attack of dyspnœa. He was in a state of profound collapse at the time of the operation (4 P.M.), belly was tumid, his respiration shallow, and his pulse feeble. He vomited frequently, and after inhaling ether for ten minutes, became livid and never rallied. I ought to mention that I raised an objection against giving this patient ether.

As I did not come into office until the end of 1874, I have given references only to the statistics since that time. I believe that previously to 1875 they were not registered. Though the tabulated list you publish may show how imperfectly deaths are reported in the medical journals, I venture to think the references I have given show how accurately they are reported in one of the large surgical centres.

If, sir, you could impress the registrars of all the hospitals, who are, I believe, now considering the best means of publishing their statistics, with the importance of adding to their statistical tables the chloroform statistics, you would, I think, at the end of each year be enabled to publish a most perfect and valuable table, and confer a great boon on the medical profession.—I am, sir, yours, etc.,

JOSEPH MILLS,
Administrator of Anæsthetics to
Jan. 5th, 1881. St. Bartholomew's Hospital.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE LARBERT TRAINING INSTITUTION FOR IDIOTS AND IMBECILES.

WE regret to learn that Dr. William W. Ireland has tendered his resignation of his office of Medical Superintendent of the Scottish National Institution for Imbecile Children at Larbert, to take effect on the 1st of April next. Dr. Ireland is well known by his book on *Idiocy and Imbecility*, which is, indeed, the standard English work on the subject, and under his management the Larbert Institution has prospered greatly. During the ten years of his superintendence of it, additional buildings, increasing its accommodation by one-third, have been erected, and pupils have been sent to it from all parts of the country, and even from the colonies. It might be well if the subscribers to the Larbert Institution were to inquire closely into the circumstances which have led to the resignation of Dr. Ireland, while he still enjoys unimpaired vigour of body and mind, and is, by virtue of his special experience, capable of performing still more excellent service in that field in which he has already laboured so faithfully and efficiently. Their attention might also perhaps be profitably directed to the relations subsisting between the medical and the nursing and teaching staff, and to the attendance of members of the committee at meetings of that body.

THE NORTHALLERTON COTTAGE HOSPITAL.

THIS useful little hospital was opened in the year 1878, and since that time it has prospered, and its popularity has increased considerably. During the year ending September 30th, 1880, the annual subscriptions increased from £144 10s. to £220; and the church collections from £4 10s. to £41. During the first year, thirty in-patients were admitted; during the second year, forty-two; and in the year ending September 30th last fifty patients were treated. Several cases of serious operation have been undertaken by the medical officers, including a successful case of ovariotomy, the patient being convalescent in less than three weeks; and the removal of a large fatty tumour from the neck and shoulder weighing more than four pounds. The medical staff adopt the excellent practice of giving a short history of each important case in the annual report; but we cannot commend the style of all these reports for general adoption. For instance, ten lines are devoted to the detailed description of a case where the hand of a patient was badly crushed in a railway accident. The surgeon proceeds with his

description thus: "The hand was so crushed and mangled and full of cinders, that it took over an hour to pick them out. The bones of the forearm were also fractured. If I had amputated, I should have had to remove the forearm very high up; consequently, I determined to give the remnant of the hand a chance, and I accordingly dressed it with the usual antiseptic precautions, with a most favourable result, giving an useful thumb and forefinger, and getting the lost skin largely replaced by grafting new skin into the wound. Result very satisfactory." However much we may desire to commend conservative surgery, we feel such details as the foregoing are a little faulty in style, and out of place in the pages of a report which is circulated almost entirely amongst the general public. Early last January, a fever cottage was opened, under the management of the Cottage Hospital Committee. This experiment has proved in every way a success; and, during a recent epidemic, the usefulness of the fever cottage was fully shown. It proved the readiness of those who are attacked with fever to avail themselves of the skilled nursing and medical attention, the proper food and sanitary care, and, above all, of the isolation thus afforded. It is to be hoped that a fever cottage will soon be opened in every sanitary district throughout the country, where no such facilities at present exist, for isolating the infected and protecting the healthy. Both hospitals are nursed by the Ormesby Sisters; and the committee and medical staff bear willing testimony to the excellence of the nursing and to the loving care of Sister Esther, the sister in charge. We may add, this is one of the few cottage hospitals where no payments are received from the patients. Why?

WEST CHESHIRE PROVIDENT DISPENSARY.

THE name of Mr. F. Vacher is honourably associated with many excellent movements for the public advantage; and one of his latest works is the establishment of a provident dispensary at Birkenhead. From the first annual report of this dispensary, its success seems fairly assured. The committee commenced operations with a debt of £90, which they have been enabled to reduce, although they have purchased, during the year, a large stock of drugs, and have comfortably furnished the necessary offices. There are, at present, 798 members on the books, who contributed during the year nearly £105. We think the committee are justified in taking a hopeful view of the situation; and we are glad to see they intend ultimately to open branch dispensaries in different parts of Birkenhead, as well as in the adjoining districts.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

AT a meeting of the council of the Poor-law Medical Officers Association, held at their rooms, 3, Bolt Court, Fleet Street, January 11th, it was resolved that the secretary do write to Mr. Dodson, the president of the Local Government Board, soliciting an interview on the right of superannuation of Poor-law Medical Officers. Should the interview be granted, immediate notice will be sent soliciting the attendance and support of members of the association and others in furtherance of this object. The council also took into consideration the advisability of convening a meeting of Poor-law officers generally, in the metropolis, with a view to see whether any concerted action can be adopted, whereby this question can be brought before the atttention of the legislature. It was also resolved that the best thanks of this council be accorded to Dr. Habershon and Mr. Cooper Forster for the dignified manner in which they have upheld the honour and independence of the profession in their recent conflict with the lay authorities of Guy's Hospital, and that a copy of this resolution be forwarded by the honorary secretary of the association to these gentlemen. Also, having regard to the important principle involved in the recent Poor-law inquiry at St. Mary Abbott's, Kensington, as to the charge of black-mailing in reference to the certification of pauper lunatics, the council resolved to tender to Messrs. Lilly and Liddard their admiration of the stand they have made for the interest and honour of the profession; and directed the treasurer, Mr. Frost, to defray the legal expenses incurred by those gentlemen.

THE HEALTH-OFFICERING OF THE ISLE OF WIGHT.

CONSIDERED from an outside and theoretical point of view, the Isle of Wight would seem to be the *beau idéal* of a combined district under the sanitary charge of a single officer of health devoting his whole time to the duties of his office, and advising the local authority or authorities in a comprehensive and uniform fashion, as to the sanitary requirements of the island. Practically, however, the difficulties in the way of such a combination have been found to be as yet insurmountable. Each of the nine local authorities in the island, has, up to the present, preferred to make separate appointments; and though at the last meeting of the Isle of Wight Rural Sanitary Authority (who have no less than nine officers of health to advise them) an attempt was made towards a diminution of this number, it did not meet with success. The Local Government Board have always assented to the renewal of the appointments of these nine officers with reluctance; and appear now to have in some way, conveyed the impression that they will not pay half the salaries any longer. Under these circumstances, certain of the members proposed that instead of the nine officers of health whose joint salaries of £290 the authority would probably for the future have to pay themselves, a single officer should be appointed at a salary, of which the Local Government Board would refund half. The mover of this resolution, described the Rural district as utterly disorganised, and said that "the working of the system was as bad as bad could be. Under present arrangements it was impossible that a proper system of sanitary inspection could be carried out." The seconder of the proposition endorsed these remarks, and one of its supporters described the existing system as "a farce". The authority resolved, by the casting vote of the chairman, to continue the existing arrangements. It will be interesting to learn whether the Local Government Board will now sanction afresh the arrangements to which they have for so long objected, and which one of their most experienced officials, Dr. Ballard, is credited with considering as "thoroughly unsatisfactory."

REPORTS OF MEDICAL OFFICERS OF HEALTH.

FINCHLEY.—The lateness in appearance of Dr. Turle's first annual report on the health of this district is amply compensated for by its remarkable full and exhaustive character. Dr. Turle very properly deems it essential to present to his authority in a first report, a connected account of the various sanitary conditions of the district, and of the special danger attaching to each. This he does in a thoroughly complete and satisfactory manner, and it is to be hoped that the Local Board will come to see the necessity of prompt action for the improvement of the drainage and water supply of the district. With its natural advantages, Finchley ought to be a very healthy place; and as a matter of fact its vital statistics are in many respects of a satisfactory kind. Its birth and death-rates for 1879, were about 31 and 12.5 per 1,000, the corresponding figures for the outer ring of metropolitan districts being 32 and 16 respectively. The rate of natural increase was more than 18 per 1,000, against 14 per 1,000 in all England. Of the total number of 137 deaths bronchitis and lung diseases caused 24, consumption 16, diseases of the heart 16, nervous diseases 13, and tuberculous diseases 12; while of the zymotic diseases whooping-cough caused 13 deaths, all in children under one year of age, diphtheria 3, and croup 3. No fatal case of typhoid was registered, but several severe cases of that disease were known of. The infantile mortality in Finchley, both for 1879 and for the average of seven years, is very favourable; but Dr. Turle thinks that many of the 40 infants who died in 1879, no doubt fell victims to some form of mismanagement. Amongst other interesting particulars of sanitary work recorded, are the discovery of a dairy where the milk was stored in a small unwholesome cupboard with a closet in one corner; and the passing of a much wanted code of building by-laws. Dr. Turle urges the necessity of regulations for hay makers; of public conveniences along the road; of recreation grounds for the young, of a cottage hospital for infectious diseases and of a public mortuary. It would seem, however, to be vain to expect the authority to provide such of these as cost money, until the sanitary defects of the districts have been seriously grappled with.

ISLINGTON.—Dr. Meymott Tidy's last report compares unfavourably in point of completeness with those of former years. The present report is little more than statistical, and thus loses very much of its interest and usefulness. It is to be hoped that in future years Dr. Tidy may find more leisure to devote to the preparation of a report worthy of himself and of the large and important district which he serves. In 1879 there were in Islington 9917 births and 5321 deaths, equal to rates of 35.7 and 19.1 per 1000, against 35.1 and 19.1 in 1878. The mortality was marked by extreme irregularity, the severe weather and the intensity of the fogs proving exceptionally trying to the very young and old. The number of infantile deaths was 1340, and of children under five years of age 2386. Diseases of the respiratory organs (more especially bronchitis) were unusually fatal, more so, indeed, than in any year as yet recorded; while, as a consequence, there was also the highest recorded number of deaths from diseases of the heart. Of zymotic diseases measles caused as many as 219 deaths, all but 9 of which were in children under five years of age. Nearly the whole of

these deaths took place between April and August, when least attention is paid to draughts and to keeping children sufficiently warm. Whooping-cough, which was severely epidemic, caused 229 deaths, 218 of which were of children under five years. Of diarrhœa the smallest number of deaths occurred since 1862, due no doubt to the unusually low summer temperature and the excessive rainfall. We are glad to observe the increasing use which is being made of the admirable mortuary provided by the vestry—a total of 624 bodies, or a daily average of 1.71, having been received there during the year ended the 31st March last. As usual, the sanitary work accomplished under the guidance of the energetic Mr. Collingwood has been of a very minute and varied kind.

A QUESTION OF FEES.

SIR,—Will you please give me your opinion and advice in the following case? I am a district medical officer. About two months since, I was requested by the clerk to the board of guardians, who is also clerk to the magistrates, to attend the magistrates' meeting at petty sessions, to give evidence touching the health of a pauper family in my district, who were to be forcibly ejected from their house for overcrowding. I was given to understand by the clerk that I was to be paid two guineas for my attendance. I am now unable to get my fee. Will you please say if I can legally enforce payment; if so, how I must proceed.—Your obedient servant, DUBITANS.

*** It is much to be regretted that our correspondent did not obtain from the clerk an authorisation in writing for his attendance at the petty sessions; and, failing that, that he did not ask for his fee before going into the witness-box. We would advise that he should apply to the magistrates for an order on the treasurer of the county to pay him his fee; failing that, let him apply to the board of guardians, who are legally bound by the order of their clerk. If that falls through, then we would advise that a temperate statement of the facts should be laid before the Local Government Board; and if that board does not order payment, then we would recommend that he should get some M.P. to put a question to Mr. Dodson or Sir William Harcourt on the subject in the House. It is simply scandalous, that any member of our profession should be thus treated. We must, however, again urge on medical witnesses the importance of securing payment before the evidence is given.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Board of Examiners, on the 6th instant, and when eligible will be admitted to the pass examination.

Messrs. J. England Walker, and William C. Atkinson, students of University College; James Darbyshire and Benjamin Blakemore, of the Manchester School; W. Algernon Winship, of the Newcastle School; Henry Knowles, of the Leeds School; Percy H. White, of the Edinburgh School; James Cox, of the Melbourne School; and Herbert Ley, of St. Bartholomew's Hospital.

Fifteen candidates were rejected.

The following gentlemen passed on the 7th instant.

Messrs. George Stoker, Joseph R. Lock, and Herbert C. Hodges, of St. Thomas's Hospital; David T. Key, H. H. Walker Button, and Thomas B. Winter, of Guy's Hospital; Walter F. Mitchell, and Bowen S. Minds, of St. Bartholomew's Hospital; Arthur W. C. Peskett, and Adolphus J. Richardson, of the London Hospital; Ithel P. Llewelyn, of King's College; and Reginald L. Huzzey, of the Charing Cross Hospital.

Twelve candidates were rejected.

The following gentlemen passed on the 10th instant.

Messrs. Henry D. James, John E. Landon, and Thomas A. Guinness, students of King's College; Robert H. Wilkinson, and G. R. Morden Wright, of St. Bartholomew's Hospital; Edgar Wakelam, and Augustus L. Pallologus, of Guy's Hospital; John H. Ryan, of University College; George Hessenauer, of the London Hospital; and Charles H. Thompson, of the Dublin and St. Thomas's Hospitals.

Thirteen candidates were rejected, and one allowed to postpone his examination.

The following gentlemen passed on the 11th instant.

Messrs. Robert Cheyne, William S. Hayman, Samuel Camps, and S. Cowell Philson, of King's College; Philip T. Richards, William T. Partridge, and Rhys S. Jones, of St. Bartholomew's Hospital; Francis J. Lea, and Frederick W. Cock, of University College; Arthur J. Barnard, of St. George's Hospital; John E. Dunn, of St. Thomas's Hospital; and Richard F. B. Halpin, of the Westminster Hospital.

Twelve candidates were rejected.

The following gentlemen passed on the 12th instant.

Messrs. Charles H. Piesse, Mervyn S. Wilson, and Ernest L. C. Muspratt, of King's College; Henry J. C. Godfrey, John A. Southern, and Penn Furnivall, of St. Thomas's Hospital; Hedley E. Drew, Charles J. Lumpkin, Anderson F. Smith, and Donald S. Gunn, of University College; William H. Clark, and Francis Dean, of St. Bartholomew's Hospital; Wilfred Haward, and Ernest D. Winter, of Guy's Hospital.

Thirteen candidates were rejected, including five who had an additional three months.

UNIVERSITY OF DURHAM.—The following satisfied the Examiners at the examinations in Medicine and Surgery on the 6th, 7th, 9th, and 10th December, 1880, and had their respective degrees conferred on the 14th December.

For the Degree of Doctor in Medicine.—Edric Selons, M.R.C.S.; Walter Lattey, L.R.C.P.; John Bolton Emmerson, M.B., M.R.C.S.; Bedford Fenwick, M.B., M.R.C.S.

For the Degree of Bachelor in Medicine.—Thomas George Ainsley, M.R.C.S.; Thomas Dutton, L.R.C.P.; Alexander William Woodman Dowding, L.R.C.P. M.R.C.S., L.S.A.; Thomas Coke Squance; George Lucas Pardington, L.R.C.P., M.R.C.S.

For the Degree of Master in Surgery.—Alexander William Woodman Dowding, L.R.C.P., etc.; Thomas Coke Squance.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, January 6th, 1881.

Clarke, Fincastle George Barlow, Upper Norwood.
Hodgson, John, Oldham, Lancashire.
Knaggs, Henry Valentine, 189, Camden Road.
Prendergast, Joseph Moran, Melbourne, Australia.
Ross, Ronald, Southampton.

The following gentlemen also on the 30th December, 1880, passed their Primary Professional Examination.

Hoole, John, St. Bartholomew's Hospital.
Kenny, Frederick Hamilton, London Hospital.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced :—

BLACKBURN UNION—Medical Officer to the Rishton District.

BRACKLEY UNION—Medical Officer to the Sulgrave District.

BRAINTREE UNION RURAL SANITARY AUTHORITY—Medical Officer of Health. Salary, £150 per annum. Applications, with testimonials, on or before January 22nd.

*BRIGHTON AND HOVE DISPENSARY—Resident House-Surgeon to the Western Branch. Salary, £140 per annum, with furnished apartments, coals, gas, and attendance. Applications, with testimonials, on or before January 31st.

*CITY OF DUBLIN HOSPITAL—House-Surgeon. Salary, £100 per annum, with apartments, coals, gas, and attendance. Applications to the Secretary on or before January 26th.

*CLAYTON HOSPITAL AND GENERAL DISPENSARY, Wakefield—House-Surgeon. Salary, £120 per annum, with residence, coals, and gas. Applications, with testimonials, to the Honorary Secretary, on or before January 25th.

DUNMANWAY UNION—Medical Officer to Dunmanway Dispensary District. Salary, £120 per annum, with £20 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 25th instant.

*FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW—Faculty Lectureship; election early in February. Applications to the Secretary.

*HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester.—Junior Resident Medical Officer. Salary, £80 per annum, with board and residence. Applications, with testimonials, on or before January 27th.

KILKENNY DISTRICT LUNATIC ASYLUM—Consulting and Visiting Physician. Salary, £100 per annum. Applications received to 18th instant for the appointment, which in the first instance will be probationary.

KILKENNY UNION—Medical Officer for Gowran Dispensary District. Salary, £100 per annum, with £20 yearly as Medical Officer of Health, registration and vaccination fees. The person appointed will probably be elected medical officer to the Gowran Fever Hospital at £30 yearly. Election on the 17th instant.

*LEEDS AMALGAMATED FRIENDLY SOCIETIES MEDICAL AID ASSOCIATION—Assistant Medical Officer. Salary, £140 per annum. Applications, with testimonials, to the Secretary, on or before January 18th.

*LIVERPOOL DISPENSARIES—Assistant House-Surgeon. Salary to commence at £108 per annum, with furnished apartments, coals, gas, and attendance. Applications, with testimonials, etc., to the Secretary, not later than January 24th.

LONDON LOCK HOSPITAL, 91, Dean Street, Soho.—House-Surgeon. Salary, £50 per annum, with board, residence, and washing. Applications, with testimonials, to the Secretary, on or before January 15th.

LOUTH UNION.—Medical Officer to Louth District and Workhouse. Salary, £100 per annum.

MANCHESTER ROYAL INFIRMARY—Resident Medical Officer for the Convalescent Hospital at Cheadle. Salary, £150 per annum, with board and residence. Applications, with testimonials, on or before January 22nd, 1881.

OMAGH UNION——Medical Officer for Dromore Dispensary District. Salary, £100 per annum, with £15 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 20th instant.

*QUEEN CHARLOTTE'S LYING-IN HOSPITAL—Resident Medical Officer. Salary, £60 per annum, with board and lodging. Applications, with copies of testimonials, to the Secretary not later than January 25th.

*QUEEN CHARLOTTE'S LYING-IN HOSPITAL—Medical Officer for Out-Patients. Applications, with copies of testimonials, to the Secretary, not later than January 25th.

*ROYAL FREE HOSPITAL—Junior Resident Medical Officer. Appointment for six months. Applications, with testimonials, to the Secretary, on or before January 26th.

*ST. BARTHOLOMEW'S HOSPITAL—Surgeon. Applications, with testimonials, on or before January 24th.

UNIVERSITY OF EDINBURGH—An additional Examiner of Pathology. Applications and testimonials to the Secretary not later than January 17th, 1881.

WEST LONDON HOSPITAL—Assistant Physician. Applications, with testimonials, on or before January 21st.

WOLVERHAMPTON FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION Resident Medical Officer. Applications (stating salary required), with testimonials, not later than February 1st, 1881.

MEDICAL APPOINTMENTS.

ANDERSON, Matthew S., M.A., M.B., appointed House-Surgeon to the Paisley Infirmary, *vice* Alexander W. Crawford, M.B., resigned.

HASLAM, George J., M.D., appointed District Surgeon to the Salford and Pendleton Royal Hospital, *vice* J. Newton, M.R.C.S.Eng., promoted to House-Surgeon.

MILLS, Walter J., F.R.C.S.Eng., appointed House-Surgeon to the Royal London Ophthalmic Hospital.

NEWTON, J. Jones, M.R.C.S.Eng., appointed House-Surgeon to the Salford and Pendleton Royal Hospital, *vice* D. T. Evans, M.R.C.S.Eng., resigned.

WALTON, W., M.A., M.D., appointed Honorary Surgeon to St. Mary's Hospital, Manchester, *vice* R. Heslop, L.R.C.S.Ed., appointed Consulting Surgeon.

WILLIAMS, Dawson, M.D., appointed Medical and Surgical Registrar to the Victoria Hospital for Children, Chelsea, *vice* Dr. Beckingsale, resigned.

POOR-LAW MEDICAL APPOINTMENTS.

CASSON, Harwood, M.R.C.S., appointed Medical Officer to the Stapleford District of the Wilton Union, *vice* Alexander Straton, M.D., deceased.

CUNNINGHAM, Andrew, M.B., appointed Medical Officer of Health for Oldbury.

HADWEN, R. S., M.D., appointed Medical Officer and Public Vaccinator to the tenth district of the Chelmsford Union, *vice* John Betts, M.R.C.S.Eng., resigned.

ILLINGWORTH, C. R., M.B., appointed Medical Officer to the Ralston district of the Blackburn Union, *vice* W. H. Pilkington, L.R.C.P., M.R.C.S.Eng., resigned.

KAY, Thomas V., L.R.C.P.Ed., appointed Medical Officer and Public Vaccinator to the Clay Cross district of the Chesterfield Union, *vice* W. J. Wilson, L.R.C.P.Ed., deceased.

PAYNE, C. A., M.B., appointed Resident Assistant Medical Officer to the St. Leonard's Parish, Shoreditch, *vice* M. K. Hargreaves, M.B., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

COTTON.—On January 4th, at 149, Sloane Street, S.W., the wife of Holland J. Cotton, M.D., of a son.

HADDEN.—On the 2nd instant, at Horncastle, the wife of John Hadden, M.D., of a daughter.

DEATH.

BAIN.—On the 8th January, at "Balmoral", Bournemouth, Benjamin Bain, L.R.C.S. and L.R.C.P.Ed., late of Birtley, Co. Durham, aged 57.

We hear that Dr. J. A. Menzies, formerly of Naples, will practice at Cannes in future.

PUBLIC HEALTH.—The annual rate of mortality last week (which was the first week of this year) in twenty of the largest English towns averaged 21.3 per 1,000 of their aggregate population, which is estimated at more than seven and a half millions of persons in the middle of this year. The rates of mortality in the several towns were as follow: Portsmouth 13, Leicester 15, Bradford 16, Birmingham 18, Oldham 18, Sheffield 18, Newcastle-on-Tyne 19, Salford 20, London 21, Plymouth 21, Norwich 21, Wolverhampton 21, Hull 22, Brighton 23, Nottingham 23, Liverpool, 24, Manchester 24, Bristol 24, Leeds 24, Sunderland 25, per 1,000. Scarlet fever showed the largest proportional fatality in Sunderland, Norwich, Nottingham, and Oldham; and whooping-cough in Nottingham, Portsmouth, Sunderland, and Leeds. The highest death-rates from fever (principally enteric) occurred in Plymouth, Leicester, and Leeds. In London, 1,510 deaths were registered, were 324 below the average, and gave an annual death-rate of 21.3. The 1,510 deaths included 33 from small-pox, 71 from measles, 41 from scarlet fever, 11 from diphtheria, 33 from whooping-cough, 7 from enteric fever, 3 from ill-defined forms of contiuued fever, 17 from diarrhœa, one from dysentery, and none from typhus fever or simple cholera; thus, 217 deaths were referred to these diseases, being 46 below the average. The deaths referred to diseases of the respiratory organs, which had been 290 and 353 in the two preceding weeks, further rose to 363 last week, but were no fewer than 132 below the average; 232 resulted from bronchitis, and 85 from pneumonia. Different forms of violence caused 46 deaths; 44 were the result of negligence or accident, including 19 from fractures and contusions, 3 from burns and scalds, 3 from drowning, 3 from poison (including one of a child aged two years, which was accelerated by a dose of Steadman's powder), and 11 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 38.4°, and 0.7 above the average. The general direction of the wind was N.E., and the horizontal movement of the air averaged 12.0 miles per hour, which was 1.1 below the average. No rain fell during the week. The duration of registered bright sunshine in the week was equal to 24 per cent. of its possible duration. The recorded amount of ozone showed an excess on Wednesday and Saturday.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Sk M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th. 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 2; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. John Brunton, "A Case of Nævus of the Scalp successfully treated by Sodium Ethylate"; Dr. B. W. Richardson, "Sodium Ethylate in the Treatment of Nævi and other forms of Disease: with remarks on Potassium Ethylate".

TUESDAY.—**Pathological Society of London, 8.30 P.M. Mr. Cripps, Recurrent** Multiple Sarcoma. Mr. Morrant Baker, Localised Scleroderma (living specimen). Dr. Payne (for Mr. Davis of Hereford), Acute Myositis. Dr. Norman Moore, 1. Abscess of Liver following Dysentery; 2. Cirrhosis of Liver in a Child. Dr. C. Moullin, Cystic Degeneration of the Breast. Dr. Fenwick, Two Cases of Tricuspid Stenosis. Dr. Cavafy, Case of Chloasma (living specimen). Dr. Abercrombie, Perforation of Septum Ventriculorum and Thrombosis of Pulmonary Artery (card). Dr. Wilberforce Smith, Thrombosis of Innominate Vein. Mr. Shattock, Congenital Sacral Tumour (card).

WEDNESDAY. Epidemiological Society of London, 7 P.M., Council Meeting 8 P.M., Surgeon-Major C. Oldham, "The Nature and Origin of Climat Fevers"; Dr. J. W. Mackenna, "On the Cause and Origin of Fever".

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE MEDICAL PROFESSION AND INTEMPERANCE IN ALCOHOL.

SIR,—Having read Dr. Reid's letter on this interesting subject in your last week's issue, I for one do not think that he has "said enough to prove that we medical men are verily guilty in this matter". It is worse than nonsense to throw on the profession the onus of intemperance of weak minded persons, merely because they may at one time have prescribed alcohol during disease or convalescence. I am in no sense an advocate for the indiscriminate use of alcohol, but I should like to know how any medical man could prevent his patients from taking to the habitual use of alcoholic stimulant, any more than he can curb the noxious practice of taking opium or chloral.

After solemnly quoting several cases of his father's and his own, Dr. Reid finishes with a "warning to his brother medicos", which, I will venture to say, is entirely unnecessary. Few medical men are so culpable as to neglect the manifest precautions to be observed in alcoholic treatment (which, in Dr. Reid's hands, appears to have had such disastrous results); and the blame of abusing these cannot by any possibility be relegated to the doctor. Drunkards there will be, in spite of all optimist views to the contrary; and I repeat I do not see why the vicious habits of intemperate persons should be visited on the profession at large.

Trusting that Dr. Reid's patient, who "fell through a publican", has recovered from her fall, and that the publican was not more injured than was necessary for the transaction.—I am, etc., C. E. RICHMOND.

The Infirmary and Dispensary, Warrington, January 10th, 1881.

SUGGESTIONS REGARDING GENERAL PRACTICE.

SIR,—From the commencement of time, it has been usual for men of years to assume that they were also men of wisdom. If your correspondent "Senex" be really as wise as his self-complacency leads him to think himself, is it too much to ask him to prove the soundness of his judgment by the vigour of his logic? Observe the inconsequence of his utterances—they cannot be called opinions—and compare the confidence of his manner with the feebleness of his matter. He says that the only persons competent to speak on the profound mysteries of general practice are those who have had "great experience with (*sic*) what has been going on in the medical world during the last century". Alas for the general practitioner, if these alone are to be his guides! Where shall we look for the venerable sages? They must all have been in Hades for, at the very least, a quarter of a century; and who shall say in what region of that *terræ incognita* their abodes have been fixed? Does "Senex" know of any modern Dante who will undertake the exploration of extraterrestrial spheres? It is difficult to understand the reason for his invocation of the shades of departed apothecaries, except on the assumption that he is a spiritualist, and on good terms with a skilful medium. But does he not know that, of all people, medical men are the least likely to be influenced by the utterances of spiritualistic media? The doctors are much too "practical" for that.

"Senex" is evidently one of those grandmotherly practitioners, who, possessing a very little knowledge of one thing, think they possess a great deal of knowledge of everything. It must be exceedingly edifying to a well-instructed mind to see him shake his sagacious head as he sapiently advises on "domestic matters", or sententiously expounds his "legal" opinions. Does it ever occur to him that he would consider a lawyer a fool who should presume to advise on medical matters? If he considers the medical lawyer a fool, will the lawyer regard him as a philosopher?

It is a great mistake, says "Senex", to lessen the number of visits "except in special cases". Oh! most sapient "Senex", who would think of lessening the number of visits "except in special", that is in suitable, "cases"? A very suitable case would be one in which the patient is so far recovered as to be able to discuss "legal matters" with the doctor; and probably the diminished number of visits would be very much to the "legal" advantage of the patient.

Our grandmotherly philosopher says that the "whole profession" should discuss these subjects, but "no local Branch" must put its rash hand to such weighty work. What really does "Senex" mean? How can the whole profession discuss anything except by meeting together in sections, or local Branches, for purposes of discussion? Must every old, and therefore wise practitioner, express his "matured" opinion in the JOURNAL? May the Fates forbid!

It cannot be too clearly understood that the business of the doctor is to cure or alleviate sickness. It is no part of his function to pay merely formal or gossipping visits; still less is it his duty to volunteer advice on "domestic" or "legal matters". The more highly he is thought of as a physician, the less will his services be in request as an amateur, and, therefore, a very bad, lawyer. To be a physician, in any real sense, a man must have a thorough knowledge of many subjects. Clinical experience alone is good; but clinical experience combined with scientific attainments is better. A physician must be a student as well as a practitioner; and he must have leisure, or he cannot be a student. How can a busy practitioner find leisure as general practice is now conducted? Let "Senex" or any other sage answer this question.—I am, sir, etc.,

Grosvenor Road, N., January 1881. G. W. POTTER, M.D.Edin.

MR. ANCELL BALL writes to say that his respirators can be purchased at Mr. Pennington's, draper, Spalding.

INSURANCE OFFICES AND MEDICAL FEES.

SIR,—I desire to draw the attention of the profession to the fact that "The United Kingdom Temperance and General Provident Institution not only does not remunerate medical men for their professional opinions on the lives of proposed assurers, but seeks to obtain these opinions in a way which I dare not stigmatise as it deserves. I received, the other day, the following communication from this office.

"Sir, a proposal for assurance having been made to this institution by ———, who refers the directors to you for information as to his general health, I have to request the favour of your furnishing the requisite information as far as your acquaintance will admit. I shall feel obliged if you will kindly forward your reply on the enclosed form at your earliest convenience, that the assurance may be completed with as little delay as possible.—I am, Sir," etc.,

Enclosed was a paper with fourteen questions with regard to his general health, apoplexy, palsy, or serious illness, consumption, gout, insanity, and other professional questions. I replied that I had filled up the paper, and would forward it on receipt of the usual fee; but that I did not give professional opinions as a favour. To this I received the following reply:

"Dear Sir,—We are duly in receipt of yours of the 25th inst., and beg to say that Mr. ——— referred us to you as a private friend, and not in any way whatever in your professional capacity. If, however, you still decline to oblige him in this respect, we shall have no alternative but to ask him to kindly furnish us with the name of some other gentleman to whom to apply. Trusting that with this explanation you will be good enough to comply with our request,—Yours truly,

"THOMAS CASH, Secretary."

In reply, I declined to forward the document, and stated my amazement that as I was not applied to as a medical man, they should have sent me a medical document to fill up. I trust all medical men will be on their guard, and decline to fill up such documents without first receiving the fees; and point out to their patients that there are a large number of first-class insurance offices that have no need to descend to such paltry plans of increasing their profits by obtaining gratuitous medical opinions by what appears to be little better than trickery.

I beg to enclose a copy of the form sent me, that you may judge for yourself as to the justice of my remarks. The secretary, in a further letter, remarks of these forms, "and of these we have some thousands filled up every year". I trust that this will cease to be the case.—I am, sir, your obedient servant,

111, Piccadilly, W., Dec. 29th, 1880. WM. FULLER.

*** It is now the general practice of medical men to require an adequate fee for filling up insurance certificates; and we do not see why any exception should be made in favour of the United Kingdom Temperance Fund. It is right that a firm stand should be made against the encroachments on professional time and skill by commercial bodies.

ILL-SMELLING FEET.

SIR,—Of the efficacy of the oxide of zinc ointment in the treatment of ill-smelling feet, recommended by Mr. C. Holthouse in the JOURNAL of the 11th, I can fully testify—having prescribed it for several years with unfailing success. At the same time, I have noted that its curative effect is promoted by the addition of an eighth part or so of the nitrate of mercury ointment, blended with a little rectified spirit, in the proportion of two drachms to each ounce of the ointment. A few drops of attar of rose or essence of verbena will cover the usual unpleasant smell of the ointment; previous to the application of which, I invariably direct the feet to be immersed for a few minutes in a strong and warm solution of salt and water, and then carefully dried.—Yours truly, M.K.Q.C.P.

December 16th, 1880.

FLACCIDITY OF IRIS DURING LIFE.

SIR,—So many cases of "flaccidity of iris in real death" have been reported in the JOURNAL, that I am prompted to record the following three cases of "flaccidity of iris during life".

1. Whilst attending the Birmingham and Midland Counties Eye Hospital in 1871, Mr. Frank Hodges, the house-surgeon, pointed out to me this modified condition of the iris (the first in his experience) in an out-patient, thus demonstrating its fallacy as a real sign of death.

2. William Bailey, aged 54, was admitted into the Hereford Infirmary on September 24th, 1874, suffering from left hemiplegia. On November 3rd, he was semicomatose. The right pupil was dilated; the left contracted. The iris assumed the oval form, pressure being synchronously applied to opposite sides of the eyeball. This was demonstrated in the presence of the honorary physician and one of the students. On November 5th, the patient died.

3. James Powell, aged 21, was admitted at 7 A.M., March 16th, 1879, suffering from compression of brain; semicomatose. The left pupil was of medium size; the right pupil widely dilated, and inactive. Both pupils were modified by pressure on opposite sides of the eyeball. The patient died at 12 o'clock on the same day.

For the last nine years, I have been in the habit of applying this test in numerous cases, before death, and in *articulo mortis*. With the three exceptions above, I have always found this change to take place at the moment of death.—Yours faithfully, H. CECIL MOORE, late House-Surgeon Hereford Infirmary.

7, King Street, Hereford, December 27th, 1880.

WHIPCORD GLOVES FOR COLD AND WET WEATHER.

SIR,—I regret that "C. E. A." should have been disappointed through an error of your printer in spelling the name, which should have been Beeny (not Bury), hosier, Broad Street, Birmingham, opposite the Children's Hospital. Many saddlers also make rough leather gloves, admirably adapted for driving; but a variety of gloves must be kept to meet the many sorts of weather, and the varied requirements of the practitioner.—I am, sir, yours obediently,

ŒCONOMICUS.

MANAGEMENT OF LABOUR.

SIR,—I dare say the old pupils of that highly practical teacher at Guy's Hospital, Dr. Blundell, can remember the epigrammatic axioms he was continually dinning into our ears: "Meddlesome midwifery is bad"—"*Arte non vi*", when nature required help—and the graphic comparison: "The thrust of the hand" into the uterus, in turning or liberating an adherent placenta, "may be as fatal as the thrust of a bayonet". After many years' experience I find that patience is the most effectual handmaid of nature, and that, in ordinary cases, when "uterine sloth" is taking place, two or three artificial coughs are sufficient to expel the placenta without manipulation.—Yours truly, HENRY MEYMOTT.

Ludlow, January 11th, 1881.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

THE PATHOLOGY OF SEA-SICKNESS.

SIR,—I have perused with much interest the letters which have lately been appearing in the JOURNAL concerning the pathology of sea-sickness. Having had a considerable experience of that unpleasant malady in my own person, I would venture to offer the following remarks; only premising that I refer solely to voyages of over twenty-four hours' duration; the occurrence of or exemption from sea-sickness in short trips being often dependent on accidental causes, general state of health, mental determination, &c.

My experience then leads me to the following general conclusions.

1. Individuals who cannot look down from a height without feeling giddy, suffer more frequently and more persistently than those who do not experience such sensations.

2. Men who are accustomed to smoke strong tobacco suffer less frequently and recover sooner than non-smokers or those who use mild mixtures.

3. The people who suffer least (leaving out of consideration those who from habit or early training have become accustomed to the motion of a ship) are men of naturally "strong heads" and "good nerve" (expressive, if not strictly scientific terms); men of good physical development, who ride straight, delight in games requiring both pluck and judgment, and never lose their presence of mind in any emergency. Hence, perhaps, the reason why sea-sickness has from time immemorial been considered a fair subject for ridicule, as implying a certain deficiency in the manly virtues.

4. Sea-sickness supervenes sooner on an empty stomach, and when a "bad sailor" has recovered from sea-sickness, he often continues to suffer from nausea on first rising in the morning; that is to say, in the long fast between dinner and breakfast, and on changing the recumbent for the upright position.

5. If stimulants (among which I include small doses of opium) be taken while in the recumbent posture, and retained by the stomach, a temporary power of resisting sea-sickness is obtained, but a very pronounced reaction, not easily remedied, is apt to follow this alleviation.

6. It is exceptional to find a woman who is really a "good sailor."

To each of these propositions, more particularly the last, there are undoubtedly exceptions; but to my own mind there are sufficient data on which to base the following conclusions.

1. There is analogy between sea-sickness and the feeling of nausea often produced by fear or other disturbing mental emotions.

2. Sea-sickness is, in the first instance, at least, a purely cerebral phenomenon, though doubtless the repeated acts of vomiting do in time produce local gastric irritability.

3. This cerebral phenomenon is due to the disordered (irregular) intracranial circulation, which, produced at first by the motion of the ship, is maintained and intensified by a secondary disturbance of the normal inhibitory function of the vagus causing a rapid, weaker, and irregular action of the heart. Hence the effect of the recumbent posture, and, perhaps, in part the influence of stimulants.

If, then, my views be correct, the indication for the treatment of this truly distressing malady is to regulate the cerebral circulation; and this I would attempt to do the moment the first sense of nausea began to manifest itself. I fear we shall never be able therapeutically to prevent sea-sickness, but I do hope that we may some day be able to cure it. The next sea voyage I have to make, I intend to take with me the following mixture, and to try the effect of a 5j dose twice a day:—R Liquoris atropiæ ℥xij; tincturæ digitalis ℥xx; tincturæ cannabis Indicæ ℥xl; tincturæ capsici fl. drs. ij; chloretary-hydri ℥xvj; lymph. aurantii; mucilaginis acaciæ ää fl. oz. j; aquam ad fl. oz. viij: at the same time of course carefully regulating the bowels, which are apt to become constipated on a sea voyage. I am inclined to believe that the combined action of atropine and digitalis, together with the slightly exhilarating effect of the Indian hemp, may enable us to meet the indication to which I have already referred. I am, sir, your obedient servant,

OSWALD G. WOOD, M.B., Surgeon A.M.D.

Mohar, Bengal, 6th Dec., 1880.

SIR,—Can any of your readers recommend me a bracing seaside place, where a delicate boy (aged 12), requiring medical supervision, could be received as a boarder on moderate terms.—Yours very truly,

C. R. G.

Royal Berks Hospital, Reading, January 6th, 1881.

CHILBLAINS.

IN reply to M.D., the following communications have been received.

DR. T. E. PEARSE believes that "M.D." has evidently a "bad circulation". The reactionary power of his circulatory apparatus requires strengthening, by cold bathing, followed by a good "rub down"; and those parts which are the seat of chilblains, as the hands and feet, should be dipped in cold water and well rubbed every night. Alcohol must be entirely given up, as it paralyses the peripheral vessels and favours congestion. Chilblains on the feet are often caused by tight and misshapen boots. The boots should be large, so as to allow thick woollen socks to be worn without compressing the feet. Before the stage of ulceration has occurred, nitrate of silver is perhaps the best local application. It hardens the surface and appears to diminish the congestion of the part by causing a contraction of the temporarily paralysed vessels.

MR. A. DE WATTEVILLE says in the habit of treating the complaint with galvanism, which has almost invariably been successful in his hands. The method is very simple. The diseased part is to be thoroughly sponged for a few minutes with the negative pole, the number of elements being sufficient to give as strong a current as can be borne.

DR. HERBERT E. SPENCER advises "M.D." to try liniment of aconite.

MR. C. J. GOODWIN recommends an ointment of lard and dry mustard, to be rubbed in before a fire, for only twenty minutes, and believes that this will probably cure the chilblains after two or three applications.

MR. E. T. CROUCH (Fareham) says that the chief point seems to be to keep the affected parts from contact with the air. For this purpose he usually paints the chilblains with "collodium flexile", giving it one or two coatings.

M.R.C.S. (No. 1) suggests the use of very hot water, which, in the case of the ears, might be applied by means of a sponge or flannel; in that of the hands and feet, by dipping them in the liquid. The water should be hot enough to convert the affected part into pain for the time, the temperature being kept up by additions of boiling water occasionally. Some little resolution is required to employ this remedy effectually, but the comfort it produces amply repays for the temporary inconvenience. As a matter of course, measures of prevention should also be adopted.

M.R.C.S. (No. 2) suggests the application of collodion to the unbroken chilblains. If they be broken, probably the use of chloral-hydrate would give relief.

DR. C. H. HARTT believes the following formula will be found most efficacious in cases where the parts are unbroken. He has used it for some years, and always with a good result: R Curd soap, ʒj; water, ʒiv; dissolve by aid of heat, and add the following: Gum camphor, ʒiv; rectified spirit, ʒvj; essence of bergamot, ɱlll; lastly add liquor ammoniæ fortior, ʒvj. Make a liniment, to be rubbed into the affected parts. He says that the strong solution of acetate of lead was highly recommended by Sir Astley Cooper, and he believes it to be most useful. He has also used the sulphurous acids of the *Pharmacopœia* with great success to allay the irritation accompanying chilblains in children.

MEDICAL SCIENCE IN JAPAN.

DR. SYMES THOMPSON writes that Dr. Palm has established a hospital at Niigata, in which he last year treated 5,000 patients, performed many operations, and established a medical school and a debating society. Many of the native students understand English. Dr. Palm furnishes them with the BRITISH MEDICAL JOURNAL, from which suitable translations are made for the other students who are not familiar with English.

M.R.C.S. (Canterbury). Dr. Hardwicke's *Medical Education and Practice in all Parts of the World* (J. and A. Churchill; price 10s.), and the students' number of *The London Medical Record* (Smith, Elder, and Co., price 1s. 6d.), furnish particulars for graduation at Brussels, and other foreign universities.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. W. O. Priestley, London; Mr. Samuel Cartwright, London; Dr. Julius Althaus, London; Mr. W. H. Jacobson, London; Mr. Alfred Willett, London; Dr. Bradbury, Cambridge; Dr. Glascott, Manchester; Mr. Mark H. Judge, London; Sir James Alderson, London; Mr. J. Binckes, Wakefield; Mr. Whitehead Reid, Canterbury; Dr. Eade, Norwich; Dr. P. H. Bird, London; Mr. E. T. Crouch, Fareham; Mr. Bernard Roth, London; Mr. A. T. Wear, Newcastle-on-Tyne; Dr. Samuel Wilks, London; Dr. W. M. Campbell, Liverpool; Dr. Saul, Lancaster; Dr. S. White, St. Leonard's-on-Sea; Dr. Braxton Hicks, London; Mr. J. W. Blandford, Norton; Dr. Ward Cousins, Southsea; Dubitans; Dr. G. B. Longstaff, London; Dr. H. Snow, London; Mr. A. Ball, Spalding; Mr. A. de Watteville, London; Dr. E. Thompson, London; Mr. James Startin, London; Mr. Lawson Tait, Birmingham; Mr. Greenwood, London; Mr. Jennings, Malmesbury; Dr. Spencer Thomson, Torquay; Mr. F. Wallace, London; Mr. A. N. Carroll, Brighton; Mr. John Holden, Preston; Dr. C. Glascott, Manchester; M. F.; Mr. P. J. Hayes, Dublin; Human Sympathy; Dr. A. Collie, London; C. R. G.; Dr. Humphry, Cambridge; Dr. Thomas, Sheffield; Mr. M. Lubbock, London; Dr. J. G. Lyon, Glasgow; Mr. W. D. Husband, Bournemouth; Dr. Graham Brown, Edinburgh; Dr. Byrom Bramwell, Edinburgh; Dr. R. W. Egan, Dublin; Mr. H. J. Aveling, Cheltenham; Dr. J. Mitchell Wilson, Doncaster; Mr. W. Donevan, Whitwick; Mr. Charles Arnison, Stanhope; Mr. R. Lord; Mr. C. E. Richmond, Warrington; Dr. J. Y. Tocheriek, Wolverhampton; Dr. W. Walter, Manchester; Mr. W. Curran, Warrington; L.R.C.P. Lond.; Mr. S. B. Partridge, London; Mr. W. H. Jalland, York; Dr. Crichton Browne, London; Our Aberdeen Correspondent; Scrutator; Mr. S. Gamgee, Birmingham; Mr. W. Morrant Baker, London; Dr. Cholmeley, London; Mr. J. E. Barton, Liverpool; Mr. H. Meymott, Ludlow; Dr. J. W. Miller, Dundee; Mr. Alan Manby, East Rudham; Dr. Habershon, London; Dr. Hadden, London; Dr. Daniel Moore, Lancaster; Mr. C. H. Hartt, London; Dr. F. P. Atkinson, Kingston-on-Thames; Placenta; Dr. G. Eastes, London; Dr. J. Rogers, London, etc.

BOOKS, ETC., RECEIVED.

Relapse of Typhoid Fever, especially with reference to the Temperature. By J. Pearson Irvine, M.D., F.R.C.P. Lond. London: J. and A. Churchill. 1880.

Handbook of Midwifery for Midwives. By J. E. Burton, L.R.C.P. London: J. and A. Churchill. 1880.

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HARVEIAN LECTURES

ON THE

PROGNOSIS AND TREATMENT OF CHRONIC DISEASES OF THE CHEST IN RELATION TO MODERN PATHOLOGY.

Delivered at the Harveian Society of London.

BY JAMES E. POLLOCK, M.D., F.R.C.P.,
Senior Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

LECTURE II.—(*Concluded.*)

Hæmoptysis has a leading place among the events of chronic disease of the lung; and new doctrines have recently been enunciated about its influence, both as a cause and a consequence of such affections.

Hæmoptysis is generally a symptom of congestion, which, in such cases, is the real condition to consider, and to treat. It is only another word for pulmonary apoplexy, of greater or less extent. There is another, and very fatal, form, which is a mere leakage from a broken vessel, and almost always the result of the rupture of a small aneurism of the pulmonary artery.

There are, therefore, two kinds of hæmorrhage from the lung: the congestive and the passive.

To those who hold that chronic changes in the lung are due to inflammation, a hæmorrhage, arising from increased afflux of blood to a highly vascular tissue, is no unexpected event. It is, in fact, a part and a symptom of congestion.

On the other hand, the school who believe in tubercle-formation being the essence of lung-induration, are puzzled to account for it. I would remark that acute tuberculosis—by which I mean an invasion of a large tract of one or both lungs by the grey miliary (millet-seed) tubercle—is not accompanied by hæmoptysis. The acute croupous pneumonia has its coloured sputa (coloured, that is, by exuded blood); but hæmorrhage, as such, is not a feature in the case.

I think we need not discuss the question, whether hæmoptysis is of pulmonary or of bronchial origin. It is almost always pulmonary.

Whether the first step in the lung-induration be an inflammation or tubercular, we may, I think, concede that, excepting in the slowest and most insidious forms, it is accompanied by congestion of lung-tissue; and hence the great prevalence of hæmoptysis. It will be remembered that the earliest changes in phthisical lungs are shedding of alveolar epithelium and block of the air-cells, with consecutive small cell changes in the walls of the cells and in the intercellular tissue, in which lie the blood-vessels and lymphatics of the lung. Engorgement is sure to follow, and impeded return of venous blood; while the tissues become softened and disorganised.

The occurrence of congestive hæmoptysis at the beginning, or in the progress of phthisis, is accompanied by a high temperature, running up to 104° or 105°. Its persistence may also be gauged by the thermometer and by the pulse. Should a more or less sharp hæmoptysis subside, the temperature falls, and the pulse becomes soft.

Should the bleeding initiate a lung attack—that is, occur to a person apparently in good health—we may expect that it will be followed by the signs of consolidation of a portion of lung, and the events of phthisis. There is a form of rapid phthisis, of which I have given an instance, which proceeds with great activity after an initial florid hæmoptysis of some extent; and we must be on the look out for such, and remember that it proceeds by progressively causing patches of consolidation in the lung, of which you will have the usual physical signs.

Should congestive hæmoptysis occur (as it generally does) in the course of chronic phthisis, you may have a long pause, or suspension of active symptoms, following its cessation. I have so often had occasion to observe this event, that it seems well worth bearing in mind when called on to deliver an opinion on the result. How often, also, do we witness repeated attacks of rather profuse hæmoptysis, at long intervals, in the same patient? That a second and third hæmoptysis may succeed, is almost certain; and that an appreciable amount of relief to the lung is produced by the bleeding, I have no doubt. All these events bear strongly on my proposition at starting: that the local congestion of the lung has much to say to the clinical history of phthisis. I shall afterwards speak of its bearing on the treatment.

The structural changes induced, or directly caused, by hæmoptysis in chronic lung-affections, have recently received much attention from the investigations of my colleague Dr. Reginald Thompson.

According to his careful observations, blood poured into the bronchi, during an hæmoptysis, is drawn by insufflation into the deeper parts of the lung; and, in many instances, becomes impacted in the alveolar tissue. In this situation, the clots may remain for months and undergo slow changes, being converted into fibrinous nodules, which become capsuled, and undergo further secondary changes. "The microscopical appearances of these nodules consist of a group of alveoli, firmly packed with a semi-opaque homogeneous fibrinous material; and there is also thickening of the alveolar tissue, and of the interlobular tissue, which forms the investing capsule." In some instances, a copious exudation of blood-corpuscles is found in and around the air-cells. The ultimate changes are, that the nodule, by shrinking, often becomes detached from its capsule, causing occasional hæmorrhage in this process; and, being disintegrated, is poured into the bronchi, and expectorated—leaving a small cavity filled with a glairy fluid like honey. Many such secondary cavities of this kind may be found in a lung. What Dr. R. Thompson calls the traction of the sound part of the lung, initiates the separation of the nodule from its capsule.

The localities in which such blood-clots are found are observed to be chiefly in the "periphery of the lung, *i.e.*, the summit and middle part of the upper lobe, the middle axillary region close to the pleura, the anterior inferior border, and the middle part of the base corresponding to the summit of the arch of the diaphragm." These positions are exactly those in which an inhaling force, directed from the root of the lung, or larger bronchi, to the periphery, would lodge them.

The secondary changes in such clots are not due to putrescence, for blood does not putrefy if air be excluded; and in the positions indicated, they are not reached by air. This is in accordance with Zeimssen's experiment, in which no putrescence nor caseous pneumonia followed the injection of blood into the lung-tissues of a healthy dog. The fibrinous clots become hard, of a white or light red colour, often pigmented with black granules. Dr. Thompson considers that they do not degenerate into tubercle, nor irritate the tissues unless septic matter, probably from a tuberculous cavity, becomes mixed with them. Occasionally they calcify, and, such products being dislodged, a small dry cavity results.

These observations, which possess much interest, show us that hæmoptysis is itself a cause of important changes in the lung in certain cases. While acknowledging their value, I must observe that a large number of cases of lung-bleeding are certainly not followed by any such results. On the other hand, we should always be on the look out for them. Hæmoptysis may, as we are aware, be caused by other than tuberculous or phthisical diseases, and occurs often without any secondary result whatever, as in certain instances of pulmonary congestion, due to cardiac causes. I cannot enter here into the recent controversy imported from Germany, as to whether tuberculous or destructive diseases of the lung are initiated by hæmoptysis. My own belief is, that it is not a primary causative agent in any case, but that some morbid process in the lung has preceded it.

The other form of hæmoptysis—the passive—resulting from the rupture of a pulmonary vessel, or from an aneurism of the pulmonary artery in an ulcerated lung, is very familiar to us. The mechanism appears to be that one side of a pulmonary branch will be unsupported in the walls of a cavity, so as to present softening and aneurismal bulging. The result of such rupture is often immediately fatal. It occurs in males much more frequently than in females, for, out of twenty-two fatal cases, twenty were males.

The prognosis, in cases of large hæmoptysis, should of course be guarded. No one dies of a first hæmoptysis. Large hæmorrhages are apt to be repeated, the patient belonging, probably, to the class of individuals affected by hæmophilia; or the form of disease under which he labours favouring such structural deviations as account for his bleeding. Hæmoptysis is often followed by a pause in all the symptoms, the congestion of the lung being relieved. Many of the longest cases I have seen have been most frequently attacked by moderate hæmoptysis.

The case of a schoolmistress, now aged 43, whom I have watched since she was fifteen, has been often referred to by me. At the age of fifteen, a cavity formed in her left lung. Under my notice, long since, the subclavian walls have fallen in, and a dry cavity of smaller size exists. She has a rather profuse hæmoptysis once in several months. In her ordinary state she is rosy, well nourished, and weighs about twelve stone. Every hæmoptysis relieves her from dyspnœa and cough. She still teaches in a national school.

Having considered the secondary changes which hæmoptysis may produce in the lung-tissues, apart from any tubercular development,

we may examine the secondary local affections which occur in the course of most cases of chronic diseases of the lung.

In old times, these fibrinous or calcified deposits were regarded as tubercle. But modern pathology decides that in certain instances, sufficiently numerous, they are simply due to impacted blood-clots, which ultimately undergo degenerate changes. They are thus analogous to the alterations undergone by inflammatory exudations in other parts of the body. Many of our most chronic cases are doubtless of this class, and their extreme chronicity is an argument in favour of their origin from such cause. It has been said of tubercle that its life is short; and it is certainly most in accordance with modern observation, that a few months, at most, complete the various changes from its development to its death and degeneration.

But those puzzling and very chronic cases which last for years, with signs of consolidation or of cavity in one portion of a lung, may often be accounted for by an altered blood-exudation, which has retained only its fibrinous character, or has become calcified in the lung-tissues. These considerations should be present with us in forming a diagnosis, or in offering a prognosis of very chronic cases. In such we may not be witnessing the final degeneration of a mass of tubercle, but only the result of hæmorrhagic impaction, or of inflammatory exudation.

I turn now to the *secondary local affections* of the lung, and they are of great clinical interest.

A patient, suffering from active disease in a part of one lung, will have the opposite lung at base or apex, or the lower part of the same lung, attacked by congestion: that is, an induration similar in physical conditions to that which first existed, will develop at a distant part. You will have, say, a patch of dulness; breath-sounds more or less tubular, and crackle or moist crepitation. Febrile symptoms accompany, or rather precede, the physical signs, for the patient will have chills, high temperature up to 104° or 105°, pain in the side, rapid pulse, and possibly a congestive hæmoptysis before the physical signs are developed. Is this first attack in a distant part of the lung due to taking cold or exposure? As the event is witnessed daily in our hospitals, where the patient is guarded from every such event, we must reject this explanation.

That it is due to infection seems likely from the following circumstances:

1. From the likeness of the secondary to the primary affection. The congested or indurated portion of lung is found in the same pathological condition; that is, either an inflammatory exudation occurs affecting the alveolar and interalveolar tissues, or a deposit of that which is recognised as miliary tubercle takes place. The irritative fever accompanying it is also identical.

2. That it is not a mere extension by continuity of morbid processes is evident from the fact of distance, portions of healthy lung intervening. At the same time, such direct extension does occasionally occur, but forms no argument against the infective theory.

3. Facilities for conveyance of morbid matters are abundant; either directly by mechanical conveyance through the air-tubes, or indirectly by the lymphatics and blood-vessels.

4. Analogies may be found in the extension of cancer to distant parts, or in the secondary abscesses from pyæmia, although the septic element has probably much to do with the latter.

An argument in favour of the infective theory may be found in the period of lung-disease in which these secondary attacks occur. According to my observation, they are most common during the period of softening, when tissue-compounds are disintegrating, and in a condition to enter the circulation or the lymphatics. They are also least common in cases of chronic cavity well defined, and, as we know, lined by a membrane, and surrounded by fibrous formations, which obstruct all the vessels and harden the tissues.

Before leaving this part of the subject, I would remark on the prognostic indications to be gathered from such attacks. They are among the most fatal events in phthisis, and it may indeed be said that they form the terminal period to most of our chronic cases. Viewed as congestions they are never completely recovered, and, regarded as extensions of tubercular deposit, they only indicate a further and lower stage of disease.

In forming a prognosis of any given case, we must then mainly consider the form and limits of disease, the existing symptoms, and the modifying agents found in age and heredity. Of form and limit I have given illustrations in the apex disease, well defined with much induration; and in the diffused form of disease which does not attain to the stage of cavity.

In chronic cavity, large or small, but single, and situated at the apex of one lung, we have generally a very prolonged example of tolerated disease. The mechanical conditions of localisation and limit have been complied with; the necrotic processes have been completed, and a membrane lines the walls. The pulmonary and nutrient vessels have become obliterated. It is, however, a necessary condition that a healthy circulation should exist in the surrounding parts, and this is a *sine quâ non* for shrinkage and possible cicatrisation. The surrounding cells are generally emphysematous, and two or three are often found thrown into one. Such cavities may enlarge, or, from traction of other parts of the lung, may become united to another neighbouring cavity.

But their undoubted tendency is to contract, and that of the surrounding parts of healthy lung is to expand; and this should be remembered in treatment. Such cavities are large secreting surfaces, and are liable to catarrh, or, as my colleague, Dr. Powell, expresses it, a man may catch cold in his cavity from ordinary causes, and at such time there is increased secretion which may afterwards dry up. Cavities deep in the lung, with imperfect or circuitous connection with a bronchial tube of some size, are very apt to permit the formation of collections of secretion which become fœtid, when the patient becomes intolerable to himself and others, and septic fever may arise and prove fatal or shorten his life. In such a state, the condition differs but little from that of chronic abscesses in any part of the body, and the surgical treatment by free emptying and drainage will form part of our considerations when next we meet. The other misadventures to which a cavity is liable are, profuse hæmorrhage from a pulmonary vessel generally lying in its side, and unprotected at one part, permitting bulging and progressive softening, or aneurismal dilatation. A pneumothorax from softening of the walls of the cavity or tuberculous ulceration of the investing pleura may, in rare instances, complicate and precipitate the case.

But on the whole, from its representing a local disorder which has completed its degenerative changes, from its distinct limitation by fibroid alterations of connective tissue around it, and from its isolation in the lung, it must be regarded as a form of disease tending to great chronicity.

In forming a prognosis in any given case, the chief symptoms which must decide a favourable or adverse result, are *fever* and *wasting*.

High temperature means the presence in the blood of febrific materials, the result of caseous degenerative changes in the lung. As is well known, there is a daily evening exacerbation, and the minimum is generally found about 7 A.M. In a chronic quiescent case of phthisis, these changes vary but little from the healthy standard. That which is of most evil import is a high evening maximum followed by a low morning minimum. The acute angled curve in the diagram, with a large diurnal change, is much to be dreaded. The gradually declining curve means diminished febrific material in the blood, and a coinciding diminution of urgent symptoms. A rapid sudden rise often indicates an approaching hæmoptysis, or a local congestion, or a deposit of miliary tubercle in a distant part of the lung. A sudden fall to a sub-temperature is indicative of collapse, and often precedes a fatal issue.

From the fact of the minimum temperature occurring in the early morning, we may gather the indication for nourishment to be administered to the patient at that time.

Upon the subject of temperature, we may notice that the absence of high temperature contraindicates phthisis in doubtful cases where the physical signs are of a dubious character; and it may be remarked that, although the thermometer is occasionally at fault in offering positive evidence of existing disease, it is invaluable where giving negative results in doubtful cases.

Finally, we may remark, that the temperature will be found highest in acute florid phthisis, with extensive infiltration of caseous masses, while it is lowest in cases where fibrous alterations are most complete, because in the latter case there remains no broken-down material to be absorbed.

Of wasting of the body, it is to be remembered that progressive waste and high temperature are almost always coincident; and that the third element of phthisis, progressive local disease, is seldom absent in such an evil concurrence.

Progressive improvement in weight is generally, but not always, coincident with a stationary or improving condition of the lung. It is of course a favourable state; but in very numerous instances it will be found that, while a patient is daily adding to his weight, a steady but slow increase of local disease is proceeding.

Hæmoptysis, which is common to every stage of phthisis, is an uncertain guide in prognosis. A rapid uncontrollable form of disease is often begun by hæmorrhage, the tendency of which is to repeat itself at short intervals. I have before considered the conditions of lung which result in such forms; some consisting of a succession of conges-

tions, which unite and break up all the tissues. The more remote events which follow the impaction of clots should also be remembered.

But it is undeniable that some of our most prolonged cases are hæmorrhagic. The congestion of lung appears to be relieved by the bleeding, and a long pause often occurs, during which the symptoms are in abeyance, and the patient loses his fever and recovers flesh.

The influence of age on the development and progress of chronic affections of the lung is well marked. The strumous cases—infectious from the break up of scrofulous inflammation—are naturally found in the earlier periods of life, during the years of growth, and in early adult age. Hence the large proportion of cases are found at that time. The more acute and rapid forms of disease are also placed here, and the more urgent symptoms, as high temperature and rapidity of waste, and profuse congestive hæmoptysis. But, about the middle period of life, although phthisis has not ceased, there is a noted lessening of its frequency, and a marked difference in its type. The degenerative changes in the lung are more of the class belonging to chronic induration than to caseation. At Chelsea Hospital, in the bodies of men aged from sixty to eighty, half the cases exhibited chronic diffused grey consolidation, concretions in the lung, excavations, or traces of recent and old cicatrised cavities.

The type of chronic lung-disease after 45 is slow: the febrile action mild, the secondary complications few, and there is precisely what might have been expected from a knowledge of its pathology. After 45 many cases of phthisis occur, although at that age insurance-offices reckon that the liability has been passed. Christison found that 22 per cent. of the deaths in lives selected by the Scottish Widows' Fund, occurred from phthisis between forty and fifty years of age. It is at this time of life that old deposits in the lung, the result of low inflammatory action, often at the base, break up, and may assume the tubercular form.

On the whole, we may assume, in offering a prognosis, that, the more advanced the age, the more likely is it that instances of disease will be latent in development, and chronic in form.

Permanent acceleration of pulse in the aged is often indicative of latent advancing disease. The complications, as profuse hæmoptysis, diarrhœa, and laryngitis are uncommon.

Did time permit, I should have much to say of the influence of heredity on chronic disease of the lung, both as a cause, and as influencing the form and progress of disease. I must confine myself to a few of the leading considerations.

From extended and careful observations, I believe that two-thirds of the cases of phthisis have had the hereditary element. Heredity should include remote ancestry. The common mode is to inquire if parents, brothers, or sisters have had the disease, but this is manifestly only a part of the story of our position in the chain of animal life: our inquiry, to be correct or reliable, should extend back for several generations on both father's and mother's side.

We are familiar with the fact that form and features, organic peculiarities, mental configuration, the shape of hand or foot, habits of movement, moral power or weakness, and especially emotions, are transmissible, not only from parent to child, but often an individual will reflect some of the peculiarities which have been known to characterise an uncle or grandparent in a remarkable degree. And so it is of what we call constitution, which means peculiarities of vital organisation.

It is true that the germ so inherited does not always produce fruit, because the soil may be unfitted for its growth. Thus, one individual in the chain of inherited weakness may escape. On the other hand, it is not to be forgotten that he may be a transmitter of disease, although not personally a sufferer. His children may, under favourable circumstances, develop the ancestral tendency.

Again, forms of disease are transmitted. Many members of the same family often die at the same age, of the same form or variety of phthisis, which one individual after the other appears to develop on arriving at the same period of life, which, in such cases, is generally early. We are all of us familiar with this painful fact in practice. Just as longevity is distinctly transmissible, just as members of the same family reach the same age of advanced life, which is indeed the term for which the machinery is adapted to last—so the inherited germ takes root, and develops a fatal disorder at a given period of growth in earlier life. I have known several members of one family, in repeated instances, exhibit precisely the same variety of phthisis—cavity, or diffused disease, or acute tuberculosis—as others of the same stock who preceded them. The hæmoptysical variety is notably heritable, and runs in families.

The question of marriages of near consanguinity arises here; and I believe they are safe, unless there be in the race some proclivity to disease, which, in such case, is precipitated on the offspring from both parents. Such are some of the more prominent facts about heredity; and, in forming a prognosis of any given case of disease, they should always be borne in mind.

In concluding this portion of our subject, we may enumerate some of the leading features of the more favourable, and contrast them with the less favourable conditions of chronic lung-disease.

The more favourable local conditions are:

1. Well limited induration. The more a portion of lung is indurated, shown by marked and defined dulness, and the other signs of consolidation, the better the prognosis. The more marked, on the other hand, the signs of caseation and degeneration processes, the worse the prognosis.

2. The single cavity, well limited, and defined: the other parts of the lung unaffected.

3. The diffused form of disease, which I have described as exhibiting crepitant sounds over a large surface of lung, with moderate dulness, and slightly impaired movements in a well-shaped chest.

4. The existence of extensive fibroid alterations, with well-marked characters.

Among the general favourable conditions, the most important by far are the absence of fever and waste. These two symptoms are, as we know, concurrent in almost every case. The fever, being fed by morbific material from the disintegration of caseous products in the lung, is a direct measure of local irritation; and the amount and degree of local irritation may almost be said to be the measure of the patient's danger. Loss of flesh is always an evil symptom, as progressive regain of weight is good.

As regards temperature, high maxima and low minima are of bad import. The table-curve of temperature which is best, is one which, avoiding extreme fluctuation, gradually subsides to low or normal level, and remains there, with the slight diurnal variations of health.

The absence of secondary complications, as diarrhœa or laryngeal ulceration, is of primary importance, if we are to hope for prolongation of our case, or restoration to comparative health. Diarrhœa of the persistent form is especially prejudicial; also anorexia or vomiting, often repeated. With a fairly sound digestion, your patient may weather many lung-difficulties; and I consider this next in importance to the absence of fever and wasting.

Finally, to the above conditions we may add the following:

Absence of hereditary taint;

Age past forty-five;

The chest well shaped (not of the phthisical form).

In making a summary of the symptoms of any case, the physician, carrying his knowledge with him, ever ready of application, will doubtless apply the doctrine of averages to every individual he sees. But he will also gather indications from a variety of minute signs—the face, the hand, the skin of his patient; and also from his general nerve-condition; and, by a multitude of minute symptoms difficult to put in words, he will come to a judgment as to his vital powers of resistance. Especially, he will remember that chronic chest-disease is multiform; that some individuals outlive a vast amount of local disease and systemic waste, while others succumb to comparatively light disorders. He should also not be in haste to prophesy results from any given condition of his patient. Especially should he avoid condemning a case as in the "last stage", a term formerly applied to cavity in the lung, but inapplicable as expressing a local condition only. The patient's powers should be measured, and his vital resistance estimated, and the numberless cases remembered which have outlived evil prognostics, and possibly adorned the short-lived triumph of some quack medicine.

While condemning every thing untruthful in opinion, we are bound to give our patient every encouragement which is truly derived from an intimate study of his disease. Above all, let us never prophesy as to time. You will often be pressed to say how long; but, unless in cases of impending death, we are not called on thus to map out disease. For, indeed, it is not often possible to assign a duration to even our most advanced cases; and to become prophets as to time is to subject our art to almost certain depreciation in the eyes of the vulgar.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—The usual quarterly court of directors of the above society was held on Wednesday, January 12th, at 5 P.M., Mr. John Gregory Forbes, V.P., in the chair. A sum of £1,270 was awarded to 59 widows, 15 orphans, and three recipients of relief from the Copeland Fund. The expenses of the quarter were £63 2s. 6d. There were no fresh applicants for ordinary grants, and one only for extra relief from the Copeland Fund. Two new members were elected, and the death of one was announced.

ABSTRACT OF A CLINICAL LECTURE ON PERIPHERAL PARALYSIS.

By T. GRAINGER STEWART, M.D., F.R.C.P.Ed.
Physician to the Edinburgh Royal Infirmary.

After describing and demonstrating a case of myxœdema, Professor Grainger Stewart reminded the members of the class of clinical medicine that, in one of the early lectures of the session, he had shown them one case and described two others in which he had established a diagnosis of peripheral paralysis of hands and feet. The grounds of that diagnosis were, that the disease spread upwards from the distal parts towards the proximal; that it involved the sensory, the motor, and the trophic functions of the nerves; and that, while no known facts with regard to the physiology of the brain or spinal cord could explain such a set of symptoms; disease of the nerve trunks themselves would readily do so. One of these cases which the students had had a further opportunity of studying at the bedside, was most unfortunately seized with an attack of acute double pneumonia, and died. Dr. Grainger Stewart now proposed to bring before the class the results of the *post mortem* examination. The brain and the spinal cord both appeared to be healthy when removed from the body, and the subsequent microscopic examination fully confirmed this opinion. It was, however, otherwise with the nerves in the paralysed limbs, which, though they appeared to be healthy to the naked eye, were found microscopically to be extensively diseased. The axis-cylinder in many of the fibres was broken up in such a manner as to present a moniliform appearance, and in some parts it was completely destroyed. (Illustrated by a drawing made from the median nerve).

Dr. Stewart pointed out that this result was very interesting in relation to this particular group of cases; that it fully justified the diagnosis arrived at during life from a study of the clinical features of the case; and that it was also of great value in relation to other morbid conditions—clearing up various pathological processes which have hitherto been obscure. According to the lecturer's experience, the process is generally recovered from, and in the course of two or three months a patient, who has been completely paralysed in hands and feet, may recover the full use of all extremities. He had seen what he took to be this process on three several occasions in one individual, each time followed by recovery; but he valued knowledge regarding this form of paralysis, most of all on account of the light which it seemed to throw upon certain symptoms in locomotor ataxia. The members of the class were familiar with the fact that, in the early stages of that disease, patients frequently suffered from temporary paralysis, as well as from lightning-pains in the limbs, and that in the later stages of the process amaurosis sometimes came on, with atrophy of the optic nerve. Both of these, Dr. Stewart thought, we should one day learn to be due to precisely this process which he had demonstrated in the three patients whose cases had been referred to. In the early stages, the paralysis generally subsided, and that corresponded to the recovery which he had generally noticed in these cases of peripheral paralysis, the paralysis most frequently occurring in the third and sixth nerve of one side. He had been much interested to find that Dr. Hamilton, the pathologist to the Royal Infirmary, had come to the conclusion, on pathological grounds, that the nerves were often affected in locomotor ataxia; and to hear from him that the lesion demonstrated in the case under consideration, was the one which he regarded as characteristic of ataxia: while Professor Grainger Stewart had himself, from clinical considerations, come to the conclusion that the nerves were often the primary seat of change in that disease.

The Albert Medal. The Queen has been pleased to confer the Albert Medal of the second class, on Surgeon Henry Grier, Army Medical Department, for the following services. On August 20th, 1880. Lieutenant Graham, 10th Regiment, was dying of diphtheria, when Surgeon Grier performed upon him the operation of tracheotomy; and, observing that no attempt at inspiration followed, applied his lips without a moment's hesitation to the wound, and, by suction, at the imminent risk of his own life, restored to the patient the power of breathing. Lieutenant Graham's life was thus saved for the time, although, unfortunately, on the following day the disease extended to his lungs, and he died.

FOURTH SERIES OF TWENTY-FIVE CASES OF COMPLETED OVARIOTOMY.

By GEORGE G. BANTOCK, M.D., F.R.C.S.Ed.,
Surgeon to the Samaritan Free Hospital for Women and Children.

In looking over the one hundred ovariotomies which this series completes, I cannot but congratulate myself upon the resolution which I formed, as early as the date of my seventh operation, to put aside the clamp as the means of securing the pedicle, and give the ligature a fair trial. My expectation of greater success from this proceeding—not theoretical, but based on observation—is by this time fully realised, and the practice is justified by the results. The objections then urged against the ligature were, chiefly, that it was not so safe as the clamp, that it was likely to cause pelvic abscess, and that it might become the source of hæmatocele from the escape of blood at the menstrual periods. The danger of the ligature as compared with the clamp was imaginary, and is not now heard of; and, so far as my experience goes, the fear of abscess was equally unfounded. In one case, No. 97, where both ovaries were removed, there were no fewer than seven ligatures on one pedicle and three on the other. Both pedicles were very short, and the inner ligatures actually included the respective cornua of the uterus. All this complicated tying was inevitable, as, on the right side, the tumour dipped deep down by the side of the uterus, so that the line of ligatures formed a curve, with its concavity looking upwards. Here, if ever, one might expect mischief, but no abscess formed; on the contrary, so little evidence of irritation was there, and so rapid was the convalescence after so severe an operation, that the patient left the hospital on the twenty-eighth day, and at the present time is in excellent health.

The idea of hæmatocele arose from the well-known fact that, in a considerable number of cases treated by the clamp, menstruation does take place through the stump and cicatrix. In a former paper, I gave my explanation of this occurrence, and showed that, from the different condition of the stump under the clamp and under the ligature, there was every reason to believe that such an inconvenience must be averted. I am now able to support this view by stating that, in not one of the ninety-four cases, included in these tables, in which ligatures were used, has there been any appearance calculated to cause a suspicion of the expected hæmatocele, or of a periodical discharge. In one case, as already reported (No. 19, of first series), hæmorrhage occurred from retraction of part of the stump, but there has been no other instance of this accident since I adopted the plan of applying a separate fine ligature to the outer edge of the stump formed by the two layers of the peritoneum. In another case (No. 17, first series), where the pedicle on the left side was very thick and short, besides breaking and having to reapply several of the six ligatures used, I punctured a vessel in the deepest and thickest part. A small extraperitoneal hæmatocele was the result of this puncture, and, from its proximity to the rectum, it soon became offensive. The patient died on the ninth day, with the usual symptoms. An advocate of the clamp would naturally cite this case to clinch all he has to say about the ligature; but it helps him very little, for here the clamp could never have been put on; the breaking of the ligature will happen, but can be remedied, and no valid objection can be made of the punctured vessel against the ligature, since, with all its liabilities, it was the only substitute for the impossible clamp.

I have now the satisfaction of seeing the clamp almost abandoned, and its place taken by the ligature. The reason assigned for this is the adoption of the "antiseptic system", which is thought to be incompatible with the clamp, and to render the ligature safer. Here it is worthy of notice that, while one party is putting forward the antiseptic system as the explanation of their greater success, we find, on the other hand, Mr. Lawson Tait reversing the proposition, and urging that this supposed antiseptic success is due to the coincident use of the ligature. As for myself, I am not prepared to assent to the doctrine that the antiseptic system does enable me to carry out the intraperitoneal method (ligature) with greater safety. The fact of the disuse of the clamp alone concerns me, and not the reasons given for it, regarding which there is room for difference of opinion. The only method that is truly in rivalry with the ligature is the actual cautery. Remembering the excellent results obtained with it by Baker Brown and Keith, and that Wells's cases, so far as they go, are in favour of it, and although desirous of completing a hundred cases with the ligature, I have several times made arrangements to try it; but, as often as I have done so, I have encountered a very short pedicle, with no room for the clamp between

the tumour and the uterine cornu. Thus it has happened that my third case remains the solitary example of the use of the cautery in my practice. As I have already stated, no true comparison between the clamp and ligature has ever been made, nor are the data for such a comparison even now forthcoming. It is manifestly unfair to compare the results of the two methods in the hands of one who always treated the long pedicles with the clamp, and the short (and otherwise bad) cases with the ligature, as a *dernier ressort*.

I began to practise the antiseptic method in my thirty-first case, at the time when thymol was brought to our notice with a great German reputation as a germicide. My first five cases did very well with it; one was a case of acutely inflamed tumour with recent vascular adhesions, and required a drainage-tube; another was a case of sessile tumour—operation tedious, with nine ligatures; the other three were either simple, or only moderately complicated. The sixth was a case of colloid tumour in a bad subject, and ended in death on the fifth day. The *post mortem* examination revealed a slight amount of peritonitis, the presence of a small quantity of thin colloid and ascitic fluid in the peritoneum, and advanced fatty degeneration of the heart and liver. "Cheyne-Stokes' respiration" was well marked before death, and it was noticeable that the ice-cap, instead of reducing the temperature, actually caused it to rise. I have since regretted not using a drainage-tube, for it was just one of those cases in which the extra elimination provided for by it would probably have averted the fatal termination. Although I could not attribute this death to the failure of the antiseptic, but rather to the degeneration of important organs, and although the other cases yielded results which could scarcely be improved upon, I changed the thymol for carbolic acid. At first, I was by no means satisfied; for the second case (aged 51) died of acute pulmonary congestion, and it appeared as if, by attempting to protect my patients against a presumed danger, I was exposing them to a greater risk of death from a new and recognisable cause. In fact, I could not do otherwise than account for the death by carbolic acid poisoning, or chilling effect of the spray; for the parts concerned in the operation presented no evidence of morbid action. The fourth case (aged 41) was one of very short and thick pedicle. I had great difficulty in drawing the ligatures (of which there were seven) tight enough to control the bleeding thoroughly, and did not feel quite comfortable in mind when the operation was finished. I adhered as closely as possible to all the details of Lister's method, and, relying too much on it, I omitted to use a drainage-tube. As I feared, there was some oozing from the stump, and my patient died of septicæmia on the fifth day. So far, then, I had lost one in six with thymol, and two out of four with carbolic acid; and it could not be said that my experience of the antiseptic method, especially with carbolic acid, was very encouraging. It is, however, only fair to state that all the cases were more or less complicated. Before I had completed fifty cases, I had lost three more, viz., one from obstruction of the bowel (case given in detail in last paper), one from acute bronchitis, and one from shock. As to how far the exposure to the cold spray in the two latter cases should be regarded as a factor towards the fatal result—in the one acting in the way of chill, and in the other as a direct depressant in a patient already moribund—opinions will differ. That it had some influence, I am convinced. In the former case, the symptoms of bronchitis set in as in an ordinary case of exposure to cold. The peritoneum was perfectly healthy. Thus, after the first twelve operations with carbolic acid, there were five deaths; and now, with a wider experience of its toxic effects, I cannot but rest in the belief that this agent decided the fate of at least two of the cases.

In my fifty-first case, I substituted absolute phenol for Calvert's No. 1 carbolic acid, hitherto used, and then I had a run of seventeen cases with only one death. The case, which under any conditions would probably have done badly, was shortly as follows: acutely suppurating cyst; very close adhesion of about a foot of ileum; adhesion of opposing raw surfaces producing partial obstruction; acute gastro-enteric catarrh with the formation of several ulcers, one of which, situated several inches above the injured portion, opened a way into the peritoneal cavity by a large rupture. Another series of ten recoveries was followed by a death in a case of soft sarcoma of the ovary in a young woman, aged 25, which I should have let alone as a hopeless case, but for the result of a consultation, and the urgent solicitation of the patient to have something done to relieve her suffering. An idea of the nature of the case will be obtained from the fact that a very short journey to the hospital was sufficient to raise her temperature to 101.6°, and her pulse to 140. With rest in bed, the temperature came down, but the pulse underwent very little change. The operation was long and difficult, and, the adhesions being extensive and vascular, much blood was lost. Four hours after the operation, the temperature had risen to 101°; for the next three hours, it rose at the rate of 1° an hour; and, at the end of seven hours, the pulse was 180. The patient died in eighteen hours. *Post mortem* examination showed that the lumbar glands were extensively infiltrated, and that there was not the shadow of a chance for the poor patient. Two years previously, I had been prevented from operating by a diagnosis given adverse to my own; and now, from the progress of the disease, and the reduced condition of the woman, the circumstances were much less favourable than at the previous consultation. The loss of this patient was not unexpected, but the next case was a sore trial. The patient was a married woman, aged 39. The tumour was a doubtful one, having a close connection with the uterus, but I was able to confirm my opinion in favour of its ovarian origin by the use of the aspirating needle. At the operation, I found it necessary to remove both ovaries. The left side furnished the tumour, which had large adhesions in the pelvis and to the back of the uterus; and, as I could not bring into view the source of some oozing still going on in the bottom of the pelvis, I had to close the wound, and trust to the drainage-tube. The operation lasted about an hour and a half. Within two hours after the operation, the catheter was passed, and two ounces of urine were drawn off. At the end of five hours more, the patient was unusually drowsy, the pulse was between 150 and 160, and no more urine could be obtained. At this time, the temperature was only 100°, but, in four hours more, it had risen to 103°. She lived twenty-five hours. On *post mortem* examination, the kidneys were found enormously congested, and the heart was small and fatty. There had been very little oozing, and Douglas's pouch contained only a small quantity—a fluid drachm or two—of coloured serum, which had collected there between the last dressing and her death. If there were any room for doubt as to the part played by the carbolic acid in the preceding cases, there could be none here; but I was destined to meet with still more convincing evidence. Fourteen days after this, I operated upon a patient, aged 55 (No. 72), who had been tapped ten times before she came under my hands, and whom I had again to tap in order that she might get a few nights' rest, by relief of the dyspnœa under which she laboured. The tumour, which consisted of a few small cells and one large cyst holding about fifty pints of fluid, adhered to the parietes from a little above the pubes to the ensiform cartilage and diaphragm, and from flank to flank. There was also an adhesion of omentum to the extent of several inches. The operation lasted only thirty-five minutes. The same train of symptoms set in, and it was only by the most heroic measures, such as the wet ice-pack, etc., that she was pulled through. In about seven hours, her temperature was 107.2° in the vagina. She was restless, only semi-conscious, and becoming comatose. There was then complete suppression of urine. This case has since been published in detail in my paper "On Hyperpyrexia after Listerian Ovariotomy", read before the Royal Medical and Chirurgical Society on December 14th last.

These two instances, occurring in such close proximity, seriously attracted my attention, and I could not but attribute death in the one case, and the very grave symptoms in the other, to the action of the carbolic acid. I had for some time been under the impression that a solution of carbolic acid, which, by its action on the epidermis, kept my hands in a constant state of desquamation, and which, in a great measure, destroyed delicacy of touch, was not unlikely to be attended with some risk when applied freely to the peritoneum, and especially to a large extent of raw surface. To independent lookers-on, the evil was plain enough, and I must say that I was forewarned of what would happen. At that time, I was using the standard solution of 1 in 40. With the view of obviating these unpleasant results, I resolved to reduce the solution to 1 in 50; and I soon found that, as far as my hands were concerned, this was an improvement. It remained to be seen what the effect would be on my patients. Until a recent period, when I still further reduced the strength to 1 in 60,* I continued to use this solution; and the table now shows the result. It will be seen that of these twenty-five cases with the diluted solution, eight were so severe as to require drainage. Of these, two died. The first was a very severe case of double ovariotomy in a patient greatly emaciated, and already *in extremis* after tapping, with a temperature of 101°, and a pulse of 140. The smaller tumour was pushed down into the pelvis to such an extent, that the perinæum was depressed as by the advancing head of a child in the second stage of labour; and, chiefly for this reason, operation had been refused three months previously. Shortly before coming under my notice, she had been tapped, and she was now the subject of irritative fever. The operation was a severe one, in consequence of adhesions, and the breadth of the pedicle, especially of the larger tumour. She died on the fourth day, without having shown any signs of rallying. Such a case says nothing for or against the method. The other patient had a fatty heart, got obstruction of the gall-duct from

* Since the above was written, I have gradually reduced the solution to 1 in 80, 1 in 100, and, in the last three cases, to 1 in 150.

calculi after the operation, and, later on, acute nephritis; and she died at the end of four days. Here, again, the nephritis appeared to be the immediate cause of death, as it was not till the urine had become scanty that serious symptoms set in. Before death, the urine was totally suppressed.

It is not my intention in this paper to enter at greater length into the question of carbolic acid poisoning, as the subject would occupy too much space. But it will probably be expected that at a time when "Listerism" is the question of the day, I should express my opinion on the value of this method in reference to ovariotomy. And lest it should be thought that I have not sufficient data, I may here state that my present views are based on the results of nearly one hundred cases of such operation done under this method, either without or with material modifications. It is necessary to a right understanding of my position, that I should indicate in what manner and to what extent I have departed from the practice of Mr. Lister. I presume it will be proper to ignore, or at least to relegate to the class of non-Listerian cases, the six cases which I treated with thymol, inasmuch as Mr. Lister regards this substance as non-antiseptic, or at least as unworthy of confidence. I began the carbolic acid, then, in my thirty-seventh case, and I adhered to all the details of the method with this exception, that I did not use the "protective". Preferring the dry system of treating wounds, from which I had seen such excellent results, and especially in the preceding six cases under thymol, I placed a pad of thymol gauze between the skin and the carbolic gauze. The results in the healing of the wound were, from the beginning, so satisfactory, that I continued this practice to a recent period, when it gave way for a time to a series of experiments. What particularly enamoured me of this gauze, was its eminently absorbent and non-irritating quality, as compared with the carbolic. At first I employed only a four-fold pad, about one and a half inches wide, followed by carbolic gauze; but the frequent occurrence of a pustular eruption, which in some instances was really troublesome, induced me to extend its use by interposing a single piece between the skin and carbolic gauze over the whole abdomen. I have seen nothing of the kind since. I presume no objection can be made to my testimony on the ground of such a modification, and I may observe that Mr. Spencer Wells, who has given in his adhesion to "Listerism", has, I believe, never used anything but thymol gauze. Nor will it be urged, that the absence of the "protective" reduces my cases to the class of non-Listerian, inasmuch as some of his most ardent followers have now abandoned it in favour of some form of dry dressing. At first I used to change the dressings under the spray, but after a time, my common sense rebelling against a double waste of time and material, I discontinued the practice, and not only have I seen no cause to regret doing so, but I believe it has been positively advantageous; for the dry method is thus rigidly adhered to; the patient is saved from the risk of a chill; and the wound is not exposed to the irritation of the carbolic acid, so fatal to the healing process. If, at any time, from imperfect adaptation of the edges of the skin, it has been necessary to depart from the dry treatment, I have been content to wash the wound with a weak solution of sulphurous acid (1 in 20), before re-applying the thymol gauze. This acid possesses the advantages of equal, if not superior, antiseptic and disinfecting porperties, and the absence of any irritating quality. Under this system of dressing, I have exhibited wounds at all stages, from a few days to three weeks after operation, and if a total absence of suppuration or even irritation be taken as the test, then I undertake to satisfy Mr. Lister. In other respects, I observed all the details of "Listerism" up to the period already indicated, viz., my seventy-second case.

There can be no doubt that we are all very much under the influence of first impressions. Thus, with a particular, and especially a new method of treatment, a case turns out favourably. This case, from the novelty, makes a great impression; the recollection of previous cases is obscured, and future observations are modified by this impression. In this way I suppose it happened, that I allowed myself to imagine ovariotomies done under "Listerism" presented a less degree of pyrexia than the others. Moreover, when one is continually hearing or seeing it stated that one of the greatest characteristics, if not the greatest, of this method, is the absence of fever, it is not to be wondered at that one who has failed, from want of leisure or any other cause, to make a close and comparative investigation of all the details of his cases, should glide into the same way of thinking. Not long ago, in conversation with a Listerite (and I use this term in a complimentary sense) I asked him to show me a chart of what he called a normal temperature, after an antiseptic operation. As I anticipated, from my own experience, I found the curve reaching as high as 100.4°. I presume this is what Mr. MacCormac means when he says, "with very few exceptions, antiseptic operations were followed by a very slight (if any) rise in temperature". How then does it happen that Volckmann has had to invent a new name for that state of pyrexia, which in his experience so frequently follows antiseptic operations? He calls it "aseptic fever". Now, I have taken the trouble to go over the first thirty-six cases, and to compare them with the same number, from thirty-seven to seventy-two, done antiseptically, the exact number done by me under strict Listerism, with the exception of the modifications as to dry dressing already explained. The first and most striking fact, and one that was startling to myself, is that the lowest temperature curve is found in a non-"antseptic" case, in which it never passed beyond 99.6°; and the highest in an antiseptic case in which it reached 107.2° (No. 72 already referred to). Nor can it be said that the non-antiseptic case was of the most simple kind. The tumour weighed thirteen pounds; there were several pints of ascitic fluid in the peritoneal cavity, and the intestines were considerably injected; the pedicle was secured by a double ligature of hemp, but the abdominal sutures were of silkworm gut. Comparing the clamp and ligature non-antiseptic cases, the former show the highest temperature, in one reaching as high as 103.8°.

In order to institute a fair comparison between individual instances, I have selected cases as nearly alike as possible, viz., as regards the age of the patient, and the nature of the operation. I have been able in this way to bring together eight cases in four sets of two each, and I have placed the register of the corresponding cases on the same chart. I am well aware that this cannot be held as convincing evidence one way or the other, for patients of the same age, and undergoing operations of the same severity, may yet differ in the tendency to disease. But I give it for what it is worth, and the second fact brought out is, that in three of the sets, the advantage is slightly in favour of the non-antiseptic cases, and that in the fourth, the advantage is greater by more than two degrees.

Then, not only were the cases in the first series of thirty-six worse in character, but they were treated with the disadvantage of my want of experience. Thus, among them the drainage tube was used in ten cases, while in the second lot it was used in eight cases only. This is a test of the comparative severity of the two series, and is in favour of the second; for in my earlier cases I did not resort to the tube as often as I did in my later, and it was not till I had lost a patient, under circumstances in which I would now consider it indispensable, that I saw the importance and value of this instrument. After all, notwithstanding the much greater severity of the first series, the mortality is only 1 more, or as 9 to 8. One would naturally suppose that, under the circumstances, the first would show a much higher range of temperature than the second. Taking the average temperatures for the first four days, I find the difference is only four-tenths of a degree in favour of the antiseptic and milder cases. This cannot be said to be an important difference, nor such as we had been led to expect.

Still further, of the nineteen cases of recovery, without the drainage tube, in the first series, the ice-cap was used for the reduction of temperature in six cases; of these, the three clamp cases furnished two. Of the same number of recoveries in the second series, the ice-cap was used in five. The latter were, however, all ligature cases. While, then, the antiseptic cases yield an average temperature, four-tenths of a degree lower than the non-antiseptic; they, on the other hand, include a case unequalled in the severity of the pyrexia, which is clearly attributable to the treatment. It might be thought that the exclusion of this case would leave a much lower average temperature in the other thirty-five cases, but this is not so, as the average temperature for the four days was only 101.2°.

There is another matter not to be overlooked. I have stated that after my seventy-second case, I reduced the solution to one in fifty. Latterly I have still further diluted it, viz., to one in sixty. Now, comparing the temperature curves, I find a still further improvement in the latter cases, along with a generally diminished mortality, the mortality such as it is being due for the most part to non-preventible causes. Thus from the seventy-third to the one hundred and twentieth inclusive, I have used the ice-cap in only four cases; in the last thirty cases only twice; and of these, in one it was required by carbolic poisoning.* Thus the reduction of the solution to one in sixty, though giving better general results, has not saved me from this accident, regarding which, in the latest instance, the evidence is most complete.

There are two important deductions from these facts.

1. In similar cases the "antiseptic system" in my hands has not yielded a lower temperature curve.

2. The reduction of the strength of the carbolic acid solution has been attended with a proportionate lessening of the temperature curve and a decrease in the rate of mortality.

* Since the reduction of the solution to 1 in 60, I have used the ice-cap only once in thirty-one cases for a few hours. Even in this, it was scarcely necessary, for the temperature had just begun to fall when it was put on.

TABLE *of Fourth Series of Twenty-five Cases of Completed* [illegible].

The Capital letters, R. and L., in Treatment of Pedicle column, mean respectively Right and Left. Ovary

No.	Name of Previous Medical Attendant.	Age.	Condition.	No. of Children.	Previous Tappings.	Date of Operation.	Adhesions.	Side and Treatment of Pedicle	Weight of Tumour.	Duration of Operation.	Result.	Progress.	Cause of Death.	Remarks.
76	Dr. W. H. Platt, Kilburn	59	W.	7	0	May 14, 1879	None	R. Ligature	28 lb.	25 m.	..	..	..	[illegible] operation Died
77	Mr. P. Swales, Sheerness	30	M.	9	0	,, 21, ,,	Extensive omental	R. Ligs. (3) L. Ligs. (4)	12 lb.	1 h. ..	.	.		
78	Dr. Wynn Williams	71	W.	0	0	,, 24, ,,	None	R. Ligs. (3)	7½ oz.	25 ..	..	.	.	
79	Mr. Maxon, Northampton	38	M.	3	0	,, 29, ,,	Omental [illegible]	R. Ligs. (3)	11 lb.	40 ..	.			
80	Dr. Wynn Williams	53	M.	14	0	,, ...	Extensive parietal	R. Ligs. (4)	16 lb.	45 ,,	.			
81	Mr. Brooke, Langport	25	S.	0	0	June 5, ,,	None	R. Ligs. (4)	4 lb.	.. ..	..			
82	Mr. G. A. Brown, Tregelar	35	M.	0	0	,, 11, ,,	Broad attachment (many ligatures)	L. Ligs. (many)	20 lb.	.. ..	[illegible]			Patient [illegible] from [illegible] and meso [illegible]
83	Dr. Stewart, Nottingham	40	S.	0	0	,, 18, ,,	None	R. Ligs. (4)	11½ lb.	.. ..	..	.	.	[illegible] Recovery [illegible] operation Died [illegible] first day.
84	Dr. Brewster, Rothernthe	34	M.	0	1	July 9, ,,	Extensive parietal	L. Ligs. (7) R. Ligs. (5)	38 lb. 30 lb.	70 ..	[illegible] tube	[illegible]	.	Patient [illegible] Never [illegible] Dying [illegible] preceding [illegible] Autopsy refused
85	Dr. Campbell, Calne	38	M.	2	0	,, 9, ,,	Parietal, omental, pelvic	R. Ligs. (3)	17 lb.	.. ..	[illegible] tube	[illegible]	[illegible]	Patient [illegible] Intestinal [illegible] [illegible] [illegible] [illegible] [illegible]
86	Dr. Lake, Teignmouth	55	W.	0	1	,, 12, ,,	Parietal	R. Ligs. (4) L. Ligs. (3)	20 lb.	45 ,,	[illegible] tube	[illegible]	.	[illegible] [illegible] Post-[illegible] [illegible]
87	Mr. Kershaw, Middleton	47	S.		0	,, 17, ,,	Omental and to right Fallopian tube	L. Ligs. (4)	17 lb.	.. ..	..	.	.	[illegible] Thin [illegible] to term. Mesenteric [illegible] Liver very small.
88	Dr. Clifford Allbatt, Leeds	22	S.	0	0	,, 23, ,,	Parietal, omental, pelvic	L. Ligs. (4)	34 lb.	55 ,,	[illegible] tube	.	.	
89	Mr. Jonathan Hutchinson	40	S.	0	1	Sept. 24, ,,	Numerous parietal	L. Ligs. (4) R. Ligs. (3)	13 lb. 2 oz.	45 ..	..	.	.	Septic [illegible] [illegible] Pancreatic [illegible]
90	Dr. Tyacke, Chichester	22	S.	0	0	Oct. 1, ,,	None	L. Ligs. (4) R. Ligs. (3)	14 lb. 1 oz.	50 ,,	..	..		
91	Dr. Wynn Williams	35	M.	0	1	,, 2, ,,	Parietal, omental, pelvic, very vascular	L. Ligs. (5)	14 lb.	50 ..	[illegible] tube	.		
92	Mr. Ashenden, Hastings	30	M.	3	1	,, 2, ,,	Parietal, omental (many ligatures)	L. Ligs. (6)	5 lb.	40 ..				Adhesions August 20th. [illegible]
93	Dr. Tuckwell, Oxford	22	S.	0	0	,, 9, ,,	Omental, pelvic	R. Lig.	2 lb.	60 ,,	..	..	..	Patient [illegible] Pyæmia [illegible] Died
94	Dr. Michlachlan, Old Kent Road	37	W.	8	0	,, 15, ,,	None	L. Ligs. (3) R. Ligs. (3)	11 lb. 12 oz.	50 ,,	[illegible] tube	..	..	Pulmonary [illegible] Died
95	Dr. Hope, Chobham	36	M.	0	0	,, 18, ,,	Parietal	L. Ligs. (4)	19 lb.	45 ..	.	.	.	Patient [illegible] Died [illegible] Pedicle [illegible] Ovary [illegible] large [illegible]
96	Dr. Barnde, Nottingham	34	M.	0	0	,, 25, ,,	None	R. Ligs. (3)	8 lb.	35 ,,	.	..	..	Small [illegible] [illegible] Pedicle very short.
97	Dr. Granville Bantock	31	M.	2	0	,, 30, ,,	None	R. Ligs. (7) L. Ligs. (3)	21 lb. 11½ lb.	120 ,,	..	.	..	
98	Mr. Hynes, Nottingham	30	M.	0	0	Nov. 3, ,,	Parietal, omental (several ligatures)	R. Ligs. (5)	16 lb.	45 ..	..	..	..	
99	Mr. Alban Doran	35	M.	0	0	,, 11, ,,	From whole extent of parietes, to intestine and omental (eight ligatures)	R. Ligs. (5)	15 lb.	70 ..	Cyst [illegible] tube	Death [illegible]	Asthenic [illegible]	Fatty heart. Obstruction [illegible] duct.
100	Mr. Phillips, Southend	42	S.	0	0	,, 12, ,,	None	R. Ligs. (4)	17 lb.	25 ..	..	Recovery	..	

The length of this paper forbids me to add much more. A few words, however, are needed. I claim to have demonstrated that Listerism may be considerably modified, to such an extent, indeed, as no longer to secure the acknowledgment of its author, not only without worse, but with better results. How far this modifying process may be carried remains to be seen. Whether we shall arrive at the contradictory position of Thiersch, who, believing "Listerism" to be theoretically perfect, yet prefers to use salicylic acid instead of carbolic acid, as less irritating, etc.; or like Galezowski, raise a laugh at the whole system by vaunting the virtues of a solution of carbolic acid, containing a thousandth part; or, steering that middle course which is proverbially the safest, settle down to a modified practice, something in the form of a purifying irrigation, the result of experience tempered by common sense, the future alone can determine. That the carbolic acid in the proportion and in the manner prescribed by Lister is a necessity few will now contend, any more than they can dispute the disadvantage of the chill from the spray in ovariotomy; but that the cleanliness which is thus attainable, viz., by the spray and frequent ablutions, plays an important part, few will deny. The "antiseptic system" may not irreverently be called "the gospel of cleanliness", for where there is perfect cleanliness there can be no septic process. I have faith in the virtues of cleanliness, but I do not believe in the specific antiseptic properties of carbolic acid thus applied. "The practice has been founded on a theory which has not been proven, and is probably not true". Though I fear this explanation will be far from satisfying the originator of the system, yet I cannot but believe and feel that, if there be found more truth in it than he would be now willing to admit, Mr. Lister will still hold a place amongst one of the benefactors of his age.

CURARE.—M. G. Planchon (*Journ. de Pharm. et de Chim.* and *New Remedies*), says that, so far as our present knowledge extends, there are four different sections of northern South America where curare is prepared, and in each of these sections a different kind of *Strychnos* is used as the source of the poison. These four sections, from west to east, are the following: 1. The region of the upper Amazon, the largest of all, comprising the rivers Solimoens, Javiri, Ica, and Yapura. It furnishes the curare of the Ticunas, Pebas, Yaguas, and Oregones. This is prepared from *Strychnos [illegible]* (Wedd). 2. The region of the upper Orinoco to the Rio Negro. This contains the district visited by Humboldt in 1800. It furnishes the curare of the Maquiritares and Piaroas, which is derived from *Strychnos Castelnæi*. 3. The region of British Guiana, furnishing the curare of the Macusis, Orecumas, and Wapisianas. This is derived from *Strychnos toxifera* Schombemsk, including *Str. Schomburgkii*. Kl. and *Str. cogens* Benth. 4. The region of Upper French Guiana furnishing the curare of the Trios and Roucouyennes, which is derived from *Str. Crevauxii*.

TWO CASES OF PUERPERAL FEVER:

WHICH RECOVERED UNDER THE REPEATED LOCAL USE OF A STRONG SOLUTION OF CARBOLIC ACID.*

By PETER EADE, M.D.Lond., F.R.C.P.,
Senior Physician to the Norfolk and Norwich Hospital, etc.

CASE I.—Mrs. C., aged 42, was seen (with Dr. Beverley) on October 13th, 1878. She had been confined of her first child nine days before; had felt ill on the following day; and had ever since been becoming gradually worse, with chills, sweating, continued fever, with a temperature of from 102° to 103½°; and, latterly, with diarrhœa and a tumid abdomen. There had been a slight secretion of milk, and a small lochial discharge, which was faint and disagreeable smelling. The catheter had been required for the relief of the bladder. She had been very sleepless. On examination, the uterus was felt large, and high up in the abdomen, rather more on the left than on the right side; and, on vaginal examination, its os, cervix, and lower part were seen to be large, swollen, and of a peculiar dirty aspect. No direct cause for the illness was known; but the drains were found to be in a faulty condition. The diagnosis now made was puerperal fever, or puerperal septicæmia; and the patient was ordered to take a teaspoonful of oil of turpentine every three hours; whilst we applied glycerine of carbolic acid freely to the outside and to the whole canal of the cervix uteri.

On the following day, she appeared to be a little better. She had taken five doses of turpentine without sickness, and without further purging. The pulse was 120; the temperature 103°. The milk was entirely gone. The lochia were rather freer, and less offensive. The uterus was less high in the abdomen; its os and cervix were sloughy-looking, and covered with bloody discharge. The uterine cervix and its canal, quite up to the cavity of the uterus, were again well smeared with the strong solution of carbolic acid, and the turpentine was continued at longer intervals.

Next day, although the turpentine was disagreeing, and had to be discontinued, she was evidently better; but the local application of the carbolic acid was continued night and morning; and, on the following day (October 16th), the os and cervix uteri, though still retaining the peculiar sodden and ash-coloured appearance which had been noticed, were evidently cleaner; and, at several spots, florid granulations were appearing in the midst of this dirty tissue.

From this time, she steadily improved. The carbolic acid was applied for several days longer; and, though her convalescence was retarded by a tiresome and irritating eruption of miliaria on the chest and upper body, yet, in about a month, she was reported to be perfectly recovered.

CASE II.—Mrs. F., aged 24, was seen (with Mr. Muriel) on October 27th, 1880, four days after her confinement with her first child. The labour had been natural, except for a slight laceration of the perinæum. At this time, the symptoms were pain in the abdomen, which was swollen and conical in form; dorsal decubitus; apathetic manner; a sweating skin; absence of milk from the breasts; purging of liquid pea-soupy stools; and scanty, muco-ropy, and slightly offensive lochia. The pulse was 120; the temperature 102.4°. The uterus could be felt large, soft, and tender, five inches above the pubes. There had been retention of urine since delivery. On vaginal examination, the os and cervix were seen to be soft, flabby, and swollen; the os very patulous. The vagina also was swollen, and, like the large os and cervix, presented a peculiar patchy appearance—*i.e.*, with sloughy grey and red spots or patches of mucous membrane intermingled. A dirty ropy discoloured mucus was oozing from the cervical canal. The patient had been taking opium freely for her pain; she had taken also several doses of oil of turpentine, and had been freely and frequently syringed out with a strong watery solution of carbolic acid; but she was evidently rapidly getting worse.

The whole outside and inside of the cervix of the uterus, and even far up into the uterine cavity, as well as the upper part of the vagina, were now freely mopped over and smeared with a solution of equal parts of carbolic acid and glycerine; the opium and turpentine, and carbolic lotions, were ordered to be continued; and poultices were applied to the abdomen.

On the following day (October 28th), she declared herself to be distinctly better, and to have less pain. The pulse was still 120, and the temperature 104°. The swelling of the abdomen and of the uterus were slightly less. The bowels were still relaxed. There was more of the dirty vaginal discharge. The cervix uteri, examined, was found to be rather less grey or ash-coloured; but still large, swollen, pappy, and with a patent os. In spots where the carbolic acid had been freely applied, some florid red granulation, inclined to bleed, was showing itself. The whole upper part of the vagina, and outside of the cervix, as well as the cervical canal, far up into the uterus, were again freely brushed over with glycerine of carbolic acid, and the same application was repeated in the evening.

October 29th. She had passed a better night, and had slept for two hours at a time. The abdomen was smaller. There was scarcely any diarrhœa. The pulse and temperature were as on the previous day. She had passed urine without the catheter. She said she felt better. The uterine discharge was less. It was of more natural quality, and less offensive. The os and cervix uteri still looked of a dirty grey colour; but were markedly less flabby, more contracted, and firmer.

Some of the vaginal discharge was now collected, and examined under the microscope. It was dirty and purulent, with a mixture of viscid stringy mucus, and showed an abundance of pus-globules, chiefly large, many large granulation-cells, elongated fibre-cells, and vaginal epithelium. No bacteria could be discovered. The strong solution of carbolic acid was repeated night and morning.

On the following morning (the third of the treatment), the pulse had dropped to 92, and the temperature to normal; and the other symptoms were improved, though there was still some diarrhœa. The acid was applied locally for the last time on the evening of this day, as she was beginning to object to the introduction of the speculum, and the uterus was becoming almost healthy in appearance; but the syringing was continued a little longer.

In reference to causation, it should be mentioned that a case of puerperal septicæmia had occurred immediately before, in the practice of the medical attendant of this patient, the subject of which had died in the ordinary way.

REMARKS.—I have, in the last two years, seen five cases of "puerperal fever", besides one case of acute scarlet fever, immediately after delivery. Of the five, one was a case of septicæmia, where the stress of the disease fell chiefly upon the lungs. Two were cases where inflammation of the body of the uterus, and of the peritoneum, appeared to be the chief local phenomena; and the other two were the cases related above, where, in addition to other symptoms, there were marked vaginal and cervical septic changes. Of these cases, the scarlatinal patient recovered; and of the other five, the three first died; whilst the other two, which were thoroughly and repeatedly dressed locally with strong carbolic acid, recovered.

My first definite ideas as to the possible efficacy of treating the lower and exposed portions of the human uterus, in at least the communicated cases of "puerperal fever", with a very strong solution of carbolic acid, were derived from some communications embodied in a pamphlet (probably well-known to members of this Society) by Mr. Woods of Merton, on the subject of *Fever or Straining in Ewes after Lambing*. This disease of "straining" was a very fatal one; and had been attributed to bad lambing yards; *i.e.*, to yards which had become foul and tainted—in this respect being exactly analogous to the tainted wards of crowded or infected lying-in hospitals. The term "straining" is stated by the eminent veterinary authority, Mr. Fleming, to include metritis, metro-peritonitis, and parturient fever—terms which express the most usual pathological conditions in human puerperal fever.

The treatment of this disease, recommended in Mr. Woods' valuable work, is simply the smearing of the uterus and vagina of the ewe with carbolic acid mixed with oil, in the proportion of one part to seven; and the most satisfactory results are stated to have been obtained from the practice. Moreover, quite recently Mr. Woods has informed me, that whereas formerly a very large proportion of the ewes attacked died, now that carbolised oil is freely applied to the hands of the shepherd-accoucheurs, and to the vaginæ and uteri of the sheep, death is the exception.

Such results as these have, of course, attracted much attention; and this veterinary experience has, I believe, induced much thought as to the applicability of the principle involved to the human parturient subject. The carbolic acid has, however, I believe, in women been chiefly used as an injection, and this only in a dilute form. For example: Dr. Matthews Duncan has lately recommended, for washing out the uterus, a solution of one in thirty parts of water; and Professor Stadfeldt of Copenhagen, who has written on this subject, has only used a three per cent. solution. The plan adopted in my cases was based upon the principle, not only of washing away foul secretions and decomposing matters, but of attempting, by the application of the strong—almost caustic—solution of the acid, to destroy the infected and still infecting local surfaces, with their multiplying germs, if such there were; and I

* Read before the Norwich Medico-Chirurgical Society.

have not seen any record of this more heroic practice having been hitherto employed.

The first of these cases occurred as long ago as October 1878, and I then hesitated to report it; because I thought it better, for various reasons, to wait for the confirmation, or the contrary, of the advantage of the local use of these strong solutions of carbolic acid to the uterus in "puerperal fever". Now, however, the satisfactory result of this second case makes me hesitate no longer to report the two.

It may not be a waste of time here briefly to recall the present views as to the group of diseases classed under the generic name of puerperal fever. Dr. Matthews Duncan, in his admirable paper, recently read before the Birmingham Medical Society, points out that, as now understood, puerperal fever is not a simple entity, but that a case to which we give this name may be one, either, *a*, of traumatic inflammation, with general fever; *b*, of poisoning of the blood by absorption of putrid matters or discharges (sapræmia); or, *c*, of infection of the blood by living germs or micrococci (septicæmia, pyæmia); the distinction, however, between these varieties of postparturient fever appears not always to be very well marked. And Dr. Playfair says, it is probable that two distinct groups may be formed—namely, those in which the patient is poisoned by her own septic matters; and those in which the septic poison is conveyed from without.

Let me further quote from Dr. Playfair's work on *Midwifery*, as to the pathological appearances of the vagina and uterus, in septicæmic cases, at the site of absorption. He says: "These are described by pathologists as identical in their character with the inflammatory œdema which occurs in connection with phlegmonous erysipelas." These seem to consist of swelling, œdema, diphtheritic-looking exudations, and softening of the vagina, of the cervix, and of the membranes of the uterus, as well as of the uterus itself—conditions which were present in both the cases now related, as observed during their progress.

The fact being allowed that the profession generally is fully alive to the great advantages of antiseptic midwifery, at least in doubtful conditions, and to the special utility of carbolic acid, the question arises, What is the best mode of employing this agent? I would venture to suggest that both the use of intra-uterine dilute injections, and of the local application of the strong acid, may each be best in varying cases. Where the septicæmia arises from decomposing placenta, membrane, or clot, within the uterus, it would seem probable that a full and continued stream of the dilute disinfecting fluid may be most useful; but, where we have a specifically poisoned surface to deal with, in the inoculated cases, that there the more potent application may be the best, and indeed the only reliable, mode of treatment. And this is indeed my own opinion, derived from general observation, as well as from the daily observed influence for good of the acid upon the sloughy tissue. In my cases, the acid unquestionably caused a diminution of swelling, a lessening of the œdema, and an improvement of colour, in the parts to which it was applied; and knowing as we do its destructive influence upon germ-life, and the equally destructive effect of these germs, when living and multiplying, upon the tissues which they invade, we may fairly consider such a theory reasonable, and probably true.

In any case, the two patients lived, whilst others died; and, with the confessed unreliability of leechings, turpentine, iron, quinine, and every other remedy, and in view of the terrible and intractable nature of puerperal fever, I think that any light, however small or vague, thrown upon the best method of treatment by the recovery of the patients, is not only earnestly to be welcomed, but to be pursued, as possibly leading to a more definite knowledge. I have good hope that the path here indicated may be in some respects the true one.

SOME CASES TESTING THE ANTISEPTIC METHOD.

By ALBERT WILSON, M.B., Leytonstone, N.E.

THE conflict existing between the opponents and the supporters of antiseptic surgery has done a great deal to forward the views of the latter. Whilst scientific evidence supports the theory, and careful trial proves the practice, nothing but the experience of various surgeons can be brought against it. It is surprising in this advanced age to hear surgeons condemning such a system, which requires so great and scrupulous care for success, merely because it has not succeeded in their hands. They forget their own fallibility, whilst overlooking the infallible and immutable laws which govern the universe, even in the minute and invisible. At the same time that these men condemn this system, they unconsciously testify to the truth of the principle, by their fear to do operations which they see antiseptic surgeons perform without hesitation or anxiety, and by their delay till the last extremity to operate in other cases, as chronic abscesses, knowing full well that, from the day they operate, the patient will descend to a slow but certain death. We, who contend for that grand system of antiseptics, which is one of the greatest boons to humanity that surgery ever conferred, do not fight for one method so much as for the principle. If a new method were introduced, provided it were as perfect as that now employed, and more convenient, then it would be adopted in preference; and I venture to say by none more readily than by the founder of the antiseptic system himself.

Fully aware of its difficulties and drawbacks, Professor Lister has spent years of untiring zeal and energy, not only in perfecting, but also in simplifying it. He has now obtained for healing wounds much the same conditions as if they were subcutaneous. What more can be desired than this to justify the statement that the system is nearly perfect?

Many object to practise antiseptics because it is an "awful nuisance" to carry a spray about, and waste of time is caused by the spray and attention to other details. Doubtless, these are inconveniences, but they ought not to be obstacles, considering the brilliant and certain success which will be the reward for such extra energy and patience, not to speak of the gratification afforded by saving life or preventing unnecessary suffering.

I will briefly relate some of my results while opposed not only by the inconveniences met with in private practice, but also by extremely unfavourable hygienic conditions, such as I think could hardly be exceeded.

Whilst resident at the Cowgate Dispensary, in Edinburgh, I did several operations which thoroughly tested the efficacy of the antiseptic treatment.

CASE I.—A woman, aged 23, had an exostosis growing from the internal condyle of the femur. I removed it on January 26th, 1879. In chiselling off the tumour, I removed a piece of the external shell of the femur. The woman was in very destitute circumstances, she and two others inhabiting a small room up one of the narrow closes or wynds of the Cowgate. A dingy window with four broken panes looked out on a small stable-yard, where they were loading manure within five yards of the house. The broken panes were stopped up with garments, and the operation was performed in an atmosphere most unfavourable. The wound was stitched with catgut, and a drainage-tube inserted. A gauze dressing was applied, and a posterior splint to keep the knee at rest.

Next day, the temperature and pulse were normal, and the patient was quite comfortable during the whole time of treatment. The wound was dressed on the 28th. There was no inflammatory blush. It was dressed again on March 4th and 8th, when the wound was united except where the drainage-tube, which was removed last time, had been. It was subsequently dressed on the 14th, 21st, and April 2nd, when it was quite healed.

CASE II.—A woman, aged 23, suffered from mammary abscess. It was opened on November 13th, 1878, and about three ounces of pus evacuated. It was dressed on the 15th. There was no inflammatory blush. The cavity was filled with blood-clot, but the drainage-tube prevented any tension. Only serum could be pressed out of the wound; no pus. The breast was full, with diffuse hardness, though there was not the slightest pain.

The wound was dressed on the 18th and on the 22nd. The drainage-tube was now removed. The general swelling of the breast had gone, and the hardness now existed as a lump in the gland-substance. The sinus was very slow in healing. The breast was dressed on the 29th, December 6th, 11th, 20th, and 26th, on which last date it was quite healed. There remained a very hard lump running from the cicatrix to the gland-substance, which, but for the history, might have aroused a suspicion of scirrhus. After the first dressing, the patient went about her usual employment, and never found any pain or inconvenience from the breast. I never saw her except on the dates above mentioned. This case is rather a contrast to the ordinary course of mammary abscesses; and I think, in it and similar cases, antiseptics, though complicated with a spray and what some call tedious details, amply repay the surgeon by the fewness of the dressings.

I treated several other mammary abscesses, with similar results—absence of constitutional or local disturbance. I think that this, among the poorest and lowest class of society, shows how easy it is to carry out antiseptics in private practice.

CASE III.—Another case, which tests most conclusively the efficacy of the antiseptic treatment, was one of empyema of seven weeks' duration, which came under my care whilst acting temporarily at one of the children's hospitals.

A little girl, aged 4, having all the symptoms of empyema on the right side, was admitted on January 12th, 1880. The dullness

extended downwards from the nipple in front, and from the inferior angle of the scapula behind, while the apex-beat was external to the left nipple.

On the 14th, an incision was made, with antiseptic precautions, in the right axillary line between the sixth and seventh ribs. Fourteen ounces of pus were collected. A drainage-tube of India-rubber, two and a half inches long, was inserted downwards to drain the cavity in its lowest part. A large gauze dressing, sixteen folds, was applied, reaching from the middle line in front to beyond the middle line behind. The little patient, with its pinched features and difficult respiration, at once got relief from the outlet of pus. During the operation, a great deal of air was drawn into the chest. The spray, however, was a reliable one, and great care was taken that it should, during the whole time, cover the wound. The patient passed a good night. The dressing was changed next day, when it was found soaked with pus which had not been evacuated at the time of the operation. The pus was quite free from odour. The tube was drawn out, but now a discharge of clear reddish serum exuded from the cavity. The dressing was changed again on the 17th, the tube being taken out and put in again. The skin was washed with carbolic lotion at each dressing; but, of course, no carbolic lotion was injected, as such a proceeding would, by its irritant action, tend to set up suppuration, though of an aseptic character.

January 19th. The dressing was soaked with serous discharge. About an ounce of red-tinged clear serum flowed from the wound. Air as usual passed freely in and out of the pleural cavity—air, however, which was purified by the carbolic spray. The part was dressed again on the 22nd and on the 26th, when the tube was discontinued, as the discharge was very slight. The serum was now, as before, clear, which was proof positive that it was aseptic.

On February 2nd, when the dressing was removed, the wound was quite superficial, and on the 6th was quite healed. The child had improved very much in its general health, and on January 19th was enjoying ordinary diet. The physical signs showed a thickened pleura, by reason of the impaired resonance, while the respiratory sounds were audible, though of coarse faint, all over the base.

A few days later, on examining the chest, at the mammary level the healthy side measured nine inches and three-quarters, while the affected side was nine inches, showing that it had undergone very little contraction.

I have seen cases of empyema treated in Professor Lister's wards, and remember one man, who was almost at death's door when operated upon, but in three or four weeks he went out in a good sound condition.

I believe that a patient ought in no case to die of uncomplicated empyema, as long as free antiseptic incision can be adopted; but it must be thoroughly and carefully done: and if the discharge of pus continue and failure result, the operator has no one but himself to blame for it. It must be borne in mind that simply the opening of a door might, by causing a draught, blow the spray off the wound; and then, if septic air were drawn into the chest, a fatal result might occur.

Some are inclined to regard this scrupulous care as the whim of a fanatic; but, if it is demanded by the nature of the case, it cannot be regarded in this light, any more than the delicate care which is exercised in dissecting the sheath of a large vessel previous to ligature.

It is only after patient experience that one gets to practise antisepticism automatically, and without finding it troublesome; but when accomplished, what glorious results it brings!—results to which those who cling to the old decaying system cannot in the slightest degree attain.

SURGICAL MEMORANDA.

RAPID CURE OF A POPLITEAL ANEURISM BY DIGITAL COMPRESSION OF THE FEMORAL ARTERY.

JOHN KAY, aged 32, consulted me for severe pains in the right leg, and inability to flex the knee freely. On examination, I discovered a small aneurism in the popliteal space. I did not interfere at first, but the pain in a few weeks was so great that the patient could with difficulty walk across the room, and he urged me to do something to relieve him. I completely stopped the circulation through the femoral artery by pressure, applied to it just as it enters thigh. This was kept up for eighteen hours, when I asked the assistant to release the pressure a little, while I laid my finger over the aneurism. On the pressure being completely removed, the pulsation could scarcely be felt, but a thrill indicated the circulation was not entirely obstructed. At the end of twenty-four hours pulsation had entirely ceased, the artery was completely occluded. The patient rapidly recovered the use of the leg, the pain immediately disappeared. There has not been a bad symptom since. The assistants employed were, the patient's sister, my own stable lad, and two medical friends.

Manchester, Dec. 16th, 1880. JAS. BRASSEY BRIERLEY.

OBSTETRIC MEMORANDA.

A CASE OF PUERPERAL SEPTICÆMIA; PROLONGED HIGH TEMPERATURE. RECOVERY.

MRS. M., aged 19, a primipara, was confined on October 25th. She had a very good time, and no bad symptoms, until the 27th, when she was seized with pain in the uterine region.

She was ordered a mixture containing acetate of ammonia, spirit of nitrous ether, and aconite. On the 28th, diarrhœa and vomiting set in. She was ordered a bismuth and opium mixture. Next day, the vomiting and diarrhœa were relieved. On the 30th, the tongue was dry and red. She was ordered to have a drachm of Warburg's tincture every third hour, with arrowroot in the intervals. On the 31st, the tongue was clean. She had had a good night, and had milk in the right breast. She was ordered to go on with Warburg's tincture as before. On November, cinchonism having set in, she was ordered to have a mixture of chlorate of potash, with nitro-muriatic acid. On November 5th, one drachm of Warburg's was ordered to be taken every third hour. In the evening the milk was abundant, the bowels were open, and perspiration was setting in. On November 6th, she was ordered to have iodide of potassium, with tincture of cinchona every third hour. On the morning of the 7th, perspiration was profuse, and in the evening she was directed to have half an ounce of brandy every fourth hour. On the 8th, she had a tepid bath in the morning, and again in the evening, and the mixture of iodide of potassium was repeated. On the 11th, the bowels not being open, a powder of rhubarb, with grey powder was given, and the bath was ordered to be repeated night and morning. On November 12th she was ordered to have raw eggs, milk, and brandy every second hour. On the 13th, she was ordered to have one drachm of Warburg's tincture every third hour, and a cold bath instead of a tepid one, night and morning. On the 15th, in the evening, a mixture containing ten grains of salicylate of soda was prescribed, to be taken every fourth hour. On the 23rd, the catamenia having appeared, the cold bath was discontinued. On the 26th the catamenia had ceased; and she was ordered to have thirty drops of tincture of muriate of iron (Ph. Edin.) every third hour, and a dose of rhubarb and grey powder. From December 2nd there were no bad symptoms; and, on December 6th Mrs. M. was able to sit up and have her clothes on. The accompanying table shows the daily records of temperature and pulse:—

		Temp.	Pulse.
October	28	102	—
,,	29	102	—
,,	30	103.2	140
,,	31 (M.)	101.3	120
,,	,, (E.)	101.2	116
November	1 (M.)	101	124
,,	,, (E.)	102	124
,,	2 (M.)	102	120
,,	,, (E.)	101.4	112
,,	3	101	98
,,	4	101	108
,,	5 (M.)	103.6	102
,,	,, (E.)	103.8	120
,,	6 (M.)	104	120
,,	,, (E.)	101	112
,,	7 (M.)	104	120
,,	,, (E.)	103.4	120
,,	8 (M.)	104.2	120
,,	,, (E.)	102	110
,,	9 (M.)	103.8	110
,,	,, (E.)	102.2	100
,,	10 (M.)	101.2	100
,,	,, (E.)	101.2	105
,,	11 (M.)	102.4	100
,,	,, (E.)	104.2	110
,,	12 (M.)	101.4	105
,,	,, (E.)	104.4	130
,,	13 (M.)	103.2	120
,,	,, (E.)	102.8	108
November	14 (M.)	90.3	100
,,	,, (E.)	102.4	110
,,	15 (M.)	101.2	100
,,	,, (E.)	103	125
,,	16 (M.)	100.6	113
,,	,, (E.)	100.8	108
,,	17 (M.)	100	108
,,	,, (E.)	102	134
,,	18 (M.)	102.2	105
,,	,, (E.)	104	130
,,	19 (M.)	102.4	114
,,	,, (E.)	101.6	108
,,	20 (M.)	101.2	110
,,	,, (E.)	100.2	100
,,	21 (M.)	102.4	115
,,	,, (E.)	103	117
,,	22 (M.)	103	130
,,	,, (E.)	102.8	110
,,	23	100	84
,,	24	101.2	100
,,	25	100	90
,,	26	102.2	110
,,	27	101.4	100
,,	28	100.6	100
,,	29	100.1	100
,,	30	98.4	110
December	1	99	106
,,	2	99	104

The above case, to my mind, shows that cold immersion is an invaluable agent in lowering high temperature; that Warburg's tincture is also powerful for good in puerperal septicæmia; and that in the old Edinburgh tincture of the muriate of iron we possess by far our most potent agent. In this case I had become hopeless. The fast rise of temperature after the prolonged and exhaustive struggle found my poor

little patient (not much more than a child) prostrate. Raw eggs, milk, brandy, Warburg's tincture, cold baths, all had failed; nature was slowly yielding; head symptoms and tympanites were coming on, with restlessness and insomnia; the appetite, which up to this had been good, began to fail, and then, though I had not much hopes, I gave her thirty drops of tincture of muriate of iron every third hour, having first cleaned the bowels with rhubarb and grey powder. The result speaks for itself.

WILLIAM DONOVAN, L.R.C.P.

THERAPEUTIC MEMORANDA.

CHRYSOPHANIC ACID IN SKIN-DISEASE.

MY communication to the JOURNAL has not been fruitless, if it has evoked some independent testimony as to the comparative value of chrysophanic and pyrogallic acids in the treatment of chronic skin-diseases of various kinds. I am glad to find that Dr. Magee Finny of Dublin has spoken of the former in terms of praise, evidently with a knowledge of the effect of each; and that he refers to chrysophanic acid, as other competent authorities have done, as a valuable medicine. Dr. Finny refers to certain qualities of chrysophanic acid which demand that, in some cases, great care should be taken; namely, its "irritating properties", and its capacity for causing "œdema". It is the latter quality by which chrysophanic acid exemplifies its capacity for stimulating deeply the structures of the skin without injuring the surface, in a manner unparalleled by any other medicine that we as yet know. Its action, even when moderate, is always deep-rooted; and this seems to be an essential quality of any efficient local application in the treatment of chronic skin-disease. But then undue stimulation, or even perceptible œdema, is to be easily obviated, if we only take account of the very various tenderness of the skin in various regions, and regulate the strength of our applications accordingly. For example, to put it roughly, I should say that an application to the skin of the back ought to be, perhaps, about twenty times as strong as it should be to the eyelids, even when treating the same disease in the same person. If any one think that he can apply the same strength of stimulating ointment all over the body with an uniform result, whether beneficial or disastrous, I think in that case he would be acting incautiously. As Dr. Finny admits, there are skins and skins; and we are no more equally touchy to chrysophanic acid than we are to some even still more irritating external conditions that may try us. But, as Dr. Finny rightly says, "these reasons for caution do not in any way remove it from the list of the most efficient remedies". Indeed, to be efficient in the cure of chronic disease, a remedy must needs possess activity; and that activity must empirically prove itself to our satisfaction. It must establish itself as a formidable weapon in our hands; but, in using it, we must bear in mind that we are handling an edged tool, although it is by no means so risky an implement as an amputating-knife.

BALMANNO SQUIRE.

CLINICAL MEMORANDA.

THREE CASES OF PARACENTESIS THORACIS: RECOVERY.

CASE I. A man, aged 47, took a severe cold on January 17th, 1880; pleurisy followed, and about three weeks from the commencement of illness empyema was diagnosed. A trocar, carrying a cannula about the size of a No. 12 catheter, was inserted at the most dependent spot, and about two quarts of pus was withdrawn; a piece of well oiled lint was inserted to keep the hole open, and the cannula was removed. On the third day the piece of lint was removed, and a free discharge lasted for about six weeks, when it gradually lessened, and at last stopped. The man had resumed his work, that of an agricultural labourer, when I last saw him, and appeared quite well.

Case II. A lad, aged 16, took a severe cold whilst digging drains, on February 20th, 1880; pleurisy followed, and soon unmistakable signs of empyema appeared. On inserting a trocar, a large quantity of creamy pus was withdrawn; a piece of lint was inserted, and removed on the third day. Very free discharge took place for some time, but the lad ultimately pulled through, and is now following his occupation, apparently perfectly sound and hearty.

Case III. A girl, aged 17, a dairymaid, remained in her wet clothes all the day, and an acute attack of inflammation of the lungs followed, with pleurisy on the right side; empyema was diagnosed, and, on inserting a trocar, at least two quarts of pus were withdrawn. After discharging freely for three weeks, an abscess formed under the right breast, and this, on breaking, was found to communicate with the thoracic cavity. The pus ceased to come from the trocar insertion, but ran freely for many weeks from the anterior opening. The girl is now fairly well, and assists her mother regularly.

I may say that, in each case, blisters externally, and large doses of iodide of potassium internally, had a fair trial before resorting to tapping; but it is simply waste of time. No amount of blistering or iodide of potassium could be expected to produce the absorption of two or three quarts of pus; and after once pus is formed, it is astonishing how quickly a lung becomes collapsed. Therefore, as soon as pus is diagnosed, a large trocar should be inserted and the pus withdrawn. The patient should be fed regularly and most liberally, for the actual amount of discharge is almost extraordinary. In conclusion, I can safely state that each of these cases would have died within a few days if the thoracic cavity had not been tapped.

Ilminster. EDWARD STEPHENS, L.R.C.P.

ATELECTASIS PULMONUM.

THE first five or ten minutes' breathing in newly born children may be likened to the rapid breathing of a swimmer who takes his plunge in cold water. A cold-air bath is the first element which welcomes the newly born infant, who gasps like a fish out of water. This gasping breathing, when succeeded by crying, is the normal state of matters, and what we all wish to see. Next in respiratory order are those cases of suspended animation due to delay in delivery, from whatever cause, except disease and monstrosity, and which do well with persevering artificial breathing, and well repay the patience of the accoucheur. Sometimes, however, the lungs do not expand from constitutional weakness; and, after a few days' "struggle for existence", the child dies. A substantial proof, in addition to the many that have already been given, of the *vital* nature of atelectasis pulmonum, will be found in the following *post mortem* appearances, which I found in the lungs of a twin infant aged three days. The atelectasis was incomplete; but the survival of the infant for three days presupposes that in this particular instance. On opening the thorax by an incision down the middle of the cartilaginous sternum, and removing the thymus gland, the lungs, as they appeared *in situ*, were collapsed, and of a dark purple colour along their anterior borders. On removing the right lung, its lower lobe was found greatly congested, of a dark purple colour, felt solid, and was scarcely crepitant to touch. It was not as solid as the liver, or as light in colour; but its resistance to the knife, and the dark venous blood that oozed out of its numerous sections, showed it to be semisolid. A small patch of the middle lobe was of a pinkish-white colour; and the whole upper lobe was of the same colour, and crepitated on pressure. All sections of this lung floated on water; but the pink portions had their surfaces above water, while the black ones only just reached the level of the water. The left lung was generally dark, engorged, and semisolid. It was beautifully and interruptedly lined, somewhat like a red copybook, if we substitute dots for the lines; these parallel streaks of red and respired lung being indicated externally by the course of the ribs. Blood escaped from the vessels of the heart on removal of the roots of the lungs; but the chambers of the heart themselves were found empty. The foramen ovale was patent. The umbilical vein and artery were obliterated; the gall-bladder and intestinal tract were empty. The intestine was not larger than a goose-quill. I did not examine the other twin child, as the mother did not wish it.

Both twin children were small, but perfectly viable, if size alone be considered, and the period of gestation, which was nine months. There was some fat on the chest-wall, but little on the abdomen; and in both of these regions the muscles were pale, and could just be discerned. The midwife, a countrywoman, stated that the last child born presented by the breech; and certainly the hand of this child was very puffy; and there was a blue circumscribed bruise on its base, the discoloration on the dead body being very distinct from the white skin. She stated that there was only one placenta, the insertion of each cord being at the border and at opposite corners of the placenta. Not having attended the children during life, I waited for instructions from the coroner, who decided, after inquiry, not to hold an inquest. The midwife told me that the children would not take the breast; nor would they swallow anything, and appeared to be unable to do so. I gave a certificate of atelectasis pulmonum under these circumstances, and next day made a *post mortem* examination, which amply confirmed my certificate.

What I wish to lay stress upon are the *post mortem* appearances, especially the islands of respired lung amid such a continent of engorged and partially atelectatic lung, and the healthy empty state of the

viscera, which corroborated the midwife's statement as to the inability of the children to swallow, and negatived any suspicion of suffocation. The infant I opened suffered from slight epistaxis for hours before its death.

R. G. McCALMAN, M.D., East Ilsley, Berks.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

UNIVERSITY COLLEGE HOSPITAL.

CASE OF MEDIASTINAL TUMOUR EXTENDING INTO THE LUNGS AND INTO THE ABDOMEN: RAPID PROGRESS: DEATH: NECROPSY.

(Under the care of Dr. FREDERICK T. ROBERTS, B.Sc.)

[Reported by Mr. F. W. MOTT, House-Physician.]

W. W., aged 60, a male, was admitted into the hospital on November 9th, 1880. He had for thirty years followed the occupation of a mill-sawyer, his work of late years having been to serve a steam-saw. Formerly, his work had been laborious. He had always been regular and temperate in his habits. Until four months ago, he had always had good health, and had never laid up a single day: but, for the last two years, he had noticed that his digestion was not good, and, after taking food, he had suffered a good deal with distension of the stomach, pain at the epigastrium, and eructations.

There was no hereditary diathesis of any kind traceable in his family history.

Present Illness.—About four months ago, the patient first noticed a change in his health; the gastric symptoms already described became much worse; and, whilst returning from his work, he was seized with a sudden and severe pain in the right hypochondriac region, so acute, that he was unable to draw his breath, or even to speak for some time. Since this attack, he had never been free from pain. Rapid wasting and great weakness ensued. The pain which the patient now suffered was of a shooting, piercing character; it usually started in the front of the chest, and travelled round the lower ribs on the right side, to the spine; and this was followed by darting pains up the back.

The patient noticed that his breathing daily became shorter, and his voice weaker. About two months ago, he spat up a dark, bluish, blood-stained fluid; and since then, he had been continually bringing it up, sometimes with, sometimes without, a cough.

State on Admission.—The principal objective symptoms noticed were, that the patient was able to lie on his back or his left side, but not on his right side, on account of the pain which this posture caused. He presented an anxious expression, some lividity of the lips, and considerable emaciation, having lost two stone in weight. There was evident obstructive dyspnœa, the breathing being distinctly audible to bystanders, and of a reedy, tracheal character. The voice was altered, being weak, and of a harsh wheezy tone. Of the subjective symptoms, the most prominent were pain and a sense of difficulty in breathing. The patient complained of soreness and pain over the right side of the thorax, and great tenderness on pressure. The pain was of a shooting and pricking character; it started from the sternum in front, travelled round the right side of the thorax to the spine, and then darted up the back. It was more especially felt over the sixth, seventh, and eighth ribs, and in the region of the upper lumbar and lower dorsal vertebræ. The patient also complained of a sense of weight and oppression in the chest, which prevented him from breathing, and was daily becoming worse. He had a constant pain at the epigastrium, which was aggravated by food; and, if the stomach became distended with flatus, which was often the case, this caused acute suffering. There was no vomiting, or difficulty in deglutition; nor were there any other evident pressure-symptoms.

Physical Examination.—The chest-walls were rigid. There was no evident alteration in the shape or size of the thorax, either general or local. The respiratory movements were generally deficient, but markedly so over the lower part of the right lung, there being scarcely any movement when the patient took a deep breath. Vocal fremitus was almost imperceptible over this part. Rhonchal fremitus was felt very generally, except here. On percussion, a certain degree of deficient resonance was observed at the upper part of the sternum, and, to a less extent, over the upper part of the right front. There was complete dulness on the right side below the fourth rib in front, and the sixth rib behind. The resonance of the whole of the left side was excessive. On auscultation, over the whole of the left lung, inspiration was harsh and loud; whilst expiration, which was not very distinctly heard, was of a blowing, high-pitched quality, accompanied by dry rhonchi of various kinds. Similar sounds were heard over the upper part of the right lung. Over the third and fourth spaces in front, the respiration was bronchial. In the region of dulness on the right side, the breath-sounds were practically inaudible; and vocal resonance was absent.

Nothing abnormal could be detected in connection with the circulatory system, beyond a general degeneration of the arteries, with a rather small and feeble pulse, and indistinctness of the heart-sounds, with a marked roughness of the first sound at the base. The sounds were well conducted towards the right axilla.

The only notable features connected with the abdomen were as follows. There was a certain amount of fulness in the epigastric and umbilical regions, with eversion of the ribs on the right side. Above the umbilicus, a sense of resistance was felt on palpation, and there was evident tenderness, but no definite tumour could be discovered. The epigastric veins on both sides were distended, but did not communicate visibly with the internal mammary. The edge of the liver could not be felt, but the hepatic dulness extended for about two inches below the ribs in the nipple-line. The other organs were normal. There was nothing noteworthy in connection with the urinary system.

Course and Progress.—The patient became daily more emaciated; the pains were more acute; the dyspnœa increased, and the breathing was audibly more obstructed, and the voice weaker and more wheezy. Physical examination showed rapid extension in an upward direction of the signs noticed on admission at the right base. The area of dulness increased, and conducted tracheal breathing could be heard over the upper part of the right lung, being especially marked in the supra-scapular region, where a tubular breath-sound was conducted through very harsh pulmonary sounds. The rhonchal fremitus and rhonchi increased over other parts of the chest. The patient took his food fairly well, and never complained of difficulty in swallowing, or of vomiting, but always suffered a good deal from distension of the stomach.

November 27th. The patient suffered severely from pain, which was partially relieved by hot opium fomentations. Dyspnœa also increased, and there was great difficulty of expectoration, on account of feebleness in coughing, but the sputa never presented any peculiar characters. The audible tracheal breathing became more and more apparent. Ultimately, the right internal mammary vein and its branches became distended, especially during the act of coughing.

November 28th. The patient had a severe attack of dyspnœa and pain. The former was a little relieved by ether; the latter by hot opium fomentations.

November 29th. The patient was sitting up in bed, gasping for breath. There was great lividity, with distension of superficial veins, especially the epigastric, the right internal mammary, and the jugular. The symptoms increased, and he died of asphyxia in a short time.

Necropsy, Ten Hours after Death.—The following were the chief points of interest noticed. The thorax and abdomen having been opened in the usual manner, a large white mass, forming a somewhat irregular oval nodulated tumour, was seen occupying the upper part of the anterior mediastinum, and covering the arch of the aorta and great vessels. The left lung somewhat overlapped the growth. In the abdomen, the stomach, which was much distended, was pushed slightly forwards and considerably downwards; the liver, which was of a dark purple colour, was also pushed down for at least four inches, so as to display the whole of the falciform ligament; and on the border of the left lobe could be seen a small new growth, of milky-white appearance, about the size of a sixpence. The tumour, which was of a milk-white colour, and medullary consistence, had the following anatomical relations and limits. It formed a somewhat irregular oval mass, situated chiefly on the right side of the trachea, extending anteriorly upon the arch of the aorta to the opposite side; posteriorly, the tumour had commenced to involve the œsophagus, though only to a slight degree. The growth surrounded the innominate artery and its two divisions at their commencement, and also the large veins. Apparently, it obliterated the left innominate vein. The growth was firmly adherent to the sheath of the vessels, and had considerably constricted them, more especially the aorta, which it had compressed and flattened, completely surrounding the arch of that vessel. It extended above as high as the third ring of the trachea, coming down behind the pericardium through the diaphragm to the glandular structures on the front of the lumbar vertebræ, and even to the glands in the mesentery, which were considerably enlarged. The growth ceased below, about the lower border of the second lumbar vertebra. The tumour completely surrounded the trachea, but was situated more especially on its right side: on opening the windpipe the mucous membrane appeared natural, and the tube not diminished in calibre; this was due to the hardness and calcification of the cartilages. Beneath the mucous membrane at the bifurcation, however, were a number of white growths, and these extended along

both bronchi, evidently projections of the same growth which was seen enclosing the bronchi, and following their divisions and ramifications in the lungs. Almost the whole of the right lung was thus involved, and the part supplied by the lower bronchial division completely; it was implicated to such an extent, that the base was firmly adherent by new growth to the diaphragm and lower ribs. Numerous abscess-like cavities, containing fœtid greenish-yellow pus, the largest not exceeding a filbert in size, were found in the lower lobe. The left lung was comparatively little involved, and was hypertrophied and emphysematous; but the growth had begun to extend around the larger divisions of the bronchi. There were four small secondary deposits, of milk-white colour, in the substance of the liver, varying from the size of a pea to that of a sixpence. The kidneys and spleen were simply congested, and contained no secondary growth. The stomach was distended, yet not in any way involved by the new growth; but the growth on the front of the lumbar vertebræ must have caused considerable obstruction to the duodenum and pyloric end of the stomach.

Microscopically, the tumour was found to be a round-celled sarcoma, the new growth being composed of round cells without any alveolar structure.

Remarks by Dr. Roberts.—This case came in the first instance under my notice in the out-patient room of the Brompton Hospital. The noisy obstructive dyspnœa at once attracted my attention, and a superficial examination of the chest showed clearly that this was caused by some solid growth compressing the trachea, so that I immediately had the patient admitted under my care at the University Hospital. This case is one of several which have come under my observation, illustrating the great importance of always listening for, and paying attention to the sound produced during the act of breathing, when there is any disorder of respiration. From the symptoms present, it also seemed probable that there was some growth in the abdomen, and that it involved the stomach, though nothing definite could be made out by repeated physical examinations of this part of the body. It was proved, however, that the liver was not involved to any appreciable extent. From the history of the patient, the disease had evidently made rapid progress, and nothing could be elicited throwing any light upon the œtiology of the disease, which has been my usual experience in cases of this kind. The growth advanced very rapidly while the patient was under observation, and, of course, nothing could be done in the way of treatment except to relieve symptoms. The *post mortem* examination revealed that the tumour originally started from the glands in the mediastinum, but had extended into the lungs, especially the right lung, along the bronchial divisions; and also through the diaphragm to the abdominal glands. The case is further of interest as showing how the functions of the stomach may be seriously deranged, and prominent symptoms be connected with this organ, in consequence of neighbouring disease affecting it, it being itself quite free from mischief. The small nodules in the liver were obviously secondary growths, but were clinically of no importance.

LINCOLN COUNTY HOSPITAL.

PARTIAL INVERSION OF THE UTERUS: TREATMENT BY ALMOST CONTINUOUS PRESSURE—RECOVERY: DISCOLORATION OF THE SKIN BY NITRATE OF SILVER.

(Under the care of Mr. Sympson.)

Mrs. B., aged twenty-eight, was admitted into the Lincoln County Hospital on October 15th, 1880, suffering from severe dragging pain in the lower part of the back, very copious hæmorrhage from the vagina, and frequent vomiting. She was extremely anæmic and feeble. Her lips and tongue were very pallid, her face and hands of a dark slaty hue; the pulse rapid and exceedingly weak, the impulse of the heart extended. The cardiac sounds were loud; a slight mitral regurgitant murmur was audible. The urine was free; it did not contain albumen. The bowels were confined. A sinus in the upper and posterior aspect of the left thigh had been open for some years discharging pus, and occasionally portions of bone. On vaginal examination, the body of the uterus was found to be almost entirely inverted, the inverted portion being surrounded at its base by the dilated cervix. When a sound was passed into the bladder with its concavity directed backwards, its point was with ease felt by the finger introduced into the rectum. On June 23rd, after a labour of twenty-four hours' duration, the uterus became inverted during extraction of the placenta, whereupon the medical man in attendance peeled off the placenta, and, as he supposed, replaced the uterus; but, as pain and hæmorrhage continued, the patient was recommended to apply for admission into the hospital. Her child died from diarrhœa eleven weeks after birth. Her father died from heart-disease. She had had two epileptic fits since her confinement.

Ten years ago the patient suffered from some throat-affection, for the relief of which she applied to an old woman who frequently cauterised the throat, and gave her pills which she took occasionally for a considerable length of time; it was while taking the pills that she noticed her complexion began to assume its present dusky hue. She stated that a young man, treated at the same time, underwent a similar change in complexion. This statement was verified by the excellent house-surgeon to the hospital, Mr. Cant, who saw the man.

Until a proper instrument could be procured, a ball-pessary was introduced into the vagina, and the patient was directed to take a mixture of the sulphate and carbonate of magnesia, and was placed upon milk-diet with eggs. She had a solution of alum and zinc injected on the 18th, when the ball-pessary was removed, and an India-rubber stem pessary inserted in its place.

On the 19th, the bowels having been well opened, and the sickness having lessened, she was ordered to omit the white mixture, and instead of it to take twenty drops of liquid extract of ergot, with ten drops of tincture of perchloride of iron in an ounce of water three times a day. She was also placed upon half-meat diet.

On the 25th the elastic pessary was withdrawn, and replaced by one of vulcanite, having a pelvic curve, which was retained in position by elastic straps fastened in front and behind to a band around the waist. The vulcanite repositor, being only five inches long, appeared to exert scarcely sufficient pressure to be of service; therefore it was afterwards lengthened, and rendered more powerful by the addition of a coil of strong wire, also five inches in length. The patient was placed under the influence of ether on the 27th, and the tumour was grasped by the fingers and thumb of the right hand, passed into the vagina, pressure being made particularly towards the left corner of the uterus, while the left hand placed over the hypogastrium depressed the fundus, in which was felt a very distinct indentation. During this process the patient became so prostrate, that after a persistence of about a quarter of an hour it was thought wise to discontinue it, and trust for success to the steady pressure of the repositor.

On the morning of November 4th the patient was found to be free from pain, and to have very little discharge. The repositor had been expelled during the night. On examination, no tumour could be felt in the vagina; the os uteri was large and patulous, and admitted a sound to a distance of three inches and a half.

She was reported on the 11th to have gained flesh and strength, to be free from pain, and to have only a small amount of mucous discharge. The sound passed two inches and a half.

On the 12th, she was discharged cured.

Remarks.—Recovery from the apparently desperate condition in which this patient appeared to be on admission into the hospital, prostrated by long continuance of pain, and of excessive hæmorrhages and discharges, renders her case a singularly interesting one; and the interest is enhanced by her having presented the peculiar and characteristic slate-coloured staining of the skin, due to the internal administration of nitrate of silver, a discoloration now very rarely to be seen.

With regard to the reduction of the inverted uterus, there is no room for doubt that this was owing to the steady and well-directed pressure of the repositor, the absence of the perineal curve, so much insisted on by Dr. Aveling (British Medical Journal, September 6th, 1879, p. 359), being compensated for by tightening up of the posterior elastic bands, thus tilting the cup-shaped extremity of the instrument forwards, and occasioning pressure on the tumour to be directed towards the hypogastrium. The danger of the occurrence of sloughing from continuous pressure was obviated by removal of the instrument on alternate days, when the vagina was washed out with an astringent injection. It seems very questionable whether any good whatever was effected by the introduction of the hand into the vagina.

It is worthy of remark that directly the repositor was introduced the pain, of which the patient had complained bitterly, was relieved, and the hæmorrhage and discharge began to lessen in amount.

Prizes of the Royal Lombardy Institute.—The Reale Istituto Lombardo has awarded two sums of 1,500 lire, on the Brambilla foundation, (1) to the Milanese Committee of Animal Vaccination for founding a vaccinogenic establishment in Milan. On the Fossati foundation a sum of 2,000 lire, has been awarded to Dr. Golgi for studies on the fine anatomy of central organs of the nervous system; and 1,000 lire to Drs. Tenchini and Staurenghi, for researches on the anatomy of the cerebellum, the pons Tarini, etc. A list of prizes now open to competition will be found in the *Rendiconti* of the Institute, vol. xiii, fase. xvii. The subjects have nearly all been previously published. The prizes vary in value from 500 to 4,000 lire, (£20 to £160). Foreigners may compete, and memoirs must be written in Italian, French, or Latin.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, DECEMBER 14TH, 1880.

JOHN ERIC ERICHSEN, F.R.C.S., F.R.S., President, in the Chair.

ONE HUNDRED AND SEVENTY-TWO ANTISEPTIC ABDOMINAL SECTIONS; WITH REMARKS ON THE CAUSES OF DEATH IN THE FATAL CASES.

BY J. KNOWSLEY THORNTON, M.B., C.M.

AFTER some remarks as to the details given in the printed tables which accompanied the paper, the author pointed out certain further information which should accompany statistical tables of operation cases; viz., 1. An account of all cases of abdominal tumour seen during the time covered by the tables but not operated upon, with the reasons why no operation was performed; 2. The highest temperature and pulse, with the day after operation upon which they were respectively recorded. Such additional information was necessary in order to show the success of the individual surgeon in dealing with ovarian or other similar diseases, and the general progress in this branch of surgery; and also to show the well or ill doing of the cases which recovered after operation. The fact that all the cases had been treated on Mr. Lister's method, and nearly all by the complete intraperitoneal ligature, was dwelt upon. Common methods of treatment in a large series of cases were especially useful in extending knowledge, by affording material for comparison with other methods. The importance of accurately following the teachings and practice of Mr. Lister, to the exclusion of so-called "modified Listerism", was insisted on. In the author's hands, the pure Listerism had reduced the mortality in the most common operation in the tables (ovariotomy) from 23.94 per cent. to only 4½ per cent.; a result altogether beyond the mere improvement to be expected from increased experience in performing the operation. The question of drainage, by means of Dr. Keith's improved form of Koeberle's glass tube, was then discussed. The small mortality in the last seventy-five ovariotomies (4.0 per cent.) was claimed as a proof that drainage was unnecessary, if Lister's method were perfectly carried out in abdominal section; comparative statistics being given to prove the same conclusion. The question of selection of cases was alluded to in relation to two of the three deaths in the last series of seventy-five cases; both were apparently hopeless, but were given the last chance; and both, though open to question as to completion, were included among the complete operations. The question as to what cases should be called complete or incomplete was discussed. A comparison of the mortality in simple and difficult cases (*nil* in the author's hands in the former); in the cases tapped and not tapped; and in those which had only one or both ovaries removed, was also given. The causes of death in the fatal cases were given in some detail; and the bearing of the antiseptic method on the mortality was illustrated by a division of these cases into three groups. The danger arising from the transmission of a fluid-filled Fallopian tube was pointed out, as a possible cause of septicæmia. This was also an important question in dealing with uterine fibroids. The incomplete ovariotomies and other operations in the tables were discussed; and, passing to the treatment of uterine tumours by abdominal section, the author pointed out the difficulties in the application of Lister's method to those cases in which the uterine cavity was opened, and showed from his statistics that, whereas in cases in which the cavity was not opened the mortality was only one in eight (and that one a very exceptional case in many respects), in the cases in which the cavity was opened, three out of four died. The general conclusions drawn from the whole 172 antiseptic cases were as follow. 1. Simple cases recover under Lister's method, with a certainty previously unknown. 2. There is less fever, and convalescence is more rapid, than under the old method. 3. The success obtained in the more complicated cases is in proportion to the exactness with which the antiseptic method can be applied to the individual cases. 4. The accidents and complications occasionally following operations—such as hæmorrhage, for example—are more easily overcome in aseptic cases. 5. There are difficulties, and even dangers, in the application of the method; and the more experience the individual surgeon has in it, the more readily he foresees and avoids these, and the more complete becomes his success in applying it. In a few concluding words, the author pointed out how much peritoneal surgery owed to Mr. Lister, and how much more to Mr. Spencer Wells. Without the untiring energy and success of the latter, it would never have been in the position to benefit by the method of the former.

The PRESIDENT said that the paper opened up a new field for discussion. Much had been heard of ovariotomy treated by the partially antiseptic method, and the differences of opinion on the subject seemed almost irreconcilable. But the question of removal of the uterus had not been discussed, at least lately.—Dr. BANTOCK, referring to the discussion on the subject at a previous meeting of the Society, said that he could not acquiesce in Mr. Thornton's estimate of his experience of Listerism. He had said that he could not comprehend the value of a five per cent. solution of carbolic acid, followed by a two and a half per cent. solution. If the five per cent. solution were necessary, the two and a half per cent. solution was unnecessary; if the latter were sufficient, the use of the former was bad surgery. He defended the use of the term "modified Listerism" in the sense in which he had applied it. Mr. Thornton had said that his mortality within a certain period was 7.5 per cent., and Dr. Bantock's 12.5; but Mr. Thornton had two deaths from septicæmia, and he (Dr. Bantock) had none. He was not alone in his views as to the mischievous effects of carbolic acid. It was not correct to say that the German authorities had a habit of attributing death to carbolic acid which was really due to other causes. Cases of carbolic acid poisoning had been recorded by such men as Langenbeck, Billroth, Thiersch, Volkmann, Kœberle, Peruzzi, etc. As regarded drainage, the tube was always used in the most severe and dangerous cases, where the greatest mortality was to be expected. He had not found that the drainage-tube increased secretion; on the contrary, the discharge decreased daily. He regarded previous tapping as most injurious in cases of ovarian tumour, not on account of septic infection, but because of the inflammatory action excited in the cyst. It had been said that suppression of urine occasionally occurred after operations before the antiseptic method was introduced; but in Mr. Spencer Wells' first eight hundred cases of ovariotomy, done without antiseptics, there was only one case of suppression, and it never occurred in his practice before he adopted the Listerian method. With regard to the amount of fever, he remarked that from April 1874 (when the ice-cap was first used) to December of the same year, 3811 pounds of ice were used in the Samaritan Hospital, while, during the period from October 1879, to August 1880, 17,500 pounds of ice had been used, of which he (Dr. Bantock) had had only 500 pounds.—Mr. HULKE suggested that Mr. Thornton should explain what he meant by Lister's method, as applied by him.—Mr. THORNTON said that the patient's abdomen was washed with a five per cent. solution of carbolic acid, and a cloth soaked in the solution was laid on the part to be operated on. The instruments, etc., were well dipped in the solution, which before operation was reduced by water to two and a half per cent.; the spray was also reduced to the latter strength. The sponges were washed in soap and water, and in a solution of sulphurous acid (one-eighth per cent.); they were then soaked in a five per cent. solution of carbolic acid, and on the day of operation were washed with warm water, and put into a two and a half per cent. solution before being used. The dressing placed on the wound was allowed to remain ten days, at the end of which time, in ninety-nine per cent. of the cases, the wound would be healed by first intention.—Mr. CHRISTOPHER HEATH thought that Mr. Thornton was to be congratulated on his results, and on his record of uncompleted operations. He had been surgeon to an infirmary for women some years ago, and had arrived at the conclusion that preliminary tapping was bad practice, and that tying the pedicle, and dropping it into the abdomen, was a proper method. He believed that the chances of recovery in ovariotomy were closely connected with the amount of adhesions; the greater the extent of the adhesions, the less the probability of recovery, just as a large calculus was an unfavourable element in lithotomy.—Dr. HEYWOOD SMITH remarked that Mr. Thornton's list contained a number of cases of uterine fibroid tumours. The removal of extramural growths was not so serious a matter as the removal of intramural fibroids, and oöphorectomy seemed to hold out a hope that the growth of uterine fibroids might be arrested. He would like to hear some opinion as to the partial or entire removal of the uterus in cases of fibroid growth, or on oöphorectomy. Antiseptic surgery had greatly diminished the risk in such cases.—Dr. CHAMPNEYS said that, if statistical tables were to be used for comparing the merits of an operation in the hands of sufficient surgeons, they ought to contain a record of all the cases that had come under their care. There was always a temptation to omit unfavourable cases which were not operated on.—Mr. KNOWSLEY THORNTON said that the large amount of ice at the Samaritan Hospital was to be accounted for by the necessity of always keeping the ice-chest full, and of course there had been a great waste. Now, however, the amount kept was not so great. He agreed with Mr. Heath with regard to tapping and the ligature—both were bad. He had avoided the subject of oöphorectomy, because it was new in his country; and it would be a great mistake to compare oöphorectomy and ovariotomy together. If this were done, it would destroy the value of statistics of ovariotomy.

ON THE RADICAL CURE OF VARICOCELE. BY HENRY LEE, F.R.C.S.

The operation advocated in this paper was that of removing a portion of the anterior skin of the scrotum, and subsequently dividing the veins which were to be obliterated. All the steps of the operation were conducted through the wound made by the removal of the skin. The veins were compressed temporarily so as to prevent hæmorrhage, and then divided. The cut orifices of the veins were sealed with the black hot cautery, which, if of proper temperature, was allowed to adhere to them for five or six seconds. The ligatures and needles used in compression were then removed, and the edges of the skin brought into apposition from below upward by carbolised suture. Union by first intention took place more or less perfectly, and the patient was allowed to follow his usual avocation in three or four days.—Mr. A. P. GOULD had performed an operation for radical cure of varicocele in eleven cases by dividing the veins subcutaneously by means of a heated loop of wire. Nine of the cases were successful, the other two were still in hand. The operations were simple, certain, and free from danger; it was done under anæsthetics, and there was no pain afterwards. It also interfered less than Mr. Lee's operation with the tissue of the scrotum. He did not think it safe to allow the patient to go out in three or four days. He kept his patients in bed a week. Mr. HENRY LEE said that the risk of septic poisoning in his operation was obviated by the use of the actual cautery, which closed with the veins and the arteries, though the latter often required to be pulled out that the cautery might reach them. He had never had sloughing in his cases; there was no difficulty in healing the wound of the scrotum.

Actual Cautery.—At the close of the meeting Dr. HEYWOOD SMITH exhibited a new apparatus for actual cautery, just brought over from Matthieu of Paris, the invention of M. de Cortes. It was said to be a great improvement in some respects on Paquelin's. There was no bottle to carry about, which not only required the aid of a second person, but was liable to be upset and to give rise to an inconvenient flare. The temperature could easily be regulated by a screw attached to the instrument, and there was also no need for a spirit-lamp. The whole apparatus itself was more portable and less costly.

CLINICAL SOCIETY OF LONDON.

FRIDAY, JANUARY 14TH, 1881.

E. HEADLAM GREENHOW, M.D., F.R.S., President, in the Chair.

Case of Hydronephrosis of Traumatic Origin.—Mr. CROFT narrated particulars of this case. A boy, aged 12, was admitted under his care into St. Thomas's Hospital on June 3rd, 1880. On the previous day, the boy had hurt his left side and hip by falling across a companion's back whilst trying to jump over him. This was followed by pain and hæmaturia, for which he was brought to the hospital. The pain in the left lumbar and hypochondriac regions continued, and the hæmaturia extended over five days. After that period the pain subsided, and the urine remained free from blood. The patient had never had any previous tumour in that region, nor disease of the urinary apparatus. He was discharged on the sixteenth day to his own home. Twenty-two days after his return home, and thirty-nine days after the accident, he was brought back to the hospital, as he was suffering much discomfort in his side from a swelling, and he seemed very ill. This was on July 9th. Five days later he had become drowsy, though easily roused. He said he could not see bystanders, though he distinguished light from dark. His tongue was furred, and he had no appetite. The temperature was subfebrile. The tumour, which distinctly fluctuated, extended through the lumbar region and left hypochondriac region into the epigastric and umbilical regions, causing the abdominal walls to project considerably. On the three preceding days, the total amount of urine collected in twenty-four hours had been fourteen, eighteen, and twenty ounces respectively. On this date, the swelling was aspirated, and seventy-nine ounces of urine-coloured fluid were drawn off. The fluid had a specific gravity of 1008. It did not contain any blood or pus, but yielded to heat a trace of albumen. During the next three days, twenty-five, twenty, and thirty-five ounces of urine were collected on each respective day; on the fourth day, fifty-one ounces were collected; and on the fifth day, twenty-five ounces. On the eighth day, the swelling had reassumed a large size, and it was therefore reaspirated, and thirty-eight ounces of the same sort of fluid were drawn off. Nine days later, it required retapping, and then sixty-two ounces were obtained. The specific gravity of the fluid was 1005, and contained a little albumen. Between this occasion, July 29th, and October 15th, he was tapped five times, more than three pints and less than four pints being drawn at each operation. At the last or eighth tapping, the fluid was found to contain a large proportion of albumen. Since that date, no further collection of fluid had taken place. No swelling was discovered after that date, and there was not any swelling now. His general health improved steadily after the relief afforded by the first tapping. The daily quantity of urine passed after that first tapping was observed to become increased, but no large and sudden changes were found in the amount passed at any period of his illness, and no morbid products manifested themselves in the urine, which he passed naturally. With regard to the origin of this morbid collection, Mr. Croft conjectured that, at the time of the accident, a lesion of the pelvis took place (not leading to extravasation of urine) at or above its junction with the ureter; and that the lesion was followed by the adhesive form of inflammation, and, as a consequence, obliteration of the communication with the ureter. He inclined to that view rather than to the hypothesis that the kidney itself was the seat of the lesion; but the succession of events in the case were, in his opinion, more consistent with total obstruction of the excretory tube than with disturbance of the excretory organ. The possibility of its being cystic in its origin was briefly considered, but negatived. The author referred to the classical cases of Mr. Stanley, recorded in the *Medico-Chirurgical Transactions* for 1844; but, as one case was only to a slight degree similar in character to the one just narrated, and the other was dissimilar, they were only briefly adverted to. He presumed that the boy was permanently cured, and that the kidney on the side of the injury had undergone atrophic change.

Mr. HEATH said he thought the explanation of a lesion insufficient to account for the progress of the case, the time allotted to recovery being too short in duration. He suggested that the origin of the injury might have been a small calculus impacted in the ureter, experience pointing to this cause in producing cystic tumours of the kind described. On the removal of the calculus by natural means, the symptoms would abate, and rapid recovery ensue. He inquired whether the bladder had been carefully examined.—Mr. CROFT replied that the idea of a calculous origin had been entertained; but no account of any previous mischief to the bladder could be elicited, or of any indications pointing to a calculus in the ureter. The report of the quantities of urine passed showed a gradual decrease in the amounts; and, relief of the urgent symptoms following, there was nothing to lead to the supposition that a foreign body existed in the bladder.

Two Cases of Myxœdema.—Dr. LLOYD read notes of these cases. Hannah Wall, aged 35, unmarried, had enjoyed good health till within the last five years. The menses were regular, but she had occasional leucorrhœa. Her father had died at 59, of dropsy and heart-disease; the mother was now alive, aged 70, but suffered much from rheumatism, and was nearly blind. Her brother and sister were both healthy. Five years ago, she began to feel severe pain in both legs, and could rise with difficulty after sitting down, and movements were slowly made. Her appetite also failed. A swelling under the left eyelid appeared four years ago; twelve months later, pain was felt in the neck, and the voice underwent a marked change, becoming rougher in tone. The memory was likewise impaired. At present, the patient had a peculiar expressionless look; the whole face seemed swollen; the eyelids puffy; the nose enlarged and red. The skin was translucent and red; the superficial vessels were much dilated in spots about the face. The hair of the scalp was dry, hard, and scanty. She never perspired. Speech was thick, and slowly uttered, with nasal intonation. The features were devoid of all expression, the mouth almost resembling a slit. The *post mortem* examination of a second patient, who died in May last, and who was dropsical for a length of time preceding death, showed the body to be much emaciated, the lower extremities swollen, but without marked pitting on pressure, except in the left leg. The skin over the belly was tense and shining, with tendency to desquamation of the cuticle, and purpuric patches on the dorsum of the forearm. The superficial vessels of the face were distended; the hair of the scalp was dry and scanty; the subcutaneous fat was yellow and moist, but did not collapse; 240 ounces of brown-yellow fluid were drawn from the abdomen, and patches of ecchymoses were everywhere found. The great omentum was glued to the parietal peritoneum. The kidneys were in a state of cirrhosis. The left pleura contained a pint of clear fluid, and presented a few old adhesions. The right pleura contained fluid, but no adhesions were present. The pericardium held half a pint of clear yellow serum. The left ventricle was hypertrophied; the mitral and aortic valves were thickened; there was no regurgitation. The dura mater adhered firmly to the bone; much atheroma of the vessels existed at the base of the brain; the convolutions were flattened; the right hemisphere was especially atrophied; the ventricles were normal.—Mr. HULKE suggested that the progress of the second case might have been influenced by the renal and cardiac complications.—Dr. ORD explained that he had seen both the cases, the last but a few days before death. The patient shown that night exhibited all the

special features of myxœdema in a marked manner. The skin was dry and inelastic; the hair scanty; the contrast was very marked between the cheeks and eyelids, the former being red, the latter pale and tumid; there was no pitting in any parts; the speech was slow, uncertain, with nasal intonation; the urine was normal, except that it contained a minute amount of albumen; the temperature was below normal, and the gait peculiar and staggering. In the other case, which was, when seen, in the last stage of the disease, the skin was wrinkled, and movable on the parts below. The cerebral or renal symptoms might be assumed to supervene on this condition. The heart was found to be hypertrophied; ascites was well developed. Several of the tissues had been prepared for examination; the spinal cord was especially interesting in connection with the question whether the nervous system underwent degeneration in such cases, or whether the altered sensibility was dependent on the mere interposition of a mucoid pad between the nerve-fibrils. The spinal cord was found not to be sclerosed, but there was a general increase of connective tissue in all parts; the walls of the vessels, and of the central canal, sharing extensively in it. There was, however, no degeneration of the purely nervous structure. At the suggestion of the President, Dr. Ord undertook, in conjunction with Dr. Savage, to draw up a report of the microscopical appearances when all the tissues in hand had been fully investigated.—Dr. ANDREW CLARK said that, since 1870, he had been familiar with the class of cases so well described by Drs. Ord and Duckworth under the name myxœdema, and, three years ago, he entrusted Dr. Burnet with the arrangement of the facts he had collected, but which were not yet ready for publication. He had had no experience of the *post mortem* appearances these cases presented, but, so far, his observations of living subjects of the disease exactly corresponded with that of Dr. Ord. The majority, however, were males, and there was a strong personal likeness among them, produced as a feature of the complaint. The skin in all was dry and translucent; the eyelids were swollen, the hands puffy, and all complained of a feeling of being "bound" in the muscles. A weak heart—sometimes with a murmur, sometimes not—was found in every subject of the disease. The urine was of low density, and almost all were the subject of cerebral affections, producing change of intonation with low-pitched voice, amounting in women to a falsetto. Inability to move freely in the dark invariably attended the disease, and peculiar nerve-symptoms commonly made themselves apparent. Dr. Clark imagined the stages of the disease to be marked by (1) affections of the nervous system, (2) renal inadequacy, and (3) affections of the circulatory system.—Dr. ORD remarked that the quantity of urine passed was much below the average in certain cases.—The PRESIDENT said he had seen several cases of myxœdema, but that, until Dr. Ord first described them, he did not understand them. In one case, however, within his experience, there was found distinct sclerosis of the spinal cord on *post mortem* examination. One of the cases exhibited to the Society at its last meeting, he remembered to have seen fifteen or sixteen years ago.—Dr. LLOYD said the temperature of patients in the condition of myxœdema never exceeded 96° to 98°, and might be as low as 84°.

The rest of the evening was occupied with the usual business of the annual meeting.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, DECEMBER 15TH, 1880.

DAVID LITTLE, M.D., President, in the Chair.

Silicate Cotton.—Dr. RANSOME exhibited a specimen of silicate cotton or slag-wool, and made some remarks as to its use as an incombustible air-filter and non-conductor.

Amyotrophic Lateral Sclerosis.—Dr. SIMPSON showed a patient under his care in the Manchester Infirmary, exhibiting the symptoms of amyotrophic lateral sclerosis. O. S., said to be fifty-five, but looking sixty, was short, thick-set, and of healthy aspect. He had been rather a hard drinker; but there was no history of syphilis. He could give no family history. Eight or nine years since, he began to have a feeling of dead weight about the right shoulder; which soon, however, left him. Shortly afterwards, both arms were drawn inwards to the trunk; the left a little earlier than, but not quite to so great a degree as, the right. The pectorals and the latissimi dorsi resisted abduction, and the right pectoral was in a state of constant rigidity. The deltoids, with the supraspinati and infraspinati muscles, were wasted. Fibrillary tremors were seen in the biceps and pectoral muscles on each side. There was well-marked rigidity in the shoulders, and to a less degree at the elbows and knees. The tendon-reflex of the triceps was much increased; also of the front and back of the wrists, and below the patella, especially on the right side. Reflex excitability was well marked on tickling the sole of the right foot, but was absent on the left side. Sensation was blunted and delayed in the left trunk and lower extremity. There was no girdle sensation. He complained of a good deal of pain on the inner side of the left elbow, and of numbness to the end of the little finger. There was no difficulty of speech or scanning; no optic neuritis; nor any trouble of bladder or rectum. The other organs and functions seemed healthy. This man followed his employment until quite recently, but had had to do his spade-work with a sort of twisting movement, by means of the muscles of the trunk and lower extremities, being unable to use the arms in the ordinary way.

Amyotrophic Lateral Sclerosis and Multiple Sclerosis.—Dr. LEECH showed a patient, aged forty-five, suffering from amyotrophic lateral sclerosis, in which the symptoms were advanced. The rigidity once present in the upper extremities had been annulled by the progressive atrophy of the muscles of the fore-arm and shoulder, but the legs were both wasted and somewhat rigid. Bulbar palsy had set in, interfering with both speech and deglutition. He also showed a man, aged fifty-three, who presented symptoms of multiple sclerosis in an early stage. Tremor occurred on movement, but not to the extent often observed in multiple sclerosis. It was chiefly seen in the lower extremities, in which power had slowly failed during the past two years. The speech was distinctly "scanning" in character. This peculiarity, and the gradually increasing mental weakness, seemed to indicate that some parts of the brain were invaded by the patches of sclerosis. But the tremors, stiffness, and weakness of the lower extremities showed that, as is usually the case, the cord was likewise implicated in the pathological changes.

Disseminated Sclerosis.—Dr. DRESCHFELD showed two patients affected with this disease. The first case was a typical example of spinal disseminated sclerosis, the marked symptom being tremor of both upper and lower extremities when any movement was attempted, and a certain amount of paresis of the limbs; the patient suffered also from occasional attacks of the so-called "crises gastriques", common in locomotor ataxy, but hitherto not described in disseminated sclerosis. The second case was an example of the cerebro-spinal form, the chief symptoms being the characteristic tremor of the muscles of the trunk, and of the face and tongue, nystagmus with beginning white atrophy of the optic discs, and mental disturbances. The symptoms had lasted for some years, and were improving under iodide of potassium, though there was no history of syphilis.

Cerebellar Disease.—Dr. ASHBY showed a boy aged eight, who, since he was a year old, had had symptoms of cerebellar disease. The most decided symptoms consisted in enlargement of the head, and difficulty in locomotion, his mother remarking that his legs frequently gave way under him. He was admitted to hospital two months ago nearly blind, and was found to have subsiding optic neuritis, since passed into well-marked atrophy; he could walk with help, but lifted his knees higher than necessary, and bringing his toes to the ground first. He could just stand by himself, but tended to fall forwards. He had exaggerated tendon-reflex, and presented curious reflex muscular phenomena, so that, if either the extensor or flexor muscles of the foot or hand were stretched and the skin of any part of the body irritated, a contraction of the stretched muscle followed.

Lateral Sclerosis.—Dr. MORGAN read a paper on three cases of idiopathic lateral sclerosis, lately treated by him in the wards of the Manchester Infirmary. This disease had been termed by Erb spasmodic spinal paralysis, and by Charcot *tabes dorsal spasmodique*. One of the cases referred to by Dr. Morgan terminated fatally. Sections of the cord of this patient were exhibited to the meeting by Dr. Dreschfeld on a screen, by means of the oxy-hydrogen lantern. The sclerotic change in the posterior divisions of the lateral columns was well shown. The two other cases (still inmates of the infirmary) were introduced to the meeting. In both patients the characteristic spastic and hopping gait was well marked. Two of these sufferers attributed the commencement of their disorder to long-continued and extreme cold. In the third the disease appeared to be hereditary, one brother and probably two sisters having been similarly affected.

VICTORIAN BRANCH.

NOVEMBER 17TH, 1880.

Osteoma of the Dura Mater.—Dr. MORRISON read some notes on an osteoma of the dura mater of a sheep. He said that the specimen exhibited was an example of a discontinuous heteroplastic eburnated osteoma, and was found in the cranium of a sheep, after it had been slaughtered in the usual way. It weighed 5 ounces; its length was 3¼ inches; and the transverse circumference was 5½ inches. From its size, it must have almost completely filled up one-half of the interior of the cranium, and bulged considerably into the opposite body as well. It was, therefore, difficult to understand how the sheep continued to live till the tumour reached such dimensions. It was said to have

carried its head while alive in a position such as that of torticollis. In accordance with Virchow's view, this tumour must have arisen from the connective tissue on the inner surface of the falx cerebri, the fibrous layers of the dura mater preventing the coalescence of the osteoma with the cranial bones; while solitary growths were more characteristic of the falx than of the convex portion of the dura mater, from which multiple osteoma generally arose. Microscopic examination showed the cells characteristic of the adult structure of bone.

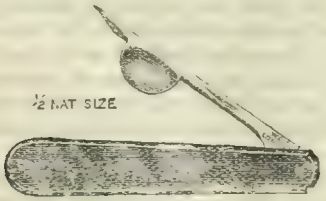
Treatment of Nævi by Electrolysis.—Dr. BROWNING read a paper on the eradication of nævi by electrolysis. He explained what was meant by electrolysis, and then described the action which takes place in the animal tissues. In the treatment of nævi, the surgeon had to deal with the effects due to decomposition around the negative pole only, as the positive pole should, except under special and peculiar circumstances, by no means be inserted into the tissues. The action of the negative pole was to decompose and to split up into their compound elements, forming alkaline salts easily absorbed, all those substances with which it came into contact; and hence rendered absorption rapid and certain. Dr. Browning then gave a short description of the battery to be used. He recommended that the positive rheophore should be as large as it conveniently could be; the negative to terminate in five or six gold needles. He operated on a child's nose; the whole of the tip and soft cartilage, including the septum, being mainly implicated by a large nævus. The needles connected with the negative pole were inserted through the nose. The positive rheophore, consisting of a large sponge, was placed on the left side of the neck, over the left side of the jaw. Ten cells of a Grove's battery were then applied, and very shortly the characteristic whitening of the nævus took place; the needles were withdrawn after three minutes. Five days later, the operation was repeated; and, ten days afterwards, the nævus had entirely disappeared. In reply to questions put, Dr. Browning answered that there was no slough, nor bleeding; the explanation of this latter being the placing of the needles according to the position of the poles. There was no cauterising action, because there was no rise of temperature; the action was that of disintegration. With nævi on the face, electrolysis was most useful.

Remuneration in Law Courts.—Dr. NEILD brought before the meeting the question of inadequate remuneration in supreme courts; and a discussion arose as to the necessity of insisting upon fees, on an understanding to that effect. It was ultimately decided to postpone the discussion on this matter to the next meeting.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

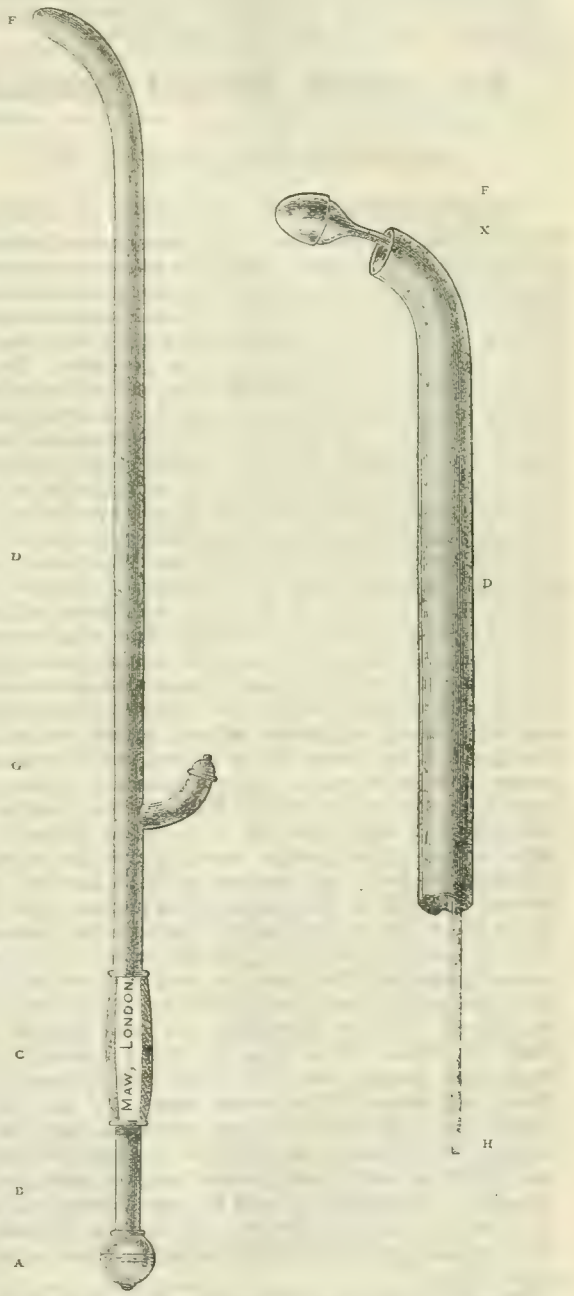
STARTIN'S SKIN-SCRAPER AND LANCET.

MR. JAMES STARTIN'S skin-scraper and lancet, for the treatment of acne, lupus, and other scaly eruptions, which is made by Messrs. Weiss and Son, has been designed for the removing of the "black specks" seen in acne, which can be done at a single sitting, much expediting the cure of this troublesome eruption. The lancet is for opening the indurations in acne indurata, which often accompanies the previously mentioned variety. The instrument is also valuable for the removal of crusts and scales in lupus, and other scaly eruptions. The instrument consists of a fine steel blade, with scoop and lancet at the end, set in a tortoiseshell handle, with French hold-fast spring. It is handy to be carried in the waistcoat-pocket.



INSTRUMENT FOR CRUSHING SMALL CALCULI.

MR. R. E. BOWER of Portsmouth has forwarded to us the sketch of an instrument which he has devised for extracting and crushing, when necessary, small calculi. The idea first suggested itself to him in a case where, after removing the greater portion of a calculus by lithotrity, a small fragment remained, which eluded the grasp of the lithotrite, and, at the same time, would not pass through the urethra. By means of the catheter-lithotrite, he succeeded easily in securing and crushing it. Subsequently, he had an opportunity, in another patient, of catching a small calculus just forming. The instrument is made by Messrs. Maw, Son, and Thompson, of Aldersgate Street, E.C.



Catheter-Lithotrite.—D. Steel Catheter, with unattached bulb. F. Bulb, attached to end of steel stylet (H). By pressing on knob (A), when the instrument is in the bladder, the bulb (F) is projected, allowing the contents of the bladder to escape at G, the plug there being removed. On removing the pressure from the knob (A), the bulb returns to its place by means of the spring (B), unless a solid body should have fallen into the space (X). By turning the knob (A), screw-pressure is brought to bear on the movements of the bulb, which will be found sufficient to crush small calculi.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JANUARY 22ND, 1881.

THE ABATEMENT OF THE SMOKE OF CITIES.

IT is natural that members of the medical profession should take an active initiative part in the measures which may relieve the metropolis from the prevalence of heavy fog, polluted with smoke and the products of combustion of bituminous coal, which have, in an increasing measure during the last few years, proved destructive to the health and comfort of the inhabitants of London, as of other great cities. The fogs of last year were of a kind to compel urgent and early attention to the subject; and, immediately after returning from a short sojourn in the East, in May last, compelled by climatic considerations, due to the London fogs, Mr. Ernest Hart, as President of the National Health Society, called the attention of the Society to the desirability of taking early measures to ascertain how far the excessive production of smoke in London could be abated, and metropolitan fogs deprived of one of their most corrosive and deleterious elements. With this view, arrangements were made, due partly to the kindness of Professor Chandler Roberts, F.R.S., Professor of Metallurgy at the School of Mines, and Chemist to the Royal Mint, to investigate the existing means of combustion and fuel employed in houses in ordinary grates, and to examine the means of improving them. Professor Roberts warmly entered into the spirit of the proposition; and undertook, at an early date, so soon as his pressing engagements allowed, to carry out the practical investigation of the subject for the Society, and to communicate a detailed report of his results. Later in the season, an active member of the Kyrle Society, Miss Octavia Hill, mentioned that her Society was desirous of doing something to lessen the plague of smoke, whilst looking at the question essentially from its æsthetic side, as affecting the beauty and happiness of life in London. Mr. Hart informed Miss Hill of the steps already in progress by the National Health Society, and a joint committee was accordingly formed at the end of last season, and met in July, and framed a programme and course of proceeding. The Committee consisted of members nominated by the two societies, and at once sought the aid of Captain Galton, Dr. Siemens, Professor Frankland, and other experts; and included Mr. William Eassie, C.E., Mr. Ernest Turner, Mr. Wynter Blyth, Miss Octavia Hill, Miss Emily Shaw-Lefevre, Miss Kate Potter, and others. The autumn recess, and the absence of Captain Galton and others from town, suspended, during the months of August and September, the activity of the Committee; and, meantime, a fresh and most valuable impulse was given to the question by a discussion in the papers, led, with his wonted energy and vigour, by Dr. Alfred Carpenter of Croydon. Dr. Carpenter's letters, in the *Times* especially, were most effective in helping to form public opinion on the subject.

When the Fog and Smoke Committee of the National Health and Kyrle Societies met again, early in October, they began actively to investigate the existing appliances for the purpose. They found that a great number of means had been in existence for consuming bituminous coal in open grates and closed stoves with much greater efficiency, and less production of smoke, than in the ordinary grate now in use. None of these, however, seem completely to fulfil the purpose; on the other hand, they have found that there exists a great abundance of appliances for the complete consumption of smoke in steam-vessels and in boilers of factories, and for all industrial purposes; some of these, including some of the most efficient, have only a local popularity; others are somewhat costly; and they have evidence which puts it beyond doubt that there is hardly one industry, if any, which can be named in respect to which it is not possible to obtain the complete consumption of smoke, not only without additional annual expenditure, but with the advantage of economy. The most striking results which have been made in this direction are those of Messrs. Clay, printers; and Messrs. Hanbury and Co., the great brewers. Brewers had, for a long time, considered that it was especially difficult to apply smoke-consuming apparatus to various departments of their industry. This problem has, however, been completely solved at the brewery in question for many years, and at a general saving, as Mr. Fraser recently publicly stated, of nearly £80,000 in the course of twenty years, during which the appliances have been steadily improved. At the present moment, Mr. Fraser says, from the vast chimneys of this great brewery, no smoke whatever escapes; and, amid laughter at a public meeting at the Mansion House, he undertook to place the Lord Mayor at the bottom of the chimney-shaft; and promised that not only should he not suffer any inconvenience, but that he should be able to look up and count the pigeons flying over the top of the chimney.

In order to make available the existing experience, and to encourage advances by directing into this channel scientific ingenuity, an exhibition has been arranged for at South Kensington; in connection with which, scientific and accurate testings will be made of the various kinds of fuel, as well as of the different appliances for this purpose. An expert committee has been formed, of which Mr. Ernest Hart is Chairman, and which includes the names of Prof. Frankland, F.R.S.; Dr. W. Siemens, F.R.S.; Prof. Abel, C.B., F.R.S.; Prof. Chandler Roberts, F.R.S.; Colonel Festing, R.E.; Major-General Scott, C.B., F.R.S.; Mr. W. R. E. Coles, and other practical scientists. At a meeting called recently at the Mansion House, to consider this proposal, the Lord Mayor presided; and after hearing a statement from Mr. Hart of the progress of the movement up to this date, and of what it is intended to do, resolutions were passed, on the proposals of the Right Hon. J. G. Shaw Lefevre, M.P., First Commissioner of Works; Mr. Spottiswoode, President of the Royal Society; Sir Frederick Pollock, Bart.; Sir U. Kaye-Shuttleworth, Bart.; Dr. Alfred Carpenter; Dr. Farquharson, M.P., and others, approving of the proceedings of the Joint Committee of the National Health and Kyrle Societies thus far; and earnestly calling upon the citizens of London to assist in the further steps for bringing this question to a practical issue, and recommending the whole subject to public attention, as one deserving of warm support. Mr. Shaw Lefevre is the head of the public department which is most immediately connected with this subject. As First Commissioner of Works, he has not only charge of the public parks, but of the public buildings; and he stated that, within the last forty years, the atmosphere of London has so far deteriorated, that it is no longer possible to grow roses in Kensington Gardens, which, until lately, flourished there abundantly; that the conifers are all decaying, and that there exists there now but one solitary specimen of the class; while the face of the public buildings of London is suffering constant decay from the corrosive action of the sulphurous and acid products with which the air is impregnated by the imperfect combustion of bituminous coal. One comparative simple solution of the problem will be the introduction of anthracite coal, or of smokeless fuel; and experts assure us that, of good anthracite smokeless coal there exists, in Wales alone, four thousand millions of tons, enough to supply London for the next thousand years, if no other coal were imported into it, allowing for the growth of population. It is, however, evident that this solution of the problem is too simple to be the only one which is at hand; and it is not to be supposed that the inventive ingenuity of this country is inadequate to find means to burn in a satisfactory manner, and without waste, the bituminous coal with which this country is so richly and

so bountifully endowed. Of the pressing urgency of the question, many striking illustrations were given. The one fact, however, that the smoke-fogs of last year raised the mortality, during their prevalence, by forty per cent., and produced an excessive mortality, almost exclusively due to respiratory complaints, which equalled that of a cholera epidemic—sufficed, and was sufficiently impressive, to put the question beyond discussion, if any discussion were likely on that point. The interest of this movement is not confined to London only, nor is the incidence of the mortality exclusively indicated by respiratory complaints. It is certain that the mere obstruction of the sun's rays, due to the constant pall of smoke which hangs over London, is in itself a great factor in lowering vitality, and in injuriously affecting the standard of health. Mr. Ernest Hart mentioned, on the strength of a statement of Dr. Joseph Rogers, a striking, but familiar, illustration of this lessening of the actinic power of the rays of the sun, due to the intervention of the increasing fog-smoke clouded over London. Dr. Rogers had mentioned that a wax-bleacher, with whom he was acquainted, had stated to him that, within quite a recent time, he had been compelled to get his wax bleached by the sun in the open air at Shepherd's Bush; but that lately he had found the power of the sun's rays so much diminished, that it had become necessary to remove his bleaching ground beyond Hammersmith. Similar observations were made at the Botanical Gardens, and at the Zoological Gardens, during the prevalence of the dark fogs of last year. It was found that the health of animals was seriously affected by the darkness; and plants preserved under glass in the gardens ceased to grow, and showed evidence of seriously depressed vitality during this period of darkness, from the absence of the chemical influence of the sun's rays; it is, indeed, well known that the etiolation which rapidly occurs under such circumstances is accompanied by lowered vitality, of which the coarser representation is lessened chemical action and depressed physiological activity. In considering the influence of smoke-clouds and fogs upon the health of the inhabitants of London, the loss of light must be taken into consideration, as well as the deleterious influence of the sooty particles and smoke-products diffused in the air.

LUNATIC ASYLUMS IN VICTORIA.

THE report of Dr. Paley, the Inspector of Lunatic Asylums for Victoria, for the year 1879, which was presented to the Chief Secretary on the 3rd of May last, takes a general review of lunacy in the colony; and describes, in detail, the observations made on the official visitation of asylums, which, including one small licensed house, are six in number. On January 1st, 1880, there were 3,026 registered lunatics in the colony, distributed as follows: 3,002 in public asylums; 22 in Cremorne private asylum; and 2 in workhouses. Contrary to what is the case in this country, but as might be expected in Australia, the male lunatics greatly outnumber the females; 1,732 of the total number at the date already named having been males, and 1,294 females. As in every civilised country from which we receive reliable information, the number of lunatics increases in Victoria year by year, by long strides. At the end of 1868, there were 1,556 registered lunatics; and, at the end of 1879, there were 3,002. The lunatic population had, therefore, nearly doubled itself in eleven years; and its rate of increase had far outstripped that of the general population. No information is given as to the nationality of the lunatics in Victoria. Of course, a large majority of them are English in the wider sense of that word; but the Chinese and Germans form an appreciable element in Victorian society; and many other races are represented there, and, doubtless, also in the lunatic asylums. The ethnic modification of insanity is a subject that is now awakening much interest; and students of medical psychology all over the world would be grateful to Dr. Paley if he would make use of the opportunities which surround him, in the well organised asylums under his inspection, to collect data as to the forms of insanity most prevalent in the different varieties of mankind assembled together in them. The extent to which different races are affected by epilepsy and general paralysis is an important point much in want of elucidation.

As far as can be gathered from the table of causes of death included in Dr. Paley's report, general paralysis would seem to be a comparatively rare disease in Victoria, only 8 deaths out of 225 which happened in 1879 being set down as due to it. It is probable, however, that the certificates or returns on which this table is founded have not been prepared with much diagnostic care; for while only 8 deaths are ascribed to general paralysis, 95 are ascribed to "inflammation and other diseases of the brain, softening tumours, etc.": a very comprehensive group, which, if broken up and subjected to strict analysis, would, in all likelihood, be found to include no inconsiderable proportion of cases of general paralysis. All that we know of the habits of life in Victoria, of the mental excitement and haste to be rich that prevail there, and all that we see of lunatics who come home from Victoria insane, would lead us to conclude that general paralysis is even more frequent there than it is with us.

Although not satisfactory in affording very precise and trustworthy information as to the causes of death, the table of mortality in Victorian asylums is singularly satisfactory in another respect; and that is as proving that the death-rate in them is low, and, indeed, decidedly lower than that of asylums in this country. In 1879, that rate was 8.27, calculated on the average daily number of patients resident in asylums; and that was considerably above the average rate for a series of years. In 1878, the death-rate was 6.69, which is much below the English asylum death-rate. Another pleasing feature in the mortality table of the Victorian asylums is the evidence which it affords that phthisis pulmonalis is comparatively rare in these institutions. That disease, which is not likely to have been overlooked nor mistaken for any other, caused only 20 deaths out of 225 in 1879—a fact which, viewed in connection with the class of patients admitted, speaks well for the attention given to sanitation in these asylums, and which corroborates the impression now generally entertained by authorities on climatology, that Victoria, in spite of its hot winds and sudden changes of temperature, is not favourable to the development or rapid progress of pulmonary disease; and is, therefore, especially in its sheltered Gippsland district, a suitable place of residence for consumptives visiting Australia.

The recoveries in Victorian asylums, during 1879, were 295 in number, which gives a percentage of recoveries, calculated on admissions, for all establishments in the colony, of 39.86. This percentage, although high when compared with British standards, has frequently been exceeded in previous years, the recovery-rate having been four times above 45 per cent. of the admissions during the last seven years. Thus it would appear that while, as the inspector testifies, a great many patients are received into these asylums in an advanced state of bodily disease, and in a hopeless condition as regards their insanity, a great many are also received in the early, acute, and curable stages of insanity. The recovery-rate must benefit by the fact that lunatics are never detained in workhouses in Victoria.

To Dr. Paley's general report there are appended special reports on each of the six public asylums in Victoria, founded on information collected by the inspector on his official visits, which take place twice or thrice a year. These special reports enter into statistical results and general and fiscal management with considerable minuteness; and convey the idea that the public asylums of Victoria, under the judicious tutelage of Dr. Paley, and the zealous superintendence of their medical officers, are, in most respects, very like the public asylums of this country, although necessarily less polished and complete in some of their arrangements. We find that restraint is almost unknown in them; and that where a tendency to revert to its use is still manifested, as at the Beechworth Asylum, the inspector is not slow to exercise his influence in the right direction. In this asylum, which contains nearly 500 patients, he found one man wearing a camisole, and ascertained that he had worn it for a long time with very little intermission; his persistently destructive habits being the reason assigned for its employ-

ment. Upon this, he says: "It seems to me that a determined stand should be made against this practice; and that for a portion, at least, of every day the patient should be freed from restraint, his quiescence being sought by the watchfulness of attendants and by medical treatment." In other asylums, the desire is to discard restraint altogether, notwithstanding the fact that, amongst their inmates, there must always be some wild, reckless beings, with no notions of discipline, and no respect for any law save that of physical force. Seclusion, like restraint, is now rarely resorted to in Victorian asylums. More conducive to good order than such coercive measures have been found varied occupations and amusements. These are now liberally provided. Religious services, suitable to the different denominational views of the patients, are held regularly. The food supplied is, Dr. Paley says, good in quality and ample in amount; and that it is usually well served may be inferred from the circumstance that he makes it a subject of complaint that he saw dinners placed before the patients in one asylum on tables without cloths. The most serious drawback in the Victorian asylums is that they are all overcrowded, and that, in many of them, the buildings are of faulty construction. Extensive additions, alterations, and repairs are urgently needed.

CATALEPSY AND CEREBRAL LOCALISATION.

M. CHARCOT, it is well known, has done more towards the elucidation of the cataleptic and allied states, than any living investigator. In a recent lecture, communicated to the *Progrès Médical* by G. Ballet, he distinguishes and describes two such conditions, which he calls respectively "Hysterical Lethargy", and the "Cataleptic State". Most cases of typical "grave hysteria" can be thrown into the first of these two conditions by directing the eyes to be fixed steadily on some point, the tip of a penholder held in the hand, for instance: in a few moments, "the head inclines to the right, or to the left; the eyelids close"; the limbs become motionless and limp; but the power of speaking remains. The patient can answer questions, can count, and even calculate; can recite any verses which she may happen to know by heart, and can write from dictation. This is the condition of hysterical lethargy. If, now, the eyelids of a patient in this condition be raised, and the retinæ thus stimulated by light, she immediately becomes cataleptic; the limbs, no longer limp, remain in any position in which they may be placed; and the power of speaking is completely lost. M. Lepine first performed a most curious experiment on one of these women; and his observation has since frequently received full confirmation. He found that, by raising the eyelid on one side only in a patient in hysterical lethargy, he could throw the corresponding half only of the brain into a condition of catalepsy. If the left eye only were opened, the left side only became rigid, and *vice versâ*. But there was this remarkable difference between the two sides, that whereas opening of the left eye in nowise interfered with power of speech, opening of the right immediately destroyed it. For instance, a woman in the lethargic state was caused to repeat some verses; the left eye was opened, she continued her recitation; it was then closed, and the right eye opened instead; straightway she ceased to speak; on again closing the right eye, she began her verses again at the very place she left off, recommencing sometimes in the middle of a word. This experiment clearly points to the conclusion, long since arrived at on other grounds, that the faculty of speech has its local habitation in the right half of the cerebrum.

NERVE-STRETCHING IN LOCOMOTOR ATAXY.

THE patient, suffering from locomotor ataxy, upon whom MM. Debove and Gillette operated about a month ago, by nerve-stretching, on the German method, has received very great benefit from that operation. The pains, and the "*crises gastriques*", to which he had been for years a martyr, have not recurred, and the incoordination of movement has "almost entirely disappeared". Encouraged by this success, M. Gillette operated, on December 16th, on another patient of M. Debove's. In this case there were, in addition to the more ordinary symptoms, incessant pains in both upper limbs, which underwent exacerbations. The median and radial nerves on the right side were stretched. Since the operation the pain in the right upper limb has much diminished; while in the left upper limb, and in both lower extremities, it has entirely ceased. The plantar anæsthesia has very much diminished; the incoordination of movement is much less marked, and he can now walk without assistance; he refuses to take morphia, saying that "his present pains are as nothing compared with those which he formerly endured". The method of operating used by M. Gillette is simple. He reaches the nerve by an incision two and a half inches long; passes a grooved director, with the convexity upward, under it; and, grasping the two ends of the director, makes traction in a line perpendicular to the axis of the nerve, with force sufficient to lift it about two inches. No fear of rupturing the nerve need be entertained, as it has been found that the radial nerve, to take an instance, will not give way until a force of over ninety-two pounds is applied. It is difficult to understand the *rationale* of this operation; still, as the result in four out of five cases has been so successful, no further justification for its empirical performance can be needed. That in all the cases the operation has been immediataly followed by relief of symptoms, and that in this case improvement in walking and diminution in plantar anæsthesia followed stretching of the nerves of the upper extremity, would seem to show that the resulting improvement cannot depend upon any structural changes. At present, there does not appear to be any guide to the choice of suitable cases; unless, indeed, the fact that all the patients operated on have suffered severely from lightning pains can be taken as an indication. Time, however, will no doubt clear up this and many other difficulties connected with the subject; and we may not improbably learn that we have included under the one term several correlated but distinct morbid processes.

THE Queen has notified her intention to grant a pension of £200 a year to Mr. Alfred R. Wallace, the well-known naturalist.

PROFESSOR SCHÄFER'S course of eleven lectures on the Blood at the Royal Institution will begin on the 25th instant.

DR. D. W. FINLAY has been appointed to the Lectureship on Forensic Medicine in the Middlesex Hospital Medical School.

DRS. BOURNEVILLE, Frère, Georges Martin, Aristide Rey, Songeon, and Thulié have been elected members of the Municipal Council of Paris.

MILK-ADULTERATION has, we read in an evening paper, gone so far at Aston, that a large proportion of water is added even to the skimmed article. Leaving out the milk altogether is suggested as a simpler alternative.

PROFESSOR HUXLEY has been appointed to the Inspectorship of Fisheries, vacant by the death of Mr. Frank Buckland, and will, in consequence, resign his appointment as naturalist to the Geological Survey.

DR. CARL LANGENBUCH writes to us from Berlin with reference to a recent note in the BRITISH MEDICAL JOURNAL on nerve-stretching in ataxy, that he, and not Baron von Langenbeck (as we reported), was the first who employed nerve-stretching in a case of neuralgic tabes.

ON the recommendation of the Metropolitan Asylum Board, the visiting of relatives and friends to the inmates of the Metropolitan Workhouse District Schools and Orphanages in connection with the Poor Law Administration has been prohibited, in consequence of the prevalence of small-pox.

IN consequence of the inclement weather on Tuesday last, and the small attendance of members at the meeting of the Pathological Society of London on that day, the delivery of the presidential address by the newly elected President, Dr. Wilks, was postponed until the meeting on February 1st.

THE governors and subscribers of the Deaf and Dumb Asylum at their annual meeting at the Cannon Street Hotel, decided to give a specific trial to the pure oral system for educating the deaf and dumb, as resolved upon at the recent congress at Milan.

THE Municipal Council of Marseilles has denied that the management of the pharmaceutical department of the hospitals shall be taken away from the sisters of charity, and confided to the students; and that the sisters should be replaced throughout the hospitals by members of the laity. The *Gazette Hebdomadaire*, whence we glean these particulars, expresses a wish that similar measures might be adopted in Paris.

TWO house-surgeons of the civil hospital at Mustapha, MM. Kocher and Rieu, who were attacked by diphtheria whilst attending some children operated on for croup, have received from the French Government—the former a gold medal of the first class, and the second a silver medal of the first class.

THE Municipal Council of Paris have approved, on M. Bourneville's recommendation, a plan for appending to the Enfants Malades Hospital, in the Rue de Sèvres, a pavilion devoted to the treatment of diphtheritic patients only. This is a greatly needed and most useful improvement.

THE Superior Council of Public Instruction in Paris has reduced the sentence passed on Professor Regnault, of the School of Medicine at Rennes, for taking part in the manifestations against the execution of the March decrees, to suspension of his duties and salary to the end of the current scholastic year.

THE twenty-fifth anniversary of the foundation of the School of Medicine in Roumania has been celebrated at Bucharest, by a grand commemorative fête and dinner. Two hundred physicians and surgeons were present at the banquet, which was organised by subscription in honour of Dr. Davila, the founder of the Medical Institution, now acknowledged to be the best school in the East, and which owes its creation and progress to Dr. Davila alone. Numerous congratulatory telegrams were also received from Bulgaria, Servia, and other foreign countries.

FOGS AND SMOKE.

MR. CUBITT, in the House of Commons, has given notice of his intention, on an early day, to move for a Select Committee to consider to what extent the fogs of London are injurious to life, health, and property; whether they have increased, and are increasing, from causes which are controllable; whether the existing Acts of Parliament relative to the consumption of smoke are applicable to the present state of the metropolis, and can still be enforced; and whether alteration and extension of this legislation would be beneficial.

SCARLET FEVER AT LINCOLN.

THE neighbourhood of Lincoln is reported to be the seat of an epidemic of scarlet fever, which has already resulted in several deaths. From certain facts which have come to light, there is little doubt that the spread of this malady is to be attributed to the most dire want of caution on the part of a woman in the district, just recovering from fever, who opened a school. Several children attending it, were soon taken ill; and one, whose parents reside at Beverley, ultimately died. The mother being sent for, nursed the child, and, on her return home, was attacked by fever, but recovered. One child there, however, took fever, and died.

SPACES FOR PUBLIC RECREATION.

A DEPUTATION from the parishes of St. Thomas, Hackney, and St. Mary, Islington, presented a memorial in favour of the preservation of Kingsland Green, as a place of public recreation. The green was now threatened with building operations. Mr. Fawcett, M.P., who was accompanied by Mr. Holms, M.P., said the memorial represented the feelings of the people in the district, and he would earnestly ask the board to take it into their favourable consideration. He believed that, among those coming after us, probably none of the work accomplished by this board would rank so high as its efforts to preserve open spaces in different parts of the metropolis. The spot in question was nearly a mile from Stoke Newington Green and Hackney Downs; and, although its cost was high—rumour said £10,000—still it was an expenditure which would have the happiest results, and would only involve an annual expenditure of £350 or £400. He believed that liberality on the part of this board would be met by liberal local effort. On the motion of Mr. Runtz, the memorial was referred to the Works Committee. In answer to a question, he stated that the area was one acre.—A resolution, says the *Globe*, was passed at a recent meeting of the Newington Vestry, which was warmly supported by the Chairman, the Rev. G. T. Palmer, that, in the event of the Metropolitan Board acquiring the site of Horsemonger Lane Gaol as an open space, the vestry should undertake to maintain the same in perpetuity.

MR. W. D. HUSBAND.

WE much regret to announce that, at the last meeting of the Committee of Council, Mr. W. D. Husband resigned, in consequence of impaired health, the office of Treasurer of the British Medical Association. Mr. Husband some years ago filled the office of President of Council, and was elected Treasurer in 1875; and, on the expiry of his three years' term of office in 1878, was re-elected for the usual term, which would have expired at the next annual meeting in August. For a long series of years, Mr. Husband has taken an active interest in the welfare of the Association; and his tenure of two of the most responsible offices has been characterised by punctuality in business, kindness and courtesy towards all with whom he came into contact, and firmness and clearness of judgment. He has given his active support to all measures proposed in late years for the improvement of the Association; and to his judicious management is due, in no small measure, the present prosperous condition of its finances. In his letter of resignation, Mr. Husband expressed the hope that, after a while, he will again be able to take part in the deliberations of the Committee of Council (in which he has a permanent seat as a Vice-President of the Association). In this hope, we are sure, all his colleagues and friends most sincerely join. The following resolution was passed unanimously at the meeting of the Committee of Council, after the reading of Mr. Husband's letter.

"That the Committee of Council, through their Chairman, communicate to Mr. Husband their deep regret on the receipt of his resignation; not merely in consideration of the great loss which will be sustained by the Association, but likewise for its cause—the serious failure in his health.

"The proofs Mr. Husband has given, through so many years, of his active interest in the aims and operations of this Association, and the efficient assistance he has rendered alike as President of Council and as Treasurer, fill the Committee of Council with the warmest gratitude; and they desire to express to Mr. Husband their sanguine hope that, by temporary retirement, his health may be restored, and that he may soon again resume a more or less active position in their affairs."

Dr. W. F. Wade of Birmingham has been appointed *interim* Treasurer by the Committee of Council, in accordance with No. 34 of the by-laws of the Association.

HARVEIAN SOCIETY OF LONDON.

THE annual meeting of this Society took place on Thursday, the 6th instant. Dr. Broadbent proposed, at the suggestion of the Council of the Society, that the by-law forbidding the re-election of a president for a second year of office should be set aside for the coming year. He said it was necessary that, during the holding of the International Medical Congress, the President of the Society should be a gentleman of world-wide reputation; such an one was the present President, Mr. Henry Power. Mr. Eastes, in seconding the proposition, remarked that the Society would this next summer complete its fiftieth year; and the Council had determined that the annual *conversazione* should be of a more ambitious nature than usual. Invitations to ladies would necessitate the use of a larger room for the meeting; and the Council had consequently determined to ask for the use of the South Kensington Museum for an evening in May or June. But, as the President was just about to give his annual address, it was considered that it would be unfair to obtain that of him, and not, at the same time, give him the

opportunity of presiding at the *conversazione* at South Kensington. Hence partly the reason why the Council advocated Mr. Power's re-election. The proposition was carried with acclamation. From the reports of the Council and of the Treasurer, it appeared that the number of members had greatly increased of recent years, and that the funds of the Society were in a prosperous condition. Votes of thanks were voted to the retiring officers of the Society; and, in proposing one vote, Mr. W. B. Owen reverted to the fact that all the members elected in the first decade of the Society had departed; whilst of those elected in the second decade, only three, Dr. Hare, Dr. Quain, and Dr. Langmore—all of whom had been Presidents—yet remained. He thought it would be a gracious act to elect all three to be "honorary members". The ballot list of officers and council for the year 1881, proposed by the Council, and published in the BRITISH MEDICAL JOURNAL of the 1st instant, was unanimously chosen. The President then gave an eloquent address, in the course of which he reverted approvingly to the work done by the Society during the past year, and thanked the members for his own re-election to the office of President. He alluded to the recent enormous development of medical and surgical literature; and computed that a man, to peruse it all, "would have to read through ten papers every week-day throughout the year, and would still require his Sundays for his recreation in the perusal of such bulky treatises as Ziemssen's *Cyclopædia of the Practice of Medicine*, or for playfully dipping into the pages of the Sydenham Society's *Lexicon*". He thought the status of medical men was improving, as the students were now drawn from a higher grade of society, and had a better education than their predecessors obtained, whilst medicine and surgery had acquired far more exactness. Practical work was now, fortunately, recognised as a necessity; and he approved of the suggestion of Sir J. Paget, that elemental vegetable pathology should enter into the ordinary curriculum of modern medical education; whilst it could not be doubted that no better initiation into human medicine and surgery could be devised than the diagnosis and treatment of disease in dumb animals. Mr. Gant proposed a vote of thanks to Mr. Power for his excellent address, and for his valuable services to the Society as its President during the past year, which was carried with applause. The meeting then separated.

UNIVERSITY OF LONDON.

THE January meeting of Convocation took place on Tuesday evening. In the absence of Dr. Storrar, chairman of Convocation, owing to indisposition, Dr. F. J. Wood presided. Mr. H. A. Nesbitt presented the report of the annual committee. It first dealt with the Teachers' Registration Bill, originally introduced in the House of Commons by Dr. Lyon Playfair, M.P., and awaiting re-introduction in the present session. The committee stated, that they thought it desirable that such a Bill should be passed and be entitled "A Bill to provide for the Registration of Teachers in Intermediate Schools". After a few remarks, from Mr. Nesbitt, Mr. Sully moved, and Mr. Kimber seconded, the adjournment of the meeting, on the ground that the extreme inclemency of the weather had prevented many gentlemen, who felt a deep interest in the question, from attending. On the question of the period of adjournment, Mr. Shaen suggested that the House should leave the agenda to stand over till May. The suggestion was adopted, and the meeting adjourned. The question of the admission of female graduates to the meeting of Convocation was consequently not reached.

SCARLATINA AT HALIFAX.

A SEVERE and very sudden outbreak of scarlatina has occurred at Halifax, where the disease is stated to have "spread with alarming rapidity, entering the houses of rich and poor alike, visiting neighbourhoods supposed to be the most salubrious in Halifax, laying the children prostrate with fever, and producing in adults a painful disease of the throat." Already twelve cases have proved fatal, though the disease is stated to be, upon the whole, mild in its character. Various speculations are rife as to the causation of the epidemic; the milk-supply, amongst other matters, being impugned. The sudden onset of the disease and its widespread prevalence, certainly seem to lend support to this view; but as the gravity of the situation is amply recognised at Halifax, it will probably not be long before the actual facts as to the outbreak are discovered. Active measures are being taken by the sanitary authority to check the spread of the disease; and certain of the schools have been closed. That 152 cases of scarlatina and 71 of sore throat should have occurred within so short a space of time, is certainly a very serious matter.

THE COLD WEATHER AND MORTALITY.

IN view of the inevitable relation between temperature and winter mortality, there is something at first sight anomalous in the Registrar-General's last weekly return, which shows that the annual rate of mortality last week in twenty of the largest English towns did not exceed 23.6 per 1000; and, further, that the deaths registered in London exhibited but a slight increase upon the low numbers in recent weeks, and were no fewer than 161 below the corrected average in the corresponding weeks of the last ten years. Even if we turn to the fatality of diseases affecting the respiratory organs, which are most sensitive of atmospheric influences, we find that the 371 deaths referred to these causes were scarcely more numerous than those returned in the recent weeks of exceptionally mild weather; and were no fewer than 111, or 23 per cent., below the corrected average for the corresponding week of the year. The fact undoubtedly is that the intense cold which prevailed during the last four days of last week had not had time to set its mark on the registered mortality of the week; for we dare not hope that this remarkably low temperature will prove an exception to frosts in general in its fatal effect upon the health of the general population. It is scarcely necessary to point out how exceptional was the intensity of the cold at the end of last week; it is worth notice, however, that, during the memorable frosts of January 1855 and 1856, no four consecutive days showed so low a mean temperature as did the four days ending on Saturday last, when the mean did not average more than 23.8°, showing a continuous average of eight degrees of frost day and night. The mean temperature of the twenty-four hours ending at midnight on Saturday was only 19.6° at the Royal Observatory, Greenwich; the highest temperature during the day being 24.8°. The nearest approach to so cold a day in recent years was Christmas Day 1870, when the mean temperature was 20.6°. The next weekly return of the Registrar-General will be full of serious interest, as it will undoubtedly afford the means for estimating the fatal effect of the present cold upon the mortality of the nation.

ACCIDENTS CAUSED BY THE FROST AND SNOW IN LONDON.

IN answer to inquiries, we have received from some of the London Hospitals the following accounts of cases of accident, caused by the severe frost and snow-storm, and treated in those institutions during the past week. At Charing Cross Hospital, the cases have been of an ordinary character. They have comprised some twenty or thirty accidents, chiefly scalp-wounds and contusions, and two fractures of the radius. At King's College Hospital, only two serious accidents have been admitted, which were directly caused by the frost and snow. One was a case of comminuted fracture of the right tibia and fibula, caused by slipping down, and was admitted on January 18th; the second case was one of severe concussion with probable laceration of the brain substance, caused by a fall through a skylight, which was covered with snow, so that the patient could not see it. At St. Mary's Hospital, during the last five days, three fractures of the leg (both bones), two fractures of the fibula, one fracture of the os calcis (?), and one case of injury to the hip have been admitted, all of which were caused by the frost. At the Middlesex Hospital, the following cases have been admitted during the past week. On January 12th, a mounted police-inspector, aged 35, whose horse had slipped and fallen on his right leg, at Enfield, was admitted with fracture of the right tibia and fibula. On the 16th, a male, aged 19, was admitted with his right knee ankylosed at an angle of 120°, who had slipped on the ice in a court and broken his right femur. On the 16th, a male, aged 38, who

had slipped on the ice in the street, was admitted with fracture of the right tibia and fibula. On the 18th, a female, aged 61, who had slipped in the street, came in with fracture of the left tibia and fibula. On the 18th, a female, aged 68, who had also slipped in the street, and had intracapsular fracture of the neck of the left femur, was admitted. Again on the 18th, a lamplighter, whose ladder had slipped and caused him to fall, was admitted with severe contusion of the left thigh. At University College Hospital, the following cases of accidents, due to ice and snow, were treated between Wednesday, the 12th instant, at 12 P.M., and Wednesday, the 19th instant, at midnight: four cases of Colles' fracture, which were not admitted; a case of three broken ribs, admitted; and a case of rupture of the rectus femoris muscle, admitted. At the Royal Free Hospital, there were admitted three cases of fracture of the lower leg, and two cases of concussion of the brain. Amongst the casualties treated as out-patients, were two cases of fracture of the fore arm, several cases of injuries to joints and sprains, four cases of contusions, and two cases of wounds. At the Great Northern Hospital, no cases have been admitted. A few casualties, such as dislocations, Colles's fractures, sprains, etc., have been treated; and one boy was brought to the hospital on Tuesday, suffering from the effects of exposure to cold, who went out again on Wednesday. For the above particulars, we are indebted to the house-surgeons of the various hospitals mentioned. No cases of accident have been admitted to any of these hospitals which could be attributed to the fall of telegraph wires.

SMALL-POX HOSPITALS.

THE small-pox hospital belonging to the Metropolitan Asylums District Board at Fulham, has been reopened for the reception of cases of small-pox; and, according to the terms of a letter addressed by Dr. Thorne Thorne of the Local Government Board to the medical practitioners practising in the vicinity of the hospital, an effort is being made to ascertain how far the allegations made as to the spread of infection by means of such hospitals is founded on fact. We feel sure that everyone who is able will willingly supply the information asked for by the central authority.

THE ARTISANS' DWELLINGS ACT.

MR. SELWAY, in seconding a motion by Mr. Dalton, at the last meeting of the Board of Works, for the approval of a report and return sent by the Works Committee to the Home Secretary, said the board had found the Artisans' Dwellings Acts unworkable, and they now made a number of suggestions to the Home Secretary which would have the effect, if carried out, of enabling the board to proceed with much greater vigour than hitherto, and with more economy to the ratepayers. The committee also proposed the passing of a Bill, to enable the board to get possession of a single unsanitary house in a district which did not require to be dealt with as a whole. The report was approved.

FATAL EXPLOSIONS OF KITCHEN BOILERS.

IN a single copy of a daily paper this week we noticed no fewer than six cases of explosions of boilers in private houses, resulting in three deaths and two persons seriously injured, as well as great damage to property. In one case the cooking range was forced out of position, and a portion of it blown into a passage. Cooking utensils and brickwork were hurled in various directions, and the windows were blown out in the same and adjoining houses. Such accidents are calculated to cause serious alarm in the minds of all those whose kitchens are fitted with modern cooking ranges. In the old cooking grate the boiler had a lid which fitted loosely, and acted as a safety-valve, but the modern ranges have no such simple means for permitting the escape of steam. In each case frozen pipes are supposed to have been the cause of the accident, and in all probability this supposition is correct. In ordinary circumstances, the water has free access to the boiler, and when heated passes from it to a hot water tank in some other part of the premises for the supply of a bath and lavatory. But if anything interferes with the free admission of water, an explosion might result from the overheating of the boiler, and the generation of large quantities of steam in consequence. The sudden admission of water to an over-heated boiler would have a similar effect. But whatever may be the precise cause, and we trust some investigations will be made to throw light upon the question at the inquests on the persons who have lost their lives, there can be no doubt that these accidents point to a serious defect in the present construction of kitchen ranges and hot water apparatus, which call for the attention of sanitary engineers. In the meantime, we should recommend our readers to enjoin attention to the state of the kitchen boiler, and to have the water drawn off whenever it is heard to be boiling.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

THE lectures for the present year will be delivered at the College on the following days at 5 P.M.:—Gulstonian Lectures, on Anæmia, by Dr. Coupland, on March 11th, 16th, and 18th; Croonian Lectures, on the Influence of the Circulation upon the Nervous System, by Dr. Moxon, March 23rd, 25th, and 30th; Lumleian Lectures, on Bright's Disease, by Dr. Southey, April 1st, 6th, and 8th.

CLINICAL SOCIETY OF LONDON.

NOTWITHSTANDING the inclemency of the weather, a full meeting of the members of this Society assembled on Friday, the 14th instant, on the occasion of Dr. Greenhow's last appearance in the presidential chair. Two interesting papers occupied the earlier part of the proceedings: the one by Mr. Croft, on Hydronephrosis of Traumatic Origin; and the other by Dr. Lloyd, narrating two cases of Myxœdema, upon which some valuable remarks were made by Dr. Ord, Dr. Andrew Clark, and Dr. Greenhow. These papers, and the discussions thereon, are published at p. 123. The ordinary business of the annual meeting then commenced by the reading of the report of the Council, which stated that the total number of members of all kinds was now 325; that the balance in the hands of the Treasurer was £131; and that £500 were now invested. The volume of the Society's *Transactions*, recently published, contained sixty communications, besides coloured illustrations and woodcuts. The exhibition of living specimens had been found to work satisfactorily. Three committees, including those on leprosy and keloid, and its connection with syphilis, had presented their reports; those on hyperpyrexia in rheumatic fever, and on hip-joint disease, would soon be ready. Mr. Heath, the Treasurer, said that, notwithstanding the extra expense incurred last year by the publication of the index to the former volumes of the Society's *Transactions*, £100 had been invested, and he held a good balance. The report was received and adopted. The President remarked that the regulations respecting the preparation and reading of papers had been reconsidered and amended, and would shortly be printed and circulated amongst the members. The ballot for officers of the Society having been taken, the result was the unanimous election of the gentlemen recommended by the Council, a list of whom was published in the JOURNAL of last week. Dr. Andrew Clark then, in eloquent and most felicitous language, proposed a very cordial vote of thanks to the President, Dr. Greenhow, for his valuable services to the Society during the past two years. He reminded the meeting that Dr. Greenhow had been an officer and hard-working member of the Society from its very foundation; that his punctuality, urbanity, and tact had won the admiration of all; and that, in retiring from the chair, he carried with him the affectionate regard of all the members. Mr. Morrant Baker seconded the proposition, and, having put it to the meeting, declared it to have been carried with acclamation. Dr. Greenhow briefly tendered his best thanks, and remarked how much his own work had been lightened by the unfailing industry of the Honorary Secretaries, Mr. Howard Marsh and Dr. Frederick Taylor, the former of whom was about to retire from office. Votes of thanks to the outgoing Vice-Presidents and members of the Council, and to Mr. Howard Marsh, for his efficient and valuable services as Secretary, were carried, and suitably acknowledged. Mr. Lister is the newly elected President of the Society; and Mr. Warrington Haward becomes Surgical Secretary, in the place of Mr. Howard Marsh.

LIVERPOOL MEDICAL INSTITUTION.

AT the annual meeting on Tuesday, January 11th, the following list of officers and Council was adopted; the newly elected being those marked *. *President:* Mr. Reginald Harrison. *Vice-Presidents:* Dr. Caton, Dr. Dickinson, *Dr. Gee, *Mr. Townson. *Honorary Treasurer:* Dr. W. M. Campbell. *Honorary General Secretary:* Mr. Rushton Parker. *Honorary Secretary of Ordinary Meetings:* Mr. E. A. Browne. *Honorary Librarian:* Dr. Howie. *Council:* Dr. Barr, Mr. Banks, Mr. McCheane, Mr. Ransford, Dr. Rawdon, Dr. Waters, *Dr. Burton, *Dr. Costine, *Dr. Cregeen, *Dr. Hicks, *Dr. Hopper, *Mr. Paul. *Microscopical Committee:* Dr. Alexander, Dr. Braidwood, *Dr. Briggs, Dr. Glynn, *Dr. Grossman, Dr. Hicks, Mr. Newton, Mr. Rushton Parker, Mr. Paul, *Dr. Wm. Williams.

SCHOOL-BOARDS AND ABSENCE OF CHILDREN THROUGH SICKNESS.

OUR attention has been called to a paragraph in the *Evesham Journal* of December 11th, from which it appears that Thomas Andrews was fined for not sending his adopted child to school. The case had been remanded from a previous day, to enable the defendant to obtain a certificate which should corroborate the defence set up; viz., that the child had been ill, and was not fit to go to school. The defendant stated that the medical gentleman who had seen the child refused to give him one. The gentleman in question happened to be in the court, and stated he certainly had seen the child, and prescribed for it on account of some skin-eruption; but, as he kept no record of such cases, he was quite unable to state whether the child was in a fit condition to go to school or not at the time mentioned. He had, therefore, refused to sign a certificate. The clerk to the School Board stated that the school-attendance committee and their officers had their difficulties materially increased by the numerous excuses set up by the parents as to sickness among their children. We think this case is only a sample of many which arise every day in our police-courts, in connection with the attendance of children at school. There is no machinery at present in operation to remedy an evil of some magnitude. Parents are allowed to set up a defence; it may, or it may not, be true. How are the magistrates to decide? They cannot compel the production of the certificate, for various reasons. In this case, the medical attendant declined to give it. His attention was not called specially to this case at the time, and he could not conscientiously say that the child was not able to attend school. There is a defect here. A school-board should have a way of solving this difficulty by an immediate visitation at the house of the sick child as soon as information of the sickness reaches the school. This visitor need not necessarily be a medical man; but, as a medical question is involved, it would be more to the purpose if a medical visitor were appointed, who should look up all cases regarding which there is any possibility of doubt, and who would give the necessary certificate at the expense of the school-board. It is a hardship to call upon the parents to provide this, and add to their troubles. To call upon the medical profession to provide it without fee or reward, is a condition which we cannot countenance. Nothing upon this point is raised in the case we are quoting; but it is often raised in other courts, and the public sometimes think that they are entitled to get these certificates from the doctor for nothing. If it could become the custom of benches of magistrates to make the production of a certificate from the medical attendant, which gave a satisfactory defence in a given case, a part of the costs against the school-board, it would meet a few of the cases, but not all. The far larger number of the cases do not get into court at all, but are condoned by the school-attendance committee. Hence this proposition would not meet the evil. There are a great many medical men who give these certificates, for which they get no fee. We think this is a great injustice. It would be much better if some plan could be legalised which should entitle the medical attendant to a fee of, say, a shilling, for each certificate forwarded to the school-board which excused the attendance of a child at school. This certificate might be a post-card, with printed directions and particulars, leaving blank for name, date, and disease. If these cards were sent through the post to the master of the school, they would save a great deal of trouble and expense to school-authorities, and much valuable time to our benches of magistrates; whilst they would prevent those false statements which are now often made by parents to avoid the consequence of their own neglect, or the wilfulness of their children, and add a little to the small pittance doled out to our profession for medical attendance upon the poor. We put these points forth as worthy of consideration by those who may have power to act upon the suggestion.

THE IMPORT OF THE SWEATING OF CONSUMPTIVES.

DR. ROUSSELOT of Saint-Die discusses, in the *Revue Méd. de l'Est*, some of the peculiarities of phthisical sweating, the variable period of the appearance of this symptom, and the point whether the sweating of phthisical persons is to be considered an evil symptom, and one which is to be combated. M. Rousselot believes that, in a certain number of cases, there is a correlation between the sweating and the fever. He remarks, in the first instance, that nothing is more variable than the period of appearance of the sweating in the course of pulmonary phthisis. There is an active tubercular evolution, and a torpid evolution in some sort passive. In the second case, pulmonary lesion has no influence on the organism. It has not an effective evolution, and it may last for some time without producing fever, and, in consequence, without the procession of symptoms which are ordinarily observed with fever, and particularly in nocturnal sweating. When, on the contrary, there are, from the outset, an active evolution, nocturnal fever, and disordered condition of all these symptoms, then, in general, a hasty appearance of nocturnal sweating may be observed. In this case, the thermometer will render great service in enabling us to study the degrees of morbid combustion. The sweating, which is then very often extremely abundant, allows the elimination of a great quantity of the products of morbid combustion. It may, then, be admitted, according to M. Rousselot, that the sweating affords a derivation favourable to the fever, and does, to some extent, moderate that symptom. If, then, in certain tubercular persons, nocturnal sweating appears, as it were, at the outset of the affection, it is because these individuals have a tuberculous evolution of an active form, and one which tends to fluxion and precocious fever. In others, on the contrary, the evolution affects a silent, indolent, torpid form, without any recoil on the organism; or, more strictly, there are tubercles in the lung, but no tuberculous evolution, and the subject is not phthisical.

THE PATHOLOGY OF DIABETIC COMA.

VON JAKSCH (*Prager Med. Wochenschrift*, 1880, Nos. 20 and 21) reports a case of diabetic coma in a boy aged 13. The nervous symptoms supervened three weeks after the appearance of the diabetes was recognised; and the boy died in four days, with a rectal temperature of 33.3° Cent. (91.9° Fahr.). The blood examined during life showed destruction of the red blood-corpuscles, but no fat-drops. The urine gave a strong acetone reaction with ferric chloride. He also describes a case of acetonæmia in a boy who was not the subject of glycosuria, and who recovered completely after free purgation.

ZIEMSSEN'S CYCLOPÆDIA.

THE ninth volume of Ziemssen's *Cyclopædia of the Practice of Medicine* is now published, making the series complete. It treats of Diseases of the Liver and Portal Vein, with a chapter relating to Interstitial Pneumonia. The authors are, Professor Ponfick of Rostock, Professor Thierfelder of Rostock, Professor von Schuppel of Tübingen, Professor Leichtenstern of Tubingen, Professor Heller of Kiel, and Professor Jurgensen of Tubingen. When the prospectus was issued, it was announced that it was expected that the *Cyclopædia* would be completed in fifteen volumes large 8vo, of from 500 to 700 pages each. As a matter of fact, it has been found impossible to include the whole of the subject in the fifteen volumes, and it has been found necessary to extend it to seventeen. The subscribers, however, have had everything to gain by the changes made; and the value of the whole series has

been greatly enhanced. Moreover, the publishers have considerably exceeded the promised average 600 pages per volume; the total excess of material furnished over that promised amounting to upwards of 4,000 pages, or seven additional volumes of the promised size of 600 pages. Although this extra matter has necessarily entailed heavy and unlooked-for expense on the part of the publishers, it has cost the subscribers nothing. They have made the issue with remarkable regularity throughout the period of three years in which these fifteen volumes have appeared, and are deserving of the credit of having carried out a great enterprise in a liberal, prompt, and satisfactory manner. They propose now to issue an index volume, at the request of many subscribers, to the complete work, which will be issued shortly, at the publisher's price of one guinea. Such a volume will, of course, greatly add to the usefulness of the whole series. It is also proposed to publish an additional volume on Diseases of the Skin, to form part of the series, which will be presented as an independent volume to every subscriber to the *Cyclopædia* who may then have completed his set.

PUBLIC MORTUARIES.

MR. VAUGHAN, the coroner for Devonport, has called the attention of the town council, to the urgent need for a public mortuary in the borough. He states that the difficulties which surgeons have experienced in making the requisite examination of a body, in ill lighted and otherwise unsuitable rooms, have frequently been reported to them; besides which, he considered it highly desirable that proper provision should be made for the reception of the body of any person, non-resident in the town, who may die suddenly in the street. We also note that, at an inquest, held by Mr. Carttar at Lee, on the body of a man who was found dead in the Blackheath railway tunnel, in consequence of there being no public mortuary, the jury had to view the body in a railway carriage. In the interests of common decency, such a state of things ought not to be tolerated, the more especially as it is stated by a local print, that there is a building existing in the district which might be utilised for the purpose.

VIVISECTION AND OVARIOTOMY.

DR. KEITH, who shares with Mr. Spencer Wells the honour of being *primus inter pares* among those who have brought ovariotomy to its present pitch of beneficent and life-saving perfection, has written an important letter on the subject to the *Scotsman*. He says :—

My attention has been called to the report of the meeting of the Scottish Society for the Prevention of Cruelty to Animals, in your journal of last week. I cannot allow the remarks made at that meeting by Mr. Edward Cruikshank, with regard to myself, to pass unnoticed. Mr. Cruikshank stated that he had my authority for saying that the good results attending a certain operation, were not in any way attributable to any discoveries made by so-called vivisection. I gave Mr. Cruikshank no such authority, and he knows well that the opinions I hold on this subject are the reverse of what he stated them to be.

He called on me about a year ago, to ask if this success depended on the knowledge acquired by certain experiments on animals of which he had read. These were useful experiments; but not looking upon them as likely to affect the mortality, I replied in the negative. But seeing then what he wanted of me, he was distinctly told of a long series of carefully conducted operations on animals, which were of the utmost value to me. I may add—for I cannot go into details in a public journal—these experiments were so conclusive, that they changed my whole way of performing the operation in question, and settled for ever to my mind the principle on which to go at the most critical part of it. Information was thus got, the reasons of certain things were made clear, confidence was increased, and lives were thereby saved.

While on this subject, allow me to say a word to an impulsive, warm-hearted public, who hear but of the "horrid cruelty" side of this question. My experience is worth something, and it amounts to this: I have never, during all these thirty years, seen any operation performed on any animal without some anæsthetic. I have never seen the life of any animal shortened, when it was thought necessary to do so to ascertain the result of some former operation, except instantaneously and without pain. I have never seen anything whatever done to any animal except for some set purpose to help us to save human life, shorten and remove human suffering, or to make our own work more perfect. I have never seen any but useful information got thereby. When I speak of personal experience, I may give, I am sure, also, that of all the hard working hospital surgeons in this country. These are a set of men who, in half a day, do more good to poor humanity than all that sort of well meaning, idle men and women called antivivisectionists, would do in half a century, for they have misled an honest public, and expatiated loudly on stories of savage cruelty—matters on which they know nothing. It is no pleasant business the doing of any operation on any animal, and when it is necessary, it is done unwillingly and with tenderness. The ladies and gentlemen who at that meeting hissed Councillor Sloan may laugh at this, but, it is true, Mr. Sloan gave an honest though blunt expression of his feelings when he told them that some thought as much of their over-fed, wheezing, pampered cats and dogs as of a human life.

Parliament has lately, to the astonishment of scientific Europe, imposed upon us the degradation of a licence, ere we can be trusted to carry on any operation that may help us in our work, on any living animal. The public are now urged to petition that every experiment on any animal be regarded as a criminal act. On the other hand, the public demands of us, to save the lives of their wives and daughters, and force upon us, operations undreamt of from their very severity even a few years ago. These things strain one to the uttermost, and make some of us lead feverish lives. We want every possible assistance, and if we think we get information by sometimes, when necessary, shortening the lives of a few animals, what dreadful great harm is done. For, after all, is it not written, "Ye are of more value than many sparrows"?

SCOTLAND.

THE Rutherglen sanitary inspector has reported to the police commissioners that typhus fever of a very virulent type, has lately broken out in the burgh, and had caused several deaths.

ROYAL SOCIETY OF EDINBURGH.

AT the meeting of the Royal Society of Edinburgh, on Monday, Mr. P. Geddes gave the results he had (in conjunction with Mr. F. E. Beddaw) obtained from the examination of the muscles of echinoderms. He found the muscular fibre striated or non-striated accordingly as it presented constrictions in its long diameter, or an absence of such constrictions; he described the light striations as corresponding to the constricted portions, and the dark striations as corresponding to the non-constricted portions of the fibre. If these observations be correct, they open up some interesting questions regarding the nature and significance of striation in muscles.

ROYAL MATERNITY HOSPITAL, EDINBURGH.

DURING the next three months, Dr. Angus Macdonald will be medical officer on duty at the Royal Maternity Hospital, Edinburgh. Messrs. Hodson, L.R.C.P. & S.E., and Wells, M.R.C.S., will, from February 1st, be resident house-surgeons for three months.

THE GLASGOW DISTRICT BOARD OF LUNACY.

AT a meeting of this board, held on the 12th instant, the chief matter under consideration was a motion with regard to the centralisation of management. The result of the proceedings was, that it was resolved not to oppose any action by the General Board of Lunacy with reference to the alteration or division of districts. To understand this matter clearly, it is necessary to bear in mind that it is only a few years ago since the Glasgow District Lunacy Board was reorganised with the object of providing additional accommodation, then and now much wanted, for the treatment of the insane. Since its first endeavours to meet these wants, the Board has met with considerable difficulties, chiefly on account of the anomalous position it occupies. Thus, several of the parishes within its district, as the Barony and Govan, had already made excellent and extensive provision for their own wants, and were conducting their asylums in a most praiseworthy manner. This being so, it did not seem fair that the ratepayers of these parishes should be further taxed for the purposes of the board when they were already bearing their own burdens. Attempts have been made by the District Board to adjust these differences, but without much success; and it is now generally thought that, while not themselves moving in

the matter, they would not be displeased were the constitution of the General Board of Lunacy so altered by Parliament as to give that body powers to readjust the lunacy districts throughout the country, and so help the district boards out of their troubles, and render them effective for the purposes they were meant to serve. Hence the decision come to at the last meeting of the Glasgow District Board.

THE GLASGOW MATERNITY HOSPITAL.

THE new buildings of this hospital, a notice of which appeared in last week's JOURNAL, were formally opened on the afternoon of January 11th. The opening ceremony took place in one of the wards, and was under the presidency of the Lord Provost of Glasgow. After a preliminary statement by one of the directors, and after a few observations from Professor Gairdner, who commended the work of the institution, and the manner in which it had hitherto been done, the Lord Provost declared the hospital open; stating that, after a personal inspection of the building, he could, with perfect truthfulness, say, the premises were thoroughly adapted for the purposes for which they were intended. Accommodation is provided for forty patients, and suitable cases are now being admitted.

THE DEATH OF A PRISONER AT PERTH.

A PRISONER in Perth General Prison died on January 9th; and on Saturday, January 15th, Sheriff Barclay held an inquiry at Perth as to the cause of his death, which was found to have been due to cancer of the bladder and stomach with secondary cancer in the lungs. The interesting point about this case, however, lies in the history of this prisoner and his marital relations. He had been tried for murder in 1865, and having been found insane, he was committed to Perth prison. In 1875 he was liberated, conditionally, by the Secretary of State for the Home Department. During his period of liberation, he again became insane; and having attempted to commit suicide, he was again confined in the lunatic department of Perth prison on September 27th, 1878. While he was at liberty and living in Coldstream, he married a woman who had also been an inmate of the lunatic department of Perth prison, whose crime had also been that of murder, who had been conditionally liberated, and who was also re-committed about the same time to the prison. During his last illness, his wife had several times been permitted to see him.

ANTI-VIVISECTION BAZAAR IN EDINBURGH.

LAST week a bazaar to aid the anti-vivisectionists in their crusade, was held in Edinburgh. It was opened by a major-general, who made, in his opening remarks, some observations as to Dr. Thomas Keith's operations, and the relation that vivisection had to them (and this, notwithstanding the strong letter recently written by Dr. Thomas Keith on the subject); he also referred to a letter that Miss Cobbe had written, describing some of Mantegazza's experiments; and to Parliamentary action by anti-vivisectionists. In one of the daily papers, Dr. Thomas Keith has again objected to his name being in any way associated with the aims of the anti-vivisectionists.

SCARLET FEVER AT ROSENEATH.

MUCH anxiety is being created in the above place by an outbreak of scarlet fever. The disease has been prevalent in neighbouring towns for some time, and it has now appeared in a very severe form in Roseneath and Clynder, and appears to be extending along the shores of the Gareloch.

ALLEGED FATAL ASSAULT ON A LUNATIC.

TWO warders of the Govan Parochial Board's Asylum at Merryflatts, have been apprehended in connection with an alleged assault on an inmate of the asylum, from the effects of which, it is said, he died on the 5th instant. It appears that the deceased patient was admitted to the asylum in the month of November last, suffering from acute mania, caused by excessive drinking. A week or two afterwards he somewhat recovered, but subsequently became so violent that he had to be watched night and day. He scarcely ever slept, but took his food very well. He occupied what is termed the hospital, along with a number of other patients, and the accused warders had charge of this ward during the night. On the 3rd instant, it was reported to the medical officer of the asylum, that the deceased was suffering from shortness of breath, and an examination showed that he had received severe internal injuries, several of his ribs being broken. Two days afterwards he died, and a *post mortem* examination confirmed the nature of the injuries received. The commissioners in lunacy have held an inquiry into the matter, and so far the result is that the authorities have apprehended two warders, who have been committed for further inquiry.

TUTORIAL CLASSES IN EDINBURGH.

IT will be remembered that a notice appeared in the JOURNAL a few weeks ago, stating that the Tutorial Class on Gynæcology in the Edinburgh Royal Infirmary had, by the authority of the managers, been stopped. The managers have recently had the subject of tutorial teaching in clinical medicine and clinical surgery brought before them, and the result has been the appointment of a committee to inquire into the subject. Letters appeared in the daily local press on the matter, and various communications have reached us; but we consider it better to delay publication or discussion of these until the committee has completed its work.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending January 8th, it appears that the death-rate in the eight principal towns was 25.9 per 1000 of estimated population. This rate is 3.6 above that for the corresponding week of last year, and 3.4 above that for the week immediately preceding. The lowest mortality was recorded in Greenock—viz., 15.9 per 1000; and the highest in Paisley—viz., 36.0 per 1000. The mortality from the seven most familiar zymotic diseases was at the rate of 4.1 per 1000, being an increase of 0.4 on the rate for last week. Acute diseases of the chest caused 161 deaths, being an increase of 20 on the number for last week, which was exactly accounted for by the increase in Glasgow. The mean temperature was 35.4°, being 2.8° above that of the week immediately preceding, and 7.2° below that for the corresponding week of last year.

HEALTH OF GLASGOW.

THE report of the medical officer of health for the fortnight ending January 8th, shows that the number of deaths registered was 570, as compared with 463 in the preceding fortnight, representing a death-rate of 24½ instead of 19 per 1,000 living. As compared with the corresponding fortnight of last year, we find that the meteorological conditions were the reverse of those which existed between the two previous corresponding fortnightly periods, and the relation of the death-rates is reversed with those conditions. The mean temperature this year is 8.6° lower, and the death-rate is 1½ per 1,000 higher. The number of deaths of persons aged below one year, was 109 in place of 76, and of persons aged 60 years and upwards, 104 in place of 50. This is an unusual fatality among aged persons. The number of deaths from fever was 8 in place of 3—all from enteric fever. The number of deaths from infectious diseases of children, was 57 in place of 53. The number of cases of fever registered, was 49 in place of 55—viz., 30 of enteric fever, and 19 of typhus. In connection with these last, it is of interest to note that, as a result of holding a wake over a woman who had died of typhus fever, no fewer than 12 persons were under treatment for that disease in Belvidere Hospital.

SEVERITY OF THE WEATHER IN SCOTLAND.

THE weather during the past week has been very severe all over Scotland. On the 12th instant snow fell very heavily, and since then the frost has increased in intensity. In the vicinity of Glasgow, on the 16th instant, the thermometer stood at 35½° below the freezing point, giving the almost unprecedented low temperature of 3½° below zero. No such temperature has been reached in the west of Scotland since Christmas Eve and morning of 1860.

IRELAND.

DR. MALONY, of Abbeyfeale, County Limerick, was last week thrown from his horse, and received such injuries that death resulted very shortly afterwards.

THE OUTBREAK OF FEVER AT TANDRAGEE.

THE fever which recently became epidemic at Tandragee has proved on investigation to have been essentially typhoid, due to water from a pump having become contaminated by the discharges from a patient suffering from this disease. The reports, however, published of the virulence of the outbreak, and the numbers of deaths which took place, were very much exaggerated; and the Tandragee Town Commissioners, at a special meeting held on the 14th instant, adopted the following resolution in reference to the matter: "While deeply regretting the existence of typhoid fever in our town, we emphatically condemn the misleading and greatly exaggerated reports that have appeared in the public prints regarding it as calculated to cause unnecessary alarm in the minds of those at a distance, and therefore unacquainted with the facts of the case; the truth being that, so far from eleven deaths having occurred in the town in one day, and six in one house, there have been only fifteen deaths from first to last in or connected with the entire dispensary district, embracing a circuit of some miles; and we reprobate in the strongest manner the author of such untruthful statements. There were only three cases last week, and none since; and the disease is fast disappearing, most of the patients being convalescent." A copy of this resolution has been forwarded to Mr. Forster, Chief Secretary for Ireland.

DEATH OF THE PROVOST OF TRINITY COLLEGE.

THE Rev. Humphrey Lloyd, D.D., F.R.S., Provost of Trinity College, Dublin, died in the Provost's House on Monday last, after a short illness, in his eighty-first year. Dr. Lloyd was a highly accomplished scientific man, and the author of many well-known works on physical science. His labours were chiefly in the field of optics, magnetism, and meteorology; and he contributed largely to the present advanced position of all those sciences.

ADDRESS AND PRESENTATION TO DR. RICHARD HENRY.

AN address, accompanied by a handsome clock, has been presented to this gentleman by the Brookeborough Band of Hope, on his leaving Brookeborough for Dublin, as a small memento of their friendship with him, and high appreciation of his professional abilities and uprightness of character. The committee of management of the Brookeborough Dispensary, at a recent meeting, adopted the following resolution in reference to Dr. Henry's resignation as medical officer of the district: "That this committee cannot allow Dr. Richard Henry to resign his appointment and leave Brookeborough without expressing their high appreciation of his skill, energy, and kindness, as a medical man; and also of his constant and untiring endeavours to promote, by every means in his power, whatever movement was undertaken in the interest of the people in his district. The committee desire to express their sincere regret at Dr. Henry's departure, and can only trust that every happiness and success may attend him in the new sphere of duty he has chosen for himself."

THE IRISH MEDICAL ASSOCIATION.

A SPECIAL general meeting of this Association was held at the Royal College of Surgeons, Dublin, on Saturday last. Dr. Chapman, the President of the Association, occupied the chair. The meeting was summoned to discuss the terms of a Bill with a view to obtaining for the medical officers of the Poor-law Service an equitable system of superannuation allowance. The attendance at the meeting was comparatively small; but certain important resolutions were agreed to, which, it is to be hoped, will be the basis of some satisfactory and feasible measure. At present, the grant of a retiring allowance to a Poor-law medical officer is altogether optional with his board of guardians, no matter what length of service he may have. It would seem but reasonable that an officer should be entitled to claim a retiring allowance, fixed in accordance with the number of years he has served; and it surely would not be too much to expect that, after an uninterrupted satisfactory service of, say, forty years, the medical officer might claim his retirement on full, or very nearly full, pay.

MEDICATED BATHS.

THE committee of the Belfast Hospital for Skin Diseases, have made arrangements, that, for the future, their suite of baths—viz. sulphur, alkaline, sitz, douche, and Turkish, shall be available to the public, at a moderate charge, on certain days in each week.

HEALTH OF CORK.

THE total number of registered deaths for the four weeks ending 1st January amounted to 160, of which 24 were due to infectious maladies, and 21 were infants under one year. The births recorded during the same period amounted to 149. The annual death-rate per 1000 inhabitants gave a ratio of mortality of 25.30 from diseases of every description; 22.41 from general diseases; 3.96 from infectious diseases; an infant death-rate of 3.47; and a birth-rate of 24.63. These figures contrast very favourably with the corresponding period of last year, when the urban death-rate due to general and infectious disease amounted to 39.66 and 10.13 respectively; but these latter comparatively high rates were fairly attributable to the presence in the city of an epidemic of scarlatina and measles, both of which have now almost completely disappeared; and although typhus fever still exists to a somewhat unusual extent, and throughout the country generally, it has shown no tendency to increase since the previous monthly report. On the contrary, there is every reason to hope for a considerable subsidence in this disorder, both in point of numbers and in severity of type.

THE REGISTRAR-GENERAL'S RETURNS FOR IRELAND.

TWO changes which have been made regarding the areas adopted in the Registrar-General's weekly returns, came into effect in last Saturday's issue. The Dublin registration district has been extended so as to embrace the registrar's districts of Clontarf and Howth, No. 1, and Coolock and Drumcondra No. 1, and portions of the districts of Finglas and Glasnevin, and Palmerston. The population of the Dublin registration district is in this way raised from 314,666 to 333,401. The other change relates to the provincial town districts for which statistics are given in the returns, and consists in the substitution of the "urban sanitary district" for the "registrar's district" or group of districts. This will enable much more accurate information than heretofore to be obtained regarding the mortality in towns, the "registrar's districts" in several instances containing large rural portions.

MEDICO-LEGAL CASES.

THE HAMPSTEAD SMALL-POX HOSPITAL.

HOUSE OF LORDS, January 18th. (Present, the Lord Chancellor, Lord Blackburn, and Lord Watson.)—An appeal was heard against two decisions of the Court of Appeal, the first of which directed a new trial on payment by the appellants, the Metropolitan Asylums Board, of the costs of the former trial; and the second affirmed the decision of Mr. Baron Pollock in favour of the present respondents. The case, which has been frequently before the courts, has reference to the Hampstead Small-pox Hospital. The action was brought by Sir Rowland Hill, Mr. Lund, and Mr. Fripp, owners and occupiers of land in the vicinity of the hospital, in November 1876. They alleged that, during the time the land and buildings were used temporarily in July 1872, large numbers of persons suffering from small-pox were brought from all parts of the metropolis to the hospital; and that the managers were erecting buildings to be used permanently as a hospital for small-pox, scarlet-fever, and typhus-fever patients; that they opened the buildings for the reception of small-pox patients; that noxious vapours and matters dangerous to health escaped on the plaintiffs' lands, and rendered their houses unhealthy, and prevented their families from occupying and enjoying their houses with safety to their health, and had interfered with their enjoyment of their houses and gardens; that patients had, partly with the knowledge of the managers and partly

through their negligence, got on to the lands of the plaintiffs, and had thereby rendered their houses and lands unsafe for occupation; that disagreeable and unwholesome smells spread from the hospital to the plaintiffs' lands and houses; and that large numbers of persons suffering from small-pox had, on foot or in cabs or other vehicles, gone along the road through the lands of the plaintiffs, thereby rendering the roads dangerous, and preventing them from enjoying free access to their houses; and that these injuries were partly the consequence of the use of the asylum as a small-pox hospital, and had been increased by the negligent and improper manner in which the building had been and was conducted by the defendants. On the part of the Asylums Board, it was contended that they had acted *bonâ fide* in the exercise of their duties, and in pursuance of the powers conferred on them by the Act of 1867 and the orders of the Board, and not from any neglect or default of theirs; that the asylum was erected for the public benefit, and was not a nuisance; and that any damage which might have resulted therefrom did not afford any ground for the action. At the trial, the jury found for the plaintiffs, that the hospital was *per se* a nuisance; that it was so placed as to be injurious to the plaintiffs; that it was negligently and improperly managed; and that it led to the congregation of infected persons. The Judge upheld the verdict, and gave judgment for the plaintiffs. The defendants appealed on the double ground that the verdict was founded on misdirection, and that it was against the evidence. The Queen's Bench Division granted a rule absolute for a new trial; and the decisions of the Judge and the Queen's Bench were affirmed by the Appeal Court, with the exception that they made it a condition of granting a new trial, that the appellants should pay the costs of the first trial. On the appeal, Sir J. Holker, Q.C., Mr. Willis, Q.C., Mr. Anderson, and Mr. Proudfoot appeared for the appellants; the Solicitor-General, Mr. Bompas, Q.C., and Mr. Finlay, for the respondents.—Their Lordships reserved their judgment.

CHRISTMASTIDE AND THE NEW YEAR IN THE LONDON HOSPITALS.

THE following is an account of recent festive doings at the undermentioned Metropolitan Hospitals, which is supplemental to the notice of the same subject which appeared in the BRITISH MEDICAL JOURNAL of the 8th instant.

LONDON HOSPITAL.

There were no festivities here during Christmas. The patients had their ordinary diets, no exception being made either on Christmas or on New Year's Day. The only amusement that took place was a concert given by some of the members of the staff and their friends, to the convalescent patients and nurses, which took place on December 28th. The wards were decorated according to the custom at Christmas, and two large Christmas-trees, which reached to the ceiling, were placed in Buxton Ward, tastefully laden with toys of every description, the distribution of which took place on the 4th instant, when each child in the whole hospital took a share of the presents, kindly given by the chairman of the House Committee, Mr. Buxton. Although the hospital provided no extra fare on Christmas Day, the patients who were able were made as enjoyable as possible, several of the sisters providing them with fruit, etc., hoping they would spend a more pleasant time next year.

WESTMINSTER HOSPITAL.

Early on Christmas morning a party of the sisters and nurses sang some very pretty carols in the corridors of the hospital. During Christmastide the wards were brightened by decorations of evergreens, mottoes, and coloured lanterns, and several "tea-parties" and other amusements were provided by the kindness of the ladies and gentlemen interested in the institution. On January 12th a large Christmas-tree was erected in the High Street Ward for incurable female patients. This was lighted up by tapers, and covered with toys for the children and gifts for the older patients and nurses. On the evening of January 14th, the annual musical and dramatic entertainment, organised by the resident staff, was given in the board-room. About half of the patients in the hospital were able to be present. Several ladies and gentlemen performed instrumental solos and songs, all of which were good, some being very beautifully rendered. The chorister boys from Westminster Abbey attended, by kind permission of Dean Stanley, and their services were highly appreciated. Messrs. Broadwood kindly lent a grand pianoforte. Between the two parts of the musical selection, the farce of "Mrs. Green's Snug Little Business" was performed. All the parts were capitally acted, and the details of dress, make-up, etc., well carried out. The audience were thoroughly delighted with the performance. Altogether the entertainment was most successful in every way.

BELGRAVE HOSPITAL FOR CHILDREN.

The small patients in this hospital were, through the liberality of several friends, treated to a Christmas-tree on Saturday, the 8th instant, to which, in addition to the in-patients, a large number of out-patients with their mothers were invited. Her Majesty the Queen and Her Royal Highness Princess Beatrice were graciously pleased to forward a large parcel of presents and toys for the children, which were distributed at the Christmas-tree. The occasion is always one in which many of the friends and subscribers to the institution meet to show their appreciation of the good work done by the charity, and the interest that is taken in its welfare; and the evening was, in this respect, no exception to the general rule.

A short time ago, the committee of management had the pleasing duty of accepting from Her Royal Highness Princess Beatrice, a portrait, mounted in a handsome frame, as a proof of the interest which Her Her Royal Highness was pleased to take in the institution as its patron. The signature of Her Royal Highness had also been added to the portrait, which now is hanging in the committee-room. A present of two turkeys and some game was, during Christmas week, sent to the hospital, and shoals of Christmas and New Year's cards, in exhibiting which upon their cots the children derived much pleasure, in order to invite criticism as to the relative beauty of the cards they had received. Miss Munro, the lady-superintendent, was indefatigable in her exertions to render the Christmas-tree a success.

EVELINA HOSPITAL.

Thursday, January 6th, was the day fixed for the Christmas-tree festivities at this hospital. Each of the six wards had its own tree, for the decoration of which the patients had to thank several ladies who kindly gave their help. In some cases the tree reached from the floor to the ceiling, and in all was decked with toys in such profusion that every child obtained several. The walls were simply but tastefully decorated with evergreens, enlivened with artificial flowers, peacocks' feathers, and stars worked in gold and silver, the dark green of the holly looking especially well with the stars and peacocks' feathers. Large flags were extensively used; and the chief colonnade was, with the help of some men, who, with the kind permission of Captain Shaw, came over from the chief fire brigade station just opposite the hospital, very prettily draped with them. Light was obtained by means of large Japanese lanterns hung from the ceiling. The trees were lit about four o'clock, the presents were then distributed, and some of the nurses entertained the company with capital songs. There were two hundred visitors, including the Lord Mayor, who kindly came in his official robes, which pleased the children much, one of them crying out, "Come here, Lord Mayor, I want to speak to you." He went to the little patient, and spoke very pleasantly to her, quite removing any awe she might previously have had of him. He generously left £3 to to be converted into new shillings, one to be given to each patient. In the sitting-room, downstairs, tea and coffee were provided for the numerous visitors. Everybody seemed very pleased, and by universal consent it was allowed that the whole entertainment was a complete success, which is, in a great measure, due to the energies of Miss Alice Cross, the matron, and Miss Wray, the ward-superintendent. In the evening there was a little amusement for the nurses, consisting of dumb charades, round games, music, singing, and some dancing. The day passed off without a single hitch or misadventure.

NORTH-WEST LONDON HOSPITAL.

A Christmas-tree entertainment was held here on Wednesday, January 5th, in which over one hundred children participated. A gigantic tree, the gift of Mrs. Durham Dunlop, well laden with toys, etc., contributed by several friends; an exhibition of superior dissolving views, by Mr. Burroughs; and a minstrel performance, kept the little ones in a state of delight for about three hours. A liberal share of the good things was reserved for those who were unable to leave their cots.

INTERNATIONAL MEDICAL CONGRESS, LONDON, 1881.

THE following is the proposed list of subjects for discussion in Section IV. *Medicine:* 1. Localisation of disease in brain and spinal cord, so far as pathognomonic and diagnostic. 2. Trophic changes of nerve-origin. 3. Vascular changes, functional and organic, in disease. 4. Primary diseases of the lymph system. 5. Gout, rheumatoid arthritis, and rheumatism. 6. Forms of renal diseases (Bright's diseases). 7. Methods of physical diagnosis. 8. Therapeutic methods: Revulsions, Blood-letting, Diet cure, Uses of Heat and Cold, Drug cure, etc.

All communications regarding Section IV, should be addressed to Dr. ORD, 7, Brook Street, Grosvenor Square, London, W.

BRITISH MEDICAL BENEVOLENT FUND.

THE following additional donations have been received in answer to the appeal in the BRITISH MEDICAL JOURNAL.

	£	s.	d.
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INTERNATIONAL MEDICAL CONGRESS.

THE undermentioned gentlemen have been nominated as members of Council in the several sections. The list of presidents, vice-presidents, and secretaries, was given the BRITISH MEDICAL JOURNAL for July 17th, 1880, page 104.

SECTION I. *Anatomy.*—E. Bellamy, Esq., London; G. Busk, Esq., F.R.S., London; Professor J. Cleland, F.R.S., Glasgow; G. Viner Ellis, Esq., Gloucester; Luther Holden, Esq., London; Professor G. M. Humphry, F.R.S., Cambridge; J. Langton, Esq., London; H. Morris, Esq., London; W. K. Parker, Esq., F.R.S., London; T. P. Pick, Esq., London; Professor Pye, Galway; Professor Redfern, Belfast; Dr. R. W. Reid, London; W. Rivington, Esq., London; Professor Struthers, Aberdeen; Dr. Allen Thomson, F.R.S., London; Professor Morrison Watson, F.R.S.E., Manchester.

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SECTION III. *Pathology and Morbid Anatomy.*—W. Morrant Baker, Esq., London; Professor Charlton Bastian, F.R.S., London; Dr. Braidwood, Liverpool; H. T. Butlin, Esq., London; Dr. Cayley, London; Dr. Coats, Glasgow; Dr. Coupland, London; Dr. Crisp, London; Dr. Creighton, Cambridge; Dr. Dreschfeld, Manchester; Professor Ewart, Aberdeen; Dr. A. W. Foot, Dublin; Dr. Gowers, London; Dr. T. H. Green, London; Dr. Greenfield, London; Dr. Haldane, Edinburgh; Dr. Hamilton, Edinburgh; Sydney Jones, Esq., London; Professor Furneaux Jordan, Birmingham; Dr. Kesteven, London; Dr. Moxon, London; Septimus W. Sibley, Esq., London; Dr. Sutton, London; Dr. Tuckwell, Oxford.

SECTION IV. *Medicine.*—Dr. Clifford Allbutt, F.R.S., Leeds; Dr. J. Andrew, London; Dr. G. Balfour, Edinburgh; Professor Banks, Dublin; Dr. J. Risdon Bennett, LL.D., F.R.S., London; Dr. Broadbent, London; Dr. Buzzard, London; Dr. Andrew Clark, London; Professor Cuming, Belfast; Dr. Dickinson, London; Dr. Fagge, London; Professor B. Foster, Birmingham; Dr. Wilson Fox, F.R.S., London; Dr. Garrod, F.R.S., London; Dr. S. Gordon, Dublin; Dr. Greenhow, F.R.S., London; Dr. Habershon, London; Dr. Heslop, Birmingham; Dr. Hughlings Jackson, F.R.S., London; Dr. J. Little, Dublin; Professor W. Moore, Dublin; Professor J. E. Morgan, Manchester; Dr. Peacock, London; Professor Paget, D.C.L., LL.D., F.R.S., Cambridge; Dr. C. B. Radcliffe, London; Dr. Russell Reynolds, F.R.S., London; Dr. Russell, Birmingham; Professor Smith Shand, Aberdeen; Dr. Sieveking, London; Professor Grainger Stewart, F.R.S.E., Edinburgh; Dr. Southey, London; Dr. Walshe, London; Dr. Waters, Liverpool; Dr. Hermann Weber, London.

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SECTION VI. *Obstetric Medicine and Surgery.*—Dr. Atthill, Dublin; Professor Bassett, Birmingham; Dr. J. Braithwaite, Leeds; Dr. J. A. Byrne, Dublin; Dr. Gervis, London; Professor Graily Hewitt, London; Dr. Keiller, Edinburgh; Dr. G. H. Kidd, Dublin; Professor Leishman, Glasgow; Dr. A. Macdonald, Edinburgh; Dr. Meadows, London; Professor Playfair, London; Dr. Potter, London; Professor Simpson, Edinburgh; Professor Sir E. B. Sinclair, Dublin; Dr. Swayne, Bristol; Professor Thorburn, Manchester; J. Knowsley Thornton, Esq., London.

SECTION VII. *Diseases of Children.*—Dr. T. Barlow, London; Dr. Borchardt, Manchester; Dr. T. Churchill, Dublin; Dr. Langdon Down, London; Dr. R. Lee, London; Dr. D. B. Lees, London; Howard Marsh, Esq., London; J. H. Morgan, Esq., London; Dr. Oxley, Liverpool; Dr. Eustace Smith, London; Dr. O. Sturges, London; Dr. Underhill, Edinburgh.

SECTION VIII. *Mental Diseases.*—Dr. I. Ashe, Dundrum, Dublin; Dr. Blandford, London; Dr. T. S. Clouston, Edinburgh; Dr. J. A. Eames, Cork; Dr. Arthur Mitchell, Edinburgh; Dr. H. Monro, London; Dr. W. Orange, Broadmoor; Dr. H. Rayner, Hanwell; Dr. Claye Shaw, Banstead; Dr. Sibbald, Edinburgh; Dr. Hack Tuke, London; Dr. S. W. D. Williams, Hayward's Heath.

SECTION IX. *Ophthalmology.*—James Bankart, Esq., Exeter; Edwin Chesshire, Esq., Birmingham; R. Brudenell Carter, Esq., London; W. White Cooper, Esq., London; John Couper, Esq., London; Dr. C. E. Fitzgerald, Dublin; Dr. A. H. Jacob, Dublin; T. Wharton Jones, Esq., F.R.S., London; G. Lawson, Esq., London; Dr. D. Little, Manchester; R. Liebreich, Esq., London; R. Middlemore, Esq., Birmingham; Dr. Thomas Reid, Glasgow; Priestley Smith, Esq., Birmingham; J. Tweedy, Esq., London; T. Shadford Walker, Esq., Liverpool; W. Walker, Esq., Edinburgh; J. C. Wordsworth, Esq., London.

SECTION X. *Diseases of the Ear.*—A. E. Barker, Esq., London; A. G. Brown, Esq., London; A. E. Cumberbatch, Esq., London; Dr. Kirk Duncanson, Edinburgh; G. P. Field, Esq., London; Professor Macnaughton Jones, Cork; James Keene, Esq., London; Dr. H. R. Swanzy, Dublin.

SECTION XI. *Diseases of the Skin.*—W. Morrant Baker, Esq., London; Dr. H. R. Crocker, London; Dr. Duffin, London; Dr. Colcott Fox, London; Dr. A. Jamieson, Edinburgh; Dr. S. Mackenzie, London; Malcolm Morris, Esq., London; Dr. Pye-Smith, London; Dr. Sangster, London; Dr. Walter G. Smith, Dublin; Waren Tay, Esq., London.

SECTION XII. *Diseases of the Teeth.*—C. H. Bromley, Esq., South

ampton; H. Campion, Esq., Manchester; S. Cartwright, Esq., London; A. Coleman, Esq., London; D. Corbett, Esq., Dublin; W. Hunt, Esq., Yeovil; G. A. Ibbetson, Esq., London; F. B. Imlach, Esq., Edinburgh; J. H. C. Martin, Esq., Portsmouth; J. R. Mummery, Esq., London; Dr. P. Orphoot, Edinburgh; T. A. Rogers, Esq., London; Dr. John Smith, Edinburgh; J. S. Turner, Esq., London; T. Underwood, Esq., London; C. Vasey, Esq., London; Dr. Joseph Walker, London; Dr. J. C. Woodburn, Glasgow; A. J. Woodhouse, Esq., London.

SECTION XIII. *State Medicine.*—Professor Acland, D.C.L., F.R.S., Oxford; Dr. T. G. Balfour, Wimbledon; Dr. J. S. Bristowe, London; Dr. A. Carpenter, Croydon; Dr. W. Farr, C.B., F.R.S., London; Dr. A. Fergus, Glasgow; Professor W. T. Gairdner, Glasgow; Dr. E. H. Greenhow, F.R.S., London; Dr. T. W. Grimshaw, Dublin; Dr. W. A. Guy, F.R.S., London; Ernest Hart, Esq., London; J. Leigh, Esq., Manchester; John Liddle, Esq., London; Dr. H. D. Littlejohn, Edinburgh; Dr. H. MacCormac, Belfast; Dr. E. D. Mapother, Dublin; Dr. J. W. Moore, Dublin; Inspector-General F. J. Mouat; Dr. W. Ogle, London; Dr. H. J. Paine, Cardiff; W. Rendle, Esq., Forest Hill; Dr. J. B. Russell, Glasgow; Dr. T. Stevenson, Brighton; Dr. J. S. Taylor, Liverpool; Dr. J. L. W. Thudichum, London; Dr. W. N. Thursfield, Shrewsbury; Dr. J. W. Tripe, London; Dr. W. T. G. Woodhouse, Reading.

SECTION XIV. *Military Surgery and Medicine.*—Sir Alexander Armstrong, M.D., K.C.B.; Deputy Surgeon-General J. A. Bostock, M.B., Q.H.S., M.D.; Fleet-Surgeon F. W. Davis, Walmer; Deputy Inspector-General J. N. Dick, Admiralty; Deputy Surgeon-General Joseph Ewart, M.D., Brighton; Surgeon-General W. G. Hunter, Q.H.S., M.D.; Inspector-General R. Lawson, M.D.; Sir T. Galbraith Logan, K.C.B., Q.H.P., M.D.; Inspector-General J. D. Macdonald, M.D., F.R.S.; Inspector-General J. Macpherson, M.D.; Surgeon-General W. A. Mackinnon, C.B.; Inspector-General W. C. Maclean, M.D., C.B., Netley; Surgeon-General J. Mouat, V.C., C.B.; Deputy Surgeon-General S. B. Partridge, London; Deputy Surgeon-General J. L. Paul, M.D., London; Staff-Surgeon Walter Reid, M.D., Haslar; Surgeon-General G. A. F. Shelton, M.D.; Joliffe Tufnell, Esq., Dublin.

SECTION XV. *Materia Medica and Pharmacology.*—Professor R. Bentley, London; Dr. Mitchell Bruce, London; Dr. W. Carter, LL.B., Liverpool; Professor M. Charteris, Glasgow; Professor Sir Robert Christison, D.C.L., LL.D., V.P., R.S.E., Edinburgh; Professor A. Davidson, Aberdeen; Dr. Duffey, Dublin; Dr. F. J. Farre, Dublin; Dr. John Harley, London; Dr. Leech, Manchester; Dr. C. F. Moore, Dublin; Dr. Murrell, London; Professor O'Keeffe, Cork; Professor Seaton Reid, Belfast; Professor J. Sawyer, Birmingham; Dr. J. E. Shaw, Bristol; Professor Aquilla Smith, Dublin; Dr. W. H. Stone, Dublin; Dr. Thorowgood, Dublin; Dr. Herbert Watney, London.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH.—A general meeting of this Branch will be held at the rooms of the Medical Society of London, 11, Chandos Street, Cavendish Square, on Wednesday, February 9th, at 8 P.M., when Mr. Timothy Holmes will introduce a discussion on "Hospital Management".—ALEX. HENRY, M.D., W. C. GRIGG, M.D., Honorary Secretaries.

THAMES VALLEY BRANCH.—The next meeting of this Branch will be held at the Greyhound Hotel, Richmond, on Thursday, February 3rd, at 7 P.M. Members who are willing to bring forward cases or papers are requested to give notice to the Honorary Secretary. The following paper has been promised by Dr. T. C. Hayes: Clinical Remarks on Cases of Polypus of the Uterus. Dinner at 7 P.M.—EDWARD L. FENN, M.D., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.—The next meeting of this District will be held at the house of Stephen Mitford, Esq., 61, Haverstock Hill, on Thursday, January 27th, at 8.30 P.M., when the following papers, etc., will be read. Dr. Peter will bring forward for discussion the propriety of establishing a home hospital for North London. Mr. Pearce Gould will exhibit a patient upon whom he has operated and cured of a varicocele; and will explain his mode of operating. Mr. Lennox Browne will read a paper on the Differential Diagnosis of Cancer, Syphilis, and Phthisis in the Throat, illustrated by drawings from nature thrown on a screen by means of the Oxy-hydrogen Magic Lantern.—T. STRETTON DOWSE, Honorary Secretary, 14, Welbeck Street, January 12th, 1881.

DUBLIN BRANCH.—The fourth annual general meeting of this Branch will be held in the Hall of the King and Queen's College of Physicians in Ireland, Kildare Street, on Thursday, January 27th, 1881, at 4 P.M. Dr. Robert M'Donnell, F.R.S., President of the Branch, will deliver an address; and the officers and Council for the ensuing year will be elected. By the kind permission, also, of the President and Fellows, the annual dinner will be at the College of Physicians, at 7 P.M. on the day of the meeting; the incoming President of the Branch, Dr. Hayden, in the chair.—GEORGE F. DUFFEY, M.D., Honorary Secretary, 30, Fitzwilliam Place, Dublin, January 1st, 1881.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.

THE second meeting of the above District was held in the Library of the London Hospital Medical College, on Thursday, December 16th, at half-past 8 P.M.; Dr. SANSOM in the chair.

Papers.—The following papers were read.

Mr. Weller of Wanstead read a paper on a Case of Foreign Body in Male Bladder, with Operation for its Removal. He showed a small varnish brush, about four inches long, which he had removed by Allarton's operation from the bladder of an old man, and who made a very good recovery. The brush had been in the bladder five days before he sought relief. Attempts were made to seize the end of the handle, but were not successful.

Dr. Sansom read a paper on a New Method of Supplementary Alimentation. The author reviewed the means hitherto adopted for administration of stimulants and nutrients *per rectum*. Those were: 1. Hot water enemata for treatment of collapse, and especially for loss of blood; 2. Alcohol and diffusible stimulants; 3. Medicinal agents; 4. Fatty matters, as cream, cod-liver oil; 5. Albuminous solutions. There could be no doubt that the albumen of an ordinary nutrient enema was absorbed in an almost inappreciable degree; and it should be converted into peptone by the admixture with pancreatic extract, as advocated by Dr. Roberts. The method chiefly discussed by the author was that introduced by Dr. A. H. Smith of New York, of administering enemata of defibrinated ox-blood. The author gave the experience of himself and others on this plan of treatment; and considered that a case had been made out for its employment in any case where it was desirable to supplement alimentation by the stomach.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ORDINARY MEETING.

THE fourth meeting of the session was held at the Medical Institute on Thursday, January 13th. Mr. R. PROSSER, President, occupied the chair, and there were thirty-four members present. Apologies were received from Mr. Sampson Gamgee and Dr. Rickards.

Communications.—The following communications were made:

1. Messrs. Salt and Sons exhibited a new form of Gag for the Mouth, and a compact and convenient Urinary Test-Case designed by them.

2. Mr. Tait showed a pair of Ovum-Forceps, from America, which combined facility of introduction and great ease in use.

3. Mr. Tait showed the cast from a case of Deformed Pelvis, where much injury had been done by parturition, which had subsequently been repaired by a series of operations.

4. Mr. Ker showed a Cystic Tumour taken from the Tongue of a patient who had suffered for two years.

5. Mr. Bennett May showed a patient, aged 23, upon whom he had performed Antiseptic Osteotomy for Knock-Knee at the Queen's Hospital; also a photograph of the patient before the operation. The results were very satisfactory.

6. Dr. Johnston read a paper on Gout and its Correlative Diseases; Mr. Oakes made some remarks, and Dr. Johnston replied.

7. Mr. Priestley Smith read a paper on the Development of Myopia in School Children. A discussion followed, in which Mr. W. C. Garman, Mr. Tait, Mr. Oakes, Mr. Lloyd Owen, and Mr. Eales took part.

F. MALINS, M.B., } *Hon. Secs.*
E. RICKARDS, M.B., }

WEST KENT MEDICO-CHIRURGICAL SOCIETY.—At the fourth meeting of this Society held on the 7th inst., at the Royal Kent Dispensary, Greenwich, Dr. Purvis in the chair, the following resolution was proposed by Dr. Purvis, seconded by Mr. W. Lockhart, F.R.C.S.E., and carried unanimously:—"That the members of the West Kent Medico-Chirurgical Society tender to Dr. Habershon and Mr. Cooper Forster their cordial sympathy in the circumstances that have led to their resignation of the offices at Guy's Hospital, which they have so long filled with distinction and usefulness." Dr. Galabin, Assistant Obstetric Physician to Guy's Hospital, read a paper on "Some cases of tumours of the abdomen imitating ovarian tumours." Dr. Galabin gave the details of several such cases which had come under his notice, which showed how very difficult it is to distinguish between such tumours, as several cases which were considered by himself and others to be ovarian, proved to be otherwise when operated on.

CORRESPONDENCE.

THE MEDICAL BENEVOLENT FUND.

SIR,—At the annual general meeting of the British Medical Benevolent Fund, held on Friday, the 18th instant, Sir George Burrows, Bart., President, in the Chair, it was proposed by the Chairman, seconded by Dr. Broadbent, Treasurer, and resolved unanimously, that the best thanks of the meeting be offered to Mr. Ernest Hart, the editor of the BRITISH MEDICAL JOURNAL, for his earnest appeal to the profession for contributions to this charity, which has already resulted in an addition of nearly £300 to the funds at the disposal of the Committee.

I cannot forward this resolution without adding a further expression of thanks, on the part of the officers and Committee, to those gentlemen who have so promptly and liberally responded to the appeal which you made. Many of the names on the long list you have published are those of old friends and supporters of the Fund whose interest has been anew aroused; others are newly enlisted among its helpers, and will, it is hoped, become centres of fresh influence. We offer to all alike our sincere and heartfelt thanks. What we, as a Committee, should most desire, is a certain steady income from annual subscriptions. It would be a great thing to see realised the idea of Dr. Stanley Haynes, who pointed out that five shillings annually from every member of the British Medical Association would amount to £2,000 a year. Many of them have adopted the suggestion literally, and have contributed this amount. We trust it will be an annual gift: a steady stream of subscriptions, doubling the £1,000 which is already derived from annual subscriptions, would form a solid foundation for the large donations which have been obtained, through your personal exertions and influence, from the eminent physicians and surgeons whose names head your list.

The increase in the amount of money placed at the disposal of the Committee would probably not lead to any great increase in the number of persons relieved, but would enable the Committee to make the assistance rendered to deserving cases more efficient. Too frequently, the destitution and helplessness are so great, that alleviation only, and not removal, of the distress is possible; but there are scores of widows and daughters of medical men who are maintaining themselves, and perhaps large families, by their own exertions—by teaching, or letting lodgings, or keeping shops, or doing needlework or machine-work (one widow relieved during the past year makes ladies' ulsters for fourteen pence apiece; another keeps a small chemist's shop, and draws teeth for sixpence); their earnings leave no margin for saving, and are liable to interruption; and then the prompt and timely aid of the Fund saves a hard-working and deserving woman from falling into ruin and hopeless poverty. While it is impossible to refuse relief to distress, as such, the great endeavour of the Committee is to help those who help themselves, and who struggle against, instead of yielding to, adversity; and it is to this purpose that they would gladly devote more money if they had it. Medical men themselves, when broken down by illness or overwork, or incapacitated by age or blindness, are specially objects of their sympathy.

I beg, in conclusion, to thank those gentlemen who, during the last fortnight, have sent donations and subscriptions to myself, or to Mr. Herbert Page, Honorary Financial Secretary, not wishing their good deeds to be made known.—I remain, sir, your obedient servant,

W. H. BROADBENT, M.D.,
Treasurer British Medical Benevolent Fund.

34, Seymour Street, Portman Square, January 19th, 1881.

THE USE AND INFLUENCE OF HOSPITALS FOR INFECTIOUS DISEASES.

SIR,—Under the instructions of the Local Government Board I am engaged in an inquiry relating to the use and influence of hospitals for infectious diseases, and in connection with this investigation I am desirous of ascertaining whether such hospitals are, and, if so, by what means, instrumental in causing the spread of infection in the localities in which they are situated.

At the present moment I am engaged, together with my colleague, Mr. W. H. Power, in procuring information on this point as regards the Metropolitan Asylums District Hospital at Fulham, where cases of small-pox are under treatment; and I shall feel much indebted to medical practitioners if they will kindly give me the names and addresses of any persons whom you may have met with suffering from small-pox within a radius of one mile of the hospital since Christmas day last; and also if they will, during the next three months, give me similar information as regards any cases which may come under their notice, quite irrespective of any presumed source of contagion.

I need hardly say that any such information will in every case be used with due regard for the informant's and the patient's desire for privacy.—I am, sir, very faithfully yours, R. THORNE THORNE.

Local Government Board,
Whitehall, S.W., January 19th, 1881.

P.S.—The postage of letters addressed as above need not be prepaid.

MR. TENNYSON AND THE MEDICAL PROFESSION.

SIR,—I do not think for a moment that, among those who know him, Mr. Tennyson needs any champion; and I am sure that no one who has ever conversed with him upon topics which affect the medical profession, would accuse him of a sneering spirit towards that profession or its members. But as one of his later poems ("In the Children's Hospital") has been supposed to point a personal allusion, besides involving, so its critics say, a most derogatory reference to the profession at large, I trust I may be allowed a very short space in your valuable columns to assure Mr. Tennyson's critics in the profession, that I have it from his own lips, that he had no medical personality in his eye (either a "Dr. M——" or any one else) when he penned the lines in question; that the poem was intended to be a dramatic poem, and such it is, and that its words can be no more taken as implying a distinct insult to one profession than the poem of "Rizpah" can be supposed to involve a similar insult to another calling high in the land. Were it within the province of this letter, I might give very decided testimony as to what Mr. Tennyson really thinks of our profession, and perhaps my evidence might be slightly at variance with the extracts which your correspondents have robbed of their context value, and from which they have endeavoured to deduce the poet-laureate's chronic ill-feeling towards us. But, though I do not mean to invade the sacred territory of private conversation by such pleading, I must be pardoned if I urge, in all humility, that this system of shifting upon an author, as his personal opinion, the working out of his dramatic purpose, is altogether novel in art and reprehensible in criticism.—Your obedient servant, GEORGE H. R. DABBS.

Shanklin, Isle of Wight, Jan. 17th, 1881.

GUY'S HOSPITAL.

SIR,—I very much regret that, in defending my friends Dr. Habershon and Mr. Cooper Forster from the apparently authoritative indictment and misrepresentations of an anonymous "Metropolitan Hospital Surgeon", I should have incurred the displeasure of two other valued friends, Dr. Wilks and Dr. Braxton Hicks, who charge me with misrepresenting them and their colleagues. I do not see, on reperusing my letter, that I have made one single misstatement, except it be where I say that "the views once so resolutely upheld by every member of the staff *seem* now to be maintained only by Dr. Habershon and Mr. Cooper Forster". I am happy to find that in this suspicion I am mistaken; and that the staff are now, with one heart and soul, following out "the course which they have always had in view". Such being the case, I need scarcely say that no one can more heartily wish them success than I do.—Yours faithfully, A. P. STEWART.

Grosvenor Street, W., January 19th.

THE LONDON HOSPITAL.

SIR,—For some time, rumours have been in circulation that dissensions had arisen between the committee and the staff of the London hospital, and that, in consequence of the pretensions of the nursing department, and the meddling of religious zealots, the efficiency of the charity, and the independence of the civil officers were alike in peril. At first these rumours were considered by us to be unworthy of notice; but now that they have taken definite form, have been permitted to appear in the public journals, have caused pain to many persons, and are influencing public opinion, it seems necessary that the truth should be made authoritatively known. Permit us, therefore, to declare that all these rumours are wholly groundless; that the relations of the executive to the staff, and of the nursing department to both, were never more complete and harmonious; and that at no former period of our history has the committee given us more liberal, enlightened, and salutary assistance in our practical and educational work.—We are, sir, yours, etc.—

ANDREW CLARK, M.D., Senior Physician.
JONATHAN HUTCHINSON, Senior Surgeon.
GILBART SMITH, M.D., Hon. Secretary to the Medical Council.

THE CLASSIFICATION OF OVARIAN OPERATIONS.

SIR,—Upon this matter, I am quite sure Dr. Bantock will alter his opinion as he becomes more familiar with operations which have been called "oöphorectomies". They are not less fatal than ovariotomies, but so far have been quite as serious. I have given at length elsewhere my reasons for dropping the word "oöphorectomy" altogether, and for classifying all operations for the removal of an ovary as an "ovariotomy". By giving the disease for which the operation is performed in a special table, such as "cystoma", "cirrhosis of ovary", "myoma of uterus", etc., I leave each compiler to class any operation as he sees fit. For the future, I shall publish all operations involving the opening of the abdomen as "abdominal sections" in their sequence. In this way alone can any fair conclusions from results be given; for, unless we know, for each operator, not only the number of "ovariotomies" he performs, but the proportionate number of exploratory and incomplete operations within the same period, we can form no idea of the progress his individual work is making: nor, unless we know the proportionate number of unusual or new operations, can we judge how much his work is adding to the general progress of surgery.—I am, etc.,

Birmingham, January 1881. LAWSON TAIT.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

DIPHTHERIA AT SURBITON.

THERE has been an outbreak of diphtheria at Surbiton, respecting which Dr. Coleman, the medical officer of health, reports to the Surbiton Improvement Commissioners to the following effect. He says that since December 13th there has been a further spread of diphtheria. A few cases appeared towards the end of November, and then about the second week in December there came an increase in the numbers attacked; and the disease was of a more grave character, until at the close of the year upwards of forty cases, slight and severe included, had been reported within the district. These occurred in thirty-two houses, and there were also reported two cases in two houses without the district. It is obvious that in the history of this outbreak, as in previous outbreaks, there has been a factor at work within a limited area, active for a comparatively short time; and that the cause, whatever it was, was common to all. The facts that have come under Dr. Coleman's observation at present go to establish that milk is again under suspicion, and for the following reasons. Up to December 5th, inclusive, six households had been invaded; two of these were supplied with milk from a particular dairy, and the remainder from various others. Dr. Coleman terms these cases "the intermediary cases", or those that appeared mostly a month after the closing of one dairy, and before the implication of another, of which he speaks further on. On December 9th, three households were simultaneously invaded in parts of the district in no way connected with each other; and since then fresh cases have almost daily appeared in different directions. Dr. Coleman's attention had been from the first directed to the state of the sewers, and the possibility of their being charged with sewer-gas sufficiently to justify their being held to blame; but, as new cases appeared, and were inquired into, he soon became convinced that there was not sufficient evidence on which to ground any such belief. There were faults in several houses; but they were mostly such as were common to many others not attacked; while many more had no fault found with them at all, and their sanitary condition was reported as good. Dr. Coleman concludes that, if the sewers were charged with sewer-gas containing the germs of a specific disease, it was evident that, in the different systems, they must all have become so charged by a strange coincidence at the same moment, owing to the simultaneous appearance of the disease in remote parts of the district; and, if that were the case, since the sewers are common to all, rich and poor would have suffered that is, proportionately, or with perhaps a preponderance of cases among the poorer classes, owing to the more unsatisfactory condition of their sanitary arrangements. But, on the contrary, out of twenty-one households invaded from December 9th to December 27th inclusive, only three were those of the working classes. These three were all of the better class of house, and in two there were no defects; the third has not yet been examined. Dr. Coleman's attention was next directed to the milk-supply; and here he found a state of affairs so pointed that the conclusion was inevitable that the milk was the distributor. Taking the same dates as mentioned above December 9th to December 27th twenty-one houses were attacked. They were every one supplied from the same dairy; and these houses were of the better class, and their occupants what may be termed the "milk-consuming class". The returns that Dr. Coleman has been able to make up to the present show that, since the closing of a certain dairy, thirty-two households have been invaded. The aggregate cases have been forty, and the deaths eight. And of these thirty-two houses, twenty-four are supplied from the same dairy, six by other milkmen, and two do not take in milk at all. To these may be added at least two houses in Kingston, both supplied from the same source. There has been a marked diminution in the number of cases lately; and, as a rule, they have been of a milder type. There being thus no evidence of blocking or obstruction at the sewer-outfall or elsewhere, no evidence of houses having been simultaneously invaded with sewer-gas, and no evidence that sewer-gas was producing diphtheria to this large extent, Dr. Coleman was compelled, with the proofs he had, to believe that milk was acting as the distributor. In conjunction with Dr. Jones, Inspector of Dairies, every effort has been made to trace the cause of infection. Farms and dairies have been frequently examined; water-supplies and food looked to; and all the cows have undergone a veterinary examination.

Upon this report, the Commissioners adopted the following resolution: "That it is unnecessary to seek the aid of the Local Government Board, inasmuch as the evidence put before the Board clearly proves that the disease has been spread through the milk-supply; but the means by which the milk became contaminated has not been clearly ascertained. That it is desirable the Sanitary Committee should inspect the district, with a view to ascertain what, if any, additional ventilation should be provided for the sewers of the district."

THE RECENT POOR-LAW INQUIRY IN THE PARISH OF ST. GEORGE'S IN THE EAST.

AT the meeting of the board of guardians of this parish, held on the 7th instant, the decision of the Local Government Board, as to the merits of the question involved in the inquiry conducted by Dr. Bridges, was read. In their letter to the guardians, the Board say: "From the evidence of the witnesses examined at the inquiry, it appears that the infirmary has for some time past been in a state of disorganisation, owing to dissensions between the principal officers"; "that it is, of course, impossible that a state of things so obviously detrimental to the welfare of the establishment should be allowed to continue; they, therefore, must call on Dr. Belcher and his assistant, Mr. Finegan, to tender their resignations to the guardians".

Although we regret that the department should have felt constrained to pass so severe a sentence, yet, after a careful consideration of the evidence adduced, we cannot see how any other conclusion could be come to. Medical officers holding joint appointments should always bear in mind that, if they can only agree to differ, the sick under their charge must suffer; and, if their dissensions reach such proportions as they evidently did in the infirmary of St. George's in the East, they will run the risk of being as summarily got rid of as the two dissentients have been in this parish.

COMPULSORY VERSUS PERMISSIVE SUPERANNUATION.

A PAINFUL instance of the urgent need for compulsory superannuation has recently come under our notice in a metropolitan union. J. G. had occupied the position of master baker for upwards of twenty years. He is now sixty-five years old. During the whole period of his engagement, he had never asked for, or had been offered, one day's holiday. A few weeks ago, his health gave way; and we learn that he is now destined to be a permanent invalid. Recently the guardians called on him to resign his appointment. He then applied for superannuation allowance. At the meeting of the Board on the 7th instant, his case came on for consideration. At first, it was proposed to give him nothing. Ultimately, a resolution was adopted, according him a gratuity of £10. Under a compulsory superannuation Act, and according to the regulations laid down in a recent circular issued by the Local Government Board, he would have been entitled to £60 a year. Now, at no distant date, he will become a pauper inmate of a workhouse; and yet this is the Board which granted one of its medical officers, on his retirement about nine years ago, the munificent grant of £200 a year. Verily there is a necessity for the concerted action of all union officers (suggested by the Council of the Poor-law Medical Officers' Association) for securing an amendment of the Superannuation of the Union and Poor-law Medical Officers Acts.

RATHDOWN UNION.—The guardians, at a recent meeting, passed a resolution requesting the Local Government Board for Ireland to grant a provisional order to enable them to provide a good and wholesome supply of water for the village of Enniskerry.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

LAMBETH.—The district under the jurisdiction of the vestry of St. Mary, Lambeth, is one of very mixed character, the health in the suburbs of Brixton and Norwood counterbalancing the high mortality observed in the purlieus of the New Cut and Vauxhall. For the whole parish the birth and death rates for 1879 were 34.6 and 21.6 per 1000 of the population, as compared with 36.5 and 23.2 in the metropolis generally. The deaths of strangers numbered 370, which, when deducted, gave a rate of 20.2 per 1000; though it is not stated whether a corresponding allowance has been made for residents dying outside the district, instances of which must be numerous. Of the 5767 deaths 1014, or 17.6 per cent., occurred in the public institution, 439 in the workhouse, and 575 in the hospitals. The proportion of infantile deaths to the total mortality was 22.4 per cent., and of children under five years 41.5 per cent. Strangers dying in the Stockwell Hospitals and elsewhere being deducted, the number of zymotic deaths in Lambeth during the several quarters was 169, 160, 205, and 271. Of the 148 zymotic deaths of strangers during the year 93 were from scarlet fever alone, 49 of these being in the December quarter. In speaking of the spread of scarlet fever, Dr. Archer Farr urges that it is time some more stringent rules were adopted to prevent the spread of scarlet fever in public schools, by providing against the return of children to school too soon after convalescing from this disease. He suggests that parents should not only give notice of their child's illness, but should specify the nature of such illness, a form of certificate being supplied for filling in by the medical attendant, with the object of verifying the parents' statement; that a second certificate should be given producing evidence of the complete disinfection of the bedding, wearing apparel, and body of the patient, and fixing a date for the child's return; and that all absentees during the prevalence of scarlet fever, suffering from sore throat, or a *slight rash*, should not be re-admitted to school without a certificate from a medical man, showing that these had no connection with scarlet fever. Certainly, if precautions such as these could be carried out, we might hope to keep scarlet fever much more effectually in check than at present. Dr. Farr gives the number of deaths occurring from each of the zymotic disorders, but we notice that he offers no comment on the fatality of any of the other classes of disease within the district.

STOCKTON RURAL DISTRICT.—Mr. Wilson's report for 1879 is very practical, and of a kind likely to be of much service to his sanitary authority. He gives in detail what health-officers too commonly neglect to give, a sketch of the sanitary condition of those localities in which any material change or improvement took place during the year; as well as the action taken for preventing the spread of disease. We are glad to find that a comprehensive sanitary survey of the district is being made, and that the medical officer devotes a large share of his time to its systematic inspection. With energetic work such as this, it is not surprising to learn that nearly everywhere throughout the district there are proofs of sanitary improvement and progress. During the year there were 321 births and 144 deaths in the district, against 300 and 192 in the preceding year. The birth-rate was 32, and the death-rate 14.4 per 1000 of the estimated population. The zymotic death-rate was equal to an annual mortality of 1.1 per 1000 against 4.5 in 1878. The mortality from measles and scarlet fever was much less than in the preceding year. No fatal case of diarrhœa was recorded, and only one death from whooping-cough, the widely spread prevalence of that disease in 1878 having left few susceptible persons unattacked. It is short-sighted of the sanitary authority to have shelved discussion as to the provision of a fever hospital, because infectious diseases are at present quiescent in the district.

POOR-LAW MEDICAL APPOINTMENTS.

POTTER, H. P., F.R.C.S., appointed Medical Superintendent to St. Mary Abbott's Infirmary, Kensington, *vice* W. B. Whitmore, M.B., resigned.

ROBERTS, Robert, M.R.C.S., appointed Medical Officer to the Llanfair District of the St. Asaph Union.

PUBLIC HEALTH MEDICAL APPOINTMENTS.

THOMSON, W. Sinclair, M.D., re-elected Medical Officer of Health for the Peterborough Urban Sanitary District.

THE Army Medical Department is sending out Mrs. Deeble and six lady-nurses to attend the sick and wounded in the Transvaal; and passage has been secured for these ladies in the Union Steamship Company's Royal Mail Steamer *Pretoria*, sailing from Southampton on the 27th instant. It will be remembered that Mrs. Deeble and her staff of lady-nurses rendered valuable assistance to the sick and wounded during the Zulu war.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, January 13th.

Fever at Tandragee.—MR. FORSTER informed Mr. Gray that he had telegraphed to the Local Government Board, for information with regard to an alleged outbreak of fever at Tandragee. It had been caused, not by the importation of foreign flax, but by an impure well, which had been closed. Additional medical officers and inspectors had been sent to the district. Seven deaths had occurred, and not eleven, as had been stated.

The Contagious Diseases Acts.—On the motion of MR. CHILDERS, the following were appointed a Select Committee to inquire into the Contagious Diseases Acts of 1866-79, their administration, operation, and effect:—Mr. Massey, Mr. Stansfield, Mr. Cavendish Bentinck, Colonel Alexander, Viscount Crichton, Mr. Burt, Mr. O'Shaughnessy, Mr. Osborne Morgan, Mr. Cobbold, General Burnaby, Sir Henry Wolff, Mr. Ernest Noel, Colonel Digby, Mr. William Fowler, Mr. Hopwood, and five members to be nominated by the committee of selection.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF OXFORD.

RADCLIFFE TRAVELLING FELLOWSHIP.—The Examiners for the Radcliffe Travelling Fellowship give notice that the examination will be holden in Lent Term, commencing on Tuesday, February 8th, at 10 A.M., in the Medical Department of the Museum. Candidates are requested to send their names to the Radcliffe Librarian, Museum, on or before February 1st.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College, at a meeting of the Court of Examiners on the 18th instant.

Messrs. Joseph M. Prendergast, L.S.A., Melbourne; Arthur Hooley, L.R.C.P.Ed., Cobham, Surrey; Walter J. Clarke, Birmingham; William H. Sharples, Preston, Lancashire; William Sellers, M.B.Lond., Manchester; D'Arcy B. Carter, Leeds; William Loynd, Great Harwood, Lancashire; Robert L. Jones, L.S.A.Ireland, Bangor, N. Wales; William Holt, Camberwell; Samuel R. Matthews, Ross, Hereford; John H. Oates, Dewsbury; Frank E. C. Houghton, Dudley; Thomas J. Evans, Llanybyther, Carmarthenshire; William Stanwell, Rochdale; and Patrick M. Poett, L.K.Q.C.P.Ireland, Terenure, Co. Dublin.

Eight candidates were rejected.

UNIVERSITY OF DUBLIN.—At the Michaelmas Term Winter Commencements, held in the Examination Hall of Trinity College, on Wednesday, December 15th, the following Degrees in Medicine and Surgery, and Licence in Medicine, were conferred by the University Caput.

Bachelors in Surgery.—Henry Lewis Clare, Stuart Davis, William S. Gordon, John C. Martin, John M. Nicolls.

Bachelors in Medicine.—Austin Cockle, Stuart Davis, John Galbraith, John Mason, John C. Martin, John M. Nicolls, George de J. Patterson, George Scriven.

Master in Surgery.—William Cox Neville.

Doctors in Medicine.—George A. Bluett, Francis C. M'Nalty, W. C. Neville.

Licentiate in Medicine.—William Smyth.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, January 13th, 1881.

Conway, Thomas Henry, New Burwell, Newcastle-on-Tyne.
Sumner, Joseph Henry Surtees, Redburn Street, Chelsea.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced:—

ARMAGH UNION—Medical Officer for Richhill Dispensary District. Salary, £120 per annum, with £20 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 31st instant.

BALLINROBE UNION—Medical Officer for Ballinrobe Dispensary District. Salary, £100 per annum, with £25 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 10th February.

BLACKBURN UNION—Medical Officer to the Rishton District.

BRACKLEY UNION—Medical Officer to the Sulgrave District.

BRAINTREE UNION RURAL SANITARY AUTHORITY—Medical Officer of Health. Salary, £150 per annum. Applications, with testimonials, on or before January 22nd.

BRIGHTON AND HOVE DISPENSARY—Resident House-Surgeon to the Western Branch. Salary, £140 per annum, with furnished apartments, coals, gas, and attendance. Applications, with testimonials, on or before January 31st.

*BURY ST. EDMUNDS FRIENDLY SOCIETIES MEDICAL AID ASSOCIATION—Dispenser and Assistant to Medical Officer. Applications, with testimonials, to Mr. Hazell, Victoria Street, Bury St. Edmunds, on or before February 8th, 1881.

CITY OF DUBLIN HOSPITAL—House-Surgeon. Salary, £100 per annum, with apartments, coals, gas, and attendance. Applications to the Secretary on or before January 20th.

*CLAYTON HOSPITAL AND GENERAL DISPENSARY, Wakefield—House-Surgeon. Salary, £120 per annum, with residence, coals, and gas. Applications, with testimonials, to the Honorary Secretary, on or before January 25th.

DUNMANWAY UNION—Medical Officer to Dunmanway Dispensary District. Salary, £120 per annum, with £5 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 25th instant.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW—Faculty Lectureship; election early in February. Applications to the Secretary.

*HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester.—Junior Resident Medical Officer. Salary, £60 per annum, with board and residence. Applications, with testimonials, on or before January 27th.

*HUDDERSFIELD INFIRMARY—Junior House-Surgeon. Applications, with testimonials, to the Honorary Secretary, not later than January 31st.

LISNASKEA UNION—Medical Officer for Maguiresbridge Dispensary District. Salary, £100 per annum, with £15 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 24th instant.

LIVERPOOL DISPENSARIES—Assistant House-Surgeon. Salary to commence at £100 per annum, with furnished apartments, coals, gas, and attendance. Applications, with testimonials, etc., to the Secretary, not later than January 24th.

LOUTH UNION.—Medical Officer to Louth District and Workhouse. Salary, £100 per annum.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL—Resident Medical Officer. Salary, £60 per annum, with board and lodging. Applications, with copies of testimonials, to the Secretary not later than January 25th.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL—Medical Officer for Out-Patients. Applications, with copies of testimonials, to the Secretary, not later than January 25th.

*ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY, Wigan.—Junior House-Surgeon. Applications, with testimonials, not later than 4 o'clock, Thursday, 27th instant.

*ROYAL FREE HOSPITAL—Junior Resident Medical Officer. Appointment for six months. Applications, with testimonials, to the Secretary, on or before January 26th.

ST. BARTHOLOMEW'S HOSPITAL—Surgeon. Applications, with testimonials, on or before January 24th.

*THREE COUNTIES' ASYLUM, Arlesey Siding (G. N. Railway), Beds.—Assistant Medical Officer. Apply to the Medical Superintendent.

WEST LONDON HOSPITAL—Assistant Physician. Applications, with testimonials, on or before January 21st.

WOLVERHAMPTON FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION—Resident Medical Officer. Applications (stating salary required), with testimonials, not later than February 1st, 1881.

MEDICAL APPOINTMENTS.

OGILVIE, Leslie, M.B., B.Sc., appointed Extra-Physician to the North-West London Free Dispensary for Sick Children.

OSWALD, H. R., M.B., appointed Honorary District Surgeon to the Royal South London Dispensary, *vice* A. Price, M.R.C.S.Eng., resigned.

SHIELD, A. Marmaduke, L.R.C.P.Ed., appointed Honorary Surgeon to Addenbrooke's Hospital, Cambridge, *vice* Edward Ground, L.R.C.P.L., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

HUDSON.—On January 16th, at South Cave, Brough, the wife of George Hudson, M.D., prematurely, of a daughter, stillborn.

MARRIAGE.

HOBSON—WATTS.—On Jan. 11th, at St. John's Church, Broughton, Manchester, John Morrison Hobson, M.D., of 3, Addiscombe Villas, Lower Addiscombe Road, Croydon, son of the late Dr. Benjamin Hobson, of China, to Emily Ashton, eldest daughter of Joseph Watts, Esq., of Lower Broughton, Manchester.

DEATHS.

MOORE.—On January 15th, at his residence, 3, Queen Street, Lancaster, J. Daniel Moore, M.D., after a lingering illness, aged 46.

ROBERTS.—On the 14th January, at 73, Southwark Bridge Road, London, Ellen, the beloved wife of Ellis D. Roberts, M.R.C.S., L.S.A. (formerly of St. Austell), from bronchitis, aged 49 years.

AN EXTRAVAGANT HOMŒOPATHIST.—The *Pacific Medical and Surgical Journal* states that, the authorities in charge of the Sacramento county hospital recently discharged the homœopathic physician in charge, on account of the large expense incurred by him for quinine, opium, and other drugs, and appointed a "regular" in his place for the purpose of economising the expenses of the hospital.

PUBLIC HEALTH.—The annual rate of mortality last week in twenty of the largest English towns averaged 23.6 per 1,000 of their aggregate population, which is estimated at more than seven and a half millions of persons in the middle of this year. The rates of mortality in the several towns were as follow: Brighton 13, Newcastle-on-Tyne 16, Portsmouth 16, Hull 19, Bradford 20, Leicester 21, Wolverhampton 21, Sheffield 22, Birmingham 22, London 22, Leeds 22, Plymouth 23, Norwich 24, Bristol 25, Nottingham 25, Sunderland 26, Liverpool 29, Salford 30, Manchester 32, and Oldham 33, per 1,000. Scarlet fever showed the largest proportional fatality in Oldham, Norwich, and Bristol; measles in Salford and Brighton; and whooping-cough in Nottingham and Leeds. The death-rate from fever (principally enteric) showed a further decline from that prevailing in recent weeks. Small-pox caused 28 more deaths in London and its outer ring of suburban districts, whereas no fatal case was recorded in any of the 19 provincial towns. In London, 2,486 births, add 1,604 deaths were registered. The deaths were 161 below the average, and gave an annual death-rate of 22.6. During the thirteen weeks ending Saturday, 1st instant, the metropolitan death-rate averaged only 20.9 per 1,000, against 23.7 and 24.4 in the corresponding periods of 1878 and 1879. The 1,604 deaths included 27 from small-pox, 54 from measles, 50 from scarlet fever, 12 from diphtheria, 25 from whooping-cough, 10 from enteric fever, 6 from ill-defined forms of continued fever, 25 from diarrhœa, and none from typhus, dysentery, or cholera; thus, 209 deaths were referred to these diseases, being 49 below the average. The deaths referred to puerperal fever, which had been 5 and 9 in the two preceding weeks, further rose to 16 last week, and exceeded the corrected average by 11. The deaths referred to diseases of the respiratory organs, which had been 290, 353, and 363 in the three preceding weeks, further rose to 371 last week, but were 111 below the average; 236 resulted from bronchitis, and 95 from pneumonia. Different forms of violence caused 59 deaths; 54 were the result of negligence or accident, including 30 from fractures and contusions, 10 from burns and scalds, and 7 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 28.0°, and 10.0° below the average. The mean was considerably below the average on each day of the week; the coldest day was Saturday, when the mean was only 19.6°, and showed a deficiency of 18.8°. The lowest night temperature was 14.0° on Saturday, and the highest day temperature in the shade 38.5° on Sunday; the extreme range in the week was, therefore, 24.5°. The direction of the wind was variable, and the horizontal movement of the air averaged 7.9 miles per hour, which was 5.5 below the average. Rain or melted snow was measured on Wednesday, to the amount of 0.13 of an inch. The duration of registered bright sunshine in the week was equal to 7 per cent. of its possible duration. No ozone was recorded during the week.

IS THERE OZONE IN THE ATMOSPHERE?—Two important papers on atmospheric ozone, by E. Schöne, are discussed in *Nature*. This observer, who has given much careful study to the subject of ozone, says that the smell of ozonised oxygen does not at all resemble the peculiar odour noticed after a lightning flash. The true smell of ozone is, however, frequently noticeable in ordinary air, and coming from the clothes of persons who may enter a room from the open air in winter. The ordinary potassium iodide papers are valueless as ozone measurers, according to Schöne. A small amount of ozone in moist air, produces a greater depth of colour on these papers than a larger amount of ozone in dry air. The humidity of the air and the hygroscopic character of the material from which the paper is made, therefore largely influence the depth of colour produced. It has been supposed that much ozone is produced in the neighbourhood of waterfalls, but the increased depth of colour of the potassium iodide papers, is only due, says Schöne, to the great humidity of the air. Schönbein's "ozonometer" serves as a very rough hygrometer. Paper coated with thallous hydrate, is recommended as a measurer of the relative amount of "oxidising principle" in the air: the paper is coloured brown—owing to production of thallic oxide—by ozone or hydrogen peroxide. The general conclusions are briefly these. 1. The papers are coloured more deeply during the day than during the night; this difference is more apparent during the long days of the year. 2. Increased wind force causes increased coloration, because a greater amount of oxidising substance is brought in contact with the paper during the time of exposure. 3. Cloudiness and rain especially influence the coloration: the heavier the rain the smaller the coloration of the paper. Direct determinations of hydrogen peroxide have shown that, when the thallium papers are much coloured, this compound is present in the atmosphere in comparatively large quantity. Herr Schöne regards the actual existence of ozone in the atmosphere as at present an open question.

AMYLOID DEGENERATION.—Dr. Eberth has recently given out the opinion that amyloid degeneration is confined to the connective tissue; denying the involvement of gland-cells, involuntary muscular fibres, etc. In coming to this conclusion, he seems to have used as the reagent almost exclusively aniline violet. Dr. Kyber (Virchow's *Archiv*, vol. 81, p. 7) considers that Virchow's iodine and sulphuric acid test is alone trustworthy; the aniline test in some cases failing to detect amyloid matter where it is, and occasionally producing different red tints where there is none. In discussing amyloid spleen, he describes three forms—parenchymatous degeneration, sago-spleen or lymph-sheath degeneration, and the general or combined form of degeneration. In parenchymatous degeneration, the change consists in gradual transformation of spleen-parenchyma into amyloid substance. The process commencing in the immediate neighbourhood of the capillary veins, part of the round cells and the rest of the parenchyma atrophies and disappears; while the greater part of the round cells, the intercellular substance, and the reticulum, and a part of the arterial capillaries, undergo amyloid change. In sago-spleen, Dr. Kyber says, the sago-like bodies are formed of patches of amyloid material, which arise in the reticulum and the capillary plexus. If the round cells be affected, it is but slightly. Their number diminishes through atrophy and removal by the lymph-vessels, associated with diminished formation. In the third or combined form, there is amyloid degeneration simultaneously both in the parenchyma and in the arterial sheaths, with amyloid round cells in the lymph-sheaths. In amyloid disease of the liver, Dr. Kyber describes the same three forms, here contradicting Heschl, who also, working with aniline, denies the participation of the liver-cells in the disease.

BEQUESTS AND DONATIONS.—Mr. William James Holt, of Gorphwysfa, Carnarvonshire, bequeathed £500 to the Gloucester Infirmary. "A.T." has given a second £100 to the Chelsea Hospital for Women.

INTERESTING SURGICAL OPERATIONS.—Two rare and successful surgical operations are reported recently from Philadelphia in the *Boston Medical Journal*. Dr. Elliott Richardson reported at the Obstetrical Society a case in which he had recently performed a modified Porro's operation. The patient recovered, and it is the first successful operation of this kind performed in America. The patient was a dwarf, three feet and a half (forty-two inches) in height, and twenty-five years of age. She was connected with a circus, and was married to one of the *attachés*, a man of ordinary size. On account of great contraction of the pelvis, Cæsarean section near the termination of full term was decided upon. The operation was performed under carbolic spray, the usual precautions being observed. Porro's operation, as modified by Müller, was done in the presence of Dr. Harris, President of the Obstetrical Society, Professor Goodell, Professor Tyson, and Dr. Albert H. Smith, President of the County Medical Society. The child was extracted alive, and has survived the operation. The mother did well for more than a week, when she had an attack of milk-leg, which, however, did not prove to be serious. She entirely recovered. Another very rare operation was successfully performed at the German Hospital, Philadelphia. A patient, over fifty years of age, who had been suffering for years with trifacial neuralgia, and had all of his teeth upon one side extracted without relief, came under the care of Dr. Ferdinand H. Gross, one of the attending surgeons to the hospital. It was a very severe case of tic, involving all three of the branches of the right fifth nerve. The patient was in almost constant torture from the rapidly recurring pains. By pressing upon the common carotid artery of the right side, the attending surgeon found that the pains were controlled; he therefore decided to adopt the recommendation of Nussbaum, and ligature the main arterial trunk. This operation was accordingly performed by Dr. F. H. Gross, a double ligature being thrown around the right common carotid artery. The patient rapidly recovered, and the effect was very marked. Immediate relief from neuralgia was experienced; and although in the course of about two weeks slight twinges were felt, there has been no return of the painful spasms. About a month later, the patient had an attack of pneumonia, which he attributed to exposure after leaving the hospital, but otherwise his recovery was not retarded, and the relief far surpassed his expectations.

THE Local Committee of the projected Congress at Algiers of the French Association for the Advancement of Science, are busily occupied with arranging excursions for the benefit of those members who may attend the meeting. The Committee have already arranged twenty-two excursions, varying in duration from one to fifteen days, which will give a complete idea of the western and central parts of Algeria; and further excursions into the province of Constantine and the regency of Tunis are under consideration.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th. 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Sir Joseph Fayrer, Lettsomian Lectures on the Pathology and Treatment of Dysentery.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. Ransome, Further Observations on the Value of Stethometry in the Prognosis of Chest-Disease.

WEDNESDAY.—Association of Surgeons practising Dental Surgery, 8.30 P.M. Annual general meeting. Mr. W. A. N. Cattlin, On the Imperfections of the Dentists' Act, with suggestions as to the Alterations required to Protect the Interests of Qualified Surgeons.—Hunterian Society, 8 P.M. Mr. Waren Tay, A Case of Colotomy; Mr. Gilbert, Notes of Cases in General Practice.

FRIDAY.—Clinical Society of London, 8.30 P.M. Dr. Sutherland, A Case of Chronic Vomiting, in which no food except Koumiss was taken for sixteen Months: Mr. Hulke, On the Results of a Trial of Chian Turpentine as a Reputed Remedy for Cancer of the Female Genital Organs, conducted during several months of last year in Whitbread Ward, Middlesex Hospital; Mr. J. W. Teale (Scarborough), A Case of Quiescent Scirrhus; Mr. Heath, A Case of Gangrene of the Arm from a Poisoned Wound: Amputation at the Shoulder, and Recovery; Dr. Whipham, Case of Small Round-Celled Sarcoma of the Dura Mater, encroaching on the Left Temporo-Sphenoidal Lobe of the Brain, and producing Extensive Softening in its neighbourhood: Absence of Aphasia, the Patient being Left-handed.—Quekett Microscopical Club, 8 P.M. Mr. B. W. Priest, On Sponges; Dr. T. S. Cobbold, On Filariæ.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE MEDICAL PROFESSION AND INTEMPERANCE IN ALCOHOL.

SIR,—Misfortune seems sadly to have attended Dr. Reid's administration of alcohol. The unhappy condition and remorse felt by Dr. Reid when he thinks of the use, or rather the abuse, he has made of alcohol, is not to be wondered at. He tells us that he used alcohol right and left ten years ago, when his eyes were scaly; that he advised a lady patient to take a glass of gin-toddy every night for a pain in the back; probably Dr. Reid's right and left hand use of alcohol also fell upon pain in the hip, pain in the shoulder, pain in the ear, and pain elsewhere. Now, to abuse a body of men for the indiscretion of a few practitioners who use alcohol without reason is absurd. I always thought it was the monthly nurse who advised the ladies to resort to gin for pain in the back. The cited cases of intemperance induced by Dr. Reid's indiscretion are all women. I hope he now understands the sex better, the scales having fallen from his eyes. Dr. Reid thinks he has said enough to prove that we are guilty of causing intemperance. He certainly has not; but he has proved himself guilty of the indiscreet use of alcohol ten years ago. It is my pleasure to know that I have transformed the tippler into the total abstainer, and have never caused drunkenness. Let us still continue to discourage intemperance, and encourage coffee taverns and coffee billiard-rooms; and hoping the time will soon arrive when tea and coffee can be had at our railway stations cheaper than beer, or at least as cheap, and at a drinkable temperature.—I am, sir, yours truly,

SHAPLAND WHITE, M.D.

41, Warrior Square, St. Leonard's-on-Sea.

MANAGEMENT OF THE THIRD STAGE OF LABOUR.

SIR,—Referring to above in the JOURNAL of December 18th, if my limited experience of about two years and a half can be of any service to "Placenta", he will find it briefly stated as follows. The method which I adopt is to place my left hand on the abdomen over the uterus from the time that the child's head appears at the vulva, and with it to follow the uterus down as the child is being expelled, exercising all the time gentle steady pressure. When the second stage is ended, this pressure is continued, and friction in addition employed if the uterus do not contract satisfactorily; then, at the end of fifteen or twenty minutes, I resort to "expression" if the uterine action alone be insufficient to expel promptly its contents. The results are that, on the expulsion of the child, the uterus is at once felt under the hand firmly contracted; the steady supporting pressure being continued, I find periods of quiescence alternating with contraction; but at this stage the subsequent results are modified by the physical vigour of the woman and by her mode of life. My first six months' practice was in a district where the mode of life of the women led to robust health, and there I found the uterine contractions in most cases sufficiently strong to expel the placenta; in my present district, on the contrary, in the great majority of cases, although the uterus resumes action as indicated by its being felt to "harden" (often with trifling or no pain), yet I find it necessary to resort to "expression", as described by Dr. Playfair. This I always find successful. In one case only do I remember giving ergot to induce expulsion of the placenta, and in it I was ultimately compelled to insert my hand, and peel it off as it was adherent. This was the only case, out of about 150 or 160, in which it has been necessary to introduce the hand. In a few cases attended by country midwives, in which I have been called in for retained placenta, and in which, of course, the uterus had not received manual support, I have found the womb perfectly quiescent; but here moderate friction—a cold hand being specially valuable—has rapidly produced the desired "hardening". This method, which I always practise, is that which I was taught in my hospital midwifery course.—Yours truly,

RUSTICUS.

December 22nd, 1880.

SIR, If Mr. Cockell will again read my letter, I think he will see that I did not say that the hardened uterus was not to be felt; nor did I recommend the introduction of the hand into it, except as a last resort. Moreover, the object of my communication was not to teach, but to be taught, "expression". All he says in favour of this method I can fully understand to be correct, except I do not know what he means by the "uterus being steadied" by it. I, however, notice that he himself does not succeed entirely with expression, because he finishes with traction on the cord; and Dr. Playfair says "that, in nineteen cases out of twenty, the finger need never be introduced into the vagina, nor the cord touched". I have never met with an hour-glass contraction nor an adherent placenta. If traction be made on the cord at any time, I do not see how it can result otherwise than in expelling the foetal, instead of the uterine, surface of the after-birth first.—Your obedient servant,

PLACENTA.

HORSE INSURANCE.

SIR,—In answer to your correspondent's query in this subject, I may say that I am not this year keeping a carriage, but the three or four years prior I insured my two carriages and horses in the Horse and Carriage Insurance Company, Queen Victoria Street, London, and found the Company very prompt in settling my claims; though they only insure horses, I believe, against death, not injury from accident.—Yours, etc.,

F.R.C.P.EDIN.

Tunbridge Wells, Dec. 25th, 1880.

P.S.—I may safely say that my yearly claims on the Company exceeded, by a great deal my premiums.

GARGET AND DIPHTHERIA.

SIR,—In analysing any outbreak of infectious disease connected with milk-supply, it is necessary to take into consideration the various ways in which contamination is likely to arise. The chief of these are: 1, through the water used for washing out the cans being polluted; 2, through emanations from, or direct contact with, decomposing excreta, more especially of carnivorous animals. I say decomposing, inasmuch as it appears that perfectly fresh excreta may be taken into the system with a less amount of harm than we might naturally expect. 3. From the milk being placed in rooms where infectious disease exists; 4. Through the cows being milked by persons who have been in contact with infectious disease; 5. From contact with infectious discharges from cows that have recently calved. It has been asserted by some that milk is infected by the cows partaking of sewage-grass, and by the existence of mammitis in the animals from which the milk is drawn. The theory as to the connection between garget and diphtheria (without very much idea of sewage-grass affecting the milk is now, I believe, quite exploded; and the stronger and reliable proof is produced than exists at the present time), will soon also not be thought worth consideration. Of course, no one would venture to connect the ordinary forms of mammitis with diphtheria; and I shall, therefore, content myself with inquiring as to the nature of the infectious variety. George Fleming, who is one of our first veterinary surgeons, says: "That any of the forms of mammitis will produce diphtheria in animals—and especially sucking animals—there is not a tittle of evidence to show; and that diphtheria in the human species may be due to milk drawn from glands affected with mammitis is unsupported by facts of any kind". Professor Dieckerhoff, of the Berlin Veterinary School, who was sent by Dr. Friedenthal (the Prussian Minister of Agriculture) to Stendorff, in 1877, to inquire as to the outbreaks of mammitis which had occurred at that place, says the disease is in general a simple parenchymatous inflammation, and it is only in bad cases that the lesions extend into the interstitial connective tissue. The disease, which is due to the action of a special ferment, commences at the excretory ducts (the teat-duct and galactiphorous sinus), and extends thence to the gland-substance without affecting the skin. The milk drawn from the diseased udder, after standing for half a day, shows, under the microscope, great and increasing numbers of bacteria; but there is no trace of these organisms in milk freshly drawn. When the caseous clots and fat glomerules begin to disappear, and the fluid is gradually assuming a more natural appearance, bacteria are not developed for the space of two or three days. The unfrequency of the milkings influences the development of the disease from the fact that the milk so long retained in the udder readily decomposes. In all probability, it is brought about by the udder coming into contact during decubitus with infectious materials which bring about changes in the milk contained in the udder.—I am, sir, your obedient servant,

Kingston-on-Thames. F. P. ATKINSON.

GLOVES FOR WET WEATHER.

SIR,—After thirty years' experience, I think the best driving glove I have tried is the "tufted glove" sold by Mr. John Turnbull, Stangate, Hawick. I believe he can supply them by post at two shillings a pair.—I am, sir, yours, etc.,

14, Buccleuch Street, Hawick, N.B., January 13th, 1881. D. MCLEOD.

HAIR-DRESSERS AND TYPHOID FEVER.

SIR,—The partner of a friend of mine, an architect, died lately of typhoid fever; and, although all possible sources of infection were investigated, it was never ascertained where it was contracted, especially as the house in which he lived had no defective sanitary arrangements. My friend, a few days ago, was having his hair cut at a neighbouring hair-dresser's, and was bending over the basin while his head was being washed (shampooed), when, the waste-hole being open to allow the water to escape, some air was forced up which had such an abominable smell that he felt quite sick and faint. My friend's partner was in the habit of going frequently sometimes daily, to these hair-dressing rooms, and my friend was at once struck with the thought, whether the former might not have contracted typhoid fever in this way. I think this is quite possible; and hope you will consider this note worthy of insertion in the JOURNAL.—I am, etc.,

BERNARD ROTH, F.R.C.S.England.

18, Grand Parade, Brighton, January 11th, 1881.

DEFENCE OF ACTIONS AGAINST MEDICAL MEN.

SIR,—I will thank you to allow me to direct attention to one point in my letter in the JOURNAL of January 8th, namely, that a member of such an association as I suggest would only be entitled to its benefits "if his innocence is established". If the decision of the court were against him, he would have no claim. "The sense of individual responsibility" could not, therefore, be lessened by the existence of such a fund. It may be that the cases are too numerous. Ventilation of the subject will bring out information as to that.—I am, etc., J. W. MILLER, M.D.

Dundee, January 11th, 1881.

TRAIS FOR COUNTRY PRACTICE.

SIR,—In reply to "M.R.C.S.", as to the best two wheeled trap for general use over bad roads, etc., I would recommend him to try one of "the Fulcrum Carts", built by Messrs. Jolly and Sons of Norwich. I have had one in use now for some time, and I never wish to ride in a more easy and comfortable trap. They are well and strongly built, and answer every purpose to which a two-wheeled trap may be put.—Yours, etc.,

R. SLADE.

Puddletown, Dorchester, January 11th, 1881.

COMPOUND FRACTURE OF FRONTAL BONE AND INJURY OF BRAIN.

SIR,—The case reported by Mr. Behrendt, in the JOURNAL for January 1st, in which there was a severe compound fracture of the frontal bone, with protrusion of brain-substance, is extremely interesting, not only to the surgeon, but to the physician. In some recorded instances lesions and injuries of the prefrontal lobes have been followed, not by motor or sensory disorders, but by a curious condition of the intellectual faculties. The most striking symptoms appear to be referable to the want of volitional power, and the consequent predominating influence of the animal propensities. In the "American crowbar case", reported in the *American Journal for Medical Sciences*, July 28th, 1850, there was a marked change in the patient's mental condition. Mr. Behrendt's carefully recorded history would be rendered still more valuable if he would state whether there was any change, however slight, in the patient's psychical condition.—I am, sir, very faithfully yours,

January 12th, 1881. W. B. HADDEN.

B. L.—We should consider a guinea a visit too much under ordinary circumstances for seeing a patient at a distance of four miles. If a general practitioner intends to charge a guinea a visit, he should take care to make it understood from the first. Ten shillings and sixpence would, in our opinion, be a reasonable and usual charge. To avoid disagreeable questions, the last visit should not be charged for, under the circumstances stated.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

GUY'S AND OTHER HOSPITALS.

SIR,—It was suggested in your columns, a short time since, that the honorary medical officers should be represented on the committees to whom they render service. But the case is altered where a salary is given. Still, even then, I would insist upon the consulting officers being put on the committee to watch over the medical department.—I am, sir, yours truly, AN OLD GUY'S MAN (1832).

Liverpool, January 15th, 1881.

*** Members of the consulting staff are not always the most trusted friends of the acting staff.

A WARNING TO RAILWAY TRAVELLERS.

AN accident of a painful nature, says the *Globe*, occurred, a day or two ago, in the Liége station, which ought to be mentioned as a warning to railway travellers. As the Verviers to Brussels train was about to start, a porter hurriedly closed the door of one of the carriages, when a piece of a glove was seen to fall to the ground. On picking it up, it was found to contain a man's thumb. It appears that one of the passengers was arranging his baggage in the net with one hand, while the other was so placed that the thumb was literally cut off by the act of shutting the door. The sufferer is an *avocat* at Courtrai, who, after receiving surgical attention in the station-master's office, was able to continue his journey by the following train.

CALF-LYMPH.

SIR,—It may interest many of your readers to know that I have again most successfully vaccinated a calf with lymph obtained from Utrecht and Milan, after having totally failed with calf-lymph obtained from Brussels and England. As the profession is at present interested in calf vaccination, some of them may like to know where to obtain the best results. At the same time, after a large experience, I must say that I consider calf vaccination very unnecessary, and a cruel and disgusting operation, not likely to find favour with the majority of the profession.—Your obedient servant, W. FAULKNER, M.R.C.S.

16, Endell Street, London.

A NEW PHASE OF NURSING.

SIR,—In answer to your correspondent "Sextus", I would inform him that in the hospitals here, it is very common for one of the nurses, or the porter, to give evidence at the coroner's courts. Inquests are held on all cases of accidental death, and the evidence of the nurses extends to date of entrance and fact of death. In cases where medical evidence is required, *i.e.*, in compensation cases, homicides, suicides, etc., one of the house-surgeons is called upon. This is found, on the whole, to work well; as, from the large number of inquests, it would be otherwise impossible for the house-surgeons to attend to their proper duties. If we stood upon our dignity in this matter, the only effect would be to diminish the number of inquests, as the coroner would hesitate to incur the large expense which skilled evidence in accident cases would involve. In Liverpool, we have a coroner who never hesitates to take medical evidence when it is needed; and it is very seldom indeed that the profession here have cause to disagree with him.—I am, yours truly, W. MAIRIE CAMPBELL, M.D., Surgeon, Northern Hospital,

Liverpool, January 11th, 1881. Liverpool.

MLLE. SARA BERNHARDT AND HISTRIONIC DEATH.

THE following double-edged criticism is from the *New York Medical Record*.—Mlle. Bernhardt's deaths are remarkable, artistic, and effective. We must confess to having seen few in real life that moved us so deeply. The death-struggles, we may say, were remarkably life-like in a certain sense. We have never seen their equal in real death. We can recommend the profession to study the phenomena of the histrionic death as shown in Mlle. Bernhardt, for a physician may practice all his life and never see anything like them.

MR. COOMBE.—A list was published by the Charity Organisation Society, 15, Buckingham Street, Adelphi, giving information of all the convalescent institutions in England, with particulars of cost of admission, regulations, etc. It is a very useful document; and may be obtained on application to Mr. C. S. Loch, the secretary.

SCHOOL-SHIPS AND CONVALESCENT YACHTS.

SIR,—Dr. James Gardner's scheme, although admirable in its conception, would probably fail practically. Captain Grey's well-planned scheme fell through, and also that of Dr. Worthington, solely from lack of sufficient support, although both were very highly recommended by the leading physicians throughout the United Kingdom.—Yours, etc., A. Z.

January 4th, 1881.

INSOLATION.

SIR,—My experience in this accident may possibly be of use to ship-surgeons who have had no practice previously in the tropics. The routine treatment is by means of ice to the head and other parts of the body. The method I have pursued with success is by placing the patient in a bath of cold water (salt or fresh), letting him remain there for five minutes, and then placing him almost naked in the coolest position I can find. This bath I repeat every half-hour, till the temperature falls, with an occasional bucket of warm water poured over the head of the patient while in the bath, if the temperature of the body is not very high. Of course, if ice can be procured, it is useful to place on the head or in the bath; but, in the absence of ice, I believe some of the disastrous results of insolation may be prevented by cold baths continued. In the lesser but equally dangerous cases where the first symptoms are cessation of perspiration, high temperature, pain in the head, contracted pupil, with slightly obscured intellect, I have found it useful. This form gradually passes into coma unless the skin can be made to act. Practising in a subtropical district, I always, in rises of temperature without a definite cause, give tepid baths till the temperature falls.—Yours obediently, L.R.C.P.Lond.

RESTORATION OF THE HEART'S ACTION.

SIR,—A communication in the JOURNAL of December 11th, on "restoring the action of the heart when it has ceased to beat", and the occurrence of a death at Guy's Hospital from chloroform, induce me to suggest the trial in such cases of dashing cold water on the face and chest of the patient as a likely means of assisting the action of the heart and respiratory muscles. I am encouraged to mention this as worthy of trial in consequence of the remarkable effect it had when employed by me in cases of choking of patients in a county asylum I had charge of some years since. I can recall at least half a dozen such cases, in which respiration and the action of the heart had completely ceased; and after passing a probang and dashing cold water on the patient's face, slow inspiratory efforts were made, resulting in the establishment of healthy respiration after a short period, and the ultimate recovery of the patient. Several of these patients lived for years afterwards; and one old woman I restored to life on two occasions.—I am, sir, yours obediently,

F.R.C.S.

THE LECLANCHÉ BATTERY.

SIR,—Your correspondent will waste his time and money in trying to manufacture Leclanché cells for medical purposes. They consist simply of a rod of zinc and a rod or plate of carbon, dipping in a saturated solution of chloride of ammonium. The carbon is surrounded with peroxide of manganese. But this crude form is not lasting; the salts creep up, and destroy the connections. After some years experience, I have found the only reliable form to be the one with conglomerate plates, as supplied by Thistleton, of 1, Old Quebec Street. The portable size corks about eighteen pence a cell.—I am, etc., A. DE WATTEVILLE.

13, Old Cavendish Street, Cavendish Square, W.

PRACTICE BY ARMY SURGEONS.

SIR,—In your issue of the 8th instant is a letter from "Brigade-surgeon", stating that "there is no regulation prohibiting army medical officers from practising, when such occupation does not interfere with their official duties". He is, perhaps, unaware that there is a minute at the War Office, in which the "practising by medical officers of the army is encouraged, in order that experience may be gained for the benefit of the men under their charge".—Your obedient servant,

A MEMBER BRITISH MEDICAL ASSOCIATION.

33, Sloane Street, January 8th, 1881.

CUPRIC PELLETS FOR DIABETIC URINE.

SIR,—I am an old practitioner, and have had a very extensive practice, and all along I, like, as I believe, the rest of my brethren, have been annoyed, and worse than annoyed, whilst attempting to carry nitric acid with me in my very frequent country journeys; this was attempted to be remedied by having it put up in hermetically sealed capillary tubes; that was less injurious to clothes, etc., but was by no means satisfactory in use. Then, again, Fehling's cupric solution for testing diabetic urine was, from decomposition, frequently unreliable unless fresh made. In large cities, all this, though still troublesome, was less felt, because the urine could be tested at home, or the nearest chemist's, and Fehling's solution could be procured fresh made. Dr. Pavy induced Mr. Cooper, chemist, of Oxford Street, to make compressed dry pellets of the salts composing Fehling's solution, and of the quantity required for three cubic centimètres of water for testing—by boiling, of course—the same quantity of urine. Unfortunately, as I and others, I suppose, have found, they were so exceedingly deliquescent as to be nearly useless. Mr. Cooper, however, has now inclosed each pellet in a perfectly waterproof covering, so that, after subjecting them to the tests of moisture and time, I find them perfectly dry and admirably efficient; in short, they are very portable, quite dry, and thoroughly reliable; and I thought the profession would, like me, be thankful to hear of such a boon. Mr. Cooper, I am aware, is trying to put up a reliable test for albumen in a similar way; and as soon as I can safely report, I shall send you the result of my experience with them.—Your obedient servant,

JAMES M. MCCULLOCH, M.D., etc.

16, Castle Street, Dumfries, December 18th, 1880.

FRIENDLY SOCIETIES MEDICAL AID ASSOCIATIONS.

SIR,—If not taking up too much of your valuable space, I will endeavour, as briefly as possible, to give "M. B." a short description of the powers that be, and of the duties and emoluments of the medical officer of one, and that one of the best, of these institutions; a post that I had the honour of holding for a short period. The association was situated in a county town of 26,000 inhabitants, and the members with their wives and families numbered some thousands, including as it did a country radius of ten miles. The salary was *£230 per annum* with an unfurnished house, coals, gas and rates being allowed; there was no dispenser, and all pills, powders, ointments, etc., were expected to be made upon the premises, no drugs being allowed to be ordered except by a list submitted to the committee at their monthly meeting. Out of his salary the doctor was expected to have the rooms apportioned for the use of the patients kept in apple-pie order, and to pay for all horse-hire, cab fares, and railway expenses (the balance left amounted to just 10½d. per hour). The duties commenced at 9 A.M. (or as much earlier as was possible the doctor would allow), with home-prescribing and dispensing; and were supposed to end at 11 a.m. They usually finished when the patients thought proper to leave off coming. The remainder of the day was devoted to visiting town and country patients until 6 P.M., when home-prescribing and dispensing commenced again, to end, ostensibly, at 8 P.M., really, when the patients thought proper; and on Wednesdays and Saturdays, market days, the place was opened for country patients from one till three; on these days the doors might just as well have never been shut. Sunday was supposed to be a *dies non*; it very rarely was, unless one went away out of the town. There was no time for meals, except in a scrambling way; for days together dinner was an institution that was ranked amongst the things one reads about but very seldom sees. Time for one's self and with one's family, and for recreation, there was not. A mason, I was but once able to attend a lodge, although I had numerous and standing invitations. The town itself was nice, the inhabitants most kind, courteous, affable, pleasant, and agreeable, and the resident medical men received me with every kindness; indeed, had it not been so, the position would have been unbearable, and I must have resigned long before I did. I will describe a few of the leading spirits of the committee, which nominally consisted of about sixteen members, but they were really all under the thumb of one man, an autocrat, whose *ipse dixit* was final. The chairman was a blatant publican of the Cobbett stamp, with all Cobbett's insolence and vulgarity, and none of his talent, utterly incapable of argument; he was great in vulgar abuse. By his insolence and ignorance he disgusted all people of gentle culture and education, but he had made money. The vice-chairman was a communistic cobbler, who, when not deluging himself with snuff, was ramming Good Templarism and "Sir Wilfred" down your throat; there were also a very radical tailor, who poured John Barleycorn down instead, and smelt extremely of tailoring; a fat old man who was as harmless as a ranting chapel-going-grocer could well be; a groom to a clerical gentleman, who had contrived to butter his bread extremely well on both sides; another, "Sir Wilfred," but a perambulating Mount Vesuvius; a working gardener, who played Boswell to the chairman's Dr. Johnson; a working tinman who wanted to "punch the doctor's b——y head" for vaccinating his child in three places instead of one only. Now, if such were and are the class of men in authority, I must leave "M. B." to imagine what the rank and file were like; and the daily, hourly, torture, that it must be to a man of refined feelings and cultivated taste to "move, live, and have his being" amongst them. I enclose my card and remain yours very truly, EXPERIENTIA DOCET.

SIR,—I agree with your correspondent "Spectator" that the position of medical officer to a Friendly Societies Association is by no means an enviable one; but "Spectator" is not correct in stating that he is "excluded from private practice afterwards," as proof of which I enclose an advertisement cut from a local paper, where a late medical officer to a Friendly Societies Association has opened a private dispensary in the immediate neighbourhood of the Societies' dispensary, the surgeoncy of which he has just resigned. He takes family members and others "on the usual terms;" and "especial attention is given to diseases of the eye and kidney; advice and medicine, 6d.; terms cash"!—Yours, etc.,

SUBSCRIBER.

MORPHIA FOR SUBCUTANEOUS INJECTION.

SIR,—I observe in your issue of December 25th a communication from Messrs. T. and H. Smith of this city, regarding their preparation of the neutral tartrate of morphia.

The ordinary preparations of morphia for subcutaneous use are the acetate and bimeconate. In private practice, it is often found that a case requiring the use of morphia subcutaneously may not occur for many weeks, and that case may possibly require the immediate and urgent use of it. It is, therefore, desirable that a solution be kept ready for use, which will be reliable, and will keep unchanged for an indefinite period.

Now, I have found that a solution of the acetate evaporates, and, therefore, becomes concentrated through time, while the bimeconate frequently develops a fungus growth on its surface.

Some months ago, I prepared a solution of the tartrate of morphia, in the proportion of 1 to 20 of water—a proportion I find most useful. The solution has given me every satisfaction, and I find the remainder showing no signs of either concentration or decomposition.—I am, yours, etc.,

A. J. SINCLAIR, M.D.

Edinburgh, December 30th, 1880.

P.S.—I may add, that a solution of the acetate with acetic acid tended to rust and clog the steel needle of my syringe.

SIR,—There have been repeated letters in your columns upon this subject, various writers recommending use of acetate of morphia, hydrochlorate, and tartrate. Some years ago, I was induced to use the sulphate, after reading a paper in the Liverpool and Manchester reports, by Mr. H. O. Thomas of this town. He claimed for it that its use was never followed by sickness; and my experience agrees with his. Another advantage is, that the solution keeps. I have beside me a bottle prepared a year ago, which is now perfectly clear, without the slightest trace of turbidity. I use a solution of one grain in twenty minims; it is prepared by simple solution. If the sulphate be pure, it has no acidity; should the solution in testing show acidity, I would prefer a solution from a fresh sulphate rather than neutralising with liq. potassæ. Yet another advantage: the stopper is not so apt to stick in the bottle as with the *B. P.* solution.—I am, yours truly,

Liverpool, January 12th, 1881. W. MACFIE CAMPBELL, M.D.

SIR,—In your JOURNAL of the 25th ultimo, Messrs. T. and A. Smith of Edinburgh take exception to my statement, that the tartrate of morphia is not so rich in the alkaloid morphia as the acetate. The formulæ for neutral tartrate of morphia (in which Watts *Dictionary* errs) is $(C_{17} H_{19} NO_3)_2 C_4 H_6 O_6, 3H_2 O$, molecular weight 774. The formula for acetate of morphia, according to the *British Pharmacopœia*, is $C_{17} H_{19} NO_3 C_2 H_4 O_2$ molecular weight 345, but of this it will take two molecules = 690, to contain as much alkaloid as one molecule of the tartrate, *i.e.*, 690 parts of the acetate, theoretically, will contain as much alkaloid as 774 parts of the tartrate, and, therefore, will be richer in the base. It is true that works on chemistry give the formula for acetate of morphia with an additional $1A_{q}$, water of crystallisation; but, even with this, it will still be the richer salt. I am quite aware the pharmacopœia process for its production is indefinite, and that commercially it always contains more water, as well as a little free acetic acid, else it would not be soluble in water. I also know that this salt is very unstable; but, in my process for making the hypodermic injection, I do not use the acetate; I take pure morphia, and dissolve with as little acetic acid as possible. The small excess of acid is never complained of, and it may be neutralised by a trace of potash, if objected to. The keeping properties of the solution thus made Messrs. Smith have not controverted. Pure morphia (the alkaloid), especially if crystallised, I believe, is more stable and definite than any of its salts. My solution will always contain an equal quantity of this.

In regard to the tartrate of morphia, I grant the solution of it is easily made, but it cannot be made so strong as the above solution. I have not tried the keeping properties of the tartrate solution, but I doubt their being equal to the acetic solution, because tartrates as a class form solutions which are very prone to become fungoid.—Yours obediently,

WM. MARTINDALE.

10, New Cavendish Street, W., January 3rd, 1881.

FLACCIDITY OF IRIS IN REAL DEATH.

SIR,—Mr. Joll, who drew attention to this question in the JOURNAL, having requested further observations, perhaps I may be allowed space for a few notes on the subject. Whether the pupil is more easily or more largely compressible after death than during life, I know not; but the following cases show that the phenomenon, being commonly present during life, cannot be accepted as a sign of death. In almost every case I tested, including some under anæsthetics, I found that the pupil appeared to be more or less altered in shape by simple pressure with one finger on the upper part of the globe in the ciliary region. Part of this appearance I had, before the publication of Mr. Joll's second letter, attributed to an alteration in the shape of the cornea; and, undoubtedly, such is the case. In several cases, however, I was convinced that the upper margin of the pupil was actually displaced downwards, and the fibres of the iris opened out. In Case VI, I was enabled to prove that this was so by means of opacities in the lens, over which, with pressure from above, the pupillary margin could be seen to travel downwards for one or one and a half millimètres. Though the phenomenon was present in a large number of normal eyes, I will record merely a few which were somewhat abnormal.

Case I. Boy, aged 13, both lenses removed by needling. II. Female, aged 35, myopic, T+1, under atropin, right and left. III. Male, aged 30, under atropin. IV. Male, aged 38, under eserine. V. Female, aged 17, right under atropin, left not so. VI. Female, aged 58, right under atropin. All of these were easily compressible.—Yours truly,

A. STANFORD MORTON, F.R.C.S.Ed.

Welbeck Street, W.

FOOT-AND-MOUTH DISEASE.

SIR,—I am very desirous of ascertaining if the present invasion of foot-and-mouth disease, now occurring in various parts of the country, but more especially in the eastern and southern counties, is coincident with outbreaks of diphtheria; and, if so, whether it is regarded in the light of cause and effect? For any information on these points, and opinions as to the probability of causation, I shall be personally much obliged; but I also think the subject of sufficient importance to justify my asking it through the medium of your JOURNAL; the more so, as I believe both diseases are rife at present.—Yours faithfully,

OWEN COLEMAN, M.D.,

Surbiton, January 12th, 1881. Medical Officer of Health for Surbiton.

CORONERS' INQUESTS.

SIR,—Will you kindly favour me by inserting the following? and also by expressing your opinion on the subject? The facts, briefly, are these. About a fortnight ago, I saw a child named ——; but since that time I heard nothing until I learnt that it had suddenly died. I was applied to for a certificate of death by the child's friends, but declined giving one, on the ground that, when I saw the child, its condition was not such as to warrant any apprehension of sudden death. An inquest was held on Monday evening last, on the body of the said child, at which I was present, but was told by the coroner that no evidence was required of me, and I accordingly withdrew; after which a verdict of "Died from natural causes" was arrived at. How could the coroner or the jury know, in the absence of medical evidence, what was the cause of the child's death? I may state that the child was illegitimate; and no evidence given, except by the mother, grandfather, and nurse.—I am, etc.,

PHYSICIAN.

*** This case is only another illustration of the unsatisfactory manner in which coroners' inquests are too often held.

ERRATA.—In Mr. Sampson Gamgee's paper on Wound-Treatment, in last week's JOURNAL, at line 2, for "discussions" read "observations"; line 19, for "writer" read "critic".

VENESECTION.

SIR,—I think one of our medical societies would be conferring a great boon on the junior members of the medical profession if it would discuss the subject of venesection. When ought we to bleed? Half-a-century ago, this was one of the commonest operations, and was performed in a host of diseases; but now it is a very rare one indeed. For instance, in puerperal fever and pneumonia, venesection used to be the orthodox treatment; but how often do we bleed in these diseases now? Why has the lancet been superseded by the brandy-bottle in the treatment of these diseases? Is it because diseases have changed? or is it because our knowledge of their treatment has increased? There is no doubt that our forefathers were rather too fond of using the lancet, etc.; but I cannot help thinking that, at the present day, there is a great tendency to run to the opposite extreme. I heartily agree with Sir James Paget, who says that "we undoubtedly overvalue the blood, and estimate too cautiously the loss of it", etc. I can testify from personal experience that venesection is the remedy *par excellence* for scarlatinal uræmic convulsions. During the summer of last year, I unfortunately caught scarlet fever, which was followed by uræmic convulsions. The convulsions came on one night, and were preceded by a few hours by intense frontal headache, vomiting, defective vision, muscular twitchings in the legs, shoulders, etc. After I had had two or three convulsive fits, I was bled to two pints. Mustard poultices were also applied to the legs, and ice to the head, etc. Soon after the venesection, I think, I had two more fits, but they were not so strong as the former ones. My sight returned so that I could distinguish people after two days. At the time of my illness, I only weighed about seven stone ten pounds.—I am, sir, your obedient servant,

Suffolk, January 10th, 1881. MEM. BRIT. M. A.

P.S.—I enclose my card.

G. L. writes that Dr. Jackson, of 3, Panton Square, published an article on the Virtues of Spiders' Web, in the twenty-first volume of the *Medical Journal*, dated March 20th, 1809.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. W. H. White, London; Mr. Eastes, London; Mr. J. W. Hulke, London; Mr. H. P. Dunn, London; Mr. R. Richardson, London; Dr. F. T. Roberts, London; Dr. Joseph Rogers, London; Our Edinburgh Correspondent; M.B.; Dr. F. P. Atkinson, Kingston-on-Thames; Dr. W. Henry Day, London; Dr. James E. Pollock, London; M.B. London; Dr. G. H. R. Dabbs, Shanklin; Senex; Mr. A. Cooper, London; Dr. Murdoch Brown, Edinburgh; Dr. A. E. Durham, London; Mr. W. Mac Cormac, London; Mr. A. S. Morton, London; An Old Guy's Man; Dr. J. Arlidge, Stoke-upon-Trent; Dr. J. D. Mortimer, London; Mr. F. Vacher, Birkenhead; Mr. T. B. Curling, Cannes; Hygiene; Miss Mott, Gloucester; Our Paris Correspondent; Mr. C. Norman, Monaghan; Mr. Rushton Parker, Liverpool; Mr. R. Woodhouse, London; Mr. G. W. Bury, Barnet; Dr. S. Rees Philipps, Exeter; Dr. W. M. MacGrath, London; Dr. A. Duke, Dublin; Dr. Clement Dukes, Rugby; Mr. J. R. Thomas, Llanelly; Dr. D. Hamilton, Edinburgh; Mr. A. M. Sydney-Turner, Gloucester; Mr. C. Firth, Norwich; Dr. E. Shackleton, Tandragee; Dr. Hawksley, London; Dr. A. Pullar, Cheltenham; Sir Joseph Fayrer, London; Dr. Bristowe, London; Mr. C. F. Du Pasquier, Upper Norwood; Dr. H. C. Bastian, London; Dr. J. E. Morgan, Manchester; Our Dublin Correspondent; Our Glasgow Correspondent; Mr. J. B. Blackett, London; Mr. J. Palmer, London; Mr. Septimus Farmer, London; Mr. B. J. Newmarch, London; Mr. R. D. H. Gwillim; Mr. J. W. Bond, London; Mr. A. Farebrother, London; Mr. A. Wharry, London; etc.

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HARVEIAN LECTURES

ON THE

PROGNOSIS AND TREATMENT OF CHRONIC DISEASES OF THE CHEST IN RELATION TO MODERN PATHOLOGY.

Delivered at the Harveian Society of London.

BY JAMES E. POLLOCK, M.D., F.R.C.P.,
Senior Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

LECTURE III.

MR. PRESIDENT AND GENTLEMEN,—In reviewing the subject of the treatment of chronic lung-disease, I do not propose to do more than regard it in its relation to modern pathological views. It is not my intention to take up the subject generally, but to limit our inquiries to those improvements which recent knowledge has developed, and which are founded on the strict relation of symptoms to structural alterations.

All our views of treatment should be founded on the basis of a knowledge of the structural conditions of disease, and, if possible, on the causes which have led up to them. When we treat symptoms only, we are treating events sometimes of the most short-lived character; and it is only when they indicate the workings of deeper-seated causes, that they rise into prominence and demand a remedy. If a patient be near destruction from a high temperature—as is, indeed, the case occasionally—we are called on to reduce the temperature by cold baths or quinine, or some of the other means at our command; but, if the elevation of temperature be merely an indication of inflammation or irritation and congestion of a vital organ, we shall not effectually relieve our patient till we have diminished the congestion, when, as we know from experience, the temperature will surely fall.

In considering the question of treating affections in which structural alterations have taken place, and are likely to extend, we would naturally consider the constitutional or general symptoms, and the local, or those strictly referable to the affected part or organ. Now, from whatever cause or "constitution" the chronic affections in the lung which we have been considering have arisen at first, it is pretty evident that the larger part of the symptoms, and certainly the most pressing, as exhausting the patient, are due to the local irritation of the lung. During the active degeneration of morbid products, and the ulcerative processes accompanying, the patient wastes rapidly, and has high temperature and sweatings. On the cessation of such processes by exhaustion of the material (say in the rapid softening of a mass of caseous pneumonia), the fever and waste stop, and there is a pause in the disease, till a fresh infection, or the breaking up of another such mass, renews the febrile action.

The extent and degree of lung-irritation seems, therefore, the measure of the fever. If we could remove the morbid portion of lung, and heal it up, as we can remove a diseased joint, recovery would be pretty certain. In the former lectures, I have endeavoured to make this plain, showing the correspondence between local conditions and constitutional disturbance. Those earliest structural alterations which, as we know, consist in a shedding of the epithelial cells of the alveoli, in the migration of lymphoid and blood-cells from the vessels, and in the small-celled infiltrations of the walls of the alveoli and of the inter-alveolar cellular structures, are indicated in the system by high temperature, sweatings, and rapid waste of tissue, with great vital exhaustion. The disintegration and ulcerative changes of masses of caseous matter are again accompanied by an access of the same febrile symptoms. Again, the formation of cavity, when it is completed, and the whole of the morbid mass is cleared out, is often followed by a cessation of fever and a regain of weight by the patient. Secondary infections or deposits in other, it may be distant, parts of the lung, or of the opposite lung, are again evidenced in a constitutional disturbance, mainly febrile, and eminently depressing to vital power. The influence of exhausting discharges from cavities, or from an extensive ulcerated surface of lung, is shown by like phenomena.

When we consider the normal structure of the lung, and its functions, it is not wonderful that even a slight local cause should be followed at once by such violent symptoms. A cellular structure of almost gossamer fineness, with a double circulation momentarily renewed, in which chemical and vital changes are always proceeding; the presence of air as an essential element, as well as of two kinds of blood; movements due to an inherent elasticity of tissue, acted on from without by a series of muscles adapted to expand and contract the chest in its various measurements; a smooth serous external lining, exposed to incessant friction; a ciliated epithelial inner membrane, ever preserving the secreting surface clean—such are the leading structural characters of the lung. When we add that it is a double organ, and that a mechanical expansion and superactivity of one side is ever ready to compensate any destruction of breathing-space in the other, we can realise its important vital relations.

Further, that rest which we demand and obtain in treatment of other parts, when injured or disordered, can never be obtained for the lung; for it is the seat of incessant movements.

It is also to be remembered that, owing to its excessive vascularity, the lung-structure offers peculiar facilities for the conveyance of septic matters; while secretions and hæmorrhagic results are readily forwarded from one part to the other.

From all these considerations, and from the fact that structural morbid changes have been more studied of late years and better understood, it has resulted that the improvements in our treatment of chronic lung-affections have tended latterly rather to the amelioration of local conditions, than to an employment of remedies addressed to effect alterations in nutrition and secretion.

As I pointed out in a former lecture, it has also come to us as a result of modern doctrines: the infiltrations of lung-tissue, if taken as due to tubercle, which is only the textural exhibition of a previously depraved condition of the whole system, have a general rather than a local significance, and demand blood-remedies and nutritives, or call for the search for a scientific antidote. But the doctrine which teaches that chronic lung-indurations and degenerations are in their nature inflammations, of which tubercle is only an occasional and secondary result, has a far different significance. Whether it be right or wrong in theory, it has taught us to assign more importance to remedies which reduce local alterations of structure, than to constitutional treatment, which can only reach the lung in a roundabout way through the blood. If, by checking an inflammatory catarrh, we can prevent a phthisis, the modern doctrine has done much for us; and at least it has directed our attention to the vast importance of treating lung-affections, as we treat the inflammations of other parts, by procuring as much physiological rest as is obtainable for them, and by obviating local congestion so as to prevent the extension of structural changes.

I cannot see that it matters much to us practical physicians whether the infiltration which blocks a portion of lung belong to the class of inflammation or of miliary tubercle; but it is of greatest import to us that a ratio exists always between the amount of lung-disease and the stage of its degeneration and the general disturbance of the system. When this local disease is quiescent—that is, not undergoing active softening—our patient is comparatively well, and recovers flesh; when a limited tract of lung is breaking up, he is very ill, with urgent feverish symptoms; and when an unlimited tract of lung is breaking up, a chain of deposits—say with only islands of healthy tissue intervening—all tending to run together and join in degenerative rapid changes, our patient is nigh to death.

Again, when fibroid changes have taken the place of the purely degenerative, when inflammatory and tubercular caseous masses have been swept away, and nought remains but a fibrous connective tissue developed throughout the ruins of the lung, and just holding together, our patient exists at a low ebb, but is no longer harassed by fever and wasting. In all this, we recognise a strict relation between local lesions and general symptoms; such relations as there are, for instance, between a suppurating joint and concomitant hectic, or in an ankylosed joint, when the mischief is done and the fever is at an end.

I do not want to insist on the truth of the whole of modern pathology applied to the lungs, but to take this corollary from it, that, with the doctrine of inflammation, men's eyes have been more open to the relation between the local disease and the general suffering than they were in the days when everything was believed to be "constitutional" or "general", and the local disorder only a result or manifestation.

Truly there is such a thing as a constitution, or a cachexia; truly there are individuals whose innate proclivities are to unhealthy inflammation, productive of ill-vitalised results, and a proneness to degeneration, rather than to organisation. Were it otherwise, we should have no scrofula, no phthisis; and certainly it remains my creed that, before there is any primary local appreciable affection—anything which could originate an infection to be afterwards conveyed to the lung—there is a condition of health tending downwards rather than upwards: a state in which that vital power or possibility of sustaining and mastering

untoward conditions, of resisting depressing influences such as emanate from ill-drained soil, or arise self-born from the moral and social evils of life—grief and anxiety, and ill-requited toil, and the like—is so lowered that the nutritive sustaining processes of life which lie, as it were, next door to it, become depressed and altered, and ready to admit any low form of disease, or to manufacture unhealthy degenerative products out of the most ordinary inflammation. It is difficult to express what this is; but that it is an antecedent of organic disease, recognisable by every studious practical physician, is a fact admitting no gainsaying or controversion.

Let us consider now how these views of the localisation of disease and the interdependence of general symptoms and lung-irritation should influence our treatment; and, as cases present themselves in all stages, we will consider some of the most urgent symptoms and events of phthisis.

I will take hæmoptysis, congestions, secondary infections, chronic suppurative-cavities, and cavities tending to close or contract; also the septic symptoms of phthisis.

Of the two forms of hæmoptysis which I have described, the passive and the congestive, the latter alone needs much consideration. The passive, if moderate, and, from its character, unaccompanied by fever, need not be treated by more active remedies than rest and the astringents in common use. If profuse, it is a leakage from a broken pulmonary vessel, and generally from an aneurysmal dilatation, and in such case is likely to prove fatal, perhaps even before we arrive to witness it. In such case, if time be allowed, the object should be to promote the formation of clot, which is, indeed, the natural and only mode of stopping it. The patient is faint, pale, often almost pulseless; and it is not to be forgotten that such a condition favours coagulation. But a stimulant may be needed to save him from impending death; and, if he survive the first shock and collapse, turpentine would appear to be the most appropriate remedy. I do not see why perchloride of iron should not be used in the form of spray diluted, and the case treated as we do a hæmorrhage from a mucous surface; yet time may not be allowed for this, or indeed for any other treatment.

The congestive form of hæmoptysis is best treated by local depletion and derivative cupping. I have over and over again seen internal remedies fail until this one was practised. The condition which we have to consider and to counteract, if possible, is a congestion, of which the hæmorrhage is only a symptom. The patient has a hot hand, and is flushed; his temperature probably is at 104°, and he has tightness of chest and dyspnœa, often with pain in some part of the lung. There is every indication for depletion, and none at all for styptics. General blood-letting may even be advisable; and there are cases which will not yield till it is applied. Yet the popular feeling is against this; and here the cupping-glass and a few leeches will be found most available; and even dry cupping has an excellent result. It is remarkable that, when such congestions are accompanied, as they commonly are, by dulness of the percussion-note, this physical sign will disappear after local depletion—an event which I have often witnessed. I cannot consider here, nor, indeed, can I satisfactorily explain how the abstraction of blood from the surface can relieve an underlying congested organ. It may be simply a derivative action on the circulation; but I believe we can all testify to the value of such treatment in practice. Acting on these views, it will also be well to give gentle saline aperients, or small repeated doses of the sulphate of magnesia or of soda. I have also found excellent results from small doses of antimony. Regarding this form of hæmoptysis as a congestion, I cannot advise the early resort to styptics, which are indeed contraindicated in the first part of the attack. Let us fairly treat the congestion as if it were a localised pneumonia, as it really is, and only have recourse to styptics when the temperature has fallen, and the pulse is no longer sharp. Then, and not till then, is it well to use gallic acid, the injection of ergotine, and such remedies as act on the muscular fibre of vessels and cause their contraction. If the patient be in danger of sinking from the quantity of blood lost, we may of course, be impelled to use the most active astringents; but the great majority of these cases of congestive hæmoptysis do not cost the patient the loss of one pint of blood, and his temperature and pulse will remain high till the lung-afflux is relieved; and we often find that he is the better for the hæmorrhage, and is found to have gained a period, more or less prolonged, of quiescence from all active symptoms after the event.

Acting on the same pathological views, we find the use of ice persistently applied to the chest of the greatest assistance, relieving congestion, and promoting contraction of the vessels and the formation of clot.

There is no doubt that we may have local congestions of the lung without hæmoptysis—a small localised pneumonia, with the physical signs of dulness, bronchial breath and voice sounds, and a fine crepitation. This is most common at the base of the lung on the same side as primarily affected, or in the opposite lung. With our present knowledge, we must regard them either as septic deposits of matters carried from the already diseased centre, or as fresh invasions of miliary tubercle. The latter are, as we know, often found in the immediate neighbourhood of masses of induration which have already undergone caseation and degenerative change.

I do not know how we can distinguish these two congestions of the pneumonic kind from those of miliary tubercle, except that the latter have commonly a more general signification—that is, are likely to be accompanied by other secondary lesions in distant parts, as the meninges of the brain, or the intestines. They have also a higher temperature, and more extreme daily transitions, and can be generally recognised by the aspect of the patient, and his extreme suffering. The pleura does not escape in these congestions, and, in its dry condition, adds acute pain to the general distress. For this symptom, we find the use of a blister of very small size dressed with morphia the best remedy. In such a condition as this, the physician will, of course, omit the use of iron and oil, and active tonics. I have found opium, in small repeated doses, with half a grain of camphor, every two or three hours, relieve the *malaise* and misery of the sufferer most effectually. For the prevention of such cases, it will be necessary to go back a step in the disease, and examine whether we can prevent the formation of such secretions, often the product of cavities, which are then carried as infectants to other parts of the lung. This implies a consideration of the treatment of cavities, and a prevention of the accumulation of morbid matters in their interior, by securing a ready exit for their contents. This subject has recently received much attention, both in this country and in America; and we are indebted to my colleagues Drs. Powell and Williams especially for a thoughtful endeavour to treat chronic cavities of the lung on scientific surgical principles.

There are several varieties of cavity, as I have pointed out. 1. The single, well limited, and defined apex-cavity, with a pretty free opening into a bronchial tube, by which it is emptied generally night and morning, on change of posture, or as secretion accumulates. This form is a chronic tolerated condition; and, if the patient's general health be fair, and the secondary disorders absent, and especially if digestion be unimpaired, it may last for years, even on into advanced life. I am now acquainted with a member of our profession who has such a cavity in the apex of the right lung, which was diagnosed by myself and Dr. C. J. B. Williams twenty-five years ago. He is now over seventy, and engaged in practice.

2. Cavities with a less free opening into a bronchus, and situated near the middle or base of the lung, possess different characters and liabilities from the first variety. Their secretion is apt to accumulate from gravitation, having to find its way upwards into a bronchus; and the lung, indurated in tissue, with thickened pleura, and bound down by adhesions, cannot contract on the contents; so that the cavity is never entirely emptied, and fœtor ensues. This is a grave mechanical difficulty, where the secretions must be projected upwards. Apex-cavities are drained by a bronchial tube; but these are never fully drained. As a consequence, the septic contents are carried to other parts of the lung, or to the intestines, causing ulceration and diarrhœa, or to the larynx, causing ulceration.

In phthisis, a large proportion of the expectoration is the product of bronchial irritation, and the bronchial membrane in the neighbourhood of such cavities is irritated by the constant passage of foul retained, it may be fœtid, secretions, and is found red and injected, often stripped of its epithelium and ulcerated—effects caused by the acrid and septic quality of such matters passing over it.

To apply sound surgical principles to such a condition is most natural; and there is every reason to hope for excellent results from tapping and free drainage. Accordingly, we find that Dr. Cayley, in 1878, tapped two cases of basic abscess of the lung at the Middlesex Hospital. They appear to have been of the gangrenous form, and survived the operation only a few days. More recently, Dr. Smith of Halifax, and Dr. Douglas Powell, have operated, the latter on several cases, one of which survived for five months. Dr. Williams has also had several cases, and one complicated with empyema, which I often saw in consultation. In this instance, the empyema opened, by three communicating cavities, through the lung, and was itself so localised by adhesions as to give to Mr. Erichsen, who operated, and to myself, the idea that the lung itself had been tapped. The patient was greatly relieved, lost his fever; and the fœtor of expectoration, which had been intolerable, entirely ceased from the day of the operation. He survived nine months. A *post mortem* examination showed the above-described conditions, and the opposite lung was sound, excepting a small caseous mass at the apex. In Dr. Powell's case, in five months, the fœtor ceased, and the secretion diminished from twenty ounces to two!

It is not to be entertained that we should tap apex-cavities with a free opening into a bronchus, and with diurnal moderate not fœtid secretions, unless, indeed, we could, by such operations, take them out of the influence of the lung-movements, drain them, and heal them, as in other surgical cases. This is, no doubt, visionary; but it has been attempted in America, and may yet come to be safely and effectually done. But there is nothing visionary in draining a deep-seated cavity with foul secretions which are, from their septic influence, poisoning the patient by loading his blood with morbid material, wasting his body by hectic, and rendering his life miserable to himself and those around him, by the intolerable fœtor. I do not know that I have ever seen more distressing cases than some of these, and they loudly call for a remedy. My own belief is that, if the cases be properly selected, every year will add to our successes with this kind of disease.

The conditions favourable to surgical interference should, however, be carefully considered.

The signs of cavity should be undeniable, and they should all be present, and the existence of adhesions of the lung to the pleura should be susceptible of proof at the point at which it is proposed to operate. If you have dulness, marked gurgle, bronchial or cavernous cough, and voice-sounds close under the ear in some of the more dependent parts of the lung, the axilla, or the infrascapular region, and if the patient expectorate at intervals, and pretty copiously, a fœtid secretion, we may be tolerably sure of the case, and, in my judgment, would be quite authorised in tapping. But if such physical conditions be ill-defined, or not present, as in a case I saw last week, although all the other conditions are present, I would not operate.

In acute gangrenous cases, or hæmorrhagic cases where the lung is in a loose, vascular, spongy state; where little fibroid change has taken place and adhesions of the pleura are not evident, the operation should not be performed; the trocar would enter not a defined cavity, but a broken up lung, and hæmorrhage would occur; or the contents of an ill-defined abscess might escape into the pleura. Such were probably some of the conditions which led to a want of success in the earlier cases subjected to this operation, but a judicious and careful selection will give us many successful results.

Another form of case, in which I have declined to operate, has been characterised by all the signs and symptoms of deep-seated fœtid abscess, but the patient's health may be so good that one does not feel justified in submitting him to an operation, which has, no doubt, certain dangers. A girl, aged 25, in one of my wards, had the characteristic expectoration, copious and very fœtid, but she possessed the appearance of perfect health. She was plump and rosy, had no fever, and gained many pounds in weight during a stay of four months in the hospital. The signs of deep-seated cavity were very evident in the middle and back part of the right lung.

I leave this part of the subject by remarking that tapping of basic cavities recommends itself as a means of correcting fœtor, diminishing copious suppurative processes, relieving the fever, and preventing secondary septic infection, and thus, in many instances, saving the patient from impending death, while in others (impossible to cure), it may add great prolongation to life, and remove some most intolerable discomforts.

[*To be continued.*]

EXTRACTION OF A PIECE OF IRON FROM THE EYE BY THE ELECTRO-MAGNET.—At a recent meeting of the Suffolk County Medical Society (*Boston Medical and Surgical Journal*) Dr. B. Joy Jeffries reported a case of removal of a piece of iron from the eye by the electro-magnet. He briefly spoke of two cases, previously reported, where simple magnet had been used, and four where the electro-magnet was employed. These were where the foreign body was in the aqueous or vitreous chamber, but not bedded in any tough tissue of the eye. No case of removal from the cornea had been hitherto reported. September 29th, 1880, a man came to the Massachusetts Charitable Eye and Ear Infirmary with a piece of iron deep in the cornea at the outer angle, projecting into the anterior chamber just behind the sclero-corneal juncture. There was a cut towards the middle of the cornea, through which the metal might have passed. There also was no distinct tract through the cornea over the foreign body. As the metal could not be approached on the outer side in the blood-bearing tissue, it was decided to cut down upon it on the corneal side, and attempt to keep it in place or from falling into the anterior chamber by the constant near presence of the strong electro-magnet of Dr. Bradford's apparatus. On the approach of the magnet the foreign body was seen to move, and by applying it against the cornea the metal was drawn to it and removed.

ABSTRACT OF LETTSOMIAN LECTURES
ON
PATHOLOGY AND MORBID ANATOMY OF DYSENTERY.

Delivered before the Medical Society of London.

BY SIR JOSEPH FAYRER,
K.C.S.I., M.D., LL.D., F.R.S., Q.H.P., SURGEON-GENERAL.

LECTURE II.

MR. PRESIDENT AND GENTLEMEN,—I propose in this lecture to describe the pathology, morbid anatomy, and treatment of dysentery, and to illustrate them by recent cases and specimens, taken chiefly from the Calcutta hospitals and from Netley.

I have already alluded to the general condition, and have anticipated in part what belongs to the pathology of a simple case of dysentery. There is nothing in the temperature that is typical, though in the acute attacks of vigorous persons, especially Europeans, there is a certain slight rise of temperature, as there would be in an acute congestive or inflammatory attack of another kind. But, as it frequently happens (in India, at all events) that the disease is accompanied by malarious fever, we may expect the thermometric variations that characterise that fever, whatever form it may take—quotidian, tertian, remittent, or irregular. The temperature, therefore, is not symptomatic of the dysentery, but of the fever which results from the same general cause. In complications, where the liver, spleen, or other viscera are affected—and especially if suppuration is occurring there—the phenomena of that process will be manifested by high evening temperature, morning falls, and sweating after rigors or chills, such as occur in suppuration from other causes. I have already remarked that the true pathological explanation of multiple abscess in the liver (such as that I shall place before you) refers it to pyæmia, and that it differs from that of the insidiously forming liver-abscess, when there is very little alteration in the temperature, which may be only a degree or two above normal. In cases of sloughing dysentery, especially when the sloughs are extensive, and in hæmorrhagic dysentery, when there has been much loss of blood, the temperature may fall below the normal standard.

In perforation, the temperature at first during the shock is sub-normal, but as peritonitis sets in it again rises. This is quite apart from the dysenteric process, and the rise of temperature cannot be regarded as typical of that disease.

The seat of localisation is chiefly in the large, but in scorbutic cases, and in others also, it may extend into the small intestine for several inches above the ileo-colic valve, and the whole intestine, including the jejunum, duodenum, and stomach also, may be involved in the catarrhal condition, whilst the viscera and serous membranes may suffer in the dysenteric process. The liver is especially disposed to suffer in tropical climates, and either ordinary or septicæmic abscess may occur. The spleen and pancreas may be enlarged, indurated, or softened, and become the seat of abscess. When dysentery is associated with periodic fever, the spleen is frequently enlarged; and in such cases there is apt to be splenic cachexia, and the disease is of the asthenic type. The lungs are occasionally involved, and the remarks that I have made in regard to the nature of the so-called abscesses in the liver apply to them.

The bronchial tubes may also share in the dysenteric inflammation, and their mucous membrane become the seat of puriform exudation in the finer tubes, with patches of lobular pneumonia dispersed here and there throughout the lung.

There are other complications—the erysipelatous, scorbutic, and typhoid—and one sees the close analogy of the disease with typhoid and diphtheria, and that, as the seat of the localisation in typhoid is the ileum, in dysentery it is in the large intestines. Does not the tendency of the disease to pass the ileo-colic valve, perhaps, throw some light on the pathology of the so-called typhoid in India, which by some is referred to climatic causes rather than to a specific fæcal origin? If climatic conditions can cause disease in the gland-structures of the large intestine, it needs no effort of imagination to suppose a similar process may occur in those of the small intestine, or that the disease may pass the ileo-colic valve and appear in the ileum. It is not difficult, either, to imagine that the stress of the morbific agency may fall primarily on the glands of the ileum, and so give rise to the enteric lesions which so closely resemble those of the enteric fever of our own latitudes. I do not assert that it is so, but I would suggest that those who regard the

disease (in India) as always of fæcal origin, should give the subject reconsideration.

In Virchow's fibrinous or diphtheritic form, or in gangrenous dysentery, the changes are more serious. The intestine is intensely congested, the lumen diminished, and the whole tube thickened. The contents consist of a thin reddish fluid, with some fæcal matter. The mucous membrane is reddish or whitish, and is covered with discoloured patches, and the natural appearance of mucous membrane is lost. There is infiltration of fibrous exudation throughout the tissues, which may invade the whole gut, when gangrene and death result. Most cases, however, are probably combinations of the catarrhal and fibrinous, causing ulcer and thickening of the bowel. This causes the irregularly thickened state of the gut; and from such cases sloughs are thrown off and ulcers form. The site and extent of these ulcerations vary. The sigmoid flexure is a common site; the cæcum in certain cases, and the rectum in others, are the principal seats of it. In some severe instances the whole gut is involved; but it may occur at different periods in different parts of the bowel. The condition of chronic dysentery into which these cases often pass is due to these structural changes in the bowel—*i.e.*, to thickening and imperfect cicatrisation of the ulcers, and to the permanently injured state of the glandular structures.

Dysentery is always a subject of anxiety when it occurs during pregnancy. It is very prone to cause miscarriage or abortion, and the progress towards recovery is generally more rapid after the ovum is extruded. It is less amenable to treatment in the early stages in this state, and in either chronic dysentery or ordinary dysentery serious symptoms are more likely to supervene in the pregnant woman than in others.

It also frequently complicates the recovery after delivery, and assumes a very dangerous condition, though happily, even in this form, it is under the control of appropriate treatment.

Intestinal worms—lumbrici, *e.g.*—are a frequent accompaniment of dysentery in Bengal, and their presence must tend to intensify the local irritation and to aggravate the disease.

The treatment of an attack of ordinary acute dysentery is to be conducted on the following plan. The patient should remain in bed or in the recumbent posture; if there be abdominal pain or tenderness on pressure, hot fomentations or turpentine stupes should be sedulously applied. A dose of twenty or thirty grains of ipecacuanha powder, according to age, strength, etc., should be given to an adult at once in water, and the patient should endeavour to resist vomiting as long as possible—though for my part I am inclined to think the emesis does rather good than harm. It may be well to combine ten grains of carbonate of soda with the ipecacuanha, to neutralise acidity. It is recommended by some to give a dose of fifteen or twenty drops of laudanum before the ipecacuanha, and to apply a sinapism to the epigastrium, with the view of diminishing irritability of the stomach and of preventing sickness. He must abstain from all fluids except occasional mouthfuls of iced water or bits of ice to allay thirst, which is often intense. My own plan has generally been to repeat the dose of ipecacuanha in four or six hours—a second or third time, according to the effects; and especially if the first dose have been speedily rejected, as it often is. I have generally found that if this treatment be resorted to early in acute dysentery, it is most effective, and nothing else is needed. The pain diminishes, the tormina and tenesmus are alleviated, the restlessness is abated, the sense of fulness and desire to go to stool passes away, the skin becomes moist, and in all respects a general sense of relief is experienced. The motions become fæculent, and assume a peculiar yellow appearance, significant of the action of the remedy. If any irritability should remain, a dose of ten or fifteen grains of Dover's powder is beneficial; it gives ease, sleep, and aids in the restoration of the natural action of the bowels. Small doses of castor oil—half an ounce or less—are given occasionally, and by some are considered of importance. No doubt, if there be inaction of the bowels after ipecacuanha, or if it be necessary to aid in expelling mucus—for the irregular contraction of tenesmus is not always efficient in this respect—the castor oil is most desirable; or if there be indications of hepatic or portal congestion, sulphate of soda or magnesia would be better.

It is quite possible that there may be a recurrence of the acute symptoms; in which case the ipecacuanha must again be given, though it may now be in smaller doses of ten or fifteen grains—the recumbent posture and the carefully-regulated diet being rigidly observed, with fomentations, and ten grains of Dover's powder at night; or an injection of starch and thirty or forty drops of laudanum.

When the disease has advanced to ulceration, and when the chronic stage has been fully established, the ipecacuanha is no longer useful.

In my next lecture I shall describe the treatment of the subacute and chronic form of dysentery.

CLINICAL LECTURES
ON
SOME POINTS CONNECTED WITH THE TREATMENT OF WOUNDS.

By WILLIAM MACEWEN, M.D.,
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Lecture I.—Ligatures.

Gentlemen,—I beg to draw your attention this morning to some particulars in the immediate treatment of wounds, and to place them before you in a more formal and connected manner than is possible when putting them into practice in the operating theatre, or at the bed-side.

Preliminary Remarks.—In order to place a wound in the condition most favourable for healing, all sources of irritation must be avoided or removed, whether they arise during the performance of an operation, or in the immediate treatment of the wound, whether in the substances employed or in the manner of using them. When a linear incision requires to be made, if it be accomplished by a single clean cut with a keen edged bistoury, it will produce less irritation than if it were made by half a dozen cuts attempted to be placed in the same line; because in the latter the tissues are more injured, the incised area is multiplied, and a ragged instead of a smooth section results. Hence, when an operation can be accomplished by a single incision instead of by half a dozen cuts, the irritation caused in making the wound is reduced to a minimum, and it is thereby rendered less liable to the production of pus. When the wound has been formed, the less it is handled or fingered the better. If its lips require to be drawn aside for any purpose, this ought to be done as gently and as lightly as is consistent with efficiency. Any over-straining or over-stretching ought to be avoided. When the operation is completed, refrain from introducing foreign matter into the wound. If it have been performed under the spray, there is no occasion for drenching an aseptic wound with carbolised preparations; and, above all, consider before using substances such as one to twenty watery solution, or chloride of zinc, forty grains to the ounce. Some cases there are where the use of such strong remedies is imperative, but the great majority of wounds do not require them; and when this obtains, their application does harm and retards the healing. The free use of Volkmann's spoons for cleaning out sinuses, and for the removal of fœtid granulations, lessens the number of cases in which it is necessary to apply strong antiseptic solutions.

Elastic Webbing as a Tourniquet.—The next point is the arrest, or rather the prevention, of hæmorrhage, as in most cases bloodless operations are now performed, and the surgeon endeavours to occlude the open mouths of the blood-vessels prior to the removal of the restraining bandage. In rendering the limb bloodless, the bandage invariably used in my wards is the broad elastic webbing. It serves two purposes: first, to empty the limb of blood, when Lister's method of doing so is not employed; second, to act as a tourniquet. In the latter respect it is much safer than the elastic rod and catch, as with this rod the force is concentrated on a very small space, and is consequently apt to injure the tissues, more especially as the amount of pressure is difficult to regulate. In the broad elastic bandage the pressure is distributed over a considerable area, its amount being adjusted by the cumulative effect of several layers of the bandage, one over the other, so that the desired constriction can be more easily measured.

The Old Ligature.—We then endeavour to close the mouths of the blood-vessels before removing the elastic webbing. The choice of a ligature is important. Formerly threads of various substances, most often of silk, were used as ligatures, their ends being left long and hanging from the wound. The part being exposed to the air, these threads were apt to keep up a communication between the atmosphere and the interior of the wound. As they could only be removed safely after they had set up sufficient irritation to cause them to ulcerate their way through the coats of the artery, there generally was a discharge of pus which rapidly became putrid, and the long ligature established a conduit by which the putrescence penetrated to the very interior of the wound. Few things could be better devised to set up irritation, or better calculated to induce pyæmia. Following in the wake of the ideas which are now prevalent regarding short ligatures, some still use silk, properly carbolised, and cut off the ends of the ligature close to

the artery, in the hope that the noose may, as it sometimes does, become encapsuled, and thus produce little or no irritation. This, however, cannot be depended on, and generally leads to disappointment. The tissues often assume a detergent action from the irritation occasioned by the silk, ulceration is induced in the extremity of the vessel, ending in the slough of this part, and the emancipation of the piece of silk, which is washed out of the wound in the purulent discharge. Sometimes the wound heals, and the patient is dismissed cured (?), the silk being supposed to be encapsuled; but afterwards an abscess forms and continues to discharge, until the small knot of silk is thrown out of the tissues.

Carbolised Catgut Ligatures.—What was wanted was a substance which would be efficient as a ligature, and which would not produce irritation in the wound. The desideratum was obtained in an animal ligature which served its occluding mission, and then became absorbed. This Mr. Lister found in ligatures of carbolised gut. Animal ligatures of various kinds were long previously tried, were found wanting, and were abandoned. Lister, however, believed that if these ligatures were first rendered aseptic, they would answer their purpose, and ultimately become absorbed. This has been fully realised. The carbolised catgut ligature has been in use for a period of over ten years, and it has been of immense service. You see such ligatures applied daily in our wards, and for ordinary purposes nothing could answer better. With the exception of the main vessels in the shoulder and the hip, they are applied for the ligation of arteries in amputations in all other regions, and secondary hæmorrhage after their use is never seen. They are, of course, applied directly to the artery, and not so as to include a portion of tissue surrounding the vessel. It is my distinct impression that secondary hæmorrhage is not so often heard of since the introduction of such ligatures as it used to be under the use of silk. Many faults have been ascribed to carbolised catgut ligatures, but, with one exception, they are incomprehensible, as they never take place in my hands. The only deficiency which may be truly urged against them, when they are proposed as a ligature of a main trunk, or for the deligation of an artery in its continuity, is, that they are absorbed too soon. Carbolised gut softens, and yields in about forty-eight hours, and therefore in certain cases it may be necessary to use a ligature which would maintain its constricting force for a longer period. Mr. Lister has been endeavouring to secure such a ligature, and believes he has now succeeded; but hitherto he has not seen fit to publish his results.

Chromicised Catgut Ligatures.—With a view of obtaining a ligature which would serve this end I made, during the past few years, a series of experiments with catgut prepared in chromic acid and glycerine; and without going into detail concerning these investigations, it is sufficient to say, that ligatures were obtained which admirably serve the purpose for which they were intended. They are prepared by making, first a watery solution of chromic acid, one to five; then one part of this solution is added to twenty of glycerine. This forms a dark greenish compound, in which the hanks of catgut are inserted and retained for seven or eight months, the bottle containing them being occasionally shaken. At the end of this time the catgut acquires a semi-translucency, and has a dark colour like preserved ginger. It is then ready for use, and is stored in a solution of carbolic acid and glycerine (one to ten). The size of the catgut which is of most use in the ligation of large arteries (excluding such as the innominate) is the medium, and this size has been very frequently tested since 1877. In the shape of deep sutures, this gut has been, and, as you see, is daily being used in the wards. In this way we are enabled to ascertain its behaviour while in contact with the living tissues.

The Behaviour of Chromicised Catgut in the Tissues.—Three very important questions arise regarding the efficacy of any ligature. First, does it produce irritation in the tissues? Second, how long does it act efficiently as a ligature? and, third, when does it become absorbed?

Does it Produce Irritation?—Regarding the first inquiry, you will be able to verify the fact from personal observations, that this chromicised catgut does not produce irritation, as there is none about the parts of the wounds into which the deep sutures are inserted. Take for example, that case of amputation above the knee in Ward 29, occurring in a man about 40 years of age, the recipient of a severe railway accident, whereby his right lower limb was shattered. Lister's modification of Carden's operation was performed. Three chromicised deep sutures were introduced. At the second dressing, which you saw yesterday, a fortnight after the opeation, there was not a drop of pus either on the dressing or from the wound; a little light-coloured serum exuded on pressure from the decalcified drainage-tubes. There was no redness or irritation in the vicinity of the chromicised stitches, which were absorbed some time between the second and the end of the third week. Another test is to place the ligature round a vessel in its continuity; and if the wound heal without production of pus, and abscesses be not afterwards formed, it may be concluded that the ligature has not produced irritation. This has been done in a number of cases, out of which the following may be quoted. A ligature of chromicised gut was placed on the common carotid of a man about middle age, affected with aneurism at the bifurcation of the carotid artery. The wound healed without that production of pus. The patient was kept under observation for six weeks; the aneurism disappeared. He was then dismissed, but reported himself six months afterwards. There was no trace of the old swelling, and he stated that the wound never re-opened. There was no abscess at any time, and the ligature was never heard of. Another patient, about 40 years of age, had a chromicised catgut ligature applied to the femoral artery at the apex of Scarpa's triangle, for popliteal aneurism. The wound healed without production of pus. The patient was kept under constant observation for some months, and he reported himself a year afterwards. There was no re-opening of the wound, the ligature was never seen again, and the aneurism was cured. In a case of strangulated hernia, besides the constricted gut, a large portion of omentum was found in the sac. The omentum was gangrenous. Four chromicised catgut ligatures were inserted so as to occlude the vessels on the proximal side of the mortified part, which was then removed. The ligatures were never again seen, the wound healing as an antiseptic wound does. The patient reported himself some months after in perfect health, which he had enjoyed since dismissal. Many other cases might be adduced, in which the ligatures have been enclosed, and have not been heard of; but these are sufficient to illustrate the fact that they do not produce irritation in the tissues.

The Length of Time during which it Resists the Action of the Tissues: Period when it is Absorbed.—The second question is to ascertain the length of time during which the ligature will maintain its hold in the tissues before being softened. With a view of determining this point, the catgut has been used as a deep stitch in thirty-one instances. The earliest time in which it was found softened was nine days; the longest nineteen; the average fourteen. The softening was measured by its yielding to traction applied to both ends of the catgut, so that the ligature, though softened, still maintained its grasp at the end of fourteen days. In another series of cases, the stitch was left until the external portion dropped off, the internal having become absorbed. It was found that this process was completed between the fifteenth and the twenty-fourth day, the average being about the twentieth day. It will be seen that there is a considerable difference between the completion of the processes in various cases, this depending on the vital activity of the tissues into which the ligatures are inserted. No opportunity has hitherto been afforded of examining, after death, the intimate relation of these chromicised stitches to the tissues. We may assume that their ultimate behaviour is similar to that of carbolised catgut, with the exception, that the phenomena attending absorption are retarded.

Uses of Chromicised Catgut.—This quality of durability makes the catgut peculiarly fitted for other uses than the ligation of large vessels in their continuity, such as the approximation of the pillars of the ring for the radical cure of hernia. Mr. Wood, whose operation I have several times successfully performed, criticises the approximation of the ring by carbolised catgut, urging, with considerable point, that this can scarcely be a reliable procedure, seeing that the carbolised catgut gives way in two or three days, and that firm union of the pillars of the ring can scarcely be expected to be accomplished in that short space of time. This objection is entirely obviated by the use of chromicised catgut. It is strong enough to bring the pillars of the ring firmly together, and its durability is such that, by its intrinsic force, it maintains them together for about a fortnight. In four such cases, two occurring in adults and two in children, the pillars of the ring were brought together by a couple of chromicised stitches. The wounds healed over them, and they were never seen afterwards. At the end of six months three were examined, and found to have their rings closed; the fourth was seen about nine months after, and had still a firm wall.

En Résumé—the physical qualities of the catgut are such as to commend it as a ligature. It is very pliable, having very slight elasticity, but not sufficient to cause it to yield before the impulse of the current of blood in the largest arterial trunks. A firm secure knot can be tied on it. Physiologically, it produces no irritation in the wounds. It resists the action of the tissues for about a fortnight. It disappears about the twentieth day. It is eventually absorbed by the tissues, as is evidenced by their action on the chromicised stitches.

Bone-Sutures and Drains.—Chromicised catgut, prepared in stronger solutions than the above, will resist the action of the tissues for a much longer period; and catgut of this kind has been used as bone-sutures, with the idea of doing away with the removal of the stitch. A drain may also be formed of catgut, which will resist the action of the tissues for a fortnight, and then be slowly absorbed. This might, in certain cases, be substituted for hair.

IDIOPATHIC LATERAL SCLEROSIS.*

By JOHN E. MORGAN, M.A., M.D.Oxon., F.R.C.P.,
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WITH A DESCRIPTION OF THE MORBID CHANGES OBSERVED IN THE SPINAL CORD IN A CASE OF THIS DISEASE.

By JULIUS DRESCHFELD, M.D.,
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I DESIRE this evening to direct the attention of the Medical Society to a disease which, in this country at any rate, has been but little studied, and has not received that attention which its well-marked symptoms richly deserve. I consider it the more incumbent upon me to make known what I have seen regarding this characteristic disorder, because, so far as I can discover, almost every case which has been admitted into the Manchester Infirmary has fallen under my care. The disease to which I refer has received several more or less distinctive names from those who have investigated its nature and symptoms. I propose to-night to discuss it under the title of "idiopathic lateral sclerosis, or symmetrical sclerosis of the lateral columns". This name was approved of by Erb in his latest writings on this subject, in which he expresses the opinion that the anatomical basis of the group of symptoms here observed consists in a sclerosis of the lateral columns, especially of their posterior divisions, gradually advancing from below upwards. Still, at the time when he wrote, he did not consider himself justified in adopting this name, as his own views and those of Charcot on this subject had not then been confirmed by satisfactory *post mortem* examinations. Erb, therefore, discusses the disease under the title of "spasmodic spinal paralysis"; Charcot having selected the term "tabes dorsal spasmodique". In the remarks I am about to offer, I shall hope to show that one of the cases which has come under my observation goes far to confirm the opinion of these eminent investigators of nervous diseases. This case terminated fatally, and my friend and colleague Dr. Dreschfeld, who has carefully examined the spinal cord, will describe to you the morbid changes which he has observed in its structure. He will, I believe, be able to satisfy you that the characteristic symptoms of the disease are due to a symmetrical lesion of the posterior portions of the two lateral columns.

I would remind my hearers at the outset that idiopathic lateral sclerosis is essentially a primary degeneration. It is altogether distinct from that variety of secondary degeneration which is the result of cerebral disease. It differs also from the secondary sclerosis of the lateral columns, often observed in grave lesions of the spinal cord. Both these forms of secondary spinal degeneration have long been recognised. Indeed, the careful study of the symptoms and morbid changes observed in these two forms of sclerosis, has not a little assisted in unravelling the characteristic features of the idiopathic form of the disease, on which *post mortem* examinations have hitherto shed little light.

During the last eight years, I have had under my care in the infirmary seven cases of idiopathic lateral sclerosis; six of my patients were men, only one a woman. All were in the prime of life, between twenty-five and fifty years of age. I do not at present propose to allude to my earlier cases; for, although I well remember the characteristic gait, I failed to comprehend the full import and significance of the symptoms. I will confine my attention to three cases, all of which have occupied my beds in the infirmary during the last twelve months. Two of these sufferers I propose to introduce to the meeting this evening; they are still under treatment as in-patients.

The first case is that of P. A., aged 46, by occupation a twister. He has always resided in a healthy country district. He has lived a regular and temperate life, never indulged in alcohol or tobacco, and his circumstances have been comfortable. There is no history of syphilis, or of any other grave constitutional disorder. He enjoyed excellent health till about twelve years ago; he then noticed a weakness in his feet, legs, and knees, soon followed by an aching pain in the lumbar region of his spine, which troubled him more especially in going down hill. At such times, he was compelled to lean backwards in order to maintain his balance, otherwise he would have fallen forwards. Soon afterwards, he experienced tremors, and irregular jerky movements in the muscles of his lower extremities. He also noticed that his legs seemed drawn together. He had great difficulty in separating them. He did not think he could have ridden on horseback without experiencing considerable pain. He continued in much the same state for about eight or nine years, during which he was able to get over the ground with a more or less shuffling gait, without having recourse to the support of a stick. Latterly, however, the weakness in his limbs increased. He found it necessary to use first one stick, and then two; while lately he was compelled to rest the greater portion of his weight on crutches. This patient stated that he had a brother, nine or ten years older than himself, affected with symptoms exactly similar to his own (to the case of the brother I shall again refer). His parents appeared to have been healthy persons. The patient lay on his back in bed. The lower extremities were extended. The feet assumed the position observed in talipes varo-equinus. The great toes were turned upwards, owing to the contraction of the extensor longus pollicis in each foot. The knees were closely drawn together, so that it was difficult to separate them without using considerable force; the adductors of the thighs being rigid and contracted. There were tenderness and stiffness over the spine in the lower lumbar region, and he could not raise himself from a recumbent to a sitting posture without assistance. When his arms were placed at the back of his head, he was able to flex his legs, a movement he could not execute so long as they occupied their normal position. The patellar reflex and ankle-clonus are exaggerated. There is no alteration in either tactile or pathetic sensibility; no retardation of motor conduction; no alteration of the muscular sense. The reflex action of the skin is normal. When he is placed in a sitting posture on the bed, the legs and thighs protruding beyond the side, a smart tap over the lumbar region causes a slight but perceptible contraction of the adductors of the thigh, due to increased reflex action in their tendons. In attempting to walk, he uses two crutches, which he places on the ground considerably in advance of his body. [As soon as he rested the extremity of his foot on the ground, his heel became elevated about three or four inches from the floor. In advancing, the leg in motion was slightly flexed, the knee turned inwards, and the foot drawn in a semicircular manner outwards and forwards. It was then jerked down in front of the stationary limb. As it passed over the ground, the nail of the great toe scraped along the floor.] The functions of the bladder and rectum are unimpaired. The brain and cerebral nerves seem healthy.

The next case I propose to bring before the Society is that of J. H., aged 36. For twenty years he has followed the employment of a spindle-maker, worked in draughty rooms, and indulged freely in beer and in spirits. His circumstances are comfortable. Though married for several years, he has no children. He has never suffered from syphilis or from any other constitutional disease. The body is well nourished, and the man looks healthy and cheerful.

Two years and six months ago, he was camping out at Fleetwood with the Volunteers. The weather at the time being wet and cold, the straw bed on which he slept become soaked with water. The following morning, he experienced stiffness in the calves of his legs, especially on attempting to "double". Though it was wringing wet, he was compelled to occupy his straw bed for three nights. The stiffness continued, and in the course of a few weeks extended to the muscles of his thighs, and of his back, where he experienced severe pain, particularly in the lumbar region of the spine. One day, in attempting to rise from a chair, he found considerable difficulty in doing so. Some twelve months after his camping-out discomforts, he noticed that, in walking, he was unable to raise his feet from the ground; they seemed to hug the floor. His toes especially were liable to be tripped up by any obstacle or inequality of the ground. He often stumbled over small stones, and walked with so unsteady a gait that his companions thought he must be intoxicated. About this time, he first observed trembling and jerking movements in his legs, which he had no power to control. Often, on waking in the morning, he found his legs drawn up, and had great difficulty in straightening them. In the early part of his disease, the right leg suffered most severely; but after a time the left became similarly affected. He likewise felt a sensation of tightness in the abdomen, and severe gnawing pains in his thighs and in his legs, chiefly at night-time. Eight months ago, a feeling of weakness came on in his arms, so that he experienced difficulty in grasping his tools, more especially with his left hand. This weakness in the arms has gone on increasing. His father and one of his sisters are said to have died of phthisis; otherwise the family history is unimportant.

The patient lies in bed on his back, his legs and thighs drawn close together. The centre of the abdomen, from the epigastrium to the symphysis pubis, is somewhat drawn in. This retraction is due to the rigid contraction of the recti muscles, on each side of which the abdominal parietes more or less protrude. There is a distinct groove likewise extending from the anterior superior spinous process of the ilium

* Read before the Medical Society of Manchester.

on one side to that of the other. Several of the tendon-reflexes are exaggerated, notably those of the tendo patellæ and tendo Achillis; while the reflex activity of the tendons of the adductors is readily excited by tapping over the lumbar vertebræ in the region of the spine. Tendon-reflexes also may be elicited in the tibialis anticus and posticus, in the biceps femoris, in the sartorius and the gracilis. The back is stiff, so that he is unable to raise himself in bed and sit upright without assistance. In the recumbent posture, he can flex and extend both legs, though in an awkward and constrained manner. When, however, one leg is held down, he is unable to abduct the other. The measurement of the left thigh is 21 inches; of the right, 19; of the left calf, 12½ inches; of the right, 11½. But there is no atrophy, the enlargement of one limb depending on well-marked changes in the muscles and interstitial connective tissue. They feel lumpy and knotted. There is no anæsthesia or paræsthesia. When he is placed in a sitting posture on the side of the bed, and directed to stand, the moment the extremities of his feet rest firmly on the ground, and he attempts to walk, the feet, legs, and thighs tremble spasmodically, until the whole frame is agitated and convulsed. In progression, he places his two arms on the chair, and rests the greater portion of his weight upon it. He cannot plant his heels upon the ground; they are elevated three or four inches above it. At the same time, the foot, in advancing, is moved forward and outwards in a semicircular manner, and the toe drags along the ground.

The third and last case to which I shall allude is that of J. N., a spinner, aged 45. He was admitted into the infirmary on May 5th, 1880, and died on July 7th. This patient was a healthy and intelligent-looking man. He attributed his illness to standing up to his neck in water for the greater portion of the night, during a poaching expedition, in the river Ribble. This occurred two years before his admission. A day or two after his immersion, he observed weakness and numbness in his right leg. Several months elapsed before the left was similarly affected. After a time, the well-marked gait characteristic of spastic paraplegia supervened. There were paresis, muscular tension, contractures, and heightened reflex action; no disturbance of sensibility, no weakness of the bladder or rectum, no trophic changes of the skin, no bed-sores, no ataxy, and no symptoms referable to the brain. In this case, as in the two preceding ones, there was tenderness on percussion over the spine in the lumbar region; and the patient, while in bed, could not raise himself from the recumbent to the sitting posture. He died on July 7th, from thrombosis of the femoral vein. Immediately after death, he was placed in the prone posture, and ice applied along the spine. The *post mortem* examination was held ten hours after death. Dr. Dreschfeld (who has made numerous sections of the cord) has explained in the appendix to this paper the morbid changes he observed in its structure.

Such, then, is the clinical history of these three cases of idiopathic lateral sclerosis. In one of them there seems strong grounds for believing that the disease was hereditary. Thus P. A. asserts that he enjoyed excellent health till about twelve years ago; when, without any apparent exciting cause, his legs and back became weaker. He accounts for his ailment by assuring us that a brother nine or ten years older than himself, became similarly affected at a corresponding period of his life. For the particulars of this brother's case I am indebted to Mr. E. Llewellyn Luckman, who kindly visited the patient at his own home in Eastwood, Yorkshire. He informed Mr. Luckman that his present ailment commenced about twenty years ago with a feeling of numbness in the legs, and gradually increasing difficulty in walking, the legs being drawn inwards. About twelve months later on he was compelled to walk with one stick, and two years afterwards with two sticks, which he still continues to use. As the patient reclined on his couch, Mr. Luckman noticed that his thighs were strongly adducted, and that his feet were inverted; he was unable to separate the thighs. The patellar reflex was considerably increased. There was slight diminution in the strength of his hands. In walking he shuffled along with the characteristic gait of this illness. This patient asserted that a sister, now dead, suffered from the same form of paralysis in the legs, and that another, aged thirty-seven, is similarly affected. Of these cases, however, I have not been able to learn further particulars. In P. A's. case then, I think we are justified in affirming (though this has been denied by some authorities) that the disease is hereditary. In the two remaining cases, the earliest symptoms seem to have followed exposure to long-continued and extreme cold. Thus J. A. dates the failure of his health to three nights spent on a wet straw bed while camping out with his volunteer corps. J. N. also referred the commencement of his attack to a chill contracted while poaching for salmon in the river Ribble, up to his neck in water. In none of these patients did the affection commence with an acute attack. All spoke of their disorders as having come on gradually and insidiously. Their legs felt weak. They could not raise their feet from the ground; it seemed as though lead were attached to their soles. In these and similar terms the sufferers severally described their sensations during the early stages of the disease. After a time, manifestations of motor irritation set in. Twitching and jerking of the legs early supervened, especially on dropping off to sleep at night. A feeling of tension also took possession of the muscles, so that voluntary movements were more or less retarded, requiring the expenditure of an unusual amount of force. In one of the cases, the contractions are so marked that knotty lumps can be felt in some of the muscles. After a longer or shorter interval the characteristic walk, termed by Erb the *spastic gait*, supervened. Under these circumstances, the act of progression is strikingly peculiar. The feet being rigidly extended, the patient, in attempting to stand, naturally throws a portion of his weight on the ball of the great toe. No sooner is pressure exerted on this part of the body, and the foot brought into dorsal flexion by pressure upon the sole, than a rhythmic jerking of the foot (the well known ankle-clonus) commences. This jerking is communicated to the whole body, and the patients may be seen resting on their toes, rising up and down as though they were swinging on a spring board. In carrying their feet forward, a peculiar hopping movement is communicated to the frame. In progression the legs adhere closely to one another, and so violent is the contraction of the adductor muscles of the thighs that each leg, after rubbing forcibly against the knee of its fellow, suddenly springs across its path as though prepared to oppose its onward progress. The upper part of the body is bent forward as in paralysis agitans festinans. In this manner, with a swinging hopping movement, and with a vast expenditure of muscular energy, the patients slowly and painfully advance, breathless and agitated by their exertions. If, however, they be directed to retrace their steps, and to walk backwards, they seem utterly unable to make the least retrograde movement. This inability to walk backwards is a feature in the spastic gait to which I have not seen any reference in those authors who have more especially studied this subject.

In idiopathic lateral sclerosis, I have experienced considerable difficulty in testing the effects of electricity; for, whether the induced or continuous current be used, no sooner are the electrodes brought into contact with the cutaneous surface than violent clonic spasms are at once induced. It has further appeared that when the patient is placed in a prone posture, and the so-called spinal epilepsy set up by pressure on the sole of the foot, the agitation of the limbs has continued, even though a strong electric current was passed along the nerves or muscles. Neither the faradaic nor the galvanic current, when applied percutaneously, seemed able to check the clonic spasms which convulsed the limbs. When, however, needles were inserted into the muscles, and electricity passed into the deeper tissues, even a weak current instantly produced a tonic tetanic spasm. This spasm ceased as soon as the electrodes were removed from the needles, and with it the clonic spasm was likewise arrested, and the disorderly movements in the muscles at once checked. In a paper read before this society in the year 1879, and afterwards published in the *Lancet* of the 27th September and 4th October in that year, I expressed the opinion that, in "electric acupuncture we possess a remedy likely to prove valuable in certain forms of abnormal irritability of the spinal cord and medulla oblongata". In lateral sclerosis, we may observe these effects. We set up a tonic spasm which we are able to control; and, on its cessation, we find that the clonic spasms, over which we had before no power, have likewise passed away under the influence of electricity. In these and similar cases, I have, for several years been in the habit of using a mixed current generated by a faradaic and galvanic battery connected together by means of a conducting wire. By this arrangement, a modified interrupted current appears to be induced. In cases in which the cutaneous reflex irritability is increased, this galvano-faradaic current is followed by more favourable results than either the continuous or induced current, when used separately.

But, assuming that the posterior divisions of the lateral columns are the portions of the spinal cord more especially involved in idiopathic lateral sclerosis (as I believe we shall to-night learn to be the case from Dr. Dreschfeld), have our physiological researches thrown any light upon the functions of these regions of the spine which would assist us in explaining such symptoms as those I have endeavoured to describe in this paper? This question may, I think, be answered in the affirmative. Experiments performed on rabbits by Miescher seem to show that certain afferent influences, in passing up the cord, travel almost exclusively along the lateral columns. Miescher's experiments have been repeated and confirmed by Woroschiloff, who has arrived at the conclusion that both afferent impulses, which originate reflex action, and efferent impulses, which produce movements, pass almost exclusively along the lateral columns, which form (according to these

authorities) the chief channels for the conduction of impulses of all kinds. We can readily believe that, if these channels be invaded by a chronic inflammatory process, such as occurs in sclerosis, the centrifugal nerves will be more or less affected, and paralysis and tension are likely to supervene. We can further understand that a lesion occupying the same region of the spine would prove a source of irritation to the centripetal nerves in their passage upwards. In this manner, the increased reflex movements we observe in percussing over the tendons of certain muscles may be partially explained. But the investigations of Woroschiloff do not rest here. They go to prove that not only do afferent and efferent impulses travel along the lateral columns, but that here also (in part at least) lie the tracts which control reflex movements. If this be true, the sclerotic change may, by destroying these tracts, cut off the inhibitory influence exercised by the brain on the reflex arcs of the spine; releasing these centres from the salutary control to which they are normally subjected, and leaving the muscles a prey to every passing stimulus.

Dr. Dreschfeld's Description of the Spinal Cord in J. N.'s Case.

The cord, when freshly examined, showed to the naked eye no abnormality except softening in the lowest dorsal region. After hardening in bichromate of ammonium, sections of the cord showed already to the naked eye one lighter coloured patch in each lateral column. This patch was particularly well marked in the dorsal region, and became less distinct in the cervical and lumbar regions. Sections stained in carmine showed the following histological changes. In the cervical region, there was a small patch of sclerosis in the lateral columns; internally, this patch was in close relation to the grey matter; anteriorly, it did not extend up to the anterior grey horns; and externally it did not reach to the external border of the white matter. The grey matter, the ganglion-cells in the anterior and posterior horns, and both anterior and posterior columns, were perfectly intact. In the dorsal region, the lesion was much better expressed. It occupied the same position, but extended a little further anteriorly. In the softened part of the dorsal region, the cord seemed a little out of shape; but the same sclerotic patches were easily recognised. In the lumbar region, the sclerotic portion formed a small triangular patch, close to the outer side of the posterior horns, extending almost up to the outer border of the lateral columns posteriorly, but extending but little anteriorly. As in the cervical, so also in the dorsal and in the lumbar regions, the other parts of the spinal cord (the anterior and posterior horns, and the anterior and posterior columns) were perfectly healthy.

M. Charcot, to whom I sent sections from the different regions, and who had the kindness to examine them, finds the lesions very characteristic. He likewise states that, as far as he knows, this is the first case recorded in which *post mortem* examination has demonstrated lesions confined to the lateral columns of the spinal cord without participation of either the grey matter or the posterior column.

In a second letter, after a further examination of the cord, M. Charcot thus writes: "Je crois en effet votre cas de sclérose laterale *unique* dans l'espèce, pour le moment."

LITHOTOMY IN CHILDREN, AND THE ADVANTAGES OF A LONG-BEAKED STAFF.*

By JOHN WARD COUSINS, M.D.Lond., F.R.C.S.,
Surgeon to the Royal Portsmouth Hospital, etc.

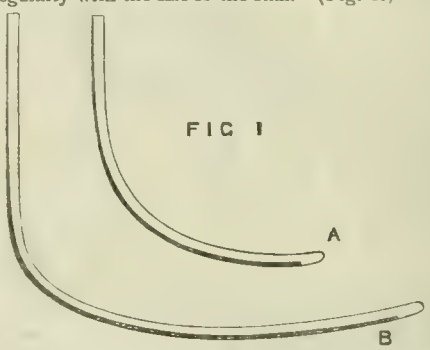
I BEG to offer you to-day a few practical suggestions on the manner of performing lateral lithotomy; and to exhibit a special form of staff, which I have used successfully for some years.

From the day of Chesselden to the present time, this operation has been regarded as one of the most successful in the art of surgery; and, during the last fifty years, the details have undergone very little modification, although they are surrounded by many debatable questions. It is performed upon well-established rules, with great success, by surgeons in all parts of the world; yet it is a fact that most practical men have some hobby about the operation. Some expatiate upon the importance of some little manœuvre of their own; while others attribute a great deal of their success to a special knife, or other instrument; and upon their respective advantages they are ever ready to dilate. After all, it is only natural for us to regard with preference the instruments we have often used with success, and to be somewhat conservative when asked to replace them by others of which we have had no experience.

I know that I have the honour to address many to-day who have repeatedly performed the lateral operation; and I feel that I should, indeed, be a bold man if I asked them to adopt my practice, or even give my long-beaked staff a trial. On the other hand, there may be some present who are about to perform their first lithotomy, and who may be willing to test the value of my experience. I do not pretend to offer any great innovation, but merely to point out that, by the steady observance of a few simple directions, and the use of a special modification of the ordinary staff, lateral lithotomy in children can be made easier, and the common difficulties of young operators avoided.

Now, it is evident that an operator must possess a sound knowledge of the anatomy of the perinæum and pelvis; yet this is only a part of the equipment of the skilful lithotomist. The whole anatomy, so to speak, is within the field of mental vision, during the performance of the operation; but the mind is not merely occupied with anatomical details. Moreover, the eye cannot completely direct the hand, as it often does, when the structures to be divided are in a region exposed to view. The surgeon has mainly to rely upon the sensibility of the hand, and the sense of touch. His chief instrument is the left forefinger; and his concern is, first, to reach the staff at the right point; and then, directed by his finger, to cling to it as his only guide into the bladder.

The staff, which I have used with great confidence for some years, is a modified rectangular staff, with a rounded-off angle, a long beak, and the point slightly turned upwards. The lateral groove commences half an inch above the angle, and terminates about the same distance from the point. The main peculiarity is the length of the beak, and this varies regularly with the size of the staff. (Fig. 1.)



I am aware that some of the best lithotomists do not recommend a long beak. Sir Henry Thompson says, in his elaborate treatise on *Practical Lithotomy and Lithotrity*, page 15: "The curved portion is not to be so long as is usually made, since a small or contracted bladder is sometimes exposed to the danger of perforation when that portion of the staff protrudes far into the cavity." Again: he remarks (page 70), when referring to perforation of a diseased and softened bladder as an occasional cause of death after operation: "I have been frequently struck with the unnecessarily long curve which some staffs have; and have felt, when seeing such an one in use, how dangerous its point must be in a bladder affected in the manner described. I am strongly inclined to think, that, in those cases of rapidly fatal peritonitis, which are sometimes met with after lithotomy, if the search were carefully made, a minute rupture at the upper and back part of the bladder would be sometimes found. It may be very small, lying between the rugæ of the organ, and easily escape observation, yet give issue to a small quantity of urine into the peritoneal cavity; for it is not very easy to explain otherwise some of those attacks which carry off a patient in thirty-six hours or so after operation.....Let me say, injury to such bladders may as readily be inflicted by the forceps as by the staff; but I do not think the knife has anything to do with it." In these words, Sir Henry Thompson clearly points out the possibility of doing a serious injury to a weak and softened bladder with the staff; and that a long curve, under such conditions, increases the risk of perforation; still, I venture to remark that he does not mention a single case in which the accident has undoubtedly occurred; and, therefore, we may fairly conclude that, although such an unfortunate event is sometimes possible, yet, under ordinary circumstances, the danger is very remote. He remarks, moreover, that an injury to a weakened viscus may as readily be inflicted by the forceps as by the staff; and it must always be a very difficult matter to decide in any case the exact part of the proceeding in which the injury took place. It appears to me that the energetic use of the forceps is more likely to result in rupture of a diseased bladder, than the steady pressure of the blunt point of the staff. On the other hand, allow me to add, that I have never seen the slightest injury, or even irritation, follow the use of the long-beaked staff in any case in which I have used it, or have seen it used by my

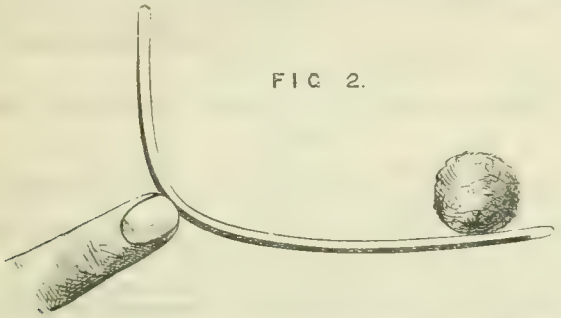
* Read before the Southern Branch.

friends. Nearly all my patients have been children, and some of them had suffered from prolonged cystitis, and well-marked contracted bladder.

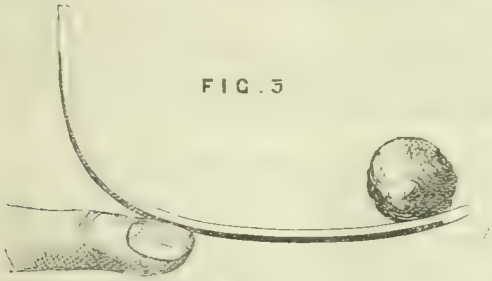
Another objection has been sometimes made to the long beak: the instrument must be very difficult to introduce. This, however, is not the case in practice. It can be readily and safely passed into the bladders of young children. Once I had to manœuvre a good deal to get it in, for the boy had a false passage, and had been bed-ridden for two years with uninterrupted suffering. The rectum constantly prolapsed, the urine was very fœtid, and he was greatly emaciated; but he made a rapid and excellent recovery after the operation.

Permit me now to mention what appear, to my mind, to be the special advantages of the long-beaked staff.

1. *The sharpness of the angle.* This permits the instrument to be easily felt, and so assists the operator in making the deep perineal incision. As soon as the angle is exposed, he readily learns by the finger the point of the staff he has reached. When the finger enters the groove, the position is indicated exactly by the part of the nail engaged in it. The point of the finger-nail informs the operator that he is on the angle (Fig. 2); but, directly the side of the nail is well insinuated



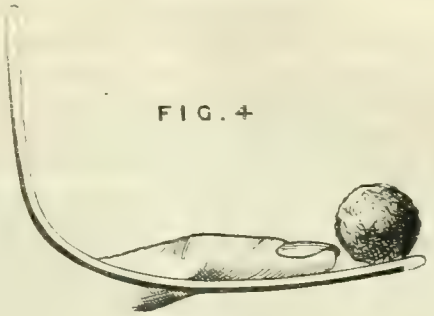
in the groove, he can be sure that he has reached the beak, and that a simple movement of the knife will open the bladder. (Fig. 3.)



2. *The beak is nearly straight; and is fixed at a right angle on the staff.* When the instrument is held firmly in position under the pubic arch, the floor of the bladder is steadily depressed; at the same time, the beak is parallel to the rectum; and so protects that organ from injury. The horizontal beak forms a straight guide into the bladder; and surely a straight movement of the knife in the groove is more readily and safely accomplished than the downward, inward, and upward thrust which must be made around the large angle of the ordinary staff. Moreover, in making the deep incision of the prostate and neck of the bladder, the knife can be accurately lateralised; the point can be easily directed upwards during the whole proceeding; its back can be kept in complete contact with the staff; and the depth of the incision estimated by the movement of the knife along the side of the left forefinger. Again: in withdrawing the knife after the completion of the deep incision, there is less danger of dividing too freely the deep structures, and of cutting out at too great an angle on the staff.

3. *The long beak.* This part of the staff enters the bladder to the extent of an inch, or a little more, and is kept in contact with the stone. Now, the long beak affords important advantages, especially in the operations upon children; for, during early life, the urethral structures are more soft and delicate, and the bladder is situated high up behind the pubic arch. It is a simple safeguard against one of the most common and painful accidents which occur during lithotomy, as the point cannot be pushed out of the bladder. It has frequently happened that, after only partial division of the urethral structures, and an effort to introduce the finger, the operator has found himself suddenly foiled, from the point of the short staff having been pushed out of the bladder. Such an accident I believe to be impossible with the long beak. The urethra may be torn across by injurious pressure with the finger; still the point of the staff will remain *in situ*, and it will be possible to complete the operation after another well-directed incision of the neck of the bladder.

Again: the long beak renders the introduction of the finger into the bladder, over the staff, both easy and safe (Fig. 4). The upper con-



cave border of the staff is the best guide to the stone in all operations upon children; for, not only is the upper wall less prone to shift under the finger, but, by gentle pressure in this direction, the bladder is brought down, and its neck very readily dilated. It, moreover, effectually prevents the surgeon from slipping his finger into the areolar tissue of the recto-vesical space, which has often been mistaken for the interior of the bladder itself. This little manœuvre I have practised often with great advantage: and it is one of many useful suggestions I have received from my old friend and colleague Mr. E. K. Knight. Mr. Christopher Heath favourably mentions it in his work on *Operative Surgery;* for he remarks, with reference to lithotomy in children: "In practice, one is often obliged to take the upper or concave border of the staff as the guide, and to insinuate the finger between it and the upper or fixed wall of the urethra."

An address appeared in the JOURNAL last January, by Mr. Furneaux Jordan, in which he recommended the deep incision of the prostate and neck of the bladder, in young children, to be made with a concealed bistoury; and in this way he proposed to simplify the operation. "It seems to me", he says, "that no lithotomy could be more simply contrived and formulated than this: open the membranous portion of the urethra on a grooved staff, put a strong simple concealed bistoury into the bladder, project the blade upwards and draw out the bistoury; put the finger into the bladder, feel the stone, and extract it as usual". This, it is true, is a simple formula; but the method is not quite so easy in practice as it looks on paper. In the hands of an experienced operator, the *bistouri caché* is no doubt a safe instrument, and so also is the knife on the old-fashioned gorget; but, is it the best and safest instrument for an operator to select who is about to commence a surgical career? Is it well to commence by depending, at the most critical part of the operation, upon a mechanical arrangement, however perfect, rather than upon a well-directed and intelligent movement of the hand? A surgeon must become more skilful and confident in doing an operation, who performs it—not by the aid of tools, whose cutting powers are regulated by springs and screws—but by instruments completely under the guidance of his judgment. I have seen the *bistouri caché* used many times; and it is, in my opinion, far less handy than the ordinary knife. The surgeon loses the sensibility of the hand as a guide; and his attention is occupied in opening and shutting the knife, in addition to the ordinary movements of introduction and withdrawal. In children, where the urethra is very small, the operator is sometimes obliged to take the staff in the left hand, and assist the introduction of the *bistouri caché* into the bladder by a simultaneous movement of both hands, as in Aston Key's operation.

Some years ago, I was present at a case of lithotomy, in which the *bistouri caché* snapped in the wound, and the broken blade was removed by the operator, who was much perplexed at the moment; but he managed to complete the operation, and extract three calculi, which are still in my possession. Unfortunately, severe hæmorrhage followed the operation, and the patient died on the second day.

To conclude: the simple knife is at the present time used by the large majority of well-known operators, and also very generally by surgeons throughout the country. I should be very sorry to see this fashion change; and, if any of my friends present are about to do their first

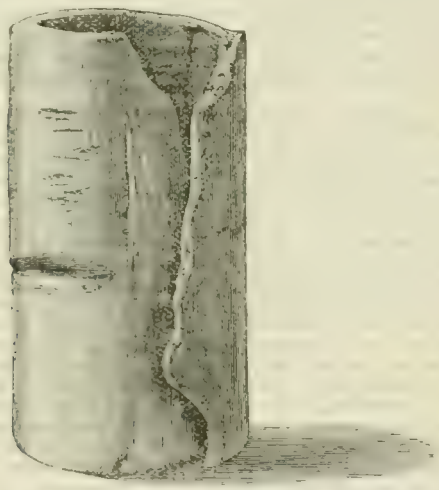
lithotomy, I hope they will stick to the knife, which is the best and safest instrument; and, at the same time, give the long-beaked staff a trial. I am sure that they will gain confidence in the performance of an operation, which is often attended with some difficulty, and is always undertaken with some degree of anxiety by surgeons who have a due sense of their responsibility.

REMOVAL OF A CONSTRICTING IRON FROM THE PENIS.

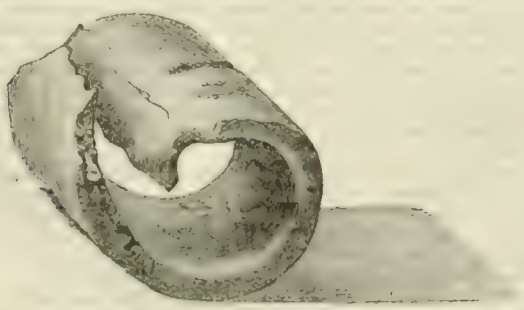
By P. J. HAYES, F.R.C.S.E.,
Surgeon to the Mater Misericordiæ Hospital, Dublin.

THE BRITISH MEDICAL JOURNAL of December 18th, 1880, contains editorial observations concerning the manner of removing tight rings from the fingers. I think the following rather peculiar case may, in some degree, serve to illustrate the subject, so far as it relates to the advantage to be gained by making peripheral compression, before attempting to withdraw the constricting agent.

Eighteen months ago, a man, aged 20, was admitted to the Mater Misericordiæ Hospital, suffering from the pressure of an iron tube, which, on the previous day, he had removed from the handle of a plough, and had passed over his penis. It was difficult to obtain anything like a candid statement from the patient; but the account he gave amounted to this. He was "tricking" with the iron, and, having occasion to pass urine, it occurred to him to try if he could get his organ through the tube. His efforts proved successful; but then the organ, resenting the treatment to which it had been subjected, became swollen, and the youth found it impossible to rid himself of his encumbrance. In fear and distress, he sought the aid of a blacksmith, who managed, with chisel and hammer, to cut obliquely through the iron cylinder; but, on attempting to force the edges of his section apart, the upper margin of the divided iron wounded the penis, and so he was obliged to desist.



When the lad was placed under my care, I found his penis in an extraordinary and alarming condition. Close to the pubes, it was encased



by the tube figured in the annexed woodcuts. The upper edge of the divided tube seemed to be buried in the right side of the corpus cavernosum; whilst the distal portion of the penis was enormously swollen, and, indeed, seemed to be upon the verge of becoming gangrenous.

The patient was at once brought under the influence of ether. Then, with a Syme's knife, I extensively punctured the congested and infiltrated tissues, so as to permit free drainage of blood and serum. Next, I obtained a narrow bandage of fine muslin, which I squeezed out of warm water, and applied, as tightly as was possible, from the extremity of the glans penis up to the lower border of the constricting iron. The thin damp muslin proved most useful; it allowed outward filtration of bloody serum, and, at the same time, it served to compress and empty the engorged tissues. As soon as the abnormal volume of the penis was reduced, I removed the compressing bandages; and, with considerable difficulty, succeeded in passing a flat hernia-director beneath the incarved edge of the divided iron. Two ordinary directors were also passed between the penis and the cylinder, so as to facilitate slipping forwards of the latter; then steady traction caused the iron to glide from its position, without producing any laceration of the soft parts. The young man was able to leave hospital three or four days after his admission, with an organ little the worse of having been iron-clad for thirty hours.

With regard to weight and dimensions: the tube weighed six ounces; its length was two inches and a quarter; its calibre nearly seven-eighths of an inch; and the iron was about one-sixth of an inch in thickness. Micturition was not very much interfered with during the period the penis suffered from compression.

ON THE BISMUTH TEST FOR SUGAR IN THE URINE.

By WALTER G. SMITH, M.D.Dubl.,
Vice-President, K.Q.C.P.I., Physician and Pathologist to the Adelaide Hospital.

IN the clinical examination of urine little difficulty attaches to testing for albumen and bile, and the reagents employed (nitric acid, and tincture of iodine) are to be had everywhere, and keep well. But, in common with others who have had occasion to use the copper test for sugar in urine, I have sometimes felt the inconvenience of not being able to rely upon a copper solution which had lain aside for some time. It is well known that the solution of cupro-potassic tartrate is apt to gradually suffer a partial reduction even in the cold, especially when exposed to light, and that, when heated alone, it may afford a precipitate of cuprous oxide. The addition of a fresh excess of liquor potassæ at the time of making the experiment does not appear to be a satisfactory mode of getting over this difficulty, and, for clinical purposes, or for private practice, it is a desideratum to have a test-solution, which, while sufficiently delicate, will be convenient to use, and above all be permanent.

From time to time I have occasionally tried Böttcher's test (1857) (*Jahrb. für Pharm.*, Bd. xxii, 29: *Jahr. für Chemie*, Bd. lxx, 432; *Journ. de Pharm. et de Chim.*, 1857, Bd. xxxii, pp. 159, 371), *i.e.*, subnitrate of bismuth and sodic carbonate, and in 1876 I made some experiments with a solution of potassio-bismuth iodide, recommended by E. Brücke (Fresenius' *Zeitschr. für Anal. Chem.*, 1876, p. 100). This reagent may be prepared by dissolving freshly precipitated subnitrate of bismuth in a hot concentrated solution of iodide of potassium, to which a little hydrochloric acid has been added. The solution thus obtained is a deep red liquid, and has been proposed as a precipitant for the alkaloids. The method of performing the test is as follows—Acidulate the urine, or other fluid, with a little hydrochloric acid; then add an excess of the reagent, which precipitates any albuminous substance or sulphide present in the urine; filter; to the filtrate add an excess of liquor potassæ, which throws down a white precipitate of the hydrate of bismuth, and boil. If the slightest trace of sugar be present, a black precipitate will be formed.

The only precautions to be taken in performing this test are to be sure that the liquid is boiled sufficiently, since, in the presence of a small amount of sugar, the reduction takes place with some difficulty; and secondly, to avoid the presence of too large an amount of the white hydrate of bismuth before boiling, since it might obscure the detection of a small amount of the black precipitate. Brücke considers that, applied as above, the bismuth test is fully as delicate and certain as the copper test for detecting the presence of small amounts of grape-sugar in the urine. The bismuth solution is not reduced by uric acid or creatinin. A practical inconvenience connected with the use of this test is the necessity of employing two reagents (hydrochloric acid and liquor potassæ) in addition to the bismuth solution; and hence it does not fully meet the needs of the busy practitioner who wants a single reliable test-solution that can be confidently appealed to at a moment's notice.

In 1877 a modification of the bismuth solution, which had been proposed by J. Loewe in 1871,* was brought under my notice by Dr. Emerson Reynolds, to whom I am indebted for the opportunity of carrying out many of the experiments in the laboratory of Trinity College. Loewe's formula is as follows:—Subnitrate of bismuth, 15 grammes, dissolve in glycerin (care should be taken that the glycerin is pure, and free from sugar, dextrin, or other body of reducing power) 30 grammes, and solution of sodium hydrate (specific gravity 1.34) 60—70 c.c., dilute with water, 150—16 c.c. Heat to 100° Cent. (212° Fahr.)

Should any reduction occur upon adding the subnitrate of bismuth to the liquid, digest at 100° Cent.; let stand and decant.

The test solution is best employed by adding a little of it to the urine, and then boiling. Should the solution be boiled first, it becomes liable to be reduced by substances other than sugar; *e.g.*, urine rich in indigogenous bodies.

If sugar be present the liquid first turns brownish, then the white precipitate of hydrate of bismuth becomes grey, and rapidly deepens in tint, until the reduction precipitate is perfectly black. The object of my paper is to invite attention to this test; and, from the experiments which have been made with it as occasion offered, I have come to the conclusion that the test is a good one, convenient to use, and adapted to the requirements of every-day practice.

One of the fallacies to which the bismuth test is liable, is the possible formation of a black precipitate of sulphide of bismuth in presence of sulphuretted organic compounds, such as mucus and albumen. But the following observations show that this does not necessarily happen. Some urine, albuminous to two-thirds, was tested with both the copper and the bismuth solutions. When boiled with the copper solution it assumed a deep brown colour, and with the bismuth solution a light brown, without yielding a trace of precipitate. Another specimen of albuminous urine, containing a little blood, turned light yellow with the bismuth solution (owing to the caustic soda in it), and when boiled for some time developed some iridescence on the interior of the test tube, but not a trace of black or even grey precipitate. When boiled for some moments with a solution of egg-albumen, the bismuth solution affords a greyish precipitate, while a sample of alkaline muco-purulent urine suffered no change upon boiling with the bismuth solution. Neither did a specimen of carbolic urine which exhibited in a marked degree the smoky brown colour from carbolic acid absorption.

With the view of testing the reliability of the bismuth reagent, I have experimented on a number of specimens of normal and pathological urines, and as yet the only case in which I have met with a result at all doubtful was one of enteric fever. The urine, which was loaded with lithates, was cleared by a gentle heat, and then boiled with the bismuth solution. After a few moments of ebullition, the precipitate assumed a decided steel grey tint. Unfortunately, the urine was not tested after removal of the lithates. No evidence of sugar was obtained with the copper test.

In regard to delicacy of action, the results of some qualitative comparisons between the copper and the bismuth tests lead me to believe that the bismuth test will not suffer by the comparison. Take for example the following.

(*a*) Ten c.c. of diabetic urine, rich in glucose, kindly sent to me by Dr. Finny, was diluted with water up to 100 c.c. The liquid gave copious precipitates with both the bismuth and the copper tests.

(*b*) Ten c.c. of this diluted urine, further diluted up to 100 c.c., still furnished abundant evidence of sugar with either test.

(*c*) Again diluted 10 c.c. of urine (*b*) up to 100 c.c. Upon testing it the next day with the bismuth solution a grey precipitate was obtained, and a slight lustrous film on the interior of the tube; with the copper solution, a trace of red precipitate on the sides of the tube. The bismuth solution is not adapted for quantitative estimation of sugar.

To sum up, it may be safely said that, whenever the bismuth solution gives with a liquid a *black* precipitate, after boiling *for a few seconds*, the presence of sugar is certainly indicated, care having been taken to exclude sulphide of bismuth. But no positive conclusion as to the presence of sugar should be drawn from the production of a grey or light-coloured precipitate, or of a scanty mirror-like deposit on the test-tube. In other words, while the bismuth test will not fail to detect the smallest quantities of sugar of any consequence for diagnostic purposes, the fact, that the solution requires to be maintained at the boiling temperature for some little time before complete reduction takes place, suggests caution in allowing for the reducing influence of organic compounds other than sugar. In all cases of doubt it would be advisable, before adding the bismuth solution, to filter the urine (in order to get rid of mucus, lithates, etc.), and to remove albumen.

The special advantage of Loewe's solution over the copper test is its greater stability. The solution with which all the experiments were made was prepared in October 1877, was kept in a white glass bottle, and freely exposed to diffused daylight, and in July 1879, was clear and bright, ready for use, and did not appear to have undergone any material change.

* Fresenius' *Zeitschr. für Analyt. Chem.*, Band x, 1871, p. 452. Löwe merely suggests the solution, as a qualitative test, in a short communication, and he gives no details of its applications. He had previously proposed a solution of sodio-cupric glyceride in lieu of a copper solution for the testing and estimation of sugar; but of this I have no experience (*Zeitschr. für Anal. Chem.*, Band ix, 1870, pp. 20, 224; *Jahresb. für Chem.*, 1870, p. 1036).

AN IMPROVED METHOD OF AMPUTATING THE PENIS.

By S. J. McGANN, L.R.C.P.Ed.,
Surgeon-Major Indian Medical Department.

In cases in which it is necessary to amputate near the scrotum, Professor Humphry, in vol. v of Holmes's *System of Surgery*, describes his operation as follows. "I have, after making a straight cut through the penis in the ordinary manner, carried an incision through the raphé of the scrotum into the perinæum, exposing the corpus spongiosum. I then dissected that body from the corpus cavernosum as far as the crura penis, turned it down into the perinæum, and left it hanging out there half an inch beyond the level of the skin. The cut edges of the scrotum were united by a few points of suture in front of the urethral orifice. The patient recovered quickly, and experienced no difficulty in passing water through the perineal aperture."

Some time since, I had occasion to remove a cancerous penis, in which the disease extended up to the pubis, and followed the above directions in the performance of the operation. The results were quite satisfactory as far as the operation itself was concerned, and the patient left the hospital with the parts perfectly cicatrised, and with no difficulty in passing water through the opening in the perinæum. It appeared to me, however, that complete division of the scrotum was an unnecessarily severe procedure; and a great drawback was the length of time it took for the divided parts to unite, as, from the mobility of the testicles and contractility of the scrotal structures, sutures rapidly cut through, and strappings were less effective than elsewhere in keeping the parts in apposition, and permitting of union by granulation.

It occurred to me that if, instead of completely dividing the scrotum at the raphé, a bridge of skin were left (and the larger the bridge the better), it would obviate in a great measure this difficulty; and that this was not only practicable, but easier of performance than the other, I demonstrated to myself on the dead subject, and I carried it out as described in the following case.

Buswa, Hindu, aged 51, was admitted to hospital on November 13th, 1880, with cancer of the penis of, he stated, two years' standing. The man's general health appeared fairly good. The general outline of the organ was lost, and it was represented by a sessile pear-shaped fungating mass; and the inguinal glands on each side, especially those on the right, were enlarged and prominent. The man complained of great pain, which was much increased on passing urine, and begged for the removal of the mass.

On the 14th, he was placed on the table in the lithotomy position, and, chloroform having been given, an assistant, holding the scrotum in both hands, drew it forwards, keeping the raphé of the scrotum and perinæum in the same line. An incision of about two and a half or three inches in length was made in the median line, with its centre over the bulb; the corpus spongiosum having been completely exposed, the scrotum was allowed to drop and was drawn slightly backwards, and the penis was removed by a single sweep of the knife close under the pubis. An indurated portion of the scrotum at the right side was also removed. The scrotum having been again drawn forwards as before, the cut surface of the corpus cavernosum presented itself through the posterior incision; the bleeding vessels were then tied with fine silk, and the corpus spongiosum dissected from the corpus cavernosum, and turned down into the perinæum. All bleeding having ceased, the margins of the front incision were brought together by means of sutures and strapping, and the incision behind was also treated in like manner, and, finally, the corpus spongiosum was slit with a scissors to the extent of half an inch on its lower or posterior aspect, and the margins secured to the perineal skin on either side by two points of suture. This latter is better practice than leaving it simply protruding and undivided, as, in the latter case, when it retracts, as it always does, the introduction of a catheter into the bladder, should such be necessary, is more difficult. The subpubic wound gave abundant room for the examination of the inguinal glands, but, having found it impracticable to com-

pletely enucleate or remove them, I left them. The patient recovered from the operation without a single bad symptom, and left hospital on the sixteenth day with the wounds healed, and an opening in the perinæum through which he passed urine without any difficulty.

CLINICAL MEMORANDA.

ON THE PERIOD OF INCUBATION IN SCARLET FEVER.

THE following extracts from ward-journals speak for themselves.

CASE I.—Mary H., aged 9, was admitted into the Belvidere Fever Hospital, Glasgow, on July 2nd, 1879. Phemie G. (who was a patient here) returned to the convent on Saturday, June 21st. She had been up and going about for three weeks before leaving the hospital. On the night of her return to the convent, the little girl H. slept with her. Up to that time, H. had been quite well. She continued well on Sunday; but on Monday night, when going to bed, she took a shivering, and afterwards headache; and the headache became worse. She also vomited, and her throat was sore. All these symptoms—shivering, sore-head, vomiting, sore-throat—attacked her that night. The rash came out this (Wednesday) morning; it was then observed for the first time. Phemie G. made the statement that her skin never came off, except like flour; it never peeled off. There can be no doubt that the present patient, Mary H., got the fever from Phemie G. The period of incubation in this case was forty-eight hours. The patient died on July 5th, 1879.

CASE II.—Bella M., aged 18, was admitted on September 12th, 1879 (Friday). There was scarlet fever in the family with which the patient was residing (she was in service). On Wednesday night, she felt out of sorts. On Thursday morning, she was very ill; felt sick, and ready for bed. She had bad headache and pain in the stomach. The throat began to feel sore on the previous afternoon. The rash was seen on the 12th for the first time. It should be noted, that the patient went to Mrs. G.'s on Monday night, about 6 P.M.; and she felt out of sorts on Wednesday evening, giving a period of incubation in the case of forty-eight hours or so.

JAMES W. ALLAN, M.B., Belvidere Fever Hospital, Glasgow.

SCARLATINA IN A PUERPERAL FEMALE: SHORT PERIOD OF INCUBATION: DEATH.

M. B., a primipara, aged 30, commenced with symptoms of labour at 6 P.M. on Tuesday, September 28th. In my unfortunate absence, a midwife was summoned at 12 P.M., and the child was born at two the following morning. The labour was natural, and perfectly easy. The midwife had been occupied during the preceding week in nursing a child suffering from scarlatina maligna, and, at the time of attending the case, was complaining of a severe sore-throat, which I had no difficulty in diagnosing to be scarlatina when I saw it next morning.

The patient had a severe rigor on Wednesday evening, and was constantly sick during the night. I was called in on Thursday morning (little more than twenty-four hours from the completion of labour), and found the poor woman covered with the characteristic rash of scarlatina, and with a scarlatinal throat. The pulse was 160, and the temperature in the axilla 105.2°. She complained of nearly total blindness, though, excepting that the eyes were suffused, there was nothing abnormal in their external appearance. The evacuations were passed unconsciously in bed. The uterine discharge was most fœtid and unpleasant.

I prescribed the sulphocarbolate of sodium in twenty-grain doses, vaginal injections of permanganate of potash, and gave first a draught containing thirty grains of sulphate of quinine, and afterwards (on its rejection) a rectal injection of forty grains of the same drug with half a drachm of tincture of opium. I also ordered frequent liquid nourishment, champagne, and ice. I also (not venturing to employ the cold bath) had the body sponged with tepid water four times a day). I was unsuccessful in reducing the temperature below 104.8°, although I repeated the quinine injection several times during that day and the next two. My patient died on Sunday morning (October 3rd) at half-past one o'clock, the eruption being well "out" up to the time of death.

I was unable to discover any possible origin of infection beyond the midwife in question. There was no tenderness on pressure over the uterine region.

The case appears to me interesting on the following accounts. First, the short incubation, only twenty-four hours. Thomas, in Ziemssen's *Cyclopædia*, gives very few cases of such short time. Second, the virulence of the attack, which suggests the question whether the poison was not conveyed through the vaginal mucous membrane, and (as in the case of typhoid conveyed through the alimentary canal mucous membrane, see Parkes' *Hygiene*) was therefore of shorter incubation, and of more intense severity. Third, the rapid affection of the retina, and consequent blindness.

WILLIAM SYKES, M.R.C.S., L.R.C.P., Mexborough.

THERAPEUTIC MEMORANDA.

THE HYPODERMIC INJECTION OF ERGOTINE AS A COUGH SEDATIVE.

ERGOTINE, injected hypodermically, in doses of from one to three grains, is a remedy of notable power in allaying coughs of various lung conditions, and in diminishing sputum. Unlike some potent drugs, that occasion general distress out of proportion to possible good results, ergotine is not followed by any constitutional disturbance. However injected, there is local irritation; if into the subdermal connective tissue, suppuration may take place; it should be thrown deeply into a muscle, as the deltoid. In a small proportion of cases, it entirely fails. Sedative effect persists for a day or two; is likely to control a cough that has defied even the most cunningly devised linctus.

In the severe harrassing cough of advanced phthisis, not unfrequently exciting sudden fatal hæmoptysis, ergotine is indicated as a prophylactic

The internal administration of the liquid extract of ergot, in moderate or tolerably large doses, does not seem to have the same effect.

JAMES ALLAN, New Wandsworth.

A READY METHOD FOR HOT FOMENTATIONS.

A PATIENT lately informed me of a method, adopted in her family for many years, to prepare flannels for hot fomentations; and, as the plan is novel to me, after thirty years' practice, and evidently very valuable, I think it may be unknown also to many others. The flannels are merely placed in the steamer of an ordinary potato steam-kettle; they quickly became thoroughly permeated by the steam, when the kettle is placed on the fire, and can be readily changed without any fear of scalded fingers during the attempt to wring them sufficiently dry, as in the ordinary method. My friend has, I understand, presented several steam-kettles, specially made for the purpose, to one of the London hospitals.

RICHARD NEALE, M.D.Lond.

OBSTETRIC MEMORANDA.

INVERSION OF THE UTERUS.

IN the number of the BRITISH MEDICAL JOURNAL for January 22nd, a case of "partial inversion of the uterus, treated by almost continuous pressure", is reported by Mr. Sympson; and, while he may be congratulated upon the successful termination of his case, I hope he will allow me, in the most friendly spirit, to point out the disadvantages of the method he adopted. The single curved repositor, which he used, is, as I have shown in a paper printed in the BRITISH MEDICAL JOURNAL (September 6th, 1879), the worst form of instrument, as it presses the fundus against the sacrum, instead of in a line with the axis of the brim of the pelvis. To remedy this fault of the repositor, Mr. Sympson put extra strain on the posterior elastic bands; and, using the perineum as a fulcrum, somewhat obviated the maldirection of the pressure. But the result, although ultimately successful, was unnecessarily delayed. "Almost continuous pressure" was kept up from October 25th until November 4th; whereas, had a double curved repositor been used, the cure would have been effected in less than two days.

I am able to make this statement upon the experience of five cases treated by my repositor: 1. By myself, reduced in 54½ hours; 2. By Dr. Williams, reduced in 33 hours; 3. By Dr. Gervis, reduced in 51¾ hours; 4. By myself, in 32½ hours; 5. By Dr. Rogers, in 40 hours; being an average of 43 hours for each case. Although, therefore, I am willing to agree with Mr. Sympson, that he cured his case by "well directed pressure", I hope he will allow me to submit that better directed pressure might have been employed.

J. H. AVELING, M.D., Upper Wimpole Street, W.

THE Surgical Society of Paris has awarded the Duval prize to M. Paul Ségond, prosector in the Faculty, for his work on Acute Abscesses of the Prostate; and has equally divided the Laborie prize between M. L. H. Petit, for his essay on Palliative Operations in Cancerous Subjects, and M. A. Heatherbe, for his work on Calcified Epithelioma.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

UNIVERSITY COLLEGE HOSPITAL.

DELIRIUM IN ACUTE RHEUMATISM AFTER SALICYLATE OF SODA.

CASE I.—(Under the care of DR. SYDNEY RINGER. For the use of the very full and careful notes of this and the following case, we are indebted to Mr. DAVID COLLINGWOOD, M.R.C.S., House-Physician). A. B., aged 26, a small, anæmic, ill-nourished woman, domestic servant. There was no history of nervous disease, or of drinking habits; no previous rheumatic attacks. The pains began on November 24th, in the ankles, knees, wrists, and elbows.

She was admitted on November 27th; temperature, at 2 P.M., 104°. The ankles, knees, elbows, and shoulders were affected. There were no heart-murmurs. She was ordered to take sodæ salicylatis gr. xx, every three hours.—7 P.M. Temperature 102.4°.—11 P.M. Temperature 100.4°.

November 28th, 11 A.M. Temperature 99.8°. She had singing in the ears, deafness, and deep, faintly hissing respiration (34); pulse 120, full, bounding, incompressible.—3 P.M. Temperature 100.6°. The patient was restless, constantly wishing to get out of bed. She was ordered to take the salicylate every six hours.—7 P.M. Temperature 100°. She was very restless, mumbling a good deal; her main delusions were, that she ought to be allowed to get up and go about her work, and that she was in the wrong bed, wishing to go upstairs to find her own. During the last half-hour, restlessness and delirium had increased so much that the nurse could not keep her in bed. She had now taken 160 grains of the salicylate; she was ordered to take no more at present. A draught of bromide of potassium and chloral was given, and she was fastened in bed by a draw-sheet over the trunk and a clove-hitch over the ankles. After this she continued to talk, and sometimes shouted. She answered questions rationally, but quickly reverted to her own particular grievances, and called loudly for knife and scissors to free herself. There did not seem to be any deafness, or pains in the joints.—10.20 P.M. She was still more violent, had torn the draw-sheet in two, and kicked her feet free. She tried to bite, and succeeded in scratching, the nurse, refusing to be managed "by a slip of a girl". The house-physician found her more manageable, again secured her in bed, and ordered another bromide and chloral draught.—12 P.M. She had freed herself again. The strait-jacket was applied. She had taken no food since morning, and was with difficulty induced now to swallow some milk and beef-tea. The bromide and chloral draught was repeated.

November 29th, 3.20 A.M. She slept for a short time after the last draught; and remained quieter than before. On awaking, the draught was repeated.—11 A.M. She slept some hours after the draught, and awoke much better; temperature 100.6°, pulse 104, full, strong, and compressible; respiration 30°. She was still delirious, but not wildly. The jacket was removed, and she lay quietly. She had deafness, singing in the ears, and frontal headache. The urine was of specific gravity 1024, contained albumen one-third, and salicylates; no casts. The bowels were confined.

November 30th. She was restless last night, but quiet in comparison with the night before. The toxic symptoms had passed off (about 40 hours after stopping the salicylate). She had pain in the knees, ankles, and to a less extent in the shoulders and in the right elbow.—10 A.M. Temperature 99°. She had slight cough, and blood-streaked expectoration, but no corresponding physical signs. The heart's apex was in the normal situation; a blowing, low-pitched, somewhat booming murmur was heard with the first sound at the apex, well-conducted into the axilla, and to the scapula; it was also heard at the base.

December 1st, 10 A.M. Temperature 99.8°; it had ranged from 100° to 100.4° since yesterday. The urine still contained albumen one-third, and salicylates. She was ordered to take 10 grains of salicylate of soda every two hours.

December 2nd. She had a rather sleepless night; there was some deafness. Temperature was normal this morning; the urine still contained albumen one-third, and salicylates.—1 P.M. There were no joint-pains; the toxic symptoms had increased. The salicylate was stopped.

December 3rd. She slept badly; no pain. The toxic symptoms had passed off. The urine contained no albumen, but still some salicylate.

December 5th. There was a tendency to relapse. She was ordered to take salicylate every three hours.

December 6th. She was making good progress; no pains; temperature 99.6°. The urine was free from albumen, but contained salicylate.

December 7th. The salicylate was stopped, owing to symptoms of poisoning.

December 9th. She could not sleep, owing to pain in the knees and shoulders. Temperature 100.8°. She was ordered to take 10 grains of salicylate every three hours.

December 10th. She had a restless night; no pain. There was no albumen, but abundance of salicylate, in the urine.

December 23rd. Since last note she had progressed satisfactorily; had been taking 10 grains of salicylate of soda every three hours. The systolic murmur was still well heard at the apex; the second sound at the apex had a slight occasional whiff following it. She went home to-day.

CASE II.—C. C., bricklayer, aged 31, had an attack of rheumatic fever last July, which confined him to bed for six weeks. He had been in the habit of drinking four pints of beer a day. There was no history of nervous disease in the family. He got wet through on October 13th, was seized with pain in the ankles and knees the same night, and was admitted to the hospital on October 15th. On admission there was pain, with heat, and swelling of the ankles, wrists, elbows, knees, and shoulders. The heart's apex could be felt in about the usual situation. With the first sound at the apex was a low-pitched, soft, blowing, prolonged murmur, conducted into the axilla, but not to the base. There was no murmur at the base; no symptoms of pericarditis. He had profuse perspiration with the characteristic odour. At noon, the temperature was 100.4°.—At 7 P.M., temperature 103°. He was ordered to take 20 grains of salicylate of soda every three hours.

October 16th. He was much easier; had slept well. Temperature 11 A.M., 101°, pulse 108, respiration 24.

October 17th, 11 A.M. Temperature 98.2°; he had no pains in the joints. He talked in his sleep during the greater part of the night; the skin was hot, perspiring; pulse 76, full, bounding and regular. He had slight headache, and ringing in the ears.—At 4 P.M. he became more talkative, and got out of bed. He was ordered to take the salicylate every six hours. As he continued to become more noisy, the mixture was stopped altogether, and a draught containing 30 grains of bromide of potassium and 10 grains of chloral was given.—11.40 P.M. He was no better; was not violent, but got out of bed frequently; was talkative, and sang a good deal. He had various visual delusions; saw animals creeping along the rafters, fancied his friends were present, and talked to them. As a rule, he was not frightened by these spectra. The tongue and hands were not tremulous. The bowels were constipated. He was ordered to have bromide and chloral, and a purge.

October 18th, 1 A.M. He was still noisy and troublesome, and was ordered to take 20 grains of bromide of potassium every hour.—11 A.M. Temperature 98.8°. He was still delirious, but less inclined to get out of bed; had not slept, in spite of having taken in all 120 grains of bromide of potassium. The urine contained a trace of salicylate; no albumen.—6 P.M. Temperature 100°.

October 19th, 10 A.M. Temperature 99.4°, pulse 84, respiration 25. He was delirious all day yesterday and all last night, frequently getting out of bed. He did not sleep, in spite of 40 grains of bromide and 30 grains of chloral. Salicylates were found in abundance in the urine. He was sleeping quietly now, and was much more rational.—7 P.M. Temperature 101.4°. He had pain in the wrist and left knee; he was ordered to take 30 grains of bicarbonate of potash, and 15 minims of tincture of opium, in infusion of quassia, every four hours.

October 20th. Temperature 100.6°, pulse 84, respiration 32. He slept well, had no delirium. He had slight hæmoptysis. There were no morbid physical signs in the chest. The condition of the heart was unaltered. He was ordered to take sodæ salicylatis gr. xv, every four hours. There still was a trace of salicylate in the urine.

October 21st. There was no return of delirium; pain better. A trace of salicylate was found in the urine. Temperature 99.5° at 11 A.M.

October 22nd. Temperature fell steadily yesterday, and at 7 A.M. to-day it was 98°. The pain in the joints had steadily decreased; now there was only very slight pain in the left wrist.

October 28th. He was still taking 20 grains of salicylate every four hours. He had no pain, but was very weak, being unable to stand; he complained of some singing in the ears. The urine contained abundance of salicylate.

October 29th. The noises in the ear were worse; he was deaf. He was got up yesterday, and was no worse to-day. The salicylate was dropped. The temperature was normal.

November 1st. The temperature had risen slightly (to 99.2°); there was some pain in the right hand, and some perspiration. No salicylate was found in the urine. He was ordered to take the salicylate every six hours.

November 2nd. Temperature 98.2°; no pain. The salicylate was stopped. The urine contained a trace of salicylate.

November 6th. He was almost well. Temperature normal. He had no joint-pains. He had gained five pounds in weight since the 1st instant.

November 9th. He left for Hemel-Hempstead Convalescent Home. There was never any albuminuria.

CASE III.—(Under the care of Dr. WILSON FOX.) (For the use of the notes of this case, we are indebted to Mr. Angel Money, M.B., late House-Physician.) T. W. D., aged 35, stoker, had no history of nervous disease, but admitted that he had been in the habit of drinking from three to four pints of beer a day. He had rheumatic fever when 31, which lasted three weeks; again two years ago, lasting four weeks. His present attack began on January 31st, with pain in the left great toe. The other joints were successively affected, and on admission on February 7th, he had pain in the left foot, ankle, knee, and shoulder, and in the right knee; there was profuse sour-smelling perspiration; the heart was unaffected. He was restless, and slept badly. The temperature ranged in twenty-four hours from 100.6° to 101.6°. He was ordered to have a purge.

February 9th, 7 A.M. Temperature 101°. He was ordered to take sodæ salicylatis gr. xv every three hours.—11 P.M. Temperature 99°.

February 10th. He was only given three doses of salicylate, as he became very restless, getting out of bed, resisting the nurse and others, talking incoherently, and having delusions, into all of which the idea of motion entered: thus he fancied he was driving a coach. There was no albuminuria. The delirium subsided in twenty-four hours. The pains in the joints did not recur, though there was a slight rise of temperature on February 12th. The heart was never affected, nor was there albuminuria. He was discharged cured on February 19th.

CASE IV.—(Under the care of Dr. BASTIAN.) E. H., aged 43, a married woman, with no history of nervous disease in the family, had for some years been in the habit of drinking to excess. She had had rheumatic pains, but never any previous attack of rheumatic fever.

On September 28th, she was admitted. She said she had grown a little deaf since she became ill; seemed labouring under much emotional excitement, due apparently to money difficulties. She said she felt "muddled". She had profuse acid perspiration, and pain in the knees, ankles, wrists, elbows, and shoulders, on both sides; no symptoms or signs of pericarditis. She was ordered to take 20 grains of salicylate of soda every two hours.

September 29th. The temperature ranged from 100 to 103°; the pain was less. She was still rather excited, but quiet.—1 A.M. She was ordered to take salicylate of soda every four hours.

September 30th, 11 A.M. Temperature 99°. The pains in the joints were very much better. She had pain now in the epigastrium and præcordia; the heart's apex beat in the usual situation; no murmurs. At the third left cartilage the first sound appeared rough, or perhaps reduplicated.—3 P.M. The first sound was now distinctly replaced by a soft murmur at the left base, but also heard at the third interspace. She was wandering, suspicious. She perspired freely, and was intensely thirsty. Pulse 100, compressible; temperature 99.4°.

October 1st. She had been very violent and noisy all night, constantly getting out of bed, and wishing to go home. On seeing the house-physician at 10 A.M., she flung herself out of bed, threw her arms about him, and begged him to protect her from "those people". She was perspiring freely; the tongue and hands were very tremulous. She was much exhausted by her struggles. She was removed to a private ward; the salicylate was stopped, and she was ordered 20 grains of bromide of potassium every three hours, and a purge.—8 P.M. She had not given much trouble; was now quiet and reasonable; said she thought she was in prison when so violent this morning. Temperature 100.4°. There was no albuminuria.

October 3rd. There had been no further delirium. The pain in the joints had returned. She was ordered to take 20 grains of salicylate of soda every eight hours. The temperature fell, and the joint-pains disappeared more slowly. The salicylate was stopped on October 11th, as the heart's action was found to be extremely irregular in force and rhythm. There was no distinct murmur, but the first sound at the apex was not quite normal. On October 13th she had another slight relapse, and on October 16th severe neuralgic pain in the left side of the face, followed by facial paralysis. On October 21st she again began to take 20 grains of salicylate of soda every eight hours, as she was not yet free from pain. She was discharged on October 27th, at own desire; free from pain, with no discoverable heart-lesion. The facial paralysis had passed off. It is worthy of note that the cardiac affection came on while she was fully under the influence of salicylate of soda, and with a falling temperature.

CASE V.—J. T., aged 30, had been a butcher until three years ago; since then, a cabdriver. There was no history of nervous disease. His wife said he drank too much. He had one previous attack ten years ago. The present attack began on November 1st. On admission on November 4th, he had pain in the knees, ankles, wrists, and shoulders on both sides. He was rather querulous. The skin was perspiring freely, with sudamina over the chest and abdomen. There was no evidence of affection of the heart.

November 5th. The temperature had ranged from 101° to 102°. He was ordered to take 20 grains of salicylate of soda every two hours for six doses; after that, every four hours.

November 6th. He had not slept much; had been wandering. Temperature had ranged lower. The joint-pains were less. He was ordered to take the salicylate every six hours.

November 7th. He had a quieter night, but very little sleep. Temperature ranged from 100° to 100.8°. The joint-pains were rather worse. He was ordered to take salicylate every four hours.

November 8th. He had been very restless all night, getting out of bed, sitting on the side of his bed, looking very sulky, not talking much unless spoken to, and then being rather abusive in his replies; he thought some of his "mates" were watching him in order to do him some injury. He had no pains in the joints. Temperature, at 11 A.M., 98.8°. The salicylate was stopped. The tongue was foul. A purge was ordered.

November 9th. He was so noisy and violent last night, that it was necessary, after several attempts to dispense with it, to use a straitjacket. He refused all food and medicines, but was forced to take a draught of bromide of potassium every eight hours.

November 10th. He was very noisy and violent again during the night; quieter this morning, but still delirious, and very suspicious.

November 11th. He had a quiet night; was more rational this morning; no joint-pains.

November 12th. The delirium had entirely passed off, but he had pain in the right wrist. Temperature 99.4°.

November 16th. He had pains in the left wrist and hand, in the right foot and knee, and in both hips. The temperature ranged from 101.4° to 102.8°. He was ordered to take 20 grains of salicylate of soda every six hours.

The temperature fell to normal on November 23rd, and he began slowly to convalesce. He was free from pain, but still very weak, when discharged on December 9th to go to a convalescent home. There was no albuminuria at any time.

REMARKS.—In speaking of Case V, Dr. Bastian remarked that the symptoms present bore a close resemblance to those of delirium tremens. It might well be that, in a patient already predisposed to this disorder, the additional toxæmic state produced by salicylate of soda would be sufficient to determine the onset of an attack of delirium, which should have much the same symptoms as delirium tremens. Dr. Bastian is supported in this opinion by M. Sée, who believes that the chief action of the salicylates is "on the nervous system, which plays a greater part in the production of the symptoms of rheumatic fever than is commonly supposed." It must be remembered, however, that the delirium which sometimes occurs in rheumatic fever, quite independently of drugs—cerebral rheumatism, as it has been called—has symptoms closely resembling those in the cases now reported. Dr. Ramskill (Reynolds's *System of Medicine*, vol. ii, p. 361) describes the symptoms of "rheumatic meningitis" as "restlessness and jactitation, extreme loquacity, and wild delirium"; and Dr. Wilks (*Diseases of the Nervous System*, 1878) speaks of "so-called cerebral rheumatism, where arthritic symptoms suddenly abate with the appearance of delirium.....The delirium, the restlessness, and the perspiration form a picture which is often the facsimile of delirium tremens." Dr. Wilks also remarks that this delirium is sometimes seen in connection with pericarditis; and Dr. Garrod (Reynolds's *System of Medicine*, vol. i, p. 804) says that, where "the heart is implicated, delirium is usually present". Th. Simon (Dechambre's *Encyclopédie*; art. Rhumatisme), believes that delirium in acute rheumatism is always due to implication of the heart; and in this he is supported by Leudet. This sweeping generalisation is combated by Besnier (*Ibid.*), and the present cases seem to show that it cannot be made to apply to cases treated by salicylates, as, in half these cases, no distinct evidence of active cardiac disease was obtained; further, Dr. Murchison reported to the Clinical Society, on May 25th, 1877, a case of typhoid fever treated by salicylates, in which delirium with the characters above described came on; he was inclined to attribute it to uræmia, produced by a coincident attack of acute nephritis. In this opinion he was, however, shown to be wrong, on the evidence

of the present series of cases, for in only one was there well-marked albuminuria; in one other there was a trace of albumen, but in this case old heart-disease probably existed. In some cases, the onset of delirium coincides with that of pericarditis. All the patients suffered from sleepnessness before the onset of delirium, and this, as Tüngel has shown, strongly favours its occurrence in rheumatic fever (Senator, art. "Acute Rheumatic Polyarthritis," p. 51, in Ziemssen's *Encyclopædia*). Constipation was also a constant symptom. As to the frequency with which it occurs, Dr. Brown reports, out of 109 cases treated with salicylates in Boston City Hospital, three of delirium. Dr. Greenhow, in a recent paper, reports eight in fifty cases. Finally, it may be observed that all the cases quickly recovered on stopping the drug; the greatest interval being sixty hours, and the shortest sixteen. As a rule, on the subsidence of the delirium, the joint-pains return; salicylate of soda may then be given, but with caution.

MIDDLESEX HOSPITAL.

DELIRIUM IN ACUTE RHEUMATISM AFTER SALICYLATE OF SODA.

(Under the care of Dr. DOUGLAS POWELL.)

(For the use of the notes of this case, we are indebted to Mr. E. DAVIS, House-Physician.)

CASE.—A. P., aged 50, female, had had three previous attacks. There was no history of nervous disease in the family. She said she was a teetotaller. She was admitted on the afternoon of December 21st, at 11 P.M. The joint-pains were severe. She had sour perspiration. She was ordered to take 15 grains of salicylate of soda every four hours.

December 22nd. Morning temperature 100.4°. The joints were easier. There was a trace of albumen in the urine.

December 23rd. Yesterday evening, and all night, she had been delirious, getting out of bed, fancying people at the door were watching her, and that her friends were outside ready to take her home. Temperature 99.8°. The salicylate was omitted. Evening temperature 99.4°.

December 24th. Morning temperature 99.6°. A murmur at the base of the heart, probably friction, was heard for the first time to-day. Evening temperature 100.2°. The joints were painful again. She was quite rational.

January 1st. Temperature 102.2°. There was a well-marked relapse.

January 7th. The temperature had ranged from 99.2° to 102.8°. She had had much pain in the joints, but had been rather easier the last day or two. The pericardial friction was still present. There was no delirium. She said now, that in St. Mary's Hospital, some time ago, she was given the same drug with the same result.

HOMERTON FEVER HOSPITAL.

MALIGNANT SMALL-POX (VARIOLA NIGRA VEL HÆMORRHAGICA); DEATH WITHIN THIRTY-SIX HOURS.

(Under the care of Dr. COLLIE.)

G. W., aged four, was admitted into the Homerton Fever Hospital with measles on the 27th of October last. On November 1st he was so far recovered that he was placed on fuller diet, and on the 5th he was able to be up. Towards the end of the month he was progressing satisfactorily, although not quite strong enough to be discharged. On the evening of December 4th he went to bed apparently quite well, after running about all day. On the early morning of the 5th, somewhere about 4 A.M., he sickened, was very restless during the whole of the day, complaining of pains in the stomach and head. There was constant vomiting. The temperature at noon was 98°, at 6 P.M. 98°, at midnight 97.8°. He passed a restless night, complained of pain in the stomach, and vomited constantly. He drank large quantities of milk. At 10.30 A.M. of the 6th he vomited blood, at 11 A.M. he was in a state of collapse, and at 3.10 P.M. he died. The symptoms which preceded death were incessant vomiting of blood, great thirst, and pain in the stomach and head. The temperature was at 6 A.M. 99°, at 10 A.M. 96°, at 2 P.M. 99°. There was no eruption at 11 A.M., but at death there were observed, scattered over the surface of the body, small rounded hæmorrhagic spots, most marked in a ring round the neck.

Post-mortem Examination.—The lungs were dark, congested; the heart flabby, rather dark, with no blood, save a very small quantity in the right ventricle. The liver on section was dark, the cut surface presenting the appearance of black mucus. The spleen was dark and diffluent. The kidneys were very dark, particularly at the junction of the cortex and medulla. Hæmorrhagic spots were seen in the mesentery and bowel. The face was livid red, especially on one side; the conjunctivæ were slightly suffused. Hæmorrhagic vesicles were present here and there over the body. There were three bad vaccination marks.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JANUARY 14TH, 1880.

JOHN ERIC ERICHSEN, F.R.C.S., F.R.S., President, in the Chair.

FURTHER OBSERVATIONS ON THE VALUE OF STETHOMETRY IN THE PROGNOSIS OF CHEST-DISEASE.

BY ARTHUR RANSOME, M.D., MANCHESTER.

(Communicated by Dr. W. H. BROADBENT.)

DR. RANSOME contributed a paper on the bearing of stethometry upon the prognosis of chronic bronchitis, asthma, emphysema, and pleurisy. This having been already pointed out, the present paper dealt more closely with the records of chest-measurements of one hundred and two persons affected with various forms of phthisis. Fifty of these cases were either chronic or persons in whom the disease had become quiescent (twenty-five males and twenty-five females). Forty of these were acute (twenty males and twenty females); and twelve of them were exceptional cases, in whom the chest-measurements could not be relied upon from their youth, and who had succumbed from accidental causes, such as hæmorrhage, etc. The points selected for the application of the stethometer were the middle points of the clavicles and the anterior ends of the third ribs; the movements measured being chiefly those in the (horizontally) forward and the (vertically) upward directions. In all cases, the measurements were obtained in an interval of comparative quiescence of the disease; and cases complicated with extensive pleuritic adhesions were excluded from the tables. From these records, it appeared that: I. The respiratory movements were much smaller in acute than in chronic cases. In six of the acute cases, no movement was perceptible in one or another of the diminutions of motion at one of the points examined. No such immobility was found in any of the chronic cases. The average forward push of the clavicle in acute cases on the worst side was 0.15 inch; in chronic cases, 0.29 inch. This movement over the third ribs was, on the average, 0.25 inch in acute cases, and 0.54 in chronic cases. A similar contrast was remarked in the extent of the upward movements. The average upward movements of the clavicles in the male acute cases was 0.25 inch on the worse, and 0.39 inch on the better side; in females, 0.26 inch and 0.38 inch respectively. In the chronic male cases, the corresponding diminutions were 0.50 inch on both sides; in females, 0.56 inch on the worse, and 0.66 on the better side. The third ribs moved upwards in acute male cases 0.36 inch on the worse, and 0.45 inch on the better side. In females, the numbers were 0.38 inch on the worse, and 0.51 inch on the better side. In chronic cases, these dimensions were for males 0.72 inch and 0.74 inch; for females, 0.78 inch and 0.85 inch. II. There were certain peculiarities of chest-movement in chronic and acute cases arising out of the power of independent rib-movements. This was shown (*a*) in the extreme restriction of motion of parts placed over an advancing softening of the lung, and its comparative freedom over a quiescent vomica. The third stage of phthisis had been reached in thirty-three cases—twenty-one of the acute, twelve of the chronic series. The average forward push of the clavicle in the chronic cases was more than double that in the acute series; and in half the former group there was actually a larger extent of motion over the site of a vomica than on the least affected side of the chest. The circumstance was not observed in any of the acute series. The third ribs showed nearly three times more forward movement in chronic than in acute cases; and in the former groups the motion of the bone over the excavated lung exceeded that of the opposite side. (*b*) Efforts at compensation were made, by both clavicles and third ribs, in either an upward or a forward movement. When these efforts took place in the upward direction, they must be regarded either as an unfavourable sign or else as only a measure of the muscular power that the patient could bring to bear on the obstruction to healthy breathing. There were sixteen such cases of exaggerated upward movements amongst the chronic series, and six in the acute series. In the forward direction, the effort at compensation had a distinctly favourable significance. It occurred fifteen times amongst the chronic cases, and only twice, doubtfully, amongst the acute group. Much assistance might also be derived from repeated measurements of the same case; and instances were given of the kind of information thus obtainable. From the data afforded in this paper, it was concluded:

1. That a small amount of movement of the chest, especially in the forward direction, was of evil augury; and that when, in adults under forty, the forward push of the third rib was less than 0.35 inch, there was reason to foretell a rapid course of the disease. 2. That one might usually give a favourable prognosis when, in an adult, there existed an inactive vomica, with a considerable extent of movement in the ribs overlying it; and the sign was still more favourable when the forward motion of the bone was greater than that of the corresponding point of the opposite side. 3. That an excessive or compensatory effort at *upward* movement told little as to the gravity of the disease; but a free compensatory *forward* movement was a favourable sign. 4. That stethometry must be regarded as only one of the elements of prognosis.

The PRESIDENT considered the paper very valuable in respect to the light which it threw on the prognosis of chest-diseases.—Dr. BROADBENT thought that the paper was an important contribution to medical knowledge. He did not consider stethometry a mechanically precise aid to the diagnosis of phthisical affections; but the instrument and its records would awaken fresh research. He thought that the special use of the instrument was in the early stages of phthisis. Later on, a probable estimate of the patient's life could be made in other ways. It pointed out, with more accuracy than the eye or the hand could command, the movements of certain parts of the chest, and registered those movements, making a distinction between upward, forward, and lateral movements; the special direction of which had not previously been particularly noticed. The upward movements, though good, might be simply compensatory for forward and expansile movements. He thought that the Society must recognise the extreme care with which Dr. Ransome had worked at the subject; the special features of which would come out when the paper came to be carefully read and studied.—Dr. D. POWELL believed that all ought to be very grateful to any gentleman who would help the physician in the prognosis of phthisis. It was the one of all diseases in which it was most difficult to make a careful prognosis. The author had achieved his purpose, even if no one else used the stethometer so carefully or constantly as he (Dr. Ransome) had used it for years past. His observations would be of great use for reference by others who might employ readier and quicker methods for diagnosis and prognosis. As regarded the movements of the chest-wall in phthisis, he (Dr. Powell) thought the most valuable observations relative to prognosis in phthisis might be obtained by noticing the power of expiration rather than of inspiration, especially when viewed from the posterior aspect of the thorax. Localised limitation of movement he had always regarded as an evidence of chronicity of disease rather than of the reverse. When disease was softening down, movement, which had been diminished, increased again; whilst, later on, when the disease became chronic and the lung contracted, there was marked fixation of the chest-wall.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, JANUARY 18TH, 1881.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

Acute Myositis of the Thigh.—Mr. DEVIS of Hereford communicated a case of this description. The patient, a woman aged 33, was confined prematurely on December 17th, and four days later got chilled; shortly after which she had considerable pain in the right thigh, with great tenderness. Two days afterwards, swelling of the thigh and redness of the skin appeared. There was a history of acquired syphilis of old date. The patient was badly nourished; and, when first seen, was feverish, with rapid weak pulse, and sordes. A diagnosis of acute osteitis of the femur was made; but the patient was too ill to admit of operation, and she died on December 30th. *Post mortem*, great swelling of the quadriceps extensor muscle was detected; and both it and the adductor magnus were much altered in appearance, being of a pale reddish grey colour, and very firm to the touch. The intermuscular septa contained serous fluid. The muscles were, in fact, in a state of acute inflammation. There was no affection of the bone or periosteum.

Abscess of the Liver following Dysentery in a Child.—Dr. NORMAN MOORE showed a liver removed from the body of a child aged 3½, who was admitted into St. Bartholomew's Hospital suffering from diarrhœa and pains in the abdomen, accompanied by high temperature. *Post mortem*, the whole large intestine, including the rectum, showed extensive patches of ulceration. In the right lobe of the liver was an abscess as large as an orange, which had penetrated the diaphragm, and opened into the right lung. There was a second abscess in the left lobe. The child had never been out of London. Abscess of the liver with dysentery in so young a child is extremely rare.

Cirrhosis of the Liver in a Child.—Dr. MOORE showed this specimen. The child was ten years old, and there was no history of drinking. There was marked ascites, twice relieved by tapping. *Post mortem*, the liver presented all the appearances of cirrhosis. There was tubercle of the peritoneum, and the lungs and intestines were studded with tubercles; but there were neither cavities nor ulcerations. The liver was free from tubercle. The case was probably one of interstitial hepatitis accompanying general tuberculosis, such as was described by Cornil and Ranvier.—Dr. PYE-SMITH had recently seen a man in whom a certain amount of cirrhosis of the liver coexisted with tubercle of the peritoneum.—The PRESIDENT asked whether any member present could give definite information as to the collateral circulation in cirrhotic cases. He had searched for such collateral circulation, but without satisfactory result.—Dr. MOORE had made a *post mortem* examination on a woman who thirty years before had been under Sir W. Jenner, suffering from severe hæmatemesis of doubtful origin. Twice since then she had brought up a quantity of blood; and after one of these attacks, a few months ago, she died. The portal vein was completely occluded. There was no vein in the round ligament, as described by foreign authors.—Dr. ALLEN STURGE had a specimen which exactly answered the inquiry of the President. The patient had been under his care two years and a half ago, suffering from cirrhosis. There was moderate ascites, and a well-marked "caput Medusæ" at the umbilicus, from which a very large varicose vein passed up to the margin of the thorax, where it disappeared. The ascites entirely passed away, and the man remained in good health till about three months ago, when he died, after a prolonged drinking bout. *Post mortem*, it was found that the blood was conveyed from the portal vein through several large veins in the suspensory ligament, one of these being of very large size. There was a vein in the centre of the round ligament quite large enough to admit a full-sized probe. All the veins converged to the umbilicus, whence they were conveyed to the internal mammary and other thoracic veins by means of the large superficial veins visible during life.—Dr. GILBART SMITH had a patient with a large nodular liver, and with phthisis in both lungs. In this case, also, a large vein passed from the umbilicus to the chest.—Dr. PAYNE had several times injected the portal vein in cirrhotic cases, and found that there was a small vein passing from it through the round ligament to the umbilicus; but in all cases the principal veins were in the suspensory ligament passing to the umbilicus. There were sometimes large veins in the parietal peritoneum, when there were no large superficial veins. In reference to the vein in the round ligament, it must be mentioned that Dr. Champneys had found that the umbilical vein sometimes reopened altogether independently of cirrhosis.—Dr. BERNARD O'CONNOR had seen a woman with abscess of the liver, in whom the feet became swollen and the superficial veins of the abdomen distended whenever she lay upon her back, the symptoms disappearing after she had lain for some little time on her face.

Thrombosis of Innominate Vein in a Phthisical Patient.—Dr. WILBERFORCE SMITH described this case. The patient, a woman aged 42, had had symptoms of lung-disease for ten years. Eight months before death, she suffered from dropsy, which disappeared under the use of digitalis. Shortly afterwards, there was lividity of the neck and right arm, the superficial veins of which became enlarged. There were signs also of œdema of the lung of the same side, and of a cavity at the apex. The patient was suffering from great dyspnœa, but without orthopnœa. *Post mortem*, the right innominate vein was found occluded by a firmly adherent, partly organised clot. That part of the vein occupied by the clot was firmly adherent to thickened pleura covering a cavity in the lung. In the right ventricle were two or three smooth old clots, of the size of orange-pips.—Dr. COUPLAND believed this was a very rare condition, though, *a priori*, it might be expected to be not uncommon. The cause of the thrombosis in the present case appeared to be a combination of dilated right heart, leading to slowing of the circulation, with periphlebitis, the result of the pleurisy at the apex of the lung.—Dr. THEODORE WILLIAMS had never met with a similar case.

Stenosis of the Tricuspid Valve.—Dr. BEDFORD FENWICK exhibited two specimens illustrating this condition. Both cases had been under the care of Dr. Samuel Fenwick: both were young unmarried women, who had enjoyed good health until early adult age, when they had rheumatic fever, after which time they presented signs of heart-disease. In both cases, after death, [illegible] was found to be great constriction of the tricuspid and mitral valves. He had only been able to find forty-six cases on record of constriction of the tricuspid valve. Of these forty-six cases, forty-one were women, the average age at death being thirty-one years. In only one case was there unequivocal evidence of congenital heart-disease. In thirty-one cases of congenital heart-disease of other kinds, seventeen were in males, and fourteen in

females—a striking contrast to what was seen in tricuspid stenosis. In twenty-three of the forty-six cases there was a well-marked antecedent history of acute or subacute rheumatism, which was exactly the same ratio as that which obtained in diseases of the heart of all kinds. The mitral valve was stenosed in every instance; and in twenty-five of the cases there was disease of the aortic valves also, the valve being incompetent in thirteen cases, and stenosed in twelve. From these facts, he was very strongly in favour of a postnatal rather than an antenatal origin for these cases.—Dr. NORMAN MOORE had found notes of thirteen cases in the records of St. Bartholomew's Hospital, which completely bore out Dr. Fenwick's conclusions. Twelve of these cases were in women, whose average age at death was thirty years. The mitral valves were stenosed in every instance, and the aortic valve was diseased in nine cases. In only one case was there any evidence of congenital malformation. He believed the condition was due to postnatal endocarditis of a peculiar kind, leading to adhesion, rather than to vegetative growths. In three cases, the whole heart appeared to be affected.—Dr. GILBART SMITH asked whether these cases of combined stenosis of the tricuspid and mitral valves lived longer than cases of mitral stenosis alone. The tricuspid stenosis would tend to save the lungs from the strain to which they were in the other cases exposed.—Dr. HORROCKS inquired as to the appearance of the patients during life. In congenital mitral stenosis, the patients looked younger than they really were; whilst in stenosis acquired after they were grown up, this was not the case.—Dr. COUPLAND remarked that the question of the mode of causation in these cases applied equally to mitral stenosis, which was present in every case. He had recorded two cases of tricuspid stenosis, in both of which the mitral valve was affected in the same way. He had also recorded a case of extensive vegetative disease of the tricuspid.—The PRESIDENT remarked, as bearing upon the question raised by Dr. Gilbart Smith, that the late Dr. Barlow had pointed out that, in cases of deformity of the chest leading to deficient lung-action, the mitral orifice was smaller than in health, due simply to the fact that the blood could not make its way freely through the lungs.—Dr. FENWICK, in reply, stated that he had not noticed any difference as to the average age of patients dying with tricuspid and mitral stenosis, and those dying with mitral stenosis alone. In none of the cases mentioned by him had there been any vegetations. He had in another case seen the tricuspid valve covered with vegetations. The only case of stunted growth associated with tricuspid stenosis with which he was acquainted was the case mentioned by Dr. Peacock, and believed by him to be congenital.

Fibro-cystic Disease of the Uterus.—Mr. MEREDITH showed a recent specimen of this disease. The tumour was a large multilocular cyst, attached to the uterus by a broad fibrous pedicle. It had been removed by Mr. Knowsley Thornton.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

THURSDAY, JANUARY 13TH, 1881.

WILLIAM BOWMAN, F.R.S., President, in the Chair.

The Treatment of Glaucoma by Hyposcleral Cyclotomy.—Mr. HIGGENS read a paper on this subject, in reference to a paper by Mr. G. E. Walker in his *Essays on Ophthalmology*, in which the operation was described, and its results in several cases given. The expectations raised by perusal of the essays in question were scarcely realised. Seven cases were reported; and, judging from this experience, Mr. Higgens had come to the conclusion that hyposcleral cyclotomy, as a means of reducing ocular tension, was inferior to iridectomy.—Mr. WALKER mentioned other cases besides those already published by him, in which he had obtained good results. He quite believed, however, that the operation was not adapted for universal application. His theory of glaucoma, which had been confirmed by the microscopical examinations of Dr. Brailey, was, that it was due to irritation of the ciliary muscle by hypermetropia. If this theory were true, cyclotomy must be very superior to iridectomy.

On a Rare Form of Muscular Asthenopia.—Dr. BRAILEY described a case in which, with normal power of both internal and external recti, and with very abundant accommodative power, though unaccompanied by spasm, there was great irritation, with pain, on any use of the eyes. The patient, a very intelligent gentleman, aged 30, had a low degree of myopia, with a little myopic astigmatism. When, however, these were fully corrected, the symptoms of asthenopia were even much more pronounced than before; and from the use of correcting cylinders alone he received no material benefit, though, when these were, for near work, combined with weak convex sphericals, he obtained some temporary relief. But a permanent and far greater beneficial effect was produced when a prism with the apex downwards before the left eye, was added to the cylinders. He had worn this combination during several hours daily for many months, and its beneficial effect still continued. With its discontinuance, the symptoms returned.—The PRESIDENT remarked that he had met with many cases in which this condition had existed from early life. The eyes were not quite on the same level, leading to considerable asthenopia.—Mr. COUPER asked whether Dr. Brailey had ever used prisms to exercise the muscles of the eye, with a view to strengthening them. He had obtained good results from such use.

Ophthalmoplegia Interna.—Mr. HULKE read a paper on this subject. He said that ophthalmoplegia interna (paralysis of the ciliary muscle, and of both the circular and radiating fibres of the iris) was not pathognomonic of diseases of the lenticular ganglion, but was with great probability referable to diseases of the ganglionic plexuses within the eyeball in immediate relation with the intra-ocular muscular apparatus. The hypothesis that these symptoms were caused by disease of the lenticular ganglion rested on the assumption that the iris and ciliary body received all their nerves through the lenticular ganglion. This assumption could no longer be maintained, since (1) it had been experimentally proved in dogs and rabbits that, after removal of this ganglion, the radiating (dilating) muscular fibres of the iris still contracted if the sympathetic in the neck were stimulated; and (2) pupillary dilating nerve-fibres had been proved to accompany the first division of the fifth nerve, and to reach the eyeball without traversing the lenticular ganglion. Ganglion-cells were shown to be present in the choroid and ciliary body many years ago by Schweigger and the author, and their presence had since been verified. It was suggested that they might be immediately concerned in the movements of accommodation and of the pupil.—Mr. JONATHAN HUTCHINSON said that, in his paper read before the Royal Medical and Chirurgical Society, he had reported five cases of complete paralysis of the iris and of accommodation. He had hoped that Mr. Hulke's paper would have brought forward some new clinical facts. He should be glad if Mr. Hulke could give proof of his theory, because it would bear out a theory of his own that sympathetic fibres accompanied sensory nerves, and that it was they which were responsible for modification of nutrition following upon lesions of these nerves. Mr. Hulke had, however, brought forward no proof, and he was unable to accept his theory as being more probable than his own. In his own cases, the sympathetic nerve in the neck had not been stimulated, on account of the difficulty attending this method of procedure. Had it been done, he thought it very possible that the pupil would have dilated, as in the case of the dogs. The pupils did respond to atropine and eserine. According to Mr. Hulke's theory, it was necessary to assume that there was widespread disease; whereas, according to his own view, there need be only disease of the small lenticular ganglion, which, he thought, was a more probable conjecture. It was possible that there were several varieties of cases; some being due to disease in the eyeball, and others to disease in the lenticular ganglion.—Dr. GOWERS thought that both the explanations brought forward would account for the facts; but he doubted whether either was true in the majority of cases. He thought the evidence was strongly in favour of the disease being seated in the brain. In the floor of the aqueduct of Sylvius were a number of nuclei, one of which had been shown to govern accommodation, a second the action of the pupil, and a third the other muscles of the eyeball. Corresponding to the nuclei, there were a series of diseases: complete paralysis of the ocular muscles; loss of reflex action to light; and the cases in which, in addition to the last named, there was loss of power of accommodation. The loss of pupillary action to light was very common in locomotor ataxy, and in syphilis apart from this disease. Paralysis of all the muscles of the eye was certainly a central disease, and in nearly every case of syphilitic origin. Hence it was highly probable that the third disease of the series was also of central origin; and it also occurred almost always in syphilitic subjects. There was nothing new in the fact that such very limited disease should occur, for this was common enough in degenerative changes of nerve-tissue.

Detachment of the Retina in Albuminuric Retinitis.—Dr. DAVIDSON read the notes of a case of granular kidney occurring in a girl aged 14, who presented the white patches of renal retinitis, and in whom the retinæ of both eyes became detached.—The notes of a somewhat similar case were contributed by Dr. FITZGERALD of Dublin. In this case, the disease of the kidneys was of the large white variety; there were retinal hæmorrhages, and the retina of the left eye was detached.

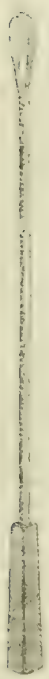
Tumour involving the Optic Chiasm.—Mr. MCHARDY contributed this case. The patient, a woman aged 35, had become blind about three months before he saw her; the optic disc being atrophied, but with no evidence of previous neuritis. Her gait was shuffling, and there was a tendency to fall backwards. After death, a tumour of very

firm consistence was found involving the optic commissure.—Dr. GOWERS thought that simple atrophy was produced by tumours pressing upon the optic nerves without involving them, but that tumour of the nerves themselves was more likely to give rise to neuritis with subsequent atrophy.

Epithelioma of Eyeball.—Dr. LEDIARD (of Carlisle) sent this specimen, removed from a man aged 74. It had been preceded by an epitheliomatous growth in the lip, which had been cut out. The second growth was also removed, but with only partial success.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

NEW CERVICAL CURETTE.



THE difficulty of removing the plug of ropy mucus which fills up and in some cases hangs from the "os", as in chronic endometritis, cervicitis, etc., must have been experienced by every gynæcologist, and its detrimental effects (by protecting the cervical walls from the action of the usual escharotics, and so retarding the patient's cure), must be sufficiently apparent.

It is usually recommended to clear the canal of mucus by the introduction of the probe armed with wadding dipped in glycerine; but this is not at all sufficient, nor does the removal of such discharge as can be seen through the speculum give any idea of how much still remains, the coagulation of which by the subsequent caustic application neutralises, if it do not altogether destroy, the desired effect of the remedy. The woodcut represents a little instrument which (feeling the want of it) I have designed. I have found it very useful in the cases of which I speak. I have named it a cervical curette. It is simply introduced through the speculum into the cervix as far as it will go with facility (which is generally up to the inner os), but in some cases will pass further, owing to the relaxed condition of the parts. It is then rotated slowly several times and withdrawn, when the top of the instrument will be found filled with tenacious mucus; a brisk shake will dislodge its contents, and it can be reintroduced till all the mucus is thus removed. The cervical canal is then in a condition to be acted upon by the usual applications; and I have found that, by this simple means, the time occupied in the treatment of a case can be very considerably shortened. The curette has also another advantage; as the rotation of its blunt edges in the cervical canal destroys those granulations and enlarged follicles, for which some practitioners recommend the use of a sponge-tent. The instrument is nickel-plated, can be cleaned in an instant, either by being held under a stream of water or whisked through the same; and it has proved so useful in my hands, that I do not hesitate to make it known, in the hope that it may be equally useful to others. The maker is John Whyte, Dublin. ALEX. DUKE, M.K.Q.C.P.I.

TOKAY.

MESSRS. KINEN and FABRE, 170, Regent Street, who, as agents for the eminent firm of J. Palugyay and Sons, of Pressburg, are introducing into this country Hungarian wines of guaranteed character, such as those for which this firm has long been famous, have forwarded to us further samples of the real wines of Hungary, which compare favourably with many other specimens which have from time to time been submitted to public notice from various sources. Their red wines, Pressburg, Villany, and Carlowitz, are dinner-wines of a kind well suited to the English climate and to the English palate. They are full-bodied and sound wines, free from acidity, and such wines as may well take the place of sherry, Burgundy, or port wines, having peculiar fragrancy and freshness on the palate. The white wines, Neszmely and Somlau, are dinner-wines free from acidity and full of body, which might with advantage replace the thin, sour, and relatively flavourless hocks which are blindly consumed in this country, without any real regard to their inferior quality and absence of attraction. Somlau, extra Cabinet of the Bishop of Veszprim, is a high-classed and finely flavoured wine from Johannisberg Riesling grapes grown in Hungary. Szamoradner of 1866 is the dry Tokay, with high contents of natural alcohol, and with a most peculiar flavour of brown bread, which connoisseurs will agree to be extremely attractive, and which is to be found in this class of wine only. This Tokay corresponds to the high classes of sherry, and is, in fact, the Hungarian sherry. It has a peculiar after-flavour which differentiates it from sherry, and a higher aroma. Golden Tokay of 1874 is a sweetened Tokay, used in enormous quantities on the Continent for infants and people of weak health and in a nervous state, and suffering from general debility. Tokay is a wine which has been much spoken of, but is little known in this country; and the introduction of Tokay from a genuine source, of the right vintages and in good condition, into this country will add a valuable element not only to the resources of the table, but to those of the physician, who will find in it a generous and stimulating wine, of a quality and flavour peculiarly agreeable to many invalids who may be tired of the wines of Spain and Portugal, and to whom the relative novelty of this wine would be very acceptable. Tokay, in order to be tasted properly, should, we may add as a hint, be taken cool; even a small piece of ice in the glass will increase its good flavour. The sparkling wines of Messrs. J. Palugyay are made evidently with great care, and the red Carlowitz especially recommends itself by quality. Messrs. Kinen and Fabre have also, among the samples of their wines, a very old half-dry Tokay, which is recognised in Austria and Hungary as possessing great stimulating properties in nervous exhaustion. This wine grows on volcanic soil, and is alleged to contain phosphorus.

NOTES ON BOOKS.

The Hygiene of the Infectious Fevers. By J. W. MILLER, M.D. and L.R.C.S.Edin. Edinburgh: Oliver and Boyd. 1880.—This small *brochure* contains a large amount of useful information on the subject; indeed, the number of authorities cited are so numerous, as to render it somewhat colourless as regards Dr. Miller's own opinions. After asking the question, "Is infection a fact?" and answering it in the affirmative, he points out the various ways in which small-pox, typhoid, typhus, and scarlet fevers spread, and mentions what is too often forgotten, that dark clothes are more prone to absorb the infection of typhus and cadaveric odour than light-coloured clothing. Dr. Miller quotes, with approbation, a passage from Professor Stephenson's little book, to the effect that "the prevalence of infectious disease is within human control as much as is that of fires". He devotes much space to whooping-cough, and recommends isolation and disinfection, as it can be conveyed by fomites. As regards the period at which infection begins, he quotes several authorites to show that in small-pox and measles infection is possible during the incubation stage, in whooping-cough before the child "whoops", in scarlet fever, diphtheria, and probably typhoid, from the commencement. He gives a table of the period of incubation assigned to several diseases by various authors, to which we must refer our readers, as they differ very considerably. He then remarks that there is even greater difficulty in knowing when infectiousness terminates, but believes that infection may be communicated a fortnight after the last scab has fallen off in small-pox, and the last peeling of the skin after scarlet fever; that diphtheria may be communicated during the whole time the throat remains in any way affected; or typhoid fever while any febrile action or looseness of the bowels exists. He therefore advises that disinfection of clothing, bedding, etc., should not be done, unless repeated, until this period. As it is only at the beginning of an epidemic that sanitary measures can have a marked success, too much care cannot be bestowed on the disinfection and isolation of the earliest case of infectious disease in a household or community.

Contributions to the Pathology of Bone and Joint Disease. By J. GREIG SMITH, M.A., C.M., M.B., Surgeon to the Bristol Royal Infirmary. (Reprinted from the Infirmary Reports.)—This is a carefully written paper upon the origin and pathological changes which occur in scrofulous caries. The author admits that the same processes may occur as a consequence of a similar inflammation which is not scrofulous, and also that it very frequently follows synovitis. His paper appears to be founded upon accurate observation, and the illustrations are very good. The treatment which is advocated is based upon the fact that the origin of the disease is inflammation of the lymphatic tissue of the marrow. This tissue, unlike a gland, has no room for expansion; and, if the disease can be recognised early, artificial openings in the bone are recommended to provide for this expansion. In more advanced stages, dead bone is to be removed by the gouge or by excision of the joint. Rest is also mentioned, but operative interference seems to be the chief point of treatment in Dr. Greig Smith's opinion.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JANUARY 29TH, 1881.

MEDICAL REFORM.

CONTEMPORARY history may well be defined as the written record of well ascertained current events, or events within the knowledge of living persons. Facts familiar to everyone should be easily described; yet circumstances may so influence the narrator and warp his judgment, that it becomes no easy task to be truly free from bias, and thus a colouring may unconsciously be given to occurrences which they cannot justly bear. In regard to medical reform, this has been peculiarly the case; and thus it is that some of the most uncompromising opponents of all reform have posed as reformers.

The absolutely neutral position occupied by the BRITISH MEDICAL JOURNAL, as the representative organ of nine thousand registered medical practitioners, having no corporate, no publishing, no commercial or class interests to protect or promote, specially qualifies it for the formation of a purely dispassionate judgment, and thereby enables it to give a perfectly trustworthy retrospect of the past history of medical reform.

In the first instance, medical reform most certainly did not originate with the universities and corporations. In days gone by, the untrammelled tendency of both was to render the admission to the medical profession so easy, that no candidate for a degree or for a licence could regard the ordeal with fear or even misgiving. Medical students were a wild, reckless, jovial set, of the "Bob Sawyer" class; and the practitioners of the United Kingdom claimed, as their grand characteristic, that, though they knew nothing of pathology, were not clever at distinguishing one malady from another, yet that, in practice, they ranked far above their continental brethren, who, as a guide to treatment, made it, not unwisely, their first object to ascertain the nature of the disease confided to their care. These were the days of heroic treatment; all hesitation was regarded as weakness; calomel, bleeding, cupping, blistering, purging, and, too often, slaying, were the result. The trusting British public submitted blindly and uncomplainingly, dreamed not of any better state of things, and were content to descend to the shades below as their fathers had done before them.

The members of the profession, however, then, as in the present day, bemoaned the want of greater professional knowledge. Once embarked in practice, they too sadly realised the utter inadequacy of their attainments to the responsibilities they had incurred. The better class of students also equally desired a higher grade of general and professional education. In the year 1831, Dr. A. P. Stewart, now consulting-physician to the Middlesex Hospital, but then a medical student at Glasgow, was secretary to a committee formed at an immense gathering of the medical students in Glasgow, to petition the Senate of that University for a higher curriculum, in order to keep off the imperfectly-educated men, who were attracted there by the facilities afforded for gaining a medical degree through an unduly easy examination. Dr. Stewart was, for this praiseworthy conduct, denounced *ex cathedrâ* by Dr. Badham, the Professor of the Theory and Practice of Medicine, and himself a distinguished classical scholar. This great association commenced in the provinces in 1832. In the second year of its existence Dr. Barlow read an address on Medical Reform, which was printed and widely circulated. In the following year, 1834, a Select Committee of the House of Commons received and reported evidence on the state of the medical profession; but having done thus much allowed the subject to drop.

In the year 1837, the Association nominated a Medical Reform Committee, and from that time to the present has stood prominently forward as the unswerving champion of Medical Reform.

The Association aimed at the establishment of a good standard of general as well as professional education, and suggested the course of studies devised and adopted by the Senate of the University of London for obtaining its medical degree, as suitable for all who engage in the practice of the art, and such as would confer incalculable benefits on the whole profession. This was embodied in a petition to the legislature, with a representation in favour of an adequate and uniform education for the whole profession, as the only stable foundation for any sound system of medical polity, so that all medical men should pass through the same course of preliminary and medical instruction, be tested by the same examinations, and, when approved, be entitled to the same privileges. In the face of all this, to declare, as has been done by some members of the General Medical Council, that the advocates of medical reform are interested "agitators" and wire-pullers", who would waste the time of the General Medical Council in discussions respecting fees and points of medical etiquette, is gross calumny, indicative of the weak case of the detractors; for this report and petition prove beyond all question the ground taken by the Association, in regard to medical reform, some twenty years before the existence of the General Medical Council, and long before there was any medical officer of the Privy Council. These facts are incontrovertible, and show that the demand for medical reform did not emanate from the universities and corporations; all experience is opposed to the correctness of such a supposition. Then, as now, the demand for it, in the interest of the public as well as of the profession, originated from without them, that is, from the profession and from the British Medical Association; and it is remarkable that the instinct of the Association should from the first have guided it to lay down principles from which it has never departed; to which, through good report and evil report, it has steadfastly adhered, and which now form the groundwork of the Medical Act (1858) Amendment Bill endorsed by Mr. Hardcastle, Sir Trevor Lawrence, Bart., Dr. Farquharson, and Mr. G. W. Hastings, who, remarkable to relate, drafted the Bill of the Association introduced by Mr. Headlam in 1855; which Bill, modified so as to disarm opposition, was ultimately carried, at the second reading on July 1st, 1857, by a majority of 147. On July 28th, 1857, the present Lord Mount Temple, then the Right Hon. W. F. Cowper, wrote to Sir Charles Hastings, Chairman of the Medical Reform Committee, requesting a conference with him on the subject of the Bill; and, on July 9th, 1858, the Medical Act of 1858 was read a third time, and then became law.

The Association only accepted this Bill as an instalment of medical reform; the persistent manner in which it has contended for an amendment of that Act, more especially since 1866, when, together with the one portal, it again demanded the long-promised and equally long-withheld introduction of direct representatives of the profession in the General Medical Council, has been so recently before the profession as not to require present comment.

In the last Parliament the Medical Reform Committee promoted a Bill which was introduced by Mr. A. Mills, which, with other Bills, formed the subject of inquiry before Select Committees in the two last sessions of the last Parliament.

There can be no doubt that the prospects of medical legislation were thus materially improved, for much valuable information in aid of medical legislation had been thereby gained, and the labours of the Select Committee could not be ignored.

Under these circumstances, a proposal for a conference of representatives of all the associations which had promoted Medical Bills, and

of other persons specially interested in medical reform, was suggested by the Irish Medical Association during the latter part of last year. The Medical Reform Committee readily concurred in the proposal, and, after repeated meetings, at which Dr. Andrew Clark has presided, the result has been the introduction of the Medical Act Amendment Bill of Mr. Hardcastle. This Bill constitutes a new departure. It is not the Bill of the Association merely, it is the Bill of the Conference before mentioned, though, in its essential features, it embodies the points in favour of which Dr. Edward Waters, in his evidence before the Select Committee, bore testimony.

1. It provides, instead of the present Council of twenty-four members, a General Medical Council numbering twenty-six, but including six direct representatives of the profession; and it groups Durham with the Victoria University in representation. Although the Victoria University does not grant medical degrees, it is, like Oxford, an important educational institution.

2. It provides for the establishment of a conjoint Board in each division of the kingdom, under the direct authority of the General Medical Council.

3. It gives the General Medical Council, altered so as to make it representative of the profession as well as of the universities and corporations, greater powers, so that it will exercise authority over preliminary and professional examinations, curricula, etc.

4. It recognises the claims of universities to have their first professional examinations accepted by the conjoint boards.

6. It contains an efficient penal clause.

This Bill differs from every preceding one. It is somewhat bolder in its intended enactments. It virtually disfranchises three licensing corporations, one in each division of the kingdom, *e.g.*, the Apothecaries' Society of London, the Faculty of Physicians and Surgeons of Glasgow, and the Apothecaries' Hall of Ireland. The most ardent supporter of multiple corporations cannot maintain that there is any need for, or any advantage in, the continued maintenance of these bodies as medical authorities; and once the conjoint boards are established, very few, if any, will become affiliated to either of them when the royal colleges will be open to receive them. Their *raison d'être* will then have lapsed, and should they perchance be embalmed in any conjoint scheme, it is manifest they will possess no more vitality than an Egyptian mummy, except, possibly in the way of obtaining a share of the fees paid to the conjoint boards for qualifying certificates. The termination of these bodies as medical authorities will vacate their seats in the General Medical Council, which they should never have filled. By the Bill of the Conference, the president is to be elected from among the members of the Council, instead of from without. This arrangement will yield four seats for direct representatives, so that six direct representatives will only increase the present Council of twenty-four to a Council of twenty-six. If it be objected that the funds, which the profession wholly supplies, are not equal to the present rate of payment of all these members, then three plans are open: 1st. That of the representative of Dublin University, that the universities and corporations should each pay their respective representatives; and the Crown should in like manner pay the Crown nominees. 2nd. The plan of Mr. Ernest Hart, that the representatives should be entirely unpaid, as is the case with all the representatives in the Council of the British Medical Association. The adoption of either of these suggestions would set free a large sum for the encouragement of scientific investigations, and the British Medical Association might thus find in the General Medical Council a worthy rival in the promotion of original work. 3rd. The plan of Dr. Andrew Wood by which the payment of the representatives should be reduced from five to three guineas a day, would also leave a more than sufficient margin for the payment of the direct representatives. Space forbids further remark; but before concluding, it may be well to state that the Conference, knowing that the first professional examinations of the universities are more extensive than will be those of the conjoint boards, have deemed it wise to recognise them, leaving the practical subject only to be tested by the board. In this way the Conference, and we trust the British Medical Association and the profession likewise, will be satisfied that the cause of education does not suffer through the provisions of Mr. Hardcastle's Bill.

THE SPRAY QUESTION.

As to whether the spray is or is not a necessary part of the Listerian method, is a question which at the present time is much discussed, especially in Germany. There are two points of view from which this question has been looked at. First, does the spray really render inert the causes of fermentation which we know to be present in the atmosphere? and secondly, whether it does so, or no, is it necessary, or may it not be replaced by some more convenient means?

Last year, Stimson and others, published a series of experiments which in their opinion showed that the spray was not effectual in destroying all living particles present in the atmosphere. In Stimson's experiments, however, by sweeping the floor of the rooms in which the experiments were carried on, or in some other way, the grosser particles of dust were raised, and mention is specially made of these large masses. On the other hand, experiments have been performed, as for instance, by Cheyne, which show, that acting in the ordinary air of rooms or wards the spray is apparently effectual in destroying all traces of life floating in the ordinary but little disturbed atmosphere. From this point of view, it is simply a question of size of the particles which the spray meets with. If these are minute and but little compact, they will be disinfected. If they are large and dense, as will be the case if the floor be swept during or immediately before the experiment, one could not expect the spray to soak through them sufficiently during their transit. There is another way, however, in which the spray may act on these larger particles, viz., by bedewing the surface of the wound, and thus keeping up the action on the dust which began during its transit through the spray. In fact, the particle of dust already moistened, while passing through the spray, falls into a thin layer of carbolic lotion and thus disinfection is completed. As a rule, however, particles of dust which are small enough and light enough to float about in the atmosphere, such particles as are present in ordinary rooms or wards will, as far as we can judge, be acted on directly in a sufficient manner by the spray, for they will not fall straight through it, but will be carried along with it after being moistened with carbolic acid before reaching the wound.

Seeing, then, that the spray is really of use in one or other of the ways just indicated, the second question arises as to whether it is necessary, or whether some other mode of manipulation might not be more conveniently substituted for it. That the spray is not by any means absolutely essential for antiseptic work, and that aseptic results may be obtained without its use, is at once evident from the experience of Mr. Lister himself. For it must not be forgot, that it was only after several years' practice of antiseptic surgery that Mr. Lister adopted the spray, and that before that time he had been performing operations only justifiable when the causes of fermentation can be excluded from wounds. He only adopted the spray as a more convenient and certain mode of obtaining the same results which he had previously got. Before the spray period, however, he had used various precautions, such as irrigation of the wounds with carbolic lotion or carbolic oil, etc.

Mr. Lister's original method has of late been revived and advocated in Germany, more especially by Prof. Trendelenburg. For several years he has given up the use of the spray in his practice, and resorts instead to frequent irrigation of the wound with the lotion. When he has concluded the operation, he washes out the wound thoroughly with carbolic lotion, and after stitching it up, he frequently injects it by means of a syringe. A similar method has been practised by von Bruns and advocated by Mikulicz. The results obtained in this way are, as is only to be expected, very excellent; but we doubt whether we have here a better or a more convenient method than by the use of the spray itself; indeed there are two serious objections to it. In the first place, as Wernich has pointed out, the element of certainty with

regard to the result is very much diminished, for one can never be sure that every particle of dust which has fallen on the wound during an operation is thoroughly acted on by the carbolic acid at the end, and it is as likely as not to happen, that the particle of dust which escapes this action is a living particle, and may set up fermentation in the wound. And then, in the second place, this free application of carbolic acid is by no means a desirable thing, for by it the tissues are unnecessarily injured and irritated, while the chance of an inconvenient absorption of the acid, and consequent carbolic poisoning, is very much increased. On the other hand, the spray is really not the inconvenience which some make it out to be; it requires no extra assistant; it does not obscure the field of vision; it does not irritate the wound so much as the other method, while at the same time it adds a considerable element of certainty to the result. The form which this discussion is apt to take is a useless one, the fact being, as we have attempted to show, that, in the present state of science, if the spray is dispensed with, some other means ought to be adopted in its stead.

Whether the spray remains the best means of attaining the wished for result, purification of the air, or whether it be replaced by some other more convenient method, does not affect in the least the truth of the great principles of antiseptic surgery as enunciated and taught by Mr. Lister.

SIR WILLIAM GULL AND DR. PAVY.

THE decision of the Board of Censors was announced yesterday, at the Comitia of the College of Physicians, on the complaint laid before them by Dr. Pavy as to the conduct of Sir William Gull in reference to the trial of the Guy's Hospital nurse, at which he gave evidence reflecting upon the skill of Dr. Pavy, and the correctness and propriety of Dr. Pavy's diagnosis and treatment of the case. The judgment arrived at was read as part of the proceedings of the Board of Censors. It runs as follows:

January 12th, 1881.

The President and Censors of the Royal College of Physicians, having carefully considered Dr. Pavy's complaint, and Sir William Gull's reply to that complaint, do not deem the character of the evidence which a Fellow or Member of the College has given on oath in a court of justice, a proper subject to investigate, when the court has expressed itself satisfied in regard of the truthfulness and sincerity of the witness.

They consider Sir William Gull, holding the opinions he expressed on oath, justified in going into court. They are farther of opinion that Dr. Pavy's diagnosis and treatment of the woman afford no grounds for any remarks calculated to disparage his well-deserved reputation as an eminent and skilful physician.

(Signed) JAMES RISDON BENNETT, President.
WILLIAM JENNER.
J. C. BUCKNILL.
HERMANN WEBER.
E. HEADLAM GREENHOW.

It will thus be seen that the Board of Censors declares itself legally incapable to entertain any questions arising out of sworn evidence of a physician in a court of law; but that on the other hand, upon the facts of the case, it contravenes the accuracy of the conclusions stated to the court by Sir William Gull, who, in his evidence before the court, certainly made statements calculated to disparage the opinion of Dr. Pavy, and to reflect upon his judgment in the case.

In the course of that trial, the following question and answer are recorded:—Question: "In your opinion, should a skilful physician have known that brain disease existed?"—Sir W. Gull's answer: "There I must be careful. There is, no doubt, great difficulty in recognising brain-disease at that stage. There is no doubt it is one of the most difficult parts of medical practice, but I cannot doubt that suspicion should have existed"; and later on, when pushed to explain what he meant by the word "suspicion", and asked by the counsel for Dr. Pavy "if often suspicion was not very incorrect", his answer was, "No, I will not say that; no, I will not say that". The implication was of course a very serious one, and made under such circumstances by a man standing to Dr. Pavy in the relation of a colleague, came with double force. The deliberate judgment now given by the censors vindicates the propriety and necessity of the action taken by Dr. Pavy, and leaves Sir William Gull in the position of having made a charge on a public occasion, and in a court of law, against one of his colleagues which, in the opinion of a most careful and eminent body of physicians, after a patient and deliberate investigation, was made without grounds.

The general opinion of the profession has long been made known upon this point, and was pronounced at Cambridge with an almost cruel vigour, on a public occasion, which gave rise to one of the most painful public displays of professional reprobation which can be conceived. The condemnation then expressed by the general body of the profession, and now by its most authorised tribunal, is painful and severe. It must, no doubt, be most acutely felt by any physician, however eminent, however able and highly placed. On the other hand, it is only right to remember on this occasion, that Sir William Gull must be credited in all justice with having acted upon a generous impulse which led him to defend, by what would now most probably be admitted by himself to be inconsiderate vigour, a woman whom he, at least, believed to be likely to suffer a severe penalty for an offence which had in it mitigating considerations, which he thought it right to make plain in a court of justice. A physician owes to the community the whole debt of truth. He owes to any one whom he conceives to be in any degree less guilty than they are charged to be, the whole weight of his testimony in their favour; and this consideration has evidently weighed strongly, as it ought to weigh, with the Board of Censors, in declining to review the whole of Sir William Gull's evidence on the general question of privilege. It has before been questioned in our columns, on the occasion of the previous complaint of Dr. George Johnson, to the College of Physicians, against Sir William Gull, upon his evidence in the Bravo case, in November 1876, how far the authority of the Censors can be rightly extended to regulate the words and the temper of physicians, who, in the discharge of their citizen duties, are called upon to give evidence upon oath in a court of law. The evidence given upon oath in such cases is, in the highest degree, privileged; and any review of such evidence must be conducted, if at all, with a very careful regard for such privilege. Of course, such evidence is not protected from the expression of public, or of professional opinion; but it must be a very delicate matter for a chartered body such as the College of Physicians, having certain powers entrusted by law to its Board of Censors, to deal with a complaint against evidence given upon oath by one of its Fellows in a court of law. In this case, the judge went out of his way to pay a compliment to both witnesses for their evident sincerity and minute veracity; and it would have ill become the Board of Censors to accept any other basis, or to attempt to infringe such privileged statements. Physicians, indeed, at least as much as any other class, have the highest interest in the maintenance of the privilege of sworn evidence, given for the purpose of justice. They are frequently called upon to give opinions as to the *bona fides* of alleged symptoms of illness, as to the trustworthiness of statements of patients and their medical advisers; and, in cases of doubtful insanity, this evidence must frequently bear upon subjects in which, if they are to speak the whole truth, they require the fullest protection which the doctrine of privilege can afford. The decision of the Board of Censors is accepted by us, as we believe it will be accepted by the profession generally, as a wise, reticent, and just decision. It is one as to which little further doubt or discussion is likely to be raised; and, as to the two parties to the case, we can only tender Tranio's advice, which we offered on a former occasion, that they should now

> "Do as adversaries do in law—
> Strive mightily, but eat and drink as friends".

IN view of the opinions lately expressed by eminent oculists, that the reading of German text is injurious to the eyes, the Bernese Government have resolved as much as possible to discourage its use, and all their official announcements and reports will henceforth be printed exclusively in Roman characters.

DRS. ROBERT BARNES and George Roper have been elected Consulting Physicians to the Royal Maternity Charity.

THE Municipal Council of Paris includes among its members twelve belonging to the medical profession.

THE Municipal Council of Paris has decided to establish isolated wards in the Hôpital des Enfants Malades for the treatment of cases of diphtheria. There will be two wards, each containing ten beds for children of each sex.

MR. ST. GEORGE MIVART, the critic of Mr. Darwin's theories, has a new work in preparation called *The Cat*, being an introduction to the study of vertebrate animals, especially mammals. It will be republished in the United States.

MR. ERNEST HART'S little book on the *Truth about Vaccination* is being translated into Dutch by Dr. Dompeling of Utrecht, whose qualifications for the task, as one of the vaccinators at the Utrecht calf-vaccine institute, and as an expert in the subject generally, are indisputable.

WE read also, in the pages of the last number of the *Journal d'Hygiène*, that Dr. Boggs of Paris "had the happy thought of bringing this memoir within the reach of all French readers by a faithful representation, written in a style which denotes a true Parisian. It is published in *La France Médicale*."

THE directors of the Netherlands Society of the Red Cross have officially announced, that the statutes of the society do not authorise them to assist the sick and wounded in the Transvaal, the fighting going on in that country not being a war in the sense to which the regulations of the society are applicable.

THE annual death-rate from all causes in London, which had not exceeded 21.3 and 22.6 per 1,000 in the two preceding weeks, rose last week to 28.4. During the past three weeks of the current quarter, the death-rate in the metropolis has averaged 24.1 per 1,000, against 27.5 and 25.6 in the corresponding periods of 1879 and 1880.

SOME new specimens of cinchona have been introduced into Madras by Mr. Cross, on behalf of the Government, having been obtained by him in South America at a distance of about three hundred miles from the coast. Amongst the plants are three calisayas of the Santa Fé variety, which yield, on analysis, ten per cent. of pure sulphate of quinine.

WE understand that Dr. C. D. Phillips, who lately received £16,000 on an action for damages against the South-Western Railway Company (the medical evidence having tended to show that his health was permanently injured), has so far recovered as to announce his intention of lecturing at the Westminster Hospital in May.

AFTER a conference with the medical profession of Sunderland, the Health Committee of that borough have recommended to the Town Council the payment of half-a-crown to medical practitioners for each case of infectious disease reported by them. This is a step in the right direction; and it is understood that, as soon as possible, compulsory powers for requiring the notification of such cases will be obtained.

THE dinner in celebration of the completion of the new buildings in University College, which was to have been held on Wednesday afternoon, is postponed in consequence of the inclemency of the weather. It will be held in February, at a date to be subsequently announced.—The meeting of the Harveian Society of London has been postponed for the same reason.

THE Société de Médécine et de Chirurgie of Bordeaux has offered a prize of 1,000 francs (£40), to be awarded in the beginning of the year 1882, for an essay on the influence exercised by the adoption of Lister's antiseptic method on the treatment of joint-diseases. The essays, legibly written in French or Latin, may be sent prepaid to M. Donaud, Allées de Tourny, 10, Bordeaux, up to December 31st, 1881. Competitors are requested not to send their real names, but a *nom de plume* on the memoir, duplicated on a sealed note containing the name and address of the writer.

THE professorship at the clinic of the diseases of the skin at the University of Vienna, vacant through the death of Professor Hebra, will be filled at present only by an extraordinary professor. There are three eligible candidates for this chair: Professors Kaposi, Auspitz, and Neumann. Kaposi, the son-in-law of Hebra, has the best chance; and he was proposed by the commission of professors as the only candidate. This proposal, however, has not been approved by the majority of the medical faculty, which seems to have been influenced by the circumstance that Professor Kaposi has established a private clinic for the diseases of the skin. The medical faculty has elected another commission, to make a new proposal for filling the vacant chair.

CLINICAL SOCIETY.

THE newly-elected president, Mr. Lister, will take the chair for the first time at the meeting of the Clinical Society, this evening (Friday), and will deliver an introductory address before the ordinary business of the meeting is proceeded with. Mr. Lister will take for his subject, "The Catgut Ligature," and a discussion will probably follow.

GUY'S HOSPITAL.

IT has been determined by the committee of the Habershon and Forster Testimonial Fund, to close the subscription-list on Monday, February 28th. The sum already contributed exceeds £200, although the amount of each donation was limited to one guinea, and Guy's men only, past and present, have been allowed to subscribe. All gentlemen wishing to add to the fund are requested to forward their donations at once to the honorary treasurer, C. A. Aiken, Esq., 7, Clifton-Place, Sussex Square, W.; or either of the honorary secretaries, H Morris, Esq., 2, Mansfield Street, Caveadish Square, W., or F. Durham, Esq., 38, Brook Street, Grosvenor Square, W.

"ADOPTING" A CHILD.

A HERBALIST in Huddersfield was last week committed for trial for the manslaughter of the illegitimate child of a domestic servant. He had "adopted" the child upon being paid £10 by the mother, but it soon afterwards died; and it was shown in evidence that, though nearly four years of age, it only weighed eighteen pounds; that death was accelerated by want and neglect, and that the kidneys were the only healthy organs in the body. This is a proceeding which our Parliamentary Bills Committee vainly sought to have regulated by law.

THE REMOVAL OF SNOW.

THE question of removing the snow from the streets has been exercising the ingenuity and taxing the resources of municipal authorities and vestries throughout the country. Mr. J. I. Clarke of Moorgate Street has contributed a practical effort towards this desirable end by the invention of an apparatus now at work under the manhole of the sewer in Fore Street, E.C. The apparatus consists of a series of metal plates placed in an inclined position, one above another, directly beneath the manhole, so that the snow therein deposited falls upon them. Beneath each plate are atmospheric gas-burners, by which they, as well as the space between them, are heated, the burners being supplied with gas from an adjacent main. An air-shaft, communicating with the outer air, is provided for ventilation. Flues are also fixed to carry the heat from the spaces between the heated plates to the manhole-shaft, so as to operate on the surface of the snow placed therein. One labourer only is required to work this apparatus, to rake the sweepings from the plates when the snow is melted, the resultant water running direct into the sewer. It is claimed by the inventor that, if this apparatus were fixed in principal thoroughfares, the streets would be cleared of snow in a few hours, with a minimum of labour and expense. The great importance to the health of the

community, particularly of the ill-shod and badly fed women and children, of having the frozen snow removed as quickly as possible from the tracks they have to traverse, induces us to give the publicity of our columns to this as to every other well meant attempt to diminish a very serious source of discomfort and disease.

THE LATE DR. ANDREW WOOD.

We deeply regret to have to make the announcement of the sudden decease of Dr. Andrew Wood, the Chairman of the Business Committee of the General Medical Council, and from the first one of the most prominent, energetic, and powerful members of that body. Of Dr. Wood's vigour as a debater, of his fairness of mind and honesty of speech, of his excellent business qualities, and of his personal breadth of character and culture, his colleagues and friends—who are many—will long retain a bright recollection. His loss to the Council will be great; for no one held so many of the threads of business, or knew so well how to keep them from tangles. Latterly, Dr. Wood had distinguished himself as the leader of the reaction of the national bodies against the Conjoint Examination Scheme, and against the provisions in the various Bills which aimed at that object; and showed in that matter a vigour worthy of a better cause. He made himself also the official apologist for the Council—its weary debates, its incessant iterations, its obstructive tenderness to corporate interests; and his orations on that head had the merit of uncompromising strength of statement, great energy of delivery, and the most determined declaration of war against the Council itself, against the British Medical Association, editors of journals—with whom he maintained, however, close ties of personal friendship—against all who would touch a hair of the body to which he belonged. Publicly and privately, he was a notable figure; and when seen at Cambridge in August last—for the first time, we believe, as it was the last—he bade fair to last another quarter of a century, so hale, hearty, and blithesome did he show. We publish, in another column, some notice of the professional life and works of Dr. Wood. His loss will be greatly lamented, for he was universally liked and esteemed.

THE SMOKE NUISANCE.

Sir Joseph Causton and Co., printers and wholesale stationers, were summoned to the Southwark Police Court for using two furnaces so constructed as not to consume their own smoke. Mr. Slade ordered the defendants to pay a fine of £3, and £1 13s. 6d. costs. A wholesome example in high places does good. It is only necessary for any medical man, who finds a factory chimney sending out black smoke, to write to the police at Scotland Yard, marking his letter on the outside "Smoke Nuisance"; or he may invite the aid of the local medical officer of health, who is invested with powers which are insufficiently enforced by the vestries.

SMALL-POX ACCOMMODATION AT THE EAST END.

At the last meeting of the Metropolitan Asylums Board, several letters were read from the parochial and hospital authorities in Poplar and other adjacent districts, representing the inadequacy of accommodation for poor persons infected with small-pox. The total number of small-pox patients admitted to the several hospitals at Homerton, Stockwell, Fulham, and Deptford, during the fortnight ended Friday, January 21st, was stated to be 259; of these, 50 had died, 162 were discharged, and 499 remained under treatment.

THE HEALTH-OFFICER OF SUTTON BRIDGE.

Some weeks ago (see vol. ii, 1880, p. 907), we had occasion to comment on the action of the Sutton Bridge Local Board in ousting their health-officer, Mr. Haines, because of the honesty of his opinions. It now appears that the gentleman elected as Mr. Haines's successor is a Poor-law medical officer; so that the Local Government Board have control over his appointment. They have accordingly written to the local board, stating their objections to the selection made by the latter, and asking for reconsideration. The local board, however, have declined to do this; and it will be interesting to see what, under these circumstances, the next step of the Whitehall authorities will be. It is much to be deplored that such shilly-shallying and vexatious delays as these proceedings betoken should be possible.

PRACTICAL ANATOMY.

With reference to the supply of subjects for dissection, on which we have recently had to comment, it is, we are glad to learn, proposed to hold a conference of the lecturers, senior demonstrators, and others interested in the teaching of anatomy in England, at the Middlesex Hospital, on Thursday, February 3rd, at 8 P.M. The circular convening the conference says: It is, we believe, widely felt that the method now in force of obtaining subjects for practical anatomy, and the teaching of operative surgery, is unsatisfactory in itself, and irregular, insufficient, and costly in its results. The object of the conference, therefore, is to consider whether any, and if any what, changes can be made in the present system of supply. The presence of the teachers of anatomy is particularly requested; but, if any are prevented from attending, their views or suggestions in writing are asked. The circular is signed by Henry Morris, Surgeon to, and Lecturer on Anatomy at, the Middlesex Hospital; Arthur Hensman, Aural Surgeon to, and Senior Demonstrator of Anatomy at, the Middlesex Hospital.

OUTBREAK OF FEVER AT TANDRAGEE.

Mr. Edward Shackleton, of Tandragee, writing under date of January 18th, says, referring to a paragraph in our issue of January 15th:—No doubt exists in the mind of Dr. Taylor, the dispensary medical officer, as to the nature of the recent outbreak of fever at Tandragee. Of the one hundred and fifty cases he had seen, most of them were very typical cases of enteric fever. Of these, twenty were early removed to the union hospital, running the usual course; the earlier cases being exceedingly well marked. He reported to the guardians that an outbreak of fever seemed imminent, and further caused a well to be closed which there were good reasons for supposing was contaminated. The disease from the first was not confined to mill-workers, since five persons who had not worked in the mill had taken the fever, whilst three millworkers inhabiting the same house escaped. Up to this time, out of one hundred and twenty-four dispensary patients, nine deaths had occurred in the union hospital, Banbridge; and of nearly forty privately treated, eight had died, and one was not seen by a medical man until moribund. Considering that many cases were severe, Dr. Taylor considers the mortality not excessive. Dr. Taylor is further of opinion that the water of a well had become contaminated, and was the originating cause, as he discovered that the evacuations of a typhoid patient had been habitually thrown into the stream which passes close by, which water was sometimes thrown into a pump now closed. Another reason for suspecting the mill-stream was, that all the earlier cases had drunk of this water, a larger number being millworkers employed in one room, who, from the nature of their occupation, drank a great deal of water from the pump. The patient above referred to was one of a shoemaker's family, who, fearing serious losses to his trade by the stigma, kept it secret; and the case was in the third week of fever, and of well-marked typhoid, when Dr. Taylor first saw it, which was when the outbreak began. A sum of money has been subscribed to provide fuel, clothing, etc.; and by this means many deaths from bronchitis have probably been averted; the total number of deaths being seventeen out of one hundred and sixty patients.

DIPHTHERIA AT SURBITON.

The outbreak of diphtheria at Surbiton, to which we alluded in our last issue (page 140), seems to be creating considerable excitement in the district. The last number of the local paper contains (as previous numbers have done) several letters on the subject; but, though Surbiton correspondents are endeavouring with much insistance to lay the blame upon defective sewer-ventilation, it seems impossible, for the reasons urged by Dr. Coleman in the report noticed last week, to accept this

solution of the difficulty. That the exact mode by which the poison has had access to the milk has not been yet discovered, cannot invalidate the fact that every one of the twenty-one households invaded up to December 27th was supplied with milk by a particular dealer, the milk-supply being apparently the only thing that the houses attacked had in common.

DR. J. BUCHANAN.

WE read in the *American Medical Journal* that in the case of Dr. John Buchanan, formerly Dean of the Eclectic Medical College, Pine Street, Fourth Avenue, Philadelphia, and of the American University of Pennsylvania, charged with conspiracy to defraud the United States, a fine of five hundred dollars was imposed by Judge Butler, in the United States District Court. Added to this were the costs of the prosecution, and the prisoner will also have to undergo ten months' imprisonment. M. V. Chapman, in the same case, was fined five hundred dollars and costs and sentenced to a year and ten months' imprisonment.

ACCIDENTS ON THE ICE IN THE LONDON PARKS.

THE accidents on the ice in the parks have not been of a serious nature, considering the very great numbers of people who have frequented the frozen surface of the water during the past dozen days. Mr. Blackett, at the Royal Humane Society's Reception House in Hyde Park, has simply been called to a case of fracture of the collar-bone in a man, whom he sent to St. George's Hospital, as pads, etc., are not kept at the receiving-house. Other patients have also been sent to the same hospital from Hyde Park and Kensington Gardens. In Regent's Park, Mr. G. E. Norton has been called to two cases of deep wounds over the eyebrows, and to one case of broken arm. In St. James's Park, Mr. Bond reports that six or seven cases of cut heads have been dressed by the attendant at the receiving-house, and that some sprains and bruises have been sent for treatment to the Westminster Hospital, but that none of them were so severe as to require admission. At these three parks there are receiving-houses in charge of an attendant, at which hot baths and beds are kept ready for the reception of people who may become immersed; and a table on which the apparently-drowned may be treated, according to the Sylvester or other method. In St. James's Park an electric battery is also kept. But the frost has hitherto this year been so severe, that no immersions have occurred, and the resources of the reception-houses have been scarcely called into requisition.

THE RECENT INUNDATIONS SOUTH OF THE THAMES.

THE streets and courts in which most distress was caused by the recent exceptionally high tide between Blackfriars and Vauxhall Bridges, were Boddy's Bridge, Broadwall, Princes Street, Princes Square, Duke Street, Commercial Road, Doon Street (late John Street), Elizabeth Place, and Bond Street. These are in the immediate vicinity of the Commercial Road, Lambeth, and comprise in all about 150 houses, which have been more or less deluged by the Thames overflow. Also, but to a less extent, the following streets were visited, which are situate off the Albert Embankment, and in close proximity to Messrs. Doulton's potteries, viz., High Street, William Street, Ferry Street, Brother's Row, King's Head Yard, Albert Embankment, Church Street, and Palace Yard. Here upwards of 100 tenements were flooded, but the destruction was not so complete as in the former cases. In the houses in Princes Square, the water reached a height of seven or eight feet, and that on the ground-floor; and at the rear of this, in a row of cottages in Broadwall, it actually covered the first-floor! The testimony of the tenants shows that the inrush of the water was so rapid, that there was barely time for them to take flight in the upper stories. Fortunately, no lives were lost; had it occurred thus suddenly, however, in the night instead of in the broad daylight, the sacrifice of life probably would have been considerable, as most of the rooms on the ground-floor serve as sleeping as well as living apartments. In Princes Square, there are twenty-five houses, all of which are occupied by a class of labourers—men and women—employed at the neighbouring dust and other wharves. As a rule, each room is occupied by a separate family; and there is not one on the ground-floor which has not been completely wrecked. In every instance the bed and bedding completely destroyed, and everything washed away, even to the pictures and other specimens of cottage ornamentation from the walls. In one of the back rooms was to be seen, still hanging from the ceiling, a chair, the end of which had been forced into the plaster, as it was borne up by other floating articles of furniture. On four occasions since the completion of the Thames Embankment have these localities been similarly flooded; and, apart from the misery and destruction caused thereby, what must be the effect upon the health of these poor inhabitants? and who is responsible for the amount of disease and mortality which must inevitably follow in its train? It is but a sorry consolation to these poor wretches to hear it expressed by a certain high functionary (the Chairman of the Metropolitan Board of Works) that, because "the tide was a few inches higher than it had ever been known before, it was impossible for any human skill to have averted the consequences". If the human mind, as represented in our corporate bodies, is not equal to an occasion like this, the sooner it is supplanted by other material the better. It is well known by all practical men that, by a very little ingenuity—by the exercise of ordinary foresight—the sufferings and losses of these poor people could have been, if not wholly prevented, greatly mitigated.

KITCHEN-BOILER EXPLOSIONS.

THE usual list of killed and wounded from this cause has already far exceeded its average annual proportions. Why such a cumbrous and costly mode of heating baths is persisted in is difficult to tell; but it is probable that, until the plumber is made liable to be brought up for manslaughter, there will be no change. The average Briton is far too conservative to give up an old system for a better. There is not the slightest reason why a kitchen or bath boiler should ever explode, if properly fixed by a plumber who has the smallest amount of common sense. There are two simple ways by which an explosion can be totally prevented—one by fixing a dead weight safety-valve, which should be, for convenience, fixed when the apparatus is put up first. The other is to cut a hole in the hot water return-pipe a little distance above the boiler, this hole being from half an inch to an inch in diameter; and to solder over this a piece of sheet-lead about one-thirty-second of an inch thick, just sufficient to safely stand the general water-pressure—making, in fact, a weak place in the system of pipes which will be the first to give way. This hole must be cut in such a position that the pipe is certain to be warmed from the fire, and as near as possible to the boiler. It must also be where, in case of the sheet-lead being blown out, the water will not be thrown into the room, but into the fire, so as to extinguish it. Any plumber should do this for a shilling or two; and, although it is liable to make a mess, it only does this when an explosion would occur in its absence. It is also easy to put an escape pipe through which the water could be led away to the outside of the building in case of accident. This thin lead safety disc might be made so as to fix in a brass socket and be easily replaced if an accident did occur. The whole system of circulating boilers, as at present fixed, is radically wrong, as, with few exceptions, the hot water is rarely to be got when wanted in any quantity, and the cost in fuel expended, is utterly out of proportion to the useful result obtained. There are many simpler, cheaper, and more satisfactory arrangements which can be fixed at less than one-tenth the cost, and of all these the best is a galvanized iron or copper cylinder of about eight gallons capacity, with a tap, and a good gas heating burner underneath it, the cylinder having a loose lid and a water supply tap over it for filling as required. After some months' daily experience with this, there is no doubt that it is far cheaper to use than the circulating boiler system and far more useful for general work. It has also the advantage of absolute safety under any possible condition. In case of a stoppage preventing the use of the kitchen fire, the use of gas for cooking prevents the slightest difficulty or inconvenience. This has now attained such perfection, that it is more than probable that a good gas cooking appara-

tus, even if got as a makeshift, will quickly find its proper place, and permanently supersede the fire for all work. It is generally considered that circulating boilers with a reserve cylinder, are safe from explosion. This is a mistake, as a case where the cylinder burst and flooded a house has come under notice within the last few days, and this is by no means the first accident of the kind.

A TRIUMPH OF DENTISTRY.

AT the last meeting of the Medical Society at Strasburg, reported in the *Medical Gazette* of Strasburg, Dr. Jules Bœckel presented, in the name of M. Sauval, dentist, a lady for whom the latter had extracted a small molar tooth for dental caries, with violent pain; and, having found it slightly carious to the bottom of its root, he sawed off the points of the root, filled it with gold carefully throughout the carious channel, and then reimplanted the tooth. The lady was free from all her pain; the tooth re-established itself solidly in the mouth; and, at the date at which she appeared at the Society (three weeks after the operation), the tooth served for mastication as well as her other teeth. This is certainly a remarkable example of what is technically described as dental autoprothesis with aurification.

THE WEATHER AND THE MORTALITY BILL.

THE effects of the terrible weather experienced last week have not been long in making themselves felt. The mortality in London for the week ended Saturday, the 22nd instant, was at the rate of no less than 28.4 per 1,000, against rates of 21.3 and 22.6 in the two preceding weeks. The deaths, which numbered 2,016, were, in fact, 230 more than the average in the corresponding week in the last ten years. The stress of the weather is, however, mainly seen in the mortality from diseases of the respiratory organs. The deaths from these causes, which had been 353, 363, and 371 in the three preceding weeks, rose last week, under the influence of the exceptionally low temperature, to 617, showing an excess of 141 upon the corrected average number in the corresponding week of the last ten years. Of these 617 deaths, 441 were attributed to bronchitis, and 97 to pneumonia. This mortality is not in the least surprising, considering the abnormal meteorological conditions of the week. At Greenwich, the mean temperature of the air was 23.4°, or 15.5° below the average in the corresponding week of the twenty years ended 1868. The mean was very considerably below the average on each day of the week, the coldest day being Thursday, when the mean was only 19.2°, showing a deficiency of 19.9°. The lowest night temperature was 12.7° on Monday, and the highest day temperature in the shade 31.7° on Saturday, the extreme range of the week being, therefore, 19.6°. Perhaps it is hardly necessary to observe that the tale of deaths above specified, shocking as it is, by no means represents the whole of the mischief done by the past week of Arctic weather. Hundreds of cases of disease, brought on or aggravated by the cold, have not yet had time to reach their fatal issue; and we may expect to see the Registrar-General's returns, for several weeks to come, swollen by the mortality directly due to the present severity of the weather. Illnesses of all kinds are, of course, more or less prejudicially affected by cold; but especially diseases of the respiratory organs. Though it may be hoped that the worst of the weather has passed, it behoves everyone to be particularly careful to neglect no sign—even the smallest, of cough or cold; but to take, under proper medical advice, all possible precautions against the advance of an enemy, than whom none is more insidious or disabling.

THE VICTORIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

THE Victorian Branch of the British Medical Association appears to be prospering rather more, and making more public impression, than is agreeable to the *Australian Medical Journal*, which makes many ingenious calculations, of which one object is to show apparently that seventy members is no great increase over thirty. It objects, also, to the notice taken by the daily press of the proceedings of the Branch, which is, by its constitution and the eminent positions of many of its office-bearers and members, enabled to exercise an important influence on the progress of public opinion and the action of Government in such matters as administration of lunatic asylums and hospitals; the training of nurses; the basis of home-hospitals; the question of paying patients; the organisation of the sanitary service; notice of infectious diseases, and vital statistics, and their registration. In these and all such questions of public administration and social interest, the Branches of the British Medical Association, at home and abroad, are able to educate public opinion and advance national progress, while defending medical interests and consolidating professional influence and power. They need not fear publicity, but must employ it actively, judiciously, and without individual self-seeking. On the other hand, the publication of purely medical matter, reports of cases, operations, etc., should be sternly and rigidly excluded from publicity elsewhere than in the professional periodicals; otherwise great abuses are likely to follow, precisely of that kind which it is the object of the formation of the Branches to severely repress.

HOW SMALL-POX IS SPREAD.

IN a recent report to the Ashton-in-Makerfield Local Board, Mr. Nathan Hannah, the officer of health, gives the following instructive example of one of the many ways in which small-pox is ignorantly and carelessly spread. A man, sick of "skin-disease", lost a child from bronchitis during his illness, and borrowed a suit of clothes from his comrade to attend the funeral. With the scabs still upon him, he returned to his work, using the same tools as his comrade, who in the course of a few days was taken ill with very bad confluent small-pox. Examination of the first man convinced the health-officer that his "skin-disease" was in reality modified small-pox; so that his comrade might either have caught the disease from the clothes, or by direct infection from the man first affected.

OVERLAYING CHILDREN.

IN the report of Mr. Humphreys, one of the coroners for the county of Middlesex, of the number of inquests held by him between November 11th and December 31st, together with the causes of death determined by the jury in each case, it is stated that during that comparatively short period no fewer than forty-nine children of very tender age were reported as "suffocated in bed". In Dr. Hardwicke's district, for the same period, seventeen cases of this form of sacrifice of infant life are recorded. What is the remedy which should be recommended?

ALLEGED VIRILITY SINE TESTIBUS.

UNDER date of May 14th, 1880, Dr. Charles W. Robbins, of Milwaukee, Wisconsin, makes a brief record in the *Chicago Medical Journal*, of an exceptional case. Mr. M., aged thirty-eight, had his left testis removed for malignant disease, in the year 1874. The right gland became similarly affected during the course of the succeeding year, and was subsequently removed by Dr. Marks, of Milwaukee. For the past few months, the cord of the left side, which had not been completely extirpated when the first operation was performed, has been excessively painful, and it was removed on the 13th of May by Dr. Marks, assisted by Dr. Robbins. The patient stated that, since the removal of the second gland, he has regularly had sexual desire, erection and coitus, not apparently differing from that in which he indulged before castration.

VACCINATION RESULTS IN INDIA.

THE last report of the sanitary condition of India, contains some interesting items concerning vaccination. It appears that amongst the difficulties, the superintendent registrar of one of the divisions of the North-West Provinces had to contend with, was the desire to hinder the vaccination of both sexes; certain Thakur families allowing the vaccination of their daughters, but refusing their sons to be operated on. The result may be easily foreseen; during the prevalence of small-pox many of the male children died, whilst the females all but escaped the disease. The Thakurs have fortunately taken this severe lesson to heart, and now submit their boys for vaccination. In Berar, again, an inquiry was made in order to test the soundness of a common idea held by the natives that during a small-pox epidemic, vaccinated and unvaccinated suffer alike.

Statistics were collected from upwards of four hundred villages, and they proved that out of the 2797 deaths registered under small pox, only twenty-two, or .7 per cent., had been vaccinated, and that of these eight at least were imperfectly operated on. One of the most important body of converts lately obtained, has been the Brahmins. At their chief educational centre—Combaconum—they have learnt the benefits of vaccination, and are now showing an intelligent interest in it, which cannot fail to be productive of great practical results in the prevention of small-pox.

ENGLISH NURSES IN PARIS.

AN English lady, who has experienced the great want existing in Paris of trustworthy nurses for the sick, has opened a home there for English hospital-trained nurses, experienced in surgical and medical nursing. This institution was founded by Mrs. Robert Holland of Stanmore Park. It was opened in September 1878, with a small staff of nurses, under the superintendence of a qualified lady superintendent. We have had the opportunity of knowing personally with how much care the nurses have been selected, and how efficient they have proved in more than one case. The home has proved a boon to foreign visitors to Paris, and to other parts of the continent. Recently, the staff of nurses has been considerably increased, owing to a growing appreciation of the value of their services. The nurses are well trained and efficient. The home is situated at 29, Avenue Wagrum, Paris; and is under the direction of Miss Longstaff. There are many English physicians who would be glad to be able, from time to time, to afford this information to patients residing in France.

PUBLIC HEALTH MANAGEMENT IN BRUSSELS.

"THEY manage these things", exclaimed the author of the *Sentimental Journey*, "better in France"; but, in *L'Union Médicale*, we read that our French *confrères* think that, in matters relating to public health, they must yield the palm to Belgium. The sanitary police of Brussels is managed by a Bureau d'Hygiène, which is under the direction of Dr. E. Janssens. This Bureau discharges numerous duties; by it is carried on the registration of births and deaths, and all matters relating to vaccination; during the year, 1,202 children, over ten years of age, responded to the call to be revaccinated; and, in 13 per cent. of these cases, the operation was successful. The vaccine used comes from the Vaccinal Institution at Milan. The whole management of the various precautions against the spread of infectious diseases is in the hands of Dr. Janssens and his assistants. Detailed instructions for dealing with infective foci have been issued to the special officers (attached to each police division), whose duty it is to supervise measures of disinfection. For fumigation, sulphur is used; for latrines, drains, etc., a solution of sulphate of iron (one in ten); for clothes, etc., a solution containing 2.4 per cent. of sulphate of zinc, and half that quantity of common salt. The transfer of patients suffering from infectious disorders is managed in a simple and convenient fashion. The Bureau provides a special vehicle; when about to make use of this, a police-officer hails a hackney-coach, takes out the horse, and harnesses it to the invalid carriage. When the latter is brought back to the police-station, the cabman's horse is reharnessed to the hackney carriage, and the ambulance is disinfected. Further, to facilitate the treatment of epidemics, and to favour their early recognition, the teachers in the primary schools receive instruction in the first symptoms of infectious diseases. All the markets, slaughter-houses, butchers' shops, cattle-markets, and *halles* are governed by rigorous laws laid down in the interests of public health. Prisons, hospitals, schools, theatres, and all public establishments, are also subject to regular inspection. This work is carried on by a large staff, including eleven physicians. The inspection of schools is carried on in a most systematic manner. Since 1875, an experiment has been made in three primary schools by the introduction of a system of preventive medicine. The schools are visited; and children showing phthisical or scrofulous tendencies, or signs of general debility, are put under treatment; the medicine ordered is administered at school, and must, therefore, be taken regularly. The number treated in the three schools has been 1,570; and, of these, 70 per cent. have been distinctly benefited. So successful has this plan been, and so free from any objection on the part of the parents, that it is this year to be extended to all primary schools. A physical examination of the children, to determine the effect of the school discipline on their health and development over certain periods, has also been authorised. If such a system were put in force to-morrow in the primary schools of London, what an outcry would there not be raised! To what grand philippics, about liberty of the subject, and the sacred rights of parents, would we not be obliged to listen! There is also an organised system for giving assistance to persons meeting with accidents, or taken suddenly ill in the streets. *Postes de secours*, forty-six in number, are distributed throughout the city, and are furnished with proper appliances—hammock-carriage, fracture-apparatus, etc.—for the purpose mentioned. There is a special course of instruction for the police in the application of the first dressings, and the proper way of moving injured persons.

SCOTLAND.

ABERDEEN ROYAL INFIRMARY.

A SPECIAL general meeting of the managers of the Royal Infirmary was held on January 17th, in the Infirmary Hall—Lord Provost Esslemont presiding. The chairman said that at the last Quarterly Court certain proposed alterations affecting the offices of the resident assistants to the hospital medical and surgical staffs were under consideration. The chief recommendation, was that the resident assistants should be duly qualified practitioners, instead of students of the fourth year; and that the surgical instruments should be placed in charge of the assistant surgeon, instead of the head nurse as formerly. He now formally moved that these recommendations be given effect to, which was unanimously agreed to. A letter was read from Mr. Williamson, Infirmary Dental Surgeon, resigning his appointment, which he has held for nearly nineteen years. On the motion of the chairman, it was resolved to accept the resignation, and to fill up the vacancy at the next quarterly meeting, on the 14th March.

ABERDEEN: POPULAR SCIENCE LECTURES BY PROFESSOR STRUTHERS.

THE first of a course of six lectures on the structure and organisation of the human body, was delivered by Professor Struthers, in St. Katharine's Hall on Saturday evening. The hall was crowded in every part. Professor Struthers, at the outset, remarked that, as he was not one of those scientific men who kept their science all to themselves, he was there, at great inconvenience, to impart what he knew to the working classes of the city, to whom it was of great importance to know the laws and structure of their own bodies. The mere acquisition of Greek and Latin did not entitle a man to the distinction of being called learned; and even a thorough knowledge of their own language should not be considered the ultimate extent of their education. These branches were very good in their way, but something more was needed to complete the chain of their knowledge. Education, to be useful, should be scientific as well as literary. The study of the human body was of great service from a purely utilitarian point of view. There was also the scientific aspect of the subject. The great question which agitated many minds at the present day—the distinction between mind and matter—could be best solved when they possessed a thoroughly scientific knowledge of the human frame. There was also the evolution hypothesis—the relation of man to the animal kingdom; and he held, that those who were not acquainted with the structure of animals, could not give an intelligent opinion on that subject. The human body, he went on to say, could not be understood by the mere study of itself—it was necessary to go back to the earlier stages of growth and development in the higher animals. The action of the nervous system was then described, being divided into two sections—the cerebro-spinal, representing the mind, and the sympathetic, which regulated the feelings, and had communication with the stomach. Passing to the stomach itself, the lecturer illustrated by means

of numerous diagrams, the process of receiving food into the stomach, and described the salivary glands of the mouth, whereby a sufficient quantity of saliva is supplied for the proper mastication of the food. Comparisons were also drawn between the human stomach and that of the horse, the various points of similarity and difference being fully explained. Dr. Struthers also referred to the discovery of double stomachs in some bodies, the one being connected with the other by a narrow passage.—Professor Struthers, on Saturday night, gave the second of a course of popular lectures on the digestive organs. The audience numbered over seven hundred. The Professor sketched the structure of the gastric and intestinal tubes; and then alluded to the process of digestion. He also pointed out the properties of protoplasm, and gave a short history of the "cell theory"; and pointed out how recent and how extraordinary has been the advance in anatomy and physiology during the last thirty years.

ABERDEEN UNIVERSITY MEDICAL BURSARIES.

THE senatus of this university has resolved not to oppose the adoption of the report of the Endowed Schools Commissioners anent the foundation of eight new medical bursaries in this university. As soon as the report, or a modification of it, is issued as a provisional order by the Home Secretary, and after this order has been on the table of the Houses of Parliament for forty days, it will become law.

THOMSON LECTURES IN ABERDEEN FREE CHURCH COLLEGE.

MR. A. BUCHAN, the meteorologist, delivered, during the past week, three of a course of twelve lectures on meteorology. In his first lecture, he gave a short history of meteorology; and especially alluded to popular prognostics. In his second lecture, he dealt with the construction and the use of barometers; the pressure of the atmosphere; the barometric gradient; and the causes and laws of winds and ocean currents. The third lecture dealt with the thermometer, and the consideration of mean temperature, and the evidence that climates change.

ABERDEEN NATURAL HISTORY SOCIETY.

THIS society met last week, when Dr. Trail read a paper on "Leaf Fungi", which was very fully illustrated by herbarium specimens and drawings, while the different forms of spores were shown under twelve microscopes. A list was also read of species found in the "Dee" district, which are not given in "Mycologia Scotica", the most recent work on the subject. A fine collection of ergots on different species of grasses, prepared by Mr. A. Stephen Wilson, and presented by him to the University Botanical Museum, was also shown, and much admired.

WAKES AND INFECTIOUS DISEASE.

DR. RUSSELL reported to the Glasgow Town Council, in November last, that a woman living in a low part of the town had died of typhus fever, and a wake was held, to which a large number of relations and friends were invited. On December 9th, the husband died, and a wake was also held over his body. As the result of these deaths, twelve persons, all of whom were at the wakes, are now lying dangerously ill of typhus fever. Six of them belonged to the house where the deaths occurred, three to the next house, and three to a family living on the other side of the river, a mile and a half away. The patients are all related to the deceased. Several of the town councillors pointed out the danger of wakes, and the Lord Provost said that the Roman Catholic clergy had frequently endeavoured to prevent them. It was ultimately agreed to send a copy of the report to Archbishop Eyre, so that further efforts might be made by the Romish clergy to put down wakes.

HEALTH OF THE EIGHT PRINCIPAL SCOTCH TOWNS.

DURING the month of December, there were registered in the eight principal Scotch towns the deaths of 2,389 persons; of these, 1,206 were males, and 1,183 females. Allowing for proportionate increase of population, this number is less by 794 than the average of the same month during the previous ten years. The mortalities of the different towns (per 1,000) were: In Perth, 19; in Dundee, 20; in Aberdeen, Edinburgh, and Glasgow, 22; in Greenock, 25; in Leith, 28; and in Paisley, 30. Forty per cent. of all the deaths were of children under five years of age; and the respective mortalities were: In Perth, 21; in Edinburgh and Aberdeen, 35; in Dundee, 37; in Paisley, 39; in Leith, 40; in Glasgow, 43; while in Greenock it reached as high as 53 per cent. Zymotic diseases contributed 338 deaths, or 16.2 per cent. of the total—scarlet fever being the most fatal, having caused 121 deaths; and so fatal was it in Leith, that 18.7 per cent. of the deaths were due to it. Enteric fever caused 24 deaths, and typhus 8; whooping cough 70; measles 36; croup 32; and diphtheria 24 deaths. Cardiac diseases caused 154 deaths; apoplexy and paralysis 118; hydrocephalus 57; and premature birth debility 61 deaths. Phthisis pulmonalis contributed 10.4 per cent. of the entire mortality, and inflammatory affections of the respiratory organs 23.3 per cent., this latter corresponding to some extent with the severity of the season. There were registered during December the births of 3,419 children, of whom 1,761 were males, and 1,658 females.

THE PROTECTION OF MILK IN TOWNS.

WE see with pleasure that the Glasgow Dairy Company, Limited, which was founded in that city on the model of the Aylesbury Dairy Company of London, has made excellent progress in carrying out practically the precautions for furnishing pure and safe milk to Glasgow. Glasgow and its environs have suffered from more than one epidemic which has been traced to the contamination of milk, owing to the want of adequate sanitary supervision of the farms, defects in the existing arrangements of the farms, and absence of the requisite precautions in the construction of town dairies, and in the supervision of the milk-carriers. The precautions necessary to make milk safe must extend, not only to the original condition of the farm, its water-supply, and its drainage, and the mode in which its dairy operations are carried out, but also to the conveyance of milk to town, its distribution in town, and the sanitary condition and regulation of the persons engaged both in milking and in distributing milk. All these conditions have been held in view in the arrangements made by the Glasgow Dairy Company. We have more than once, during the last two years, had the opportunity of examining their system, and of comparing its details with the standard of the London dairy, on whose operations and experience its methods are based; and we are able to say that these precautions are adequate, and the guarantees for their being carried out appear to us to be excellent. Mr. Sandeman, chairman of the directors, has thrown into the work intelligence, skill, and perseverance, and the requisite capital. He is well supported, not only by an intelligent and trustworthy board of directors, but by an excellent body of inspectors. Professor McCall, of the Glasgow Veterinary College, exercises a thorough supervision over the farm; and we learn from the report of the recent inspection by the various sanitary authorities in Glasgow, and other independent persons, that, at the present moment, this undertaking is in a position which offers excellent guarantees to public health, and promises complete success. Hardly a week passes but what one or more epidemics of typhoid, of scarlatina, or of diphtheria, are reported to us, and detailed in our columns from the evidence of skilled medical officers and sanitarians, pointing to contaminated milk as the originating cause and distributing agent of these diseases; and we regard with satisfaction the extension throughout great cities of the model which has been established at the Aylesbury Dairy Company in London, and the general tendency in great cities, which has shown itself in more than one place, to imitate, more or less perfectly, its arrangements. It is of course necessary that such imitation should be complete. Nor can any details, at any stage of the process by which the milk passes from the cow to the consumer, be safely omitted. It is not sufficient to provide a supervision of the men engaged, unless the farm premises, the dairy premises, the utensils, the feeding and condition of the cows, are all daily supervised; and it is because we feel satisfied that, under the responsible management of a public board, such as that of Glasgow, which employs a full staff, has erected suitable premises, and has from the first adopted

the complete system, all details will be thoroughly carried out, that we are able to speak with satisfaction of this enterprise. Boiling milk is, no doubt, one means of lessening the danger which may arise from contamination; but, on the other hand, it will certainly be generally believed preferable to prevent epidemic poisons from finding their way into the fluids which we drink, rather than to allow poisonous and filthy matter of all kinds to enter the milk, as is now commonly the case, and to try to neutralise it by any physical or mechanical process. As a last resort, this may be advised; but it is an unpleasant consideration that we may be drinking boiled sewage rather than raw sewage, although no doubt boiled sewage-water is the less dangerous of the two.

PROPOSED PAROCHIAL ASYLUM, EDINBURGH.

THE resolution arrived at by the managers of the Royal Edinburgh Asylum, Morningside, to charge £30 a-year for pauper patients, in place of £27, has given rise to considerable discontent in some of the parochial boards; and a movement has been begun to ascertain the opinion of the various boards interested in the matter, with the view of erecting a parochial asylum, which those who are moving in the matter consider would save between £2,000 and £3,000 annually to the ratepayers. In connection with Scotch lunatic asylums, and the employment of their occupants, a recent report of Dr. Arthur Mitchell, Commissioner in Lunacy, states that in the Fife and Kinross Asylum, at Springfield, out of a total of 325 inmates, 108 men and 115 women (equal to 68 per cent.) are registered as usefully employed. It will be remembered that the "open door system" was inaugurated in the same asylum.

DEATH FROM VITRIOL IN DUNDEE.

LAST week, a child died in Dundee from the effects of a quantity of vitriol taken by accident. The child was about twenty-one months old, and his mother gave him a bottle to amuse himself with, believing it to be empty. Unfortunately, it contained some vitriol, which the child drank. In a very short time, the pain caused by it made the parents aware of what had occurred, and they at once procured medical assistance. The poor child, however, after suffering acutely, died the subsequent morning.

EDINBURGH EYE INFIRMARY.

DURING the last year, there were 1,070 cases treated at the Eye Infirmary, Cambridge Street, Edinburgh, and there were 11 in-door patients. Since the institution was opened, twenty-eight years ago, over 25,000 cases have been treated, and there have been 397 in-door cases.

LECTURES ON PHYSIOLOGY AND HEALTH.

DR. ALEXANDER JAMES, Lecturer on Physiology in the College of Surgeons, Edinburgh, is at present delivering a course of lectures on physiology and health in the School of Domestic Economy, Shandwick Place, Edinburgh. The first lecture was delivered last week, and was well attended; in it Dr. James gave a sketch of the course intended; and entered into a description of the body, and the adaptability of it to its environments.

GLASGOW ROYAL ASYLUM FOR LUNATICS.

THE sixty-seventh annual meeting of the contributors to the above institution was held on the 13th instant. The report submitted and approved shows that, at the commencement of the year, the asylum contained 529 patients of all classes. During the year, there were 113 admissions and 93 discharges, of which 42 were recoveries, and 35 died; so that the number at the close of the year was 514. Of this total, 231 are private patients, and 283 are chargeable to parishes, as against 226 private, and 303 parish patients, at the beginning of the year. The report states that the wards for parish patients are so completely occupied by chronic cases, that it has been possible to admit only 14 patients of the former class during the past year. The directors much regret that these recent and curable cases of insanity occurring among the poor of the district have, to a great extent, been excluded by want of room; and thus the highest function of the asylum, which is the cure, and not merely the care, of the insane, has, as regards pauper patients, been almost in abeyance. On the other hand, turning to private patients, it appears that the admissions have been 99 in number, which is in excess of any previous year. Many of these are at low rates of board. The institution was twice visited by the Commissioners of Lunacy in the course of the year; and they reported that the asylum is managed with great ability and success; and the state of the wards and their occupants was found in every way satisfactory. The report further shows that many important improvements have been effected in the institution, so as to increase its efficiency and the comfort of the patients.

GLASGOW ASYLUM FOR THE BLIND.

THE fifty-fourth annual meeting of the above charitable institution was held on the 17th instant; and the report states that the total number of persons who had received the benefits of the institution during the past year were 154, and the number at present receiving benefit 147, of whom 75 were in the asylum, and 72 were engaged in the manufacturing department. These earned the sum during the year of £2,047. In the educational department, the inspector reported that the school made, on the whole, a creditable appearance; and that there was evidence of earnest and laborious teaching having been done during the year, the advance of some of the pupils being considerable.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending January 15th, it appears that the death-rate in the eight principal towns was 24.6 per 1000 of estimated population. This rate is 2.5 above that for the corresponding week of last year, but 1.3 below that for the previous week of the present year. The lowest mortality was recorded in Dundee—viz., 22.2 per 1000; and the highest in Perth —viz., 33.1 per 1000. The mortality from the seven most familiar zymotic diseases was at the rate of 4.0 per 1000, being slightly under the rate for last week. Acute diseases of the chest caused 191 deaths, being an increase of 30 on the number for last week. The increase occurred chiefly in Greenock, Paisley, and Leith. The mean temperature was 23.9°, being 11.5° below that of the week immediately preceding, and 18.7° below that for the corresponding week of last year.

THE HEALTH OF GLASGOW.

THE very cold frosty weather experienced in Glasgow for some time has been the means of carrying off a great many people, especially through chest-diseases of an acute form, and has sent up the city death-rate fully 50 per cent. over the usual returns for this period of the year. For the week ending the 22nd instant, the rate was 36 per 1000 of the population, as compared with 24 of the preceding week, and 26 in the corresponding week of last year.

THE GLASGOW TRAINING HOME FOR NURSES.

THE seventh annual meeting of the supporters of this institution was held on the 18th instant, when a very satisfactory report was submitted and approved of. From this report, it appears that the staff of nurses at present numbers 30, of whom 23 are efficient, and 7 are under training. During the past year, trained nurses were sent out to wait upon 233 cases of sickness in private families; and in all cases satisfactory reports were received from the medical profession, from the patients, and from their friends, as to the fidelity and efficiency of the nurses. In the year just elapsed, no fewer than 159 patients were treated in the home, of whom 93 underwent surgical operations of more or less severity. Of these patients, none suffered from infectious diseases, it having been decided not to admit cases of this class; but their ailments were all of such a varied character as to afford good opportunity for practical training in the art of medical and surgical nursing. One of the greatest difficulties that the home has to contend with is that of obtaining suitable women as nurses. This fact, and the necessarily slow process of training efficient nurses, together with the shortness of the term of their engagements, are the reasons that stand in

the way of the home being self-supporting; although, during the past year, in consequence of the increased hospital accommodation, considerable advance has been made in that direction. One of the most gratifying features of the report is the extent to which the private hospital department of the institution is taken advantage of by the public. Both the private rooms and the public wards have generally been fully occupied; and frequently during the course of the year the applications were greatly in excess of the available accommodation. At the meeting, Dr. Scott Orr spoke to the high character of the nurses, and what a boon the institution was to the community and to the medical profession: while Dr. Hector Cameron pointed out that it overtook work which a general hospital, from the nature of its organisation, could not possibly undertake.

THE GLASGOW CONVALESCENT HOME, LENZIE.

THE annual report of the above institution was adopted at a meeting of the subscribers held on the 18th instant. It shows that, during the year, there had been admitted into the home 1,323 patients, of whom 809 were males, and 514 females; and, from the medical report, it appears that, of these, 581 were from the Royal Infirmary, 251 from the Western Infirmary, and 491 working-class patients from the general public. No infectious disease appeared in the home during the year, and its sanitary condition has continued excellent. The average stay of the patients in the home had been nineteen days. The total expenditure had been £1,986, which was a cost of about £1 10s. per patient, or 1s. 7d. per day. The total revenue amounted to £2,100, showing an excess of income over the expenditure; and the directors are to be congratulated on the present condition of an institution which is an important addendum to the two infirmaries of Glasgow.

GLASGOW PHILOSOPHICAL SOCIETY.

AT a meeting of this Society held on the evening of the 19th inst., Dr. David Newman showed an apparatus devised by himself for estimating blood and urine pigments in solution by means of the spectroscope. The apparatus consists of a brass tube ten centimètres long, and two centimètres in diameter. One end of this tube is closed by a glass plate, while into the other extremity a sliding water-tight piston is introduced. This piston consists of a smaller brass tube, one end of which is also closed by a glass plate, and into the other a small spectroscope is introduced. By passing the piston into the larger tube, a cell is formed (by the walls of the larger tube and the two glass plates), the depth of which may be modified, within certain limits, by sliding the piston in and out, and the thickness of the stratum may be measured by means of a scale engraved upon the inner tube. The fluid to be examined is passed into the cell through a hole in the larger tube, close to the glass plate. By measuring the stratum required to give the characteristic bands of hæmoglobin and urobilin, the percentage of these pigments in a solution is determined. At the same meeting, Professor McKendrick showed a very simple chronograph, or instrument for the measurement of minute intervals of time, invented by Professor Kronecker of Berlin. Professor McKendrick pointed out that, while most of the chronographs in use are complicated and costly instruments, requiring the use of electrical appliances, this instrument of Kronecker is simply a reed like that used in a harmonium, to which is attached a small bit of quill. The reed, which vibrates a hundred times per second, is caused to move by a current of air drawn past it by an aspirator. The cost of the instrument is only a few shillings, and it is nearly as efficient as one of the older kinds, which cost some pounds.

THE GREENOCK INFIRMARY.

THE seventy-second report by the directors of this institution has been issued, and shows that 1,278 patients were treated during the year, of whom 96 remained in hospital, and 1,182 were treated to a termination. Of these, 1,084 were dismissed—recovered, relieved, or from other causes—and 98 died; giving a mortality of 8.3 per cent., or 2.3 per cent. less than that for the preceding year. Seven thousand two hundred and ten calls were made at the dispensary for medicine or advice. The fever-house statistics show that measles and typhus formed the larger portion of the 310 cases admitted—the measles numbering 76, and the typhus 74. Next in number were enteric, 52, and scarlatina, 51. One hundred and thirty-three children of ten years or under were admitted, 50 of whom were affected with measles, which was epidemic for some time. In the medical and surgical house, 350 were admitted, against 265 in the preceding year. More than one-half of this increase was due to accidents and other urgent cases. Of these, 27 had died. The mortality was 8.14 per cent., about three per cent. less than last year. The income for the year had been £5,063, and the expenditure £5,062. In accordance with the terms of the Ferguson Eye Bequest, arrangements were made by which the necessary rooms were set aside in the infirmary for the Eye Institution, and the dispensary was opened in August last. Up to the end of the year, the number of cases treated was 1,111.

IRELAND.

DR. JOHN MCFADIN, Coroner for the county Cavan, died on the 20th instant, at his residence in Cootehill, aged 86.

MR. GEORGE C. HENDERSON has been elected to the office of Architect to the Royal College of Surgeons in Ireland.

THE Dunmanway Dispensary Committee have unanimously recommended that the Guardians of the Union should grant a retiring allowance to Dr. Holmes, late medical officer of the district.

NEWRY FEVER HOSPITAL.

THE annual meeting of the subscribers of this hospital was held at Newry last week. From the report of Dr. Booth, medical officer, we learn that 200 indoor patients were under treatment during the past year, and that 600 were attended to at the extern department. The Roman Catholic clergy have withdrawn all support from the hospital, for what reason we cannot understand, as it appears that, while the number of Roman Catholic patients admitted during the last eight years has been 829, as against 415 Protestants, the proportion of the subscriptions for the past year have been £43 18s. from the former, and £193 19s. 11d. from the latter denomination. It has been decided to hold over the publication of the annual report until a conference is held with the Roman Catholic Bishop of Dromore on the subject of the withdrawal of his support.

HEALTH OF LIMERICK.

AT a meeting of the Urban Sanitary Board held last week, the Mayor, Dr. Thomas O'Sullivan, called attention to the death-rate of Limerick, which last week was 52.4 per 1,000 inhabitants. This was an enormous figure, the mortality being higher than even Calcutta or St. Petersburg. This high death-rate is attributed to the absence of sanitation, and the wretched dwellings of the poor, a large number of whom dwell in cellars. A suggestion that a loan should be obtained to construct cottages for the poor and industrial classes was adopted, a special committee being appointed to act in the matter.

DUBLIN HOSPITAL SUNDAY FUND.

THIS fund, like most other charities in Ireland during the past year, has to report a diminished income; £264 less has been collected this year than last; the total being £4,050 7s. 9d. Of this sum £3,750 has been distributed amongst the sixteen hospitals now participating in the fund, in two proportions. First, a share of £1,250, divided on number of beds provided by last year's subscription; and second, a share of £2,500, divided on the amount of subscriptions received by each hospital in the year 1879. The following is the total amount received by each hospital:—Sir Patrick Dun's, £206 17s.; City of Dublin, £593 8s. 8d.; Steevens's, £87 13s. 6d.; Meath, £364 13s. 8d.; Mercer's, £194 4s. 4d.; Whitworth, £93 8s. 1d.; Coombe, £209 0s. 9d.

Rotundo, £202 0s. 5d.; St. Mark's, £151 2s. 8d.; Eye and Ear Infirmary, £86 13s. 6d.; Convalescent Home, £232 16s. 1d.; Cork Street (Fever), £160 15s. 4d.; Adelaide, £711 18s. 3d.; Monkstown, £156 5s. 3d.; Orthopædic, £219 12s. 10d.; National Orthopædic, £79 9s. 8d.; total, £3,750.

MEATH HOSPITAL.

DR. H. W. OULTON has been elected Resident Surgeon and Apothecary, and Mr. F. Penrose, Resident Secretary and Registrar to this institution. It was at first proposed that both these posts should be filled by a qualified medical man, and advertisements for candidates for the dual office were published. We pointed out at the time the incongruity of such an appointment, and we are glad to see that the standing committee of the hospital have recognised the force of the arguments we then used by now appointing two officers to what are essentially two distinct offices.

BRITISH MEDICAL BENEVOLENT FUND.

THE following additional donations have been received in answer to the appeal in the BRITISH MEDICAL JOURNAL.

Third List.

	£	s.	d.
Dr. Pavy, F.R.S.	10	10	0
Dr. Tweedie, F.R.S.	10	10	0
Dr. G. Owen Rees, F.R.S.	10	10	0
Dr. Gerald Yeo	5	5	0
Dr. Playfair	5	5	0
Dr. F. Chance (Sydenham)	5	5	0
Sir Joseph Fayrer, K.C.S.I., F.R.S.	5	0	0
Edward Cock, Esq.	5	0	0
Dr. T. H. Tuke (Albemarle Street)	4	4	0
Dr. Thomas Hawksley	3	3	0
Dr. Marcet, F.R.S.	3	3	0
Dr. Henry Bennet	2	2	0
F. C. Du Pasquier, Esq.	2	2	0
John Tomes, Esq., F.R.S.	2	2	0
Dr. John Easton	2	2	0
A. E. Cumberbatch, Esq.	2	2	0
Francis Mason, Esq.	2	2	0
Hugh C. MacBain, Esq. (North Berwick)	1	1	0
Dr. J. R. Bruce (Edinburgh)	1	1	0
S. F. Gosling, Esq. (Biddulph, Congleton)	1	1	0
Deputy Surgeon-General E. McKellar, M.D.	1	1	0
W. Vance (North Woolwich—corrected amount)	1	1	0
Dr. Pullar	1	0	0
Dr. William Talbot King	0	10	6
Dr. Connel (Peebles)	0	10	0
Dr. Easby (March, Cambridgeshire)	0	5	0
Dr. J. Thomson (Leamington)	0	5	0

INSURANCE OFFICES AND MEDICAL FEES.

A CORRESPONDENT writes to us: In reference to letters which have lately appeared in your JOURNAL on the above subject, I take the opportunity of laying the state of matters clearly before your readers. When a person makes to an office a proposal for insurance of his life, it is the custom of insurance companies to require a reference to his usual medical attendant, and also to one or more friends who are sufficiently acquainted with him to be able to express an opinion as to his health and habits. These persons are designated respectively the medical and private referees. It will therefore be seen that the private referees are understood to be intimate personal friends of the proposer. Certain companies make the stipulation that they shall not be medical men, for what reason we do not know, unless it is because of the lawsuits that have arisen in connection with the medical referees. As a rule, however, no such restriction is laid down, and we do not need to say that a medical man thus referred to, would not be entitled to, and ought not to expect a fee for any information given. His opinion is not asked as a medical man, but as a private friend, who may, from a strictly professional point of view, know next to nothing of the proposer. We can readily understand that a medical man may find himself in an awkward position, seeing that his opinion cannot be given entirely from a layman's point of view, or without a certain subjective responsibility from superior knowledge; but this difficulty is inseparable from the circumstances, and could be avoided only by excluding medical men as private referees. Quite otherwise, however, is the case of the medical referee. He is not necessarily a personal friend of the proposer. His permission need not have been asked before his name was sent up to the office. He is referred to simply as the usual medical attendant of the proposer, comes into the case in his purely professional character, and is not a whit more under bond to supply the office with a gratis certificate of the proposer's health than is the proposer's bookseller to provide them with gratis stationery. The above-mentioned private referees are invariably communicated with, the medical referee only in special circumstances, as the office sees necessary for its own interests, and usually on the recommendation of its own medical officer, who believes the medical referee can furnish him with facts that would materially influence his view of the life to be insured. The medical referee has, we shall suppose, been consulted, has sent in his certificate, and now claims his fees. Who is to pay this fee, which is undoubtedly due; the office or the proposer? Here let us quote from the recognised authority on the law of life insurance: "A claim has of late years been made by some members of the medical profession, when applied to as the medical referees of parties proposing insurances on their lives, to the effect that they are entitled to a fee for their certificates; and to this no objection can be raised. They have, however, endeavoured to extend the proposition, adding to it this further term—namely, that they are entitled to receive the fee from the insurance-office, and not from their patient. In three instances the question has been tried in the county courts, the point raised being whether there was any contract on the part of the company to pay the fee, and in every case it has been decided in the negative.

"As a matter of policy, it would seem not very important to the companies whether they paid the fees or not, since the aggregate amount of such fees could form but a small item in their annual expenses, and it is understood that in practice they now do usually pay them. As, however, it is said to be the custom with some companies that profess to pay the fee, to make application only after a full investigation of all the other evidence tendered, and a personal examination by the medical officer of the company, and then only in those cases in which it is supposed that the information possessed by the medical referee is likely to prove of value, it is probable that the application to the medical attendant is not so universal as formerly.

"Of course it is optional to the medical man to reply to the letter of application that, without payment, he will give no answer; and thereupon the company, if continuing to request the information, would be bound to pay for it."*

The case may, therefore, be shortly put as follows: When a medical man is consulted as medical referee, it may be either by an office whose practice is known to him, or by one with which he is unacquainted. Should he in the first case know that it is not the custom of the office to pay the fee in question, he will be in a position to stipulate, before sending his certificate, that the fee shall be paid. In the second case, where he is unacquainted with the office, he may make inquiries either direct or indirect; or should he be unable or unwilling to do this, he may still send in his certificate. In this latter case, however, he must distinctly understand that should the company refuse to pay his fee, he has no case in law against them. Such a state of matters is unsatisfactory both for insurance offices and for medical men. Seeing that the information is required in the first place at least to make the company safe, it were much more straightforward that the request for a certificate should be accompanied by a statement either that the fee would be paid, or that the office did not hold itself responsible.

SANITARY PROTECTION OF LONDON.

AT the rooms of the Society of Arts, last week, a paper was read by Professor FLEEMING JENKIN, F.R.S., on "A Sanitary Protection Association for London." Professor HUXLEY presided.

Professor JENKIN described the objects and advantages which the intended Association would offer to householders. The first object was to provide members at moderate cost, with such advice and supervision as shall ensure the proper sanitary condition of their own dwellings; and the second, to enable members to procure practical advice, on moderate terms, as to the best means of remedying the defects in houses of the poorer classes in which they are interested. The privileges of the members were set forth in detail, and it was mentioned that the Council of the Association (of which Professor Huxley is President) will by its articles, be unpaid, and that the officers had no interest in any outlay or patent. The Association, said the lecturer, was probably only one step towards a general compulsory inspection. When this was established the Association would either cease to exist, as no longer needed,

* [illegible] by Chas. John Banyan, M.A., Barrister-at-Law. 2nd Ed., 1880, pp. 40, 41.

or continue to exist as supplying a better and fuller inspection than that provided by law. In replying to objectors, Professor Jenkin explained that the work of the Association did not clash with that of the public authorities; it began where they left off, inside houses, which, unless some nuisance was reported, they probably had no power to enter. No one had come forward in Edinburgh to say that the Association there was competing unfairly with professional men as sanitary advisers. This assertion had been made in London, but the grounds of the accusation were not clear, as the resident engineer was paid at the rate common for men of his standing, and the consulting engineer received a fee which was remunerative.

Professor HUXLEY felt himself to be in a position somewhat like the fly in amber. The thing itself was neither strange nor rare. We only wonder how it got there. His proper business was natural history, and he could not see how the term might be stretched so as to include scientific inspection; but his story was simply this, and he hoped it would be satisfactory to all who had any knowledge of physiological matters or any conception of the laws of health. He had always taken a sort of theoretical interest in questions of sanitation, but there was a wide difference between a theoretical and a practical interest, and that was brought home to his mind some three years ago, when, without any warning, three of his children were cast down with diphtheria. One lay for a long time between life and death. That was a lesson which turned his attention to the importance of this question of sanitation far more strongly than all the mere talk about it that he had ever heard. He became greatly interested in the sanitary condition of his own house, which happened to be exceedingly well situated, and in which all reasonable precautions had been taken. It turned out, on due investigation, that his house was not in fault at all. *His children were poisoned through milk*; and the most careful inquiry made by the officers of health left on his mind the keen conviction that the original source of the whole mischief lay in preposterous inattention to the conditions which were necessary for properly draining a large and populous district. Unless the sanitation in great crowded cities, like London, were attended to, they would before long be decimated by diseases. That conviction he hoped would be clearly conveyed to the minds of the mass of the people in this huge aggregation of human beings, in order that they might be induced to take obvious means for helping themselves in these sanitary matters without looking for extraneous help.

Mr. R. RAWLINSON, Engineer of the Local Government Board, heartily wished God speed to the Association. Professor Jenkin had mentioned pipes within houses, traps, and plumbers; but when houses were built as they ought to be, there would be no pipes within them, and plumbers would have very little to do. It was quite possible so to arrange a building upon the largest scale that there should not be one single pipe within its walls; and so to arrange any apparatus—which might be entirely of iron—for carrying water, that it should need the intervention of no plumber. The cause of ill-health throughout the civilised world, even in malarious districts, was not in the atmosphere, in the earth, or in the swamps, but in the habits of the people within their dwellings. The question of ventilation of drains was at the root of sanitary improvement.

ROYAL COLLEGE OF PHYSICIANS.

AT the meeting of the Fellows of the Royal College of Physicians on Thursday last, the decision of the Board of Censors upon Dr. Pavy's complaint against Sir William Gull, in the case of the nurse Ingles, was read. It is published on another page. A motion of Dr. Pitman, that candidates for the diploma of the College should be required to state whether they had, within three months, been rejected elsewhere, was discussed and negatived.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH.—A general meeting of this Branch will be held at the rooms of the Medical Society of London, 11, Chandos Street, Cavendish Square, on Wednesday, February 23rd (in place of 9th, as announced last week), at 8 P.M., when Mr. Timothy Holmes will introduce a discussion on "Hospital Management".—ALEX. HENRY, M.D., W. C. GRIGG, M.D., Honorary Secretaries.

THAMES VALLEY BRANCH.—The next meeting of this Branch will be held at the Station Hotel, Richmond, on Thursday, February 3rd, at 6 P.M. Members who are willing to bring forward cases or papers are requested to give notice to the Honorary Secretary. The following paper has been promised by Dr. T. C. Hayes: Clinical Remarks on Cases of Polypus of the Uterus. Dinner at 7 P.M.—EDWARD L. FENN, M.D., Honorary Secretary.

CORRESPONDENCE.

HAIRLESS AUSTRALIAN ABORIGINALS.

SIR,—The following brief particulars of some curiosities of human nature, which exist in the interior of Queensland, in the shape of hairless people, will, I think, be of interest to readers of the JOURNAL.

There are at present living on the station of Mr. G. M. Kirk, at Gulnarber, St. George, Queensland, an aboriginal man and woman (brother and sister), entirely devoid of hair on their heads, faces, and every part of their bodies. There was another sister, similarly hairless, but she died a few years ago. These blacks were brought in the same hairless state to the above station when young, and are not able to give any account of their parents or tribe; but I am informed by Mr. Kirk that intelligent blacks about his station state that there is a tribe of hairless blacks, similar to these, living on a creek named the Wallam, eighty miles west of the Balonne River, and about five hundred miles west of Brisbane; and that these people came from that tribe. Mr. Kirk has not seen them; but it is quite possible that such a tribe might exist comparatively unnoticed, as these blacks are very sensitive concerning their hairless condition, and always keep their heads and bodies covered. The two survivors on Mr. Kirk's station were seen and photographed by Baron Macleay, the Russian explorer, in September last, who, having heard of their existence, travelled a long distance to see, and was much interested in them. I have now some of his photographs before me; they represent a well-formed and developed man and woman of middle age, but without a particle of hair visible on their heads or bodies; and Mr. Kirk informs me that upon the most careful inspection, none is to be found. If, as the blacks assert, there is a tribe of such hairless people, they are great natural curiosities; and these three, if viewed only as instances of a family freak of nature, are still interesting as examples of the fanciful whims of Dame Nature—more especially when taking into consideration the fact, that the Australian aboriginals are naturally a very hairy race of people.—I am, sir, yours faithfully, J. HIGHAM HILL, M.D., F.R.C.S.Ed.

Melbourne Club, November 29th, 1880.

FOOT-AND-MOUTH DISEASE.

SIR,—Dr. Coleman's letter in your issue of the 22nd, asking if the foot-and-mouth disease, now occurring in various parts of the country, is coincident with outbreaks of diphtheria, will probably elicit two or three affirmative replies. Should this be the case, you will, perhaps, permit me to warn your readers against attaching too much importance to mere coincidence. If there is anything certain in connection with so obscure a subject as the communicability of animal diseases to man, it is that epizootic aphtha is a specific disease, having a specific contagium, and that it communicates *itself*. In the earliest recorded outbreaks of the disease, it was noted that it spread to human beings, and since 1834 the disease has been repeatedly observed in children and others, especially raw milk-feeders—a fact readily accounted for when it is remembered that vesicles often form upon the teats, and are ruptured in milking.

"The communication of the [foot-and-mouth] disease to man admits of no doubt," says Gamgee. "The history of the various outbreaks of the disease demonstrates this. There have been many contradictory statements on the matter, but the symptoms repeatedly noticed in man after drinking the milk of diseased cows are unmistakeable." Descriptions of these may be found in the *Veterinarian* for 1841.

A specific disease can only communicate itself, or a malady so closely allied as to be regarded as a modified form of it. Now it appears to me contrary to all we know of diphtheria, to hold that it is even remotely related to the epizootic.

I am happy to say that we have had no cases of foot-and-mouth disease in Birkenhead or the neighbourhood lately. But in the first quarter of 1876, when it was prevalent, two or three cases of the disease in the human subject were brought under my notice. Oddly enough, at this time, the mortality ascribed to diphtheria was a little higher than usual.—I am, sir, yours, etc., FRANCIS VACHER.

Municipal Offices, Birkenhead, Jan. 24th, 1881.

RIVAL PROPRIETORS.—The *Wiener Medicinische Wochenschrift* of January 15th has the following. A protracted action for libel has been decided at last in Buda-Pesth. Herr Riegen, director of the "Rakoczy" bitter-water enterprise, had charged the owner of the Hunyadi János Bitterquellen, Herr Andreas Saxlehner, with manipulations injurious to health. For this libellous charge, Herr Riegen was now sentenced to six months' imprisonment.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

EPIDEMIC OF ENTERIC FEVER AT NEWLYN EAST.

DR. BALLARD'S report to the Local Government Board on the late epidemic of fever at Newlyn East has just been issued. After describing the extremely unsanitary state of the village, he goes on to say: "The wretched appearance of such a village, especially on a wet day, with its pools of surface and slop water lying about everywhere close to the cottages, and sodden excrement visible anywhere at the rear or sides, can be better imagined than described. I have seen nothing worse in the most neglected mining villages in Staffordshire." Dealing with the water-supply, Dr. Ballard mentions that, practically, for years past the only public source available has been the "town well"; and he states that Mr. Vigurs, whose opinions and statements are frequently referred to throughout the report, had been for a long time convinced that this water was grossly polluted, and had not permitted any of it to be brought into his house. On examination, Dr. Ballard found that there had been for a long time a free interchange of contents between the well and a public drain three or four yards from it. He observes that, under the circumstances of drainage and water-supply, and of excremental filth, there had been abundant opportunity for the spread of fever in the village if the material of the fever became accidentally introduced. Such an epidemic spread had occurred more than once before, namely, about 1848, and again in 1874. On the latter occasion, Dr. Vigurs told him the epidemic was very severe and extensive. On September 24th, Dr. Mackey, the newly appointed medical officer of health, on making a primary visitation of his district, became aware of the present outbreak, but, by a resolution of the St. Columb Rural Sanitary Authority, was prohibited from obeying the Local Government Board's order of March 12th, requiring him to transmit a copy of his special reports for the information of the board. The first intimation the board received was a paragraph in the *Times* of October 19th, and it was in view of that paragraph that Dr. Ballard was instructed to make an inquiry. He commenced it on October 23rd, and it was terminated on November 1st. Up to that date, the list of cases given him by Dr. Vigurs amounted to ninety-nine persons; probably there were, in addition, other mild cases not on the list, so that he would not be far wrong in estimating that about one-sixth of the population had been attacked. The number of families, or houses, invaded was sixty-two—more than one-third of all the families in the place. By a plan which accompanies the report, Dr. Ballard indicates that the greater proportion of the families invaded resided in the part of the village nearest the town pump. But Dr. Ballard does not consider the use of the water the sole cause of the spread of the disease. The sale and distribution of milk from infected houses, privies by several families in common, exposure to accidental infection by infected excrement, and the scarcity of water, which forbad the observance of that personal cleanliness essential to the prevention of the spread, were also operative causes. Dr. Ballard says that he has been unable to discover by what means the specific contagium of enteric fever obtained access to the town drains. A postscript relates the progress of the epidemic after his visit, and Dr. Vigurs states that the last case that came under his observation was on November 29th. Dr. Ballard adds some recommendations with the object of placing "the village in a wholesome condition generally, and to prevent the recurrence of epidemic disease". Houses unfit for habitation or injurious to health should be dealt with under Section 91, etc., of the Public Health Act. The authority should also provide a hospital for the reception and isolation of cases of dangerous spreading diseases, and public means of disinfection of infected articles should be permanently provided. A parochial committee should be constituted to watch over the sanitary condition of the village, which should be empowered to deal with nuisances and the prevention of the spread of disease under the Public Health Act. It is pointed out, however, that the appointment of such a committee, desirable for rapidity of local action, will not relieve the guardians of their obligation to see to the sanitary welfare of the village. The guardians should request their district medical officers, on any case of dangerous disease liable to spread coming to their knowledge, without delay to acquaint the medical officer of health with the fact, in order that it may be speedily dealt with. The guardians should also arrange with the registrars to furnish immediate information of any death registered from fever or other dangerous infectious disease.

OBITUARY.

ANDREW WOOD, M.D., LL.D.Ed., LL.D.Cantab.

IT is our painful duty to-day to record the death of Dr. Andrew Wood, Edinburgh, on Tuesday, January 25th, at the age of seventy years.

Dr. Wood was a son of a well-known surgeon in Edinburgh, the late Mr. William Wood; he graduated as M.D. in Edinburgh in 1831, and in the same year became F.R.C.S.E. Since that time, he has practised in Edinburgh with much success, and with the warmest friendship of his numerous patients. In 1879, he was made an LL.D. Edinburgh, and in 1880 LL.D. Cambridge.

It was not as a physician alone that Dr. Wood was so well known, but as a highly cultured scholar; during the later years of his life, he enriched our general literature by the publication of a number of translations from classic and foreign languages: thus, he was the author of a translation of the *Satires of Horace* into English metre; Schiller's tragedy of *Don Carlos* into English blank verse; *Epistles and Art of Poetry of Horace* into English metre; Lessing's drama of *Nathan the Wise* into English blank verse; Schiller's *Lay of the Bell, and other Ballads*, into English metre. He was a member of the different medical societies in Edinburgh, and a member of the General Medical Council, at the meetings of which he was a vigorous exponent of the views of the Scottish medical schools, and an ardent defender of their rights and privileges. He held the appointment of Inspector of Anatomy for Scotland; and was Surgeon to Heriot's, Merchant, Maidens, and Trades' Hospitals. Previously, he had been President of the Royal College of Surgeons of Edinburgh, Medical Officer of the New Town Dispensary, and President of the Royal Medical Society.

Dr. Wood's life was thus a busy one in a professional and public capacity, and yet in this last he found time to act as a keen politician in State and Church. A few months ago, the writer of this notice (on the occasion of Dr. Wood mentioning to him that he had been fifty years in practice) suggested to him the desirableness of some rest from his many labours; but Dr. Wood repudiated such an idea, and said he believed he should "die in harness". Never was a saying more literally fulfilled. For a few days, Dr. Wood had been out of sorts; but on Tuesday he made his round of visits, called at a publisher's, and had a look at some periodicals, then drove home. When the carriage arrived there, Dr. Wood was lying in it insensible; he was at once removed, and was seen almost immediately by Sir Robert Christison and Dr. Haldane, but within a short time he was dead. It is difficult to believe that his manly form will be seen no more in the streets of Edinburgh, nor in the meetings of the educated and professional world; and that the kindly ring of his well-known voice will be heard no more. By professional friends, his loss will be deeply regretted; and he will be mourned for with a heartfelt sorrow by the many patients to whom he has been a lifelong conscientious physician and sincere friend.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, January 20th.

The Abergavenny Asylum.—SIR W. HARCOURT, in reply to MR. WARTON, said the committee of visitors to the Joint Counties Asylum at Abergavenny wished to enlarge the existing asylum. The Commissioners of Lunacy thought there ought to be a new site and a new asylum, and there being a difference of opinion, the Commissioners of Lunacy desired the Home Secretary to settle the difference between them. The matter was carefully inquired into, and it was finally reported that although a new site and a new building would be the most perfect thing, a new building on the old site would do well enough. In consequence of that, he declined to force the local authority to go into unnecessary expense; and he did not desire to use the central authority to compel local authorities to enter upon expenditure which they thought unnecessary.

Medical Reform.—MR. ERRINGTON asked the Vice-President of the Council whether he would agree to the appointment of a select committee to continue the inquiry commenced in 1878 into important questions of medical reform. MR. MUNDELLA replied, that last year there was a measure before Parliament, but the Government did not see any probability of the Medical Bill being disposed of, and receiving proper attention during the present session. They had, therefore no intention of introducing it, but they had under consideration whether some advantage would not result from a continuation of the inquiry.

Monday January 24th.

Spurious Butter.—MR. CHAMBERLAIN, in replying to SIR HERBERT MAXWELL, said that the question of the introduction of spurious compounds resembling butter had been receiving careful attention at the hands of his department. A paper had been printed and circulated from the Board of Trade giving an analysis of these compounds. In the majority of instances these manufactured butters were not unwholesome, and under those circumstances, it was difficult to see how their importation could be prevented. At the same time, it was very desirable that they should be imported under their right names. With regard to the adulteration of the goods sold in this country, purchasers could find their remedy under the Adulteration Act.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College, at a meeting of the Court of Examiners on the 19th instant.

Messrs. Frank E. Roberts, Lower Norwood; Charles A. E. A. Field, Camden Road; Sydney R. Lidiard, Dulwich Road, S.E.; James C. Gardner, Newcastle-on-Tyne; Alexander B. Voisin, Jersey; James Chronnell, Manchester; Francis M. Pudlicombe, Dartmouth; William T. Bell, Totteridge Park, Barnet; James Marshall, Plymouth; Timothy A. J. Shepherd, L.S.A., Rotherhithe; Percy Brown, L.S.A., Camberwell; and Richard P. Bond, L.R.C.P.Ed., Cheltenham.

Thirteen candidates were rejected.

The following gentlemen passed on the 20th instant.

Messrs. Oscar William Clark, Cowick, Selby; John Mason, Kirkby Stephen, Westmoreland; Charles Ernest Ashton, Guildford Street; and Walter Cooper, L.S.A., Croydon, students of St. Bartholomew's Hospital; Reuter Emerich Roth, Wimpole Street; Herbert Maxwell Curtayne, Melbourne, Victoria; John William Inger, Nottingham; and George William Collins, Adelaide Road, N.W., of University College; William Coulthard Falls, of Buckingham Palace Road; and Robert Bradley Roe, Melbury, Dorchester, of St. George's Hospital; John Thomas, L.R.C.P.Lond., Ystalyfera, near Swansea; and Ernest Craven Lunn, L.S.A., Hull, of St. Thomas's Hospital; Alfred Bolton Warrington; and Arthur Samuel Stokes, Caldecotts, Leicester, of Guy's Hospital; James Henry Breach, L.S.A., Yattendon, near Newbury, of King's College; and John Arthur Webster, Manchester, of St. Mary's Hospital.

One gentleman passed in surgery, and when qualified in medicine will be admitted a Member of the College; and nine candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months.

The following gentlemen passed on the 21st instant.

Messrs. Edwin H. Holthouse, B.A.Cantab, Helidon, Northamptonshire; John E. Squire, Orchard Street, W.; U. A. Carpenter Harris, Tufnell Park, N.; Charles F. Coxwell, B.A.Cantab, Brighton; Thomas M. King, Windermere; Arthur E. Boot, Harrington Square, N.W.; Stanley T. Thomas, Churchdown, Gloucestershire; Thomas W. C. Jones, Westbourne Street; Ferdinand B. M. Wöhrintz, Mauritius; James Brooks, Blackburn; A. C. Archibald Atkinson, B.A.Cantab, Ardrossan, N.B.; Thomas R. Atkinson, Dawlish; Charles E. Brunton, East Dereham; George T. Clapp, Exeter; Herbert B. Hawksworth, Canterbury; Christopher D. Briggs, Tamworth; Charles D. Davis, Kilburn; Henry Beattie, Albert Square, E.; William E. Fielden, Walthamstow; Robert E. Rygate, Wellington, New South Wales.

Three candidates were rejected.

The following gentlemen passed on the 24th instant.

Messrs. James Harper, Windsor; Edwin A. Starling, Sutton, Surrey; George T. Revell, Ivybridge Devon; Charles R. Tyrrell, Hornsey Lane, N.; Herbert Clatworthy, L.S.A., Chatham; Bernard Scott, Brighton; Laurence T. Ward, Mile End Road; George L. Johnson, M.A.Cantab, Upper Norwood; Frederic Ernest Taylor, Derby; D. Astley Gresswell, Louth, Lincolnshire; Frank Newcombe, L.S.A., Derby; Benjamin Studer, L.S.A., Linthal, Alsace; James B. Baker, Bassett Road, W.; William J. Nicholls, Washingboro, Lincolnshire; Samuel W. Sutton, L.R.C.P.Lond., Reading; George R. Marsh, Greenhithe, Kent; J. L. Baguall-Oakley, Bournemouth; Charles W. Glassington, Fulham Road; George A. Meaden, Grays Inn; and Alfred Orchard, Ashby-de-la-Zouch.

Four candidates were rejected.

The following gentlemen passed on the 25th instant.

Messrs. George A. Macnutt, Barnet; John J. Palmer, Blackheath; Walter Johnson, St. Mary's Square, W.; Walter Gripper, M.B. and B.A.Cantab, Onslow Square; Gilbert T. Smith, Richmond Crescent, N.; Robert Brooks, Croft, near Leicester; and Solomon G. Watson, Tottenham.

Sixteen candidates were rejected.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, January 20th, 1881.

Blythe, Joseph Charles, Hendidley, Newtown, Monmouthshire.
Dancy, Horace Michael, Turner's Hill, Crawley.
Girdler, George Toussaint, Westminster Hospital.

The following gentlemen also on the same day passed their Primary Professional Examination.

Edenson, Arthur, Guy's Hospital.
Grun, Edward Ferdinand, London Hospital.
Hathway, Harold George, St. Bartholomew's Hospital.
Macleroy, Arthur Lloyd, St. Bartholomew's Hospital.
Stott, Hugh, St. Mary's Hospital.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced :—

ARMAGH UNION—Medical Officer for Richhill Dispensary District. Salary, £120 per annum, with £20 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 31st instant.

BALLINROBE UNION—Medical Officer for Ballinrobe Dispensary District. Salary, £100 per annum, with £25 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 10th February.

BRACKLEY UNION—Medical Officer to the Sulgrave District.

BURY ST. EDMUNDS FRIENDLY SOCIETIES MEDICAL AID ASSOCIATION—Dispenser and Assistant to Medical Officer. Applications, with testimonials, to Mr. Hazell, Victoria Street, Bury St. Edmunds, on or before February 8th, 1881.

*HUDDERSFIELD INFIRMARY—Junior House-Surgeon. Applications, with testimonials, to the Honorary Secretary, not later than January 31st.

SLIGO UNION—Medical Officer for Carney No. 2 Dispensary District. Salary, £100 per annum, with £20 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 2nd February.

WOLVERHAMPTON FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION—Resident Medical Officer. Applications (stating salary required), with testimonials, not later than February 1st, 1881.

MEDICAL APPOINTMENTS.

DINNEN, William Thomas, L.K.Q.C.P.I., and M.R.C.S.E., appointed Honorary Surgeon to the Flintshire Dispensary, Holywell.

HIRONS, George M., L.R.C.P., L.R.C.S.Ed., L.S.A.Lond., appointed Additional Honorary Surgeon to the Bournemouth General Dispensary and Cottage Hospital.

SHEILD, A. Marmaduke, M.R.C.S., L.R.C.P.L., elected House-Surgeon to Addenbrooke's Hospital, Cambridge, *vice* E. Ground, L.R.C.P.L., resigned.

SUTTON, Francis W., M.R.C.S., L.S.A., appointed House-Surgeon to the Royal Berkshire Hospital, *vice* Charles R. Graham, M.R.C.S., L.R.C.P.Ed., resigned.

SWABY-SMITH, C., M.R.C.P.Ed., and M.R.C.S., appointed by the Director-General, Army Medical Department, medical officer in charge of Her Majesty's troops at Seaforth Battery.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

ELLIOT.—At Cliffe House, Ruyton, Eleven Towns, Salop, the wife of Henry F. Elliot, F.R.C.S.E., of a son.

FRANCIS.—On the 22nd instant, at Bourton, Dorsetshire, the wife of George Philip Francis, surgeon, of a son.

RICE.—On January 12th, at Swift's Hospital for the Insane, Dublin, the wife of William Rice, F.R.C.S., Medical Superintendent, of a son.

MARRIAGES.

ANDERSON—PARTINGTON.—On the 20th inst., at the parish church, Chapel-en-le-Frith, Derbyshire, by the Rev. George Hall, Vicar, assisted by the Rev. S. H. Pink, Curate, and the Rev. W. H. Stamper, brother-in-law of the bride, William Stirling Anderson, M.D., of Chapel-en-le-Frith, to Rhoda, youngest daughter of the late T. S. Partington, Esq., Solicitor, of Blackbrook, Chapel-en-le-Frith.

HUTCHINSON—WOOD.—On January 20th, at Christ Church, High Harrogate, by the Very Rev. Canon Gibbon, M.A., Vicar of the parish, S. J. Hutchinson, Esq., of Brook Street, Grosvenor Square, London, and Acton, Middlesex, son of the late Samuel Hutchinson, Esq., of Manchester, to Jeannie, youngest daughter of G. Wood, Esq., of Grosvenor Villas, Harrogate.

DEATH.

HARLAND.—On January 20th, at Chillingworth House, Tunbridge Wells, Sarah Frances Julia, wife of Henry Harland, M.D., formerly of Mayfield and Wadhurst, aged 45.

IT is announced that Surgeon-General Kendall, the principal medical officer of Chatham Garrison, has retired and will be succeeded by Deputy Surgeon-General T. W. Fox, M.B.

REMARKABLE TOLERANCE OF OPIUM.—A case of diffuse puerperal peritonitis is reported by Dr. F. M. Welles, of New York (*American Journal of Obstetrics*), in which morphia was given for the first time, on May 1st (one fourth of a grain), and increased daily till on May 10th, fifty-seven and a half grains were administered. The dose was then gradually decreased. The patient recovered.

BEQUESTS AND DONATIONS.—Mr. Richard Benyon has given £100, and Mr. Albert G. Sandeman £35 10s., to the Charing Cross Hospital.—Mr. E. Alers Hankey has given £100 to St. Peter's Hospital for Stone, etc.—"J. F." has given £100 to the National Hospital for the Paralysed and Epileptic.—The Grocers' Company have given £100 to the Hospital for Women, and £50 to the Great Northern Hospital.—The Goldsmiths' Company have given £25 to the Eastern Dispensary, Leman Street, and £25 to the Samaritan Fund of the Westminster Hospital.—The Central London Throat and Ear Hospital has received £50 under the will of Mr. Wm. Jenkins.—"W. D." has given £50 additional to the Hospital for Women.

PUBLIC HEALTH.—The annual rate of mortality last week, which was the third week of this year, in twenty of the largest English towns averaged 29 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Portsmouth 19, Bradford 21, Birmingham 23, Hull 23, Norwich 24, Leeds 24, Bristol 24, Brighton 24, Sheffield 24, Sunderland 25, Leicester 26, London 28, Newcastle-on-Tyne 29, Oldham 31, Wolverhampton 31, Salford 32, Nottingham 32, Liverpool 35, Manchester 43, and Plymouth 45. Scarlet fever showed the largest proportional fatality in Norwich and Sunderland; whooping-cough in Leeds and Nottingham; and measles in Salford. The death-rate from fever (principally enteric) continues below the average. Small-pox caused 44 more deaths in London and its suburban districts, but no fatal case was recorded in any of the nineteen large provincial towns. In London, 2,016 deaths were registered; and, under the influence of the severe cold weather, exceeded the average by 230. The 2,016 deaths included 42 from small-pox, 52 from measles, 44 from scarlet fever, 9 from diphtheria, 31 from whooping-cough, 13 from enteric fever, 3 from ill-defined forms of continued fever, 12 from diarrhœa, and none from typhus, dysentery, or cholera; thus, 206 deaths were referred to these diseases, being 56 below the average. The deaths referred to diseases of the respiratory organs, which had been 353, 363, and 371 in the three preceding weeks, rose last week, under the influence of the exceptionally low temperature, to 617, and showed an excess of 141 upon the average; 441 were attributed to bronchitis, and 97 to pneumonia. Different forms of violence caused 78 deaths; 73 were the result of negligence or accident, including 28 from fractures and contusions, 10 from burns and scalds, 2 from drowning, and 22 of infants under one year of age from suffocation. The deaths of three males (aged 81, 86, and 92 years), in East London, were the subject of inquests, the verdict in each case being "Found dead. Syncope. Exposure to cold". At Greenwich, the mean temperature of the air was 23.4°, and 15.5° below the average. The mean was very considerably below the average on each day of the week; the coldest day being Thursday, when the mean was only 19.2°, showing a deficiency of 19.9°. The lowest night temperature was 12.7° on Monday, and the highest day temperature in the shade 31.7° on Saturday; the extreme range in the week was, therefore, 19.0°. The direction of the wind was variable, and the horizontal movement of the air averaged 14.6 miles per hour, which was 0.8 above the average in the corresponding week of sixteen years. Melted snow was measured on two days of the week, to the aggregate amount of 0.46 of an inch. The duration of registered bright sunshine in the week was equal to 12 per cent. of its possible duration. The recorded amount of ozone was below the average on each day of the week except Tuesday, when the amount showed an excess.

THE WEST CORNWALL INFIRMARY AND DISPENSARY.—At the annual meeting of the subscribers to the above institutions, it was reported that there had been an increase in the number of in-patients and out-patients during the year. The receipts, irrespective of a donation of £1,000 given by Messrs. Bolitho, amounted to £1,005, and the expenditure, including £500 paid for the freehold of the premises with half an acre of land, £1,047. A suggestion that the office of attendant surgeon should be filled each year alternately by one of the medical gentlemen of Penzance was left to the consideration of the committee.

PRESENTATION.—On Saturday, the 22nd instant, Dr. C. Swaby-Smith, of Seaforth, near Liverpool, was presented by the Committee of Management of the Seaforth National Schools with an appropriate address, accompanied with a purse of money, in recognition of his services as honorary secretary during the past seven years.

CARDIFF MEDICAL SOCIETY.—At the annual meeting of the members, the following gentlemen were chosen office-bearers for the present year:—*President:* M. G. Evans, M.D. *Vice-President:* Thomas Wallace, M.D. *Committee:* Messrs. Hardyman, Campbell, Buist, and Treharne. *Honorary Secretary and Treasurer:* Mr. J. Garret Horder.

SCIENCE LECTURES AT THE PARKES MUSEUM OF HYGIENE.—Professor Corfield lectured at this museum on Saturday upon the subject of "Water Supply and Filtration." The professor referred at some length to the engineering feats of the ancient Romans, and described the aqueducts with which Rome and Lyons were supplied with water. Three of these aqueducts remained to the present day as the channels by which modern Rome is supplied with water, and were monuments to the engineering skill of those who constructed them, and Rome at the present time had one of the best water supplies of any city in the world. The properties of water were explained and demonstrated by experiments. Though pure water should be colourless, tasteless, and free from particles in suspension, it did not follow that water which had all these properties was pure and fit for drinking purposes. The various sources of water supply were spoken of, and filtration for purifying water on a large scale in reservoirs, and on a small scale for domestic purposes, was explained. The lecture was listened to with much interest, and at the close a cordial vote of thanks was given to Professor Corfield. The proposer, as a workingman, said these sanitary science lectures were highly appreciated, and he, for one, should henceforth pay greater attention to the sanitary arrangements of his house.

SURGEON WILLIAM SALE SANDHAM (1870) has been placed on the retired list of his rank from the 9th January.

SURGEON THOMAS HARVEY (1871) has been promoted to the rank of Staff Surgeon in Her Majesty's Fleet, with seniority of the 15th January.

A COMMITTEE has been formed at the Hague, to receive subscriptions in order to be able to offer medical assistance to the wounded in the Transvaal without distinction of nationality.

THE ANÆMIC CENTURY.—A recent number of *L'Union Médicale* contains an amusing account of the method adopted by Ambroise Paré to combat the anæmia and debility consequent on suppuration of bone. There was a certain Marquis D'Auret, who was seriously wounded. He sent for Paré, who found him anxious above all things about dinner. And such a dinner! "I entered the kitchen", says Paré; "there I saw a man throw into a large cauldron half a sheep, a quarter of veal, three pieces of beef of great size, two pullets, a fine big flitch of bacon, and great store of fine herbs. Then said I within myself that this soup was succulent, and excellent for nourishing." The Marquis had been shot in the knee, with fracture of the femur, and consecutive necrosis. Paré was very attentive to him, and to combat the debility prescribed this regimen. He says: "In order the better to relieve the feebleness of the Marquis, I thought right to use much good and succulent aliments, such as soft-boiled eggs, Damascus raisins preserved in wine and sugar, also *panade* made with the soup from the big cauldron (of which I have spoken above) with the breasts of capons, the wings of partridges hashed and well dressed, and other like matters easy to be digested, as veal, kid, young pigeons, young partridges, thrushes, and others of the same sort. The sauce to be of orange, sorrel-juice, bitter pomegranates; he shall likewise eat of beef boiled with good herbs, as sorrel, lettuce, purslain, chicoree, marigold, and other such; his bread shall be made of meslin" (a flour obtained by sowing wheat and rye together), "and neither stale, nor too soft." Well may Dr. Simplice, who quotes this story from *Les Campagnes d'Ambroise Paré* (by Caradec Fils), exclaim—"Who dare prescribe such a regimen to the wounded of our own day? Is there, as so many of our *confrères* maintain, a serious change in the constitution of the present generation? Oh, nineteenth century, art thou, in truth, the *anæmic* century!"

THE THIRD STAGE OF ABORTION.—Dr. Parvin, in the *Obstetric Gazette*, says that, in a case of incomplete abortion having hæmorrhage which, by its persistence or profuseness, brings danger to the patient, or commencing offensive discharge that heralds a possible septicæmia, interference is imperative, and must be immediate. The patient should lie on her back, upon a hard bed, her hips brought to its edge, lower limbs strongly flexed, Neugebauer's speculum should be introduced, and the os brought fairly in view. The anterior lip must be caught with a simple tenaculum, or better, with Nott's tenaculum-forceps, and then, if there be any flexion—and it is not uncommon in cases of spontaneous abortion to observe this—gentle traction should be used to straighten the bent canal. The closed blades of a pair of curved polypus-forceps of suitable size, or, better still, Emmet's curette-forceps, are introduced into the uterine cavity, and opened slightly, then closed and withdrawn, when the fragments of membranes can be removed, and the instrument reintroduced. This is repeated three or four times, if necessary, until all membranes or placental fragments are extracted. Then, by means of an applicator wrapped with cotton-wool, the uterus is swabbed out twice, or oftener, with Churchill's tincture of iodine—one of the best of local uterine hæmostatics, if not one of the best of antiseptics. Finally, the patient should have ten or fifteen grains of quinia, and it will be very rarely, indeed, that her convalescence is not prompt and perfect.

CONNECTION OF MYELITIS AND ATAXY WITH SYPHILIS.—Professor Rosenthal communicated to the Imperial Medical Society of Vienna at its meeting of January 1st (*Wiener Medicinische Wochenschrift*, No. 3), reported four cases of myelitis in which he had observed the connection with syphilis. Rosenthal does not, however, consider that either clinical or anatomical observation had as yet cleared up the nature of this connection. He does not concur in the views of Erb in this respect. Dr. Weiss remarked that Erb had brought forward three cases of locomotor ataxy, in which he had been successful in ameliorating the symptoms by antisyphilitic treatment.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th. 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. Brunton, A Case of Gun-shot Wound of the Brain of twenty-nine years' standing (the specimen will be shown). Mr. Edmund Owen will exhibit Three Children who have recovered from Abscess in the Knee-joint after simple Free Drainage and Rest. Mr. Francis Mason will show—1. The specimen of Disease of the Testicle taken from the Patient brought before the Society in November last; 2. The Patient shown at this Society in 1875, with Tumour of the Palate; 3. A Case of Removal of Upper Jaw five years after the Operation.

TUESDAY.—Pathological Society of London, 8.30 P.M. Mr. MacCarthy, 1. Case of Strangulated Hernia; 2. Ruptured Aorta; Mr. Harrison Cripps, Three Cases of Recurrent Multiple Sarcoma; Mr. Morrant Baker, Localised Scleroderma (living specimen); Mr. Barwell, 1. Congenital Truncation of Forearm; 2. Unilateral Hypertrophy of Head; Dr. Pye-Smith, Drawings of Localised Scleroderma; Mr. Macnamara, Sacral Tumour containing Fœtal Structures; Dr. Andrew Clark, Case of Abscess of the Liver: Dr. Cavafy, Case of Chloasma.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Annual meeting; Election of Officers and Council; President's Address; and other communications.—Epidemiological Society of London, 8 P.M. Dr. Squire will read a hitherto unpublished letter by Edward Jenner, containing "Instructions for Vaccine Inoculation", in the possession of Frederick Symonds, Esq., M.A., F.R.C.S., of Oxford. Surgeon-General C. A. Gordon, Certain Considerations regarding Cholera and Fever, more especially with reference to India and China.

THURSDAY.—Harveian Society of London, 8.30 P.M. Dr. Hughlings Jackson, A Case of Temporary Hemiplegia after Localised Convulsion; Dr. Fletcher Beach, Types of Imbecility.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

EXPLOSION OF KITCHEN BOILERS.

SIR,—We observe, in your valuable JOURNAL, a paragraph calling the attention of sanitary engineers to a serious defect in the present construction of kitchen boilers, and which manifests itself so frequently and with such lamentable results, when anything interferes with their ordinary working conditions. We have for some time past devoted much attention to this subject, with a view to remedy the imperfection; and in this we have certainly succeeded—the production of an efficient safety valve being the object aimed at. Of these valves, we have already circulated a large number; they are attached to the ordinary draw-off tap of the boiler, and any increase of pressure therein never fails to actuate the valve, which allows the superfluous steam to pass harmlessly away. The valve and tap combined are very inexpensive; and in no case has any boiler exploded to which they have been attached; and we feel confident that, were they so widely known as the importance of the matters at issue demand they should be, there is no doubt but that they would be universally adopted, and the dreadful occurrence referred to entirely avoided.—Yours obediently,

J. C. STIDDER & Co.

London Sanitary Engineering Works, 50, Southwark Bridge Road, London, S.E.

SIR,—My attention has been directed to your note upon loss of life in connection with kitchen boiler explosions; and I would now call your attention to the fact that, for the last ten or twelve years, we have been advocating more or less the general adoption of a means designed expressly to meet the want, the difficulty, and the application so as to prevent loss of property and valuable lives, as well as to prevent suffering and loss of limbs. Setting aside all questions of business and profits, the means of remedy offered in Randall's patent boiler valves and taps is of the greatest value; and no house or greenhouse hot-water apparatus should be without such an application, at once cheap and effective. The test has been long enough to prove their utility.—Yours very respectfully,

S. B. GOSLIN, F.M.S., etc.

The Crescent Foundry, Cripplegate, London, E.C., Jan. 25th, 1881.

IF L. M. R. (Hackney) will write to Dr. Bushell Anningson, Cambridge, he will receive a syllabus of the subjects for the Cambridge Sanitary Science examination, and a list of the books recommended.

CHILBLAINS.

MR. W. SQUIRE (Plymouth) says that, when he was a student, Mr. Skey always recommended opium. Mr. Squire has never known it fail. He gives it as nepenthe, with a little Epsom salts and syrup of ginger night and morning. A dose for an adult is 15 minims, and less for smaller patients. The relief is usually rapid. He has tried many vaunted external remedies, and never found one worth anything.

DR. R. FULLERTON (Stapleton, Bristol), has prescribed a liniment composed of equal parts of liniment of aconite and oil of turpentine with marked benefit. This is only for unbroken chilblains.

DR. J. B. SAMMUT (Valletta, Malta), recommends the following treatment. At the commencement and in the inflammatory period use tincture of arnica, 20 minims; rectified spirit, 1 ounce. Rub the chilblains well with this, morning and evening, by means of a piece of flannel. Two applications generally suffice for a cure. Should the chilblains be ulcerated, the solution should be applied at the distance of two inches; and should the fingers be affected, then the friction is done over the articulation of the hands. Tonics, etc., are advisable, should the constitution require them.

FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATIONS.

SIR,—As a medical officer to one of these associations, I beg a little space to reply to the strictures of your correspondent "Experientia Docet", in your issue of the 22nd instant. Does "Experientia Docet" really mean to say he undertook to attend members, as well as their families, at a radius of ten miles from his residence? If so, his appointment, instead of being one of the best, could not possibly be worse. In this association, I attend to members and their families within the limits of the borough, and beyond the borough to members only for a radius of four miles. My salary is £300 a year, besides midwifery fees, which amount annually to about £50. house, rates, gas, etc. I see patients from 9 to 11 A.M., and from 6 to 7 P.M. Unlike your correspondent, I see no case, unless one of emergency, at any other time. A dispenser is kept; and I can do all my visiting in two or three hours a day. Though the committee consists of a man "who has made money", a "tailor", and many "cobblers", I have ever been treated with kindness and respect. On my return last year after a three weeks' vacation, the committee paid, without any suggestion on my part, my *locum tenens* (£9 9s.). My experience of the English working-man is limited to my residence here; but I trust he is not so vulgar in other places as your correspondent represents him. I, too, can say I have been received by the resident medical men with every kindness. Your correspondent has, at least, proved one thing. When he accepted the position of medical officer to a Friendly Societies Medical Aid Association, he was wanting in firmness, tact, and experience.—Yours very truly,

L.R.C.S.I.

P.S.—I enclose my card.

ERRATUM.—At page 129, line 5, read "decided" for "denied".

DIPHTHERIA AND FOOT-AND-MOUTH DISEASE.

SIR,—Considering the time foot-and-mouth disease has existed in the country, it surely cannot be a matter of uncertainty whether milk drawn from cows suffering with this disease is capable of producing diphtheria in the human subject or not. Were there any real connection between the two diseases, it would, without doubt, have been noticed long ere this. Professor Simmonds, of the Royal Veterinary College, says that foot-and-mouth disease and diphtheria have no relation whatever, and he makes this statement upon the faith of experiments which were made with milk taken from infected cows. If proof could be adduced that milk drawn from cows affected with garget, foot-and-mouth disease and pleuropneumonia, is capable of producing diphtheria in the human subject, we should be compelled to believe that these are various manifestations of the same disease, or that like does not always produce like. Professor Huxley says: "The theory of heterogenesis is utterly untenable, and that of homogenesis is victorious along the whole line". May not similar causes be at work in producing or reproducing diseases, both in men and cattle. One thing is certain: warm damp weather is particularly favourable to the spread of all kinds of infection.—I am, sir, your obedient servant,

Kingston-on-Thames. F. P. ATKINSON.

"INQUIRER" asks, "Is it the usual practice for the consultants to an hospital to be nominated by the medical staff or by the lay governors? and which practice is the more likely to conduce to the general welfare of the institution?"

*** The practice varies, but certainly the more usual custom is, that consultants are elected by the lay governors from the retiring members of the medical staff. The most approved practice for electing the visiting medical staff is for the Medical Committee or Medical Board to make the selection or nomination, which nomination is then laid before the governors for their approval or otherwise, the understanding being that an approval follows as a matter of course.

THE WEST CHESHIRE PROVIDENT DISPENSARY.

SIR,—In your issue of Saturday last, there appears a notice of the first annual report of the "West Cheshire Provident Dispensary", upon which, with your kind permission, I should like to make a few remarks. The paragraph would be of comparatively little importance were it only circulated amongst the profession, but, as it is certain to secure a prominent place in the local press, and consequently, coming with all the authority of the JOURNAL of the British Medical Association, likely to mislead the public here, I think you will see the necessity of allowing me a few words.

You say, "its success seems fairly assured", adding some particulars as to the number of members, amount contributed during the year, etc. I am not so confident of its success being assured, and doubt whether you will be, when you know the actual condition of affairs. Now, what are the facts? You will be surprised when I tell you that, of the half-dozen medical officers connected with the institution at first, only two now remain; that the committee have been eagerly pressing all the junior members of the profession to join it, but so far without success; that hundreds of members have left it during the year (I know a medical man who has a club, numbering seventy members, which gladly withdrew from it after one quarter's experience); that, for this "self-supporting dispensary", donations have been frequently asked and received; and that, even now, a concert is being got up in aid of its funds. Does this look like its success being fairly assured? After this, I think the final sentence of the paragraph perfectly unique: "We think the committee are justified in taking a hopeful view of the situation, and we are glad to see that they intend ultimately to open branch dispensaries in different parts of Birkenhead, as well as in the adjoining districts." But, you will say, why should there be this antipathy? The reason is not far to seek. The medical men here are, almost to a man, in favour of provident dispensaries, but they object to this one because, as they judge, it has been formed on an entirely false basis. It would not now be profitable to discuss the prospectus issued by the committee at its formation. Part of it appeared in your columns, and you yourself condemned it. When I say that in the prospectus it was distinctly stated (and, so far as I know, the statement has not been withdrawn) that there was "no restriction as to class", and that anyone having an income of up to £2 per week could become a member, I think I have said sufficient.

How far Mr. Vacher's position as President of this "excellent movement" is consistent with his duties as medical officer of health, and, therefore, a paid public servant, I do not know, and do not care to inquire (that rests between Mr. Vacher and the corporate authorities); but I think it extremely bad taste on his part, that he should so closely identify himself with an institution which has been, and ever will be, objectionable to the medical men in this neighbourhood. You have for years, with admirable tact and judgment, upheld the honour and dignity of the profession; and it is on that account I now, in the name of my medical brethren, invoke your powerful aid in exposing a movement founded on false principles, and retrograde in its tendency. I am, etc.,

Birkenhead, January 17th, 1881. M.D.

"FAIR PLAY" would like to know whether it is usual for general practitioners to charge extra when in attendance on scarlet fever cases.

SIR,—"C. R. G.", who asks to be recommended "a bracing seaside place where a delicate boy could be received as a boarder", will find Mrs. Moore's "Home for Delicate Children", Northfield, Cliftonville, Margate, to answer his purpose.—

Yours, etc., HYGIENE.

GLOVES FOR COLD WET WEATHER.

AN AMERICAN OLD-STAGER, writing from Boston, suggests the use of leather mittens (not gloves), lined with wool, and thoroughly painted over with sponge-blacking—a black varnish, formerly, if not now, much used to give a shine to dress-boots and shoes. He has used such mittens for many years with great satisfaction. Any kind of leather mittens will do; but the elegant ones of the shops, of dark calf-skin, with full fleece lamb-skin linings, large thumbs (quite important), and high and fur-edged wrists, spring-closing, are, of course, the best. The varnish, easily applied, may be renewed as often as needed. It renders the mittens impervious to water; thus keeping the hands and finger warm and dry in the rain, sleet, and snow of cold weather. "Oeconomicus's" outfit is a very sensible one; the addition above suggested will render it quite perfect.

MR. A. M. SYDNEY TURNER.—The letter which you are kind enough to send contains the usual stock "arguments" of the antivaccinators, which have been over and over again refuted in these columns and elsewhere. To show up this inaccuracy again would not only be unnecessary, but would take up space on which there are many more claims than can be met. In the little book recently published by Messrs. Smith, Elder, and Co., on the *Truth about Vaccination*, the particular misstatement referred to, and many more, are fully gone into, and the real facts of the case set forth in detail.

TRAPS FOR MEDICAL PRACTITIONERS' USE.

SIR, Referring to an inquiry by "M.R.C.S.", in the JOURNAL of the 8th instant, a trap suitable for medical practitioners having long journeys to make in rough, and perhaps hilly, roads, must be selected with reference both to the comfort of man and of horse. It should be light and well balanced. If seated for more than two, the front seat should be made to slide, so that it can be shifted backwards or forwards, according to the number and weight of the occupants. Many experienced drivers concur with me in the opinion that a light trap, properly balanced, is a more agreeable burden to a horse than a rider. Sound material alone can combine the two qualities of lightness and strength; and if you go to a good maker you will get them both, and also elegance. In the next place, the trap should be hung low and have high wheels. In hilly countries, the great bugbear of driving is going down hill, the horse being apt to fall, and the driver to be precipitated headforemost on the back of the horse, or shot past him to the ground. A low trap both lessens the liability to this accident; and, when it does happen, mitigates the dangerous consequences. High wheels are an advantage on level roads and up hill, but tax the horse's strength more while coming down hill than low wheels. By the wings being semicircular and prolonged to meet the steps on each side, a safe, quick, and most convenient means of getting in and out of the trap is afforded. Good springs and shafts are indispensable, as upon them depend the easiness and comfort of the trap while jolting on the road. All these requisites are to be found in the "Alexandra Car", by Thorn, Norwich. I have used one for over three years, and I can say it is a tidy smart-looking trap, and as tough as it is tidy; while for comfort and convenience to both man and beast it is unsurpassed.—I am, sir, yours faithfully,

Tongue, Sutherlandshire, N.B., January 11th, 1881. J. A. AUSTIN, M.D.

J. H. P.—If it is desired that the resolution be published, it should be officially forwarded, with a request to that effect.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. A. Carpenter, Croydon; Dr. Eastwood, Darlington; Mr. C. F. Wilkinson, Tandragee; Dr. F. P. Atkinson, Kingston-on-Thames; Dr. W. Easby, Cambridge; Dr. Clement Dukes, Rugby; Mr. F. W. Sutton, Reading; Dr. W. R. Smith, Cheltenham; Mr. W. Fuller, London; Dr. J. Mackenzie, Rugby; Mr. R. Torrance, Newcastle-on-Tyne; Dr. J. Walker, Hanley; Mr. A. W. Sheild, Cambridge; Dr. J. Aveling, London; Mr. G. Eastes, London; Dr. J. Rogers, London; Dr. G. Owen Rees, London; Veritas; Dr. J. A. C. Stuart, Dunse; Dr. G. M. Skerritt, Clifton; Dr. A. Sheen, Cardiff; Mr. H. A. Smith, Gosport; Dr. T. King, London; Dr. W. J. H. Lush, Andover; Dr. F. T. Bond, Gloucester; Mr. James Eaton, Grantham; Dr. Farr; Dr. W. T. Dinnen, Holyhead; Mr. F. E. Manby, Wolverhampton; Dr. R. J. Lee, London; Dr. R. Neale, London; Dr. W. W. Ireland, Stirling; Mr. J. Branson, Rotherham; L.R.C.S.J.; Mr. Biddle, Kingston-on-Thames; Mr. S. F. Gosling, Congleton; Dr. H. C. Rose, London; Dr. E. Tibbits, Bradford; Dr. Donald Macphail, Glasgow; L. M. R.; Dr. A. Tweedie, Twickenham; Mr. Dawin, Manchester; Mr. Osman Vincent, London; Dr. Swaby Smith, Liverpool; Dr. Graham Brown, Edinburgh; D. B.; A Member British Medical Association; Dr. James Allen, London; Mr. F. Garrett Horder, Cardiff; Dr. F. W. Pavy, London; Mr. C. E. Richmond, Warrington; Mr. Palmer, Solihull; Mr. H. Crookshank, London; Mr. Albert Wilson, Leytonstone; Dr. Clifford Allbutt, Leeds; Our Glasgow Correspondent; Dr. Meymott Tidy, London; Dr. C. J. Hare, London; Sir W. Jenner, London; Dr. H. Weber, London; Dr. Wyckoff, Brooklyn; Dr. Bacon, Fulbourn; Dr. Creighton, Cambridge; Mr. J. E. Erichsen, London; Dr. M. Duncan, London; Dr. M. Douglas, Sunderland; Our Aberdeen Correspondent; Dr. Duncan J. Mackenzie, Glossop; Dr. J. Langdon Down, London; Dr. Broadbent, London; Dr. J. H. Hill, Melbourne; Mr. W. B. Thorne, London; Dr. James Braithwaite, Leeds; Our Edinburgh Correspondent; Mr. Balmanno Squire, London; Mr. Ridgway Lloyd, St. Albans; Dr. Gerald Yeo, London; Mr. F. Mason, London; Mr. Edward Cock, Kingston-on-Thames, etc.

BOOKS, ETC., RECEIVED.

Handbook of Midwifery. By J. E. Burton. London: J. and A. Churchill.

Relapse of Typhoid Fever. By J. P. Irvine, M.D. London: J. and A. Churchill.

Hernia, Strangulated and Reducible. By J. H. Warren, M.D. London: Sampson Low, and Co.

Plea for Mercy. By James Macaulay, A.M., M.D. London: S. W. Partridge and Co.

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AN ADDRESS
ON
THE CATGUT LIGATURE.

Delivered before the Clinical Society of London, January 28th.

By JOSEPH LISTER, F.R.S.,
Surgeon to King's College Hospital; Surgeon Extraordinary to the Queen; President of the Society.

GENTLEMEN,—In thanking you for the great honour which you have conferred upon me by my election to this chair, I do so with a peculiar feeling of gratitude, because I am well aware that my personal share in the proceedings of the Society has not been such as to entitle me to hope for so great a distinction at your hands. I can only strive to discharge to the best of my ability the important duties which your kindness has imposed.

In considering the choice of a subject for the inaugural address which is expected from your President, I have felt myself precluded from presenting a summary of the labours of the Society in the past, or from tendering advice as to its conduct in the future; and, after consultation with some influential members of the Council, I have decided to bring before you this evening a special subject, which will, I trust, be thought not unworthy of the occasion, inasmuch as, while it is still in an unsettled or transitional state, it is full of interest for every practical surgeon, and at the same time, in some of its aspects, well deserves the attention of the pathologist and the physician. I refer to the catgut ligature. In adopting this course, I feel it needful to crave your indulgence; for the subject is a large one, and, in order to do it anything like justice, I shall have to trespass for a considerable time on your attention.

The catgut ligature has in some respects exceeded my original hopes. I feared that its advantages would be limited to wounds in which putrefaction was avoided; and that, if septic suppuration took place in a wound in which it was employed for securing the vessels, the ligatures would, sooner or later, come away like little sloughs.* Such, however, has not proved to be the case. Whatever be the progress of the wound, we never see anything of the catgut; so that even surgeons who have not adopted strict antiseptic treatment have been led to employ the new material in ordinary wounds. Under other circumstances, however, the catgut has often led to disappointment. We hear of cases in which Cæsarean section has been performed, and all has gone on well until the knots of the catgut with which the uterine wound was secured have given way, and the patient's death has been the result. Again, in ligature of large arterial trunks in their continuity, several surgeons have met with bitter disappointment; the case ending in disaster from secondary hæmorrhage, or the treatment proving abortive through the channel of the vessel becoming opened up again at the site of the ligature. Hence many surgeons have been induced to return to silk, even though using strict antiseptic treatment—rendering the silk aseptic by steeping it in suitable lotion, and cutting the ends short. This practice has, however, by no means proved uniformly successful. As an instance of unsatisfactory result, I may mention a case which was recorded by Mr. Clutton in the last volume of our *Transactions*. He tied the external iliac artery under strict antiseptic precautions, and the wound healed within a week; but, as I learned from a letter which he was good enough to send me at the time, "six weeks after the operation a little blister formed, and fluid began to escape, forming a small scab; and in three months the loop which had been placed around the artery came away". Such a result was not at all surprising to me, seeing that what induced me to try the animal ligature, was the discovery of a small abscess about the remains of a partially absorbed silk thread which I had applied in the same manner as Mr. Clutton, and, as it so happened, to the same artery.* It can hardly be doubted that suppuration proceeding from the immediate seat of the ligature must be a source of danger. As an illustration of the mischief which a ligature of ordinary material may do, I may mention a case of goître in a young woman on whom I operated on the 28th of January last year. It was of moderate dimensions; but the effect on the respiration was so considerable, that I determined to remove it, following Dr. Patrick Heron Watson's plan of preliminary deligation of the thyroid vessels circumferentially to the tumour. If this be effectually done, the operation is bloodless; so that, as the laryngoscope applied by Dr. Felix Semon, who had recommended the case to my care, showed that the anterior wall of the trachea was pressed backwards considerably by the growth, I adopted a measure which I believe would in all cases of removal of the thyroid prove advantageous; namely, I divided the tumour in the first instance in the middle line, so as, in the event of adhesion to the trachea, to be able to remove the two halves of the growth at leisure—dissecting it off from the trachea more or less completely as may be desired, leaving some portions at the adherent parts, so as to avoid the deadly risk of perforation of the air-passage. But, in order that the circumferential ligature of the thyroid vessels may be secure, it is essential that the material should be very strong, so that the tissues round about the tumour, including the vessels, may be thoroughly tightened up. I possessed no catgut which I felt was strong enough to bear the full strength of my hands, and therefore I was compelled to use the hempen ligature—after, of course, carefully rendering it aseptic by means of the carbolic lotion. Six of these hempen ligatures were used—three on each side. During the first eight days, everything went on in a typical fashion according to the antiseptic method. There was a small serous effusion, rapidly diminishing; and we looked to the wound being healed in a few days more. But on the ninth day there was seen to be a little something of purulence mingled with the discharge; and the pus afterwards became thicker, though always in small quantity, and could be pressed out from each side; in a month, one of the hempen ligatures made its escape. Six days later, four other of the hempen threads came away, altogether unaltered, as may be seen on one of the cards on the table where I have exhibited them. I submitted them to careful examination. They had a sour odour, and, applied to litmus-paper, gave an acid reaction; that is to say, the natural alkaline condition of the blood-serum had been changed to acidity by some peculiar species of fermentation.* On examining them with the microscope, I found the interstices of the threads of the hemp loaded with a little organism, to which I believe I happened to be the first to direct attention as to its mode of growth,* and to which I gave the name of Granuligera, occurring in groups of two, three, four, and so forth, as distinguished from the chains of ordinary bacteria, and of which one form at least has been since shown by Mr. Cheyne to occur very frequently in cases treated antiseptically, without any interference with aseptic progress. I found that the interstices of the threads of the hemp were loaded with these little micrococci. It so happens that I have had the opportunity within the last few days of obtaining a sample of these micrococci, thanks to Mr. Cheyne's kindness. He brought this flask of a pure and perfectly transparent infusion of meat to a case which I had operated on a fortnight before by excision of the ankle. The skin had been unbroken, so that I was able to operate antiseptically, and the case pursued a perfectly typical course. The wounds, which were left gaping at the time of the operation, were filled with blood-clot, which remained unaltered in appearance, though undoubtedly organised by that time, more or less. A little piece of the blood-clot from one of these wounds was introduced, with careful antiseptic precautions, into the flask of clear fluid; and you see it is now turbid, and there is under the microscope on the table a specimen of the little organism to which the turbidity is due. But though, under ordinary circumstances, these micrococci may be present, as Mr. Cheyne has abundantly shown, and as the excision of the ankle I have just referred to illustrates, without causing any evil, yet there may be circumstances in which they may prove mischievous; and the case of goître which I have been relating appears to have been one of these. The micrococci developing for a protracted period in the interstices of the hempen ligature produced an acid fermentation of the serum in its most aggravated form. The acid serum became a cause of irritation; and thus the ligatures, which otherwise, being unirritating in their own substance, might have become encapsuled, and in due time absorbed, became causes of suppuration. One of the six ligatures still remained unaccounted for. In due time, we sent the patient home with a small sinus remaining, a little pus always discharging from it; but it was not until the middle of September that the last ligature came away altogether unaltered. Now, gentlemen, there is no doubt whatever that, if I had had catgut which I could have trusted for the operation, the catgut ligatures would have been disposed of within two or three weeks, and the healing, instead of requiring eight months, would probably have been completed in a fortnight. Here, then, we have an illustration of the great disadvantage which may arise, even under antiseptic treatment, from the use of the ordinary forms of ligature.

Animal ligatures of another kind have been provided by Mr. Barwell in order to remove these difficulties, namely, strips of the mingled

* See Observations on Ligature of Arteries on the Antiseptic System, in the *Lancet* April 3rd, 1869.

* See *Transactions of the Royal Society of Edinburgh*, vol. xxvii, 1875.

yellow-elastic and unstriped muscular tissues which constitute the arterial wall, obtained by cutting spirally the aorta of one of the larger animals. But, though fully admitting the efficiency of these ligatures in his hands, I am given to understand that their form and size render them by no means very convenient; and independently of this, I cannot but feel that it is unsatisfactory, if it can be avoided, to have a special material for this particular object, and that it would be better, if possible, to have the catgut in a thoroughly reliable condition. Catgut, of which I have samples here, is to be had all over the world in abundance. It is beautifully strong and smooth; it is prepared of various sizes, admirably adapted for all the purposes of the surgeon, and is extremely cheap. Wholesale, it is sold at twelve shillings per gross, that is to say, one penny per hank. But, as it comes from the maker, it is entirely unfit for the purposes of the surgeon. However beautiful it is in the dry state, it becomes soft and pulpy soon after it has been placed in blood-serum. In one of these glasses is a piece of unprepared catgut, which was placed in warm serum this morning, obtained from the blood of a cow, and, within half an hour, it was in the condition in which it is at the present time—swollen, soft, and pulpy. A knot tied upon it would hold as little, or scarcely better, than would one on a piece of the intestine from which the catgut is derived. It is essential, in order to fit the catgut for the purposes of the surgeon, that it be altered in its physical constitution so as to be no longer liable to this softening effect by the serum of the blood. It is a remarkable circumstance, that the blood-serum softens catgut more than even water does. It might have been expected, *à priori*, that a solution of a colloidal substance like albumen would have been much less disposed than water to permeate and soften an animal-tissue like catgut; but it is otherwise, and, therefore, we cannot test the trustworthiness of catgut by steeping it in warm water, as I formerly used to do. In order to be sure that a given specimen of catgut will answer the purpose in so far as the knot is concerned, that it shall not slip, it is needful that we should steep the catgut in blood-serum, a somewhat troublesome process, as it involves sending to a slaughter-house for blood.

The method of preparing catgut which I published long ago answers the purpose very well, even for the ligature of arteries in their continuity, provided certain conditions be complied with; such at least is my own experience. This, indeed, has not been very extensive, but it has been sufficient to deserve consideration. I have tied altogether nine large arteries in their continuity with prepared catgut. Of these, one was a case of ligature of the carotid in a young woman, aged 22, with a pulsating tumour below the angle of the jaw, in the situation of carotid aneurism, and with all the symptoms of that disease. The application of the ligature reduced to a certain degree the pulsation and the dimensions, but the further cure which we hoped for did not take place. She left the hospital with a pulsating tumour, and I heard only yesterday, from the medical man under whose care she is in Scotland, that this tumour, for which I tied the carotid artery in 1874, still exists as a pulsating tumour, if anything rather on the increase. But though, as regards the cure of the disease, the ligature was unsatisfactory, nothing could be more beautiful in its effect as respects the healing of the wound without suppuration, and the permanent obstruction of the vessel at the seat of ligature.

A case of traumatic arterio-venous aneurism of the temporal artery, in a young man lately under my care in King's College Hospital, may be mentioned in this category, partly because the greatly dilated condition which the naturally small artery had assumed brought it up towards the dimensions of a large trunk, and partly because the concurrent ligature of the largely dilated veins would, without antiseptic means, have been justly regarded as of considerable danger. The others were all cases of ligature of the femoral. Six were popliteal aneurisms, four of which presented nothing deserving of special remark; one was a diffuse aneurism extending up to the junction of the lower and middle thirds of the thigh; one was an enormous diffuse aneurism reaching up nearly to Poupart's ligament. It was necessary for me to tie the femoral artery about the situation of the ordinary origin of the profunda, and even there my incision opened into the aneurismal clots. The last was a case of a large arterio-venous aneurism of the upper part of the femoral, of idiopathic origin. This case was of such special interest that I hope, on a future occasion, to make it the subject of a paper before this Society. In all these cases except two, the catgut ligature prepared by the old method was employed, and in all these nine cases the result was satisfactory, and recovery perfect, except as regards the poor young woman who has still the pulsating tumour in her neck.

As regards the mode of applying the ligature, I have always used a single reef-knot with short cut ends, tying it sufficiently tightly to cause the giving way of the internal and middle coats. This latter point is not, indeed, essential; as I long ago surmised, and as Mr. Barwell's experience has demonstrated. But if, as in the case of catgut, the form of the ligature admits of it, the injury done to the deeper tunics is, I believe, advantageous, by leading to a salutary corroborative process of repair.

Why, it may naturally be asked, has my own experience been more satisfactory with the catgut ligature than that of many other surgeons? There are, I believe, two reasons for this. One is, that I have never ventured to tie an artery of considerable size in its continuity, without having taken pains to ascertain that the catgut was of thoroughly reliable material; and the other reason is, that I have adopted strict antiseptic means of treatment, not only during the earlier stages of the case, but to the last. So long as any part of the wound remains unhealed, antiseptic treatment of the strictest kind ought, I believe, to be employed. Even though the sore may seem to be superficial, there may still exist a sinus leading down to the site of the ligature; and, if ordinary treatment, as distinguished from antiseptic, be employed, down this sinus the septic process may advance and invade the ligature, and lead at last to disaster from hæmorrhage. I know that this has actually taken place.

But, although the catgut prepared after the old method answers very well if it be of proper quality, there is this great objection to this method: that it requires a long time in order to produce the requisite quality. At least two months are needed to make the ligature at all trustworthy. It is better at the end of six months, and still better at the end of a year. I possess catgut prepared in this way twelve years old. I have brought here a sample of such catgut, which has been steeping in warm blood-serum since this morning, and it will be seen that it remains translucent, and is comparatively firm, instead of being opaque and soft, like the unprepared catgut in the same serum.

Now, the length of time that the present method requires is a very serious objection. It makes the surgeon who has not prepared the catgut for himself, and kept it for a long time, at the mercy of the person who supplies it; and the person who supplies it, not being aware of the enormous importance of the question of time, if he happens to run out of that which has been long prepared, will sell what has been only a short time in the preparing liquid, and is, in consequence, altogether untrustworthy. A case illustrating this point occurred last year in my practice at King's College Hospital. A patient was admitted who had met with a severe wound on the ulnar side of the forearm at the anterior aspect. The ulnar artery had been divided. This had been secured by my house-surgeon. He had also tied with catgut the corresponding ends of the various tendons that had been severed. But, when I saw the patient next day, I found that he could not feel with his little finger and the adjacent side of the ring-finger; and, therefore, it was evident that his ulnar nerve also had been divided, and my house-surgeon had not thought of attending to the ulnar nerve. I therefore cut the stitches in the skin, and proceeded to explore the deeper parts of the wound, in order to find the ends of the divided nerve, and tie them also together with catgut; and I found that all the catgut sutures with which the ends of the several tendons had been tied together were lying absolutely loose; the knots had slipped within the twenty-four hours, and yet this catgut had been supplied by one of our ordinary instrument-makers. He had sent us what had not been sufficiently long prepared. I took care to use proper catgut for the ulnar nerve; and the patient left the hospital with restored sensation in the fingers. The length of time that it requires is, therefore, an exceedingly serious objection to the present method of preparation; and one great object which I have had in view in a series of experiments on this subject, with a view to improving the preparation of the catgut ligature, has been to devise a means, if possible, of preparation within a short time. These experiments—it may seem almost ludicrous to say so—have occupied two years of my leisure time in the past, some time ago; and, after being interrupted by an accidental circumstance, have been continued in a more desultory manner since; but at length I feel myself justified in bringing before you a new mode of preparation, by which the catgut can be prepared in a short period, and, at the same time, in a perfectly reliable condition.

But, before I allude to these experiments, which I must endeavour to do in a short compass—I should weary you if I were to bring a large proportion of my facts before you, though I may say, out of the hundreds of experiments I have performed on the subject, I have never performed one which has not added something to my knowledge of it—before referring to these experiments, I wish to say a few words as to what catgut is. Catgut, as you are all doubtless aware, is prepared from the small intestine of the sheep. The gut is treated in what seems an exceedingly rude manner for so delicate a structure. It is scraped with some blunt instrument, such as the back of a knife, over a board; and by this means, as the people express it, the

dirt is scraped out. That which these people call the dirt is the exquisite and complicated structure of the intestinal mucous membrane. But, while the mucous membrane is scraped out from within, there is also scraped off from without the circular coat of muscular fibres. The result comes to be that the intestine is converted into a comparatively unsubstantial material, consisting of two parts, or bands, one more slender than the other. When the mesentery is stripped off by the butcher, the peritoneal covering of the gut shrinks into a narrow strip, and this, with some longitudinal fibres, constitutes the more slender of the two parts to which the intestine is reduced by this process of scraping. The other part is the essential material from which the catgut is prepared, and this is neither more nor less than the submucous cellular coat of the intestine. When I first visited a catgut manufactory, I was astonished to find that, after this scraping process, the intestine could be blown up still as a continuous tube, as you see can be done with this specimen, which has been treated in the manner I have described. This exquisitely delicate structure is a beautiful anatomical preparation of the submucous cellular tissue, though made in so rude a fashion. This coat of the intestine, which in the sheep has this extraordinary toughness, is the material out of which the catgut is prepared. For what the manufacturer terms the "ones"—the thicker form of ordinary catgut—all that is done is to twist the entire tube by means of a wheel, like a rope in a rope-walk, up to a considerable degree of tightness, and then allow it to dry. It is afterwards exposed to the fumes of burning sulphur, and for some more special purposes it is bleached by the action of potash. But the essential thing is the twisting and drying. It can be prepared without the use of sulphur as well as without the use of potash. Some specimens which I have here are prepared by water only, without the use of any other ingredient. This exceedingly beautiful structure, as I think we must consider it, as fine as a horse-hair, is prepared without any reagent whatever, nothing but the animal tissue twisted and dried. For the finer kinds the tube of the submucous coat is split up by means of razor-blades, more or less numerous, according to the degree of splitting required, connected with a conical piece of wood, which is pushed along the tube.

Such, then, is the material with which we have to deal. The first of the more recent experiments which I performed with reference to it was made with the view of ascertaining, if possible, what part the water played in the ingredients used for the preparation by our old method. If I steep unprepared catgut in a mixture of dry carbolic acid and oil, however long it be so steeped, although it will be of course abundantly aseptic, it remains utterly unfit for the purposes of the surgeon; a knot upon it would still slip in a wound. But if, instead of using carbolic acid in the crystalline state, we use carbolic acid which has been liquified by the addition of a little water, we get in course of time a properly prepared catgut. I wished to ascertain how much water was required. The carbolic acid would enable oil to dissolve a certain amount of water; would that amount of water be sufficient which carbolic acid enables oil to dissolve? Accordingly, I prepared jars of carbolic oil, some containing the full amount of water we had used hitherto, some a smaller quantity, and some none at all, and placed in them portions of the same hank of catgut. In due time, I proceeded to examine the result by taking portions of gut and putting them into warm water and leaving them for a certain time, in order to ascertain how the knots would hold. To my great surprise, I found that which had been steeping in the carbolic acid and oil without any water was just as good as that which was in the carbolic acid and oil with the water. This was contrary to distinct previous experience. Reflecting on the matter, I saw that the only possible explanation was that the catgut was already, so to speak, prepared before I put it in the liquid. Now it so happened that the catgut I had used was several years old; and it turned out that mere age of the catgut prepares it; that in proportion to its age it is rendered less liable to be softened by water or by blood-serum, and a knot tied upon it will hold better. And thus I had for the first time, I believe, scientific evidence of the truth of what is popularly spoken of as the "seasoning" of various articles made of animal products. I asked a person who sold violin-strings if there was any result from keeping the strings a long time. He said, No; the only result he knew was, that they would probably get rotten. But it so happened just about that time there came an old fiddler to amuse the patients at the Royal Infirmary, of Edinburgh, at Christmas-time. The weather was wet, and he said that his fiddle would not work properly because the fiddle-strings were not properly seasoned. So that he was aware that fiddle-strings, which of course are catgut, are liable to seasoning and require it. This was a very important fact, because it served to explain the success that I had had on my earlier experience with the catgut before I knew at all the proper mode of preparing it. I look back with horror at some of my early procedures with catgut. I have operated, for example, on an irreducible ventral hernia, opened the sac, divided the adhesions, returned the protruding intestines, stitched up the mouth of the sac with the catgut, and then applied stitches at considerable intervals in the skin. All went perfectly well, but the mode of preparation that I then used, if I had worked with catgut recently made, must have ended in utter disaster, the knots must have slipped in a few hours, and the intestines must have been protruded through the wound.

[*To be continued.*]

CLINICAL LECTURES
ON
SOME POINTS CONNECTED WITH THE TREATMENT OF WOUNDS.

By WILLIAM MACEWEN, M.D.,
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Lecture II.—The Drainage of Wounds (Button-Sutures).

Gentlemen,—In continuation of our subject, we now come to the drainage of wounds. When the arteries have all been secured, there will still be a slight oozing of blood from the tissues, which it is impossible at times to prevent, especially when large surfaces are involved. Besides this, an exudation of serum must be expected, in greater or less abundance, according to the irritation. If the edges were accurately brought together, so as to close the wound completely, the blood and serum would collect in the interior of the wound, and prevent, for the time being, the coalescence of the cut surfaces. The irritation produced by this tension would be apt to induce suppuration. In order to avoid this, provision must be made for the drainage of the wound. This must be suited to the material to be drained—blood, serum, and, possibly, pus. As far as the first two are concerned, the physical character on which their drainage depends are sufficiently alike to permit of their being considered together; while pus, though it varies much in density, must be looked on separately.

India-rubber Tubes: their Disadvantages.—The introduction of systematic drainage of wounds was due principally to Chassaignac, who effected his purpose by the use of India-rubber tubes, which still bear his name. These tubes, familiar to all of you, did excellent service, greatly facilitating the healing of wounds. There are, however, certain disadvantages connected with their use in antiseptic surgery, when the material to be drained is reduced to the minimum. They cause irritation by acting as foreign bodies, interfering with the rapid healing of the parts in their immediate vicinity; they blacken the protective plaster, showing the probability of the presence of irritating compounds; and they necessitate the dressing of the wound, in order to shorten or otherwise adjust them. These are objections which may scarcely be appreciated by those who do not practise antiseptic surgery; but, the nearer we approach perfection in the treatment of wounds, such sources of irritation will become the more prominent, and the greater will be the desire to obviate them.

Carbolised Catgut: its Disadvantages as a Drain.—Probably animated by such a desire, Mr. Chiene proposed the use of carbolised catgut as a substitute. Eight or twelve threads of carbolised catgut would effect the drainage of the wound through capillarity, and its absorbability would prevent the necessity of dressing the wound. Theoretically, this had considerable advantages; but, practically, it had objections. It was found that carbolised catgut, soon after introduction into the wound, swelled and softened. It became closely connected with the neighbouring tissues, by virtue of its infiltrations with new cell-growth, connected with its absorption and organisation. When it was found necessary to remove it, it sometimes set up inconvenient bleeding, from the rupture of newly formed minute vessels. Its absorbability was its main advantage; but the rapidity with which this was accomplished destroyed, in great measure, its utility—as it was difficult to presage whether, in a given wound, drainage might not be required for a longer period than a few days, beyond which the carbolised catgut was useless. Its physical character precluded it from draining pus.

Horse-hair as a Drain.—Mr. White of Nottingham proposed, as a substitute, horse-hair, on account of its cheapness, its increased capillarity, its non-absorbability, and its non-irritating properties. As you see horse-hair very frequently used as a drain, I would like to draw attention to several points which help to make the drain efficient. In purchasing horse hair, it has not been pointed out that most tails used commercially are dyed. It is all the more important to keep this in mind, as black horse-hair has been recommended. Now, most tails contain naturally a few hairs of a different colour from the prevailing one. They

are therefore dyed, so as to obtain the whole hairs of an uniform black colour. This pigment is to a certain extent discharged by soaking in water, and more so by steeping it in carbolised solution. Some have been seen which discharged colour after the tenth washing. It has, therefore, been found better to secure a tail in a natural condition. Then thoroughly wash and boil it, to rid the hairs of any foreign matter which may be adherent to them. Next steep them in a watery carbolised solution, and dip them into a similar solution prior to insertion into the wound. The thick end of the hair ought to be inserted into the wound, in order to have the flow of the fluid in the direction in which the scales overlap.

How Capillary Drains act, and what they are suitable for draining.—The next point is to inquire how horse-hair acts as a drain, and what it is suitable for draining? A wisp of horse-hair introduced into a wound is supposed to act by capillarity. It can do so in two ways: first, by the minute spaces existing between the individual hairs forming capillary tubes; and, secondly, by the flow of the fluid along the outside of the hair. In this connection, there are one or two points regarding capillarity which it is necessary to remember. First, the finer the tube the higher will the fluid rise in it; consequently, in this respect, hair will be a better capillary drain than most sizes of catgut. Second, when a capillary tube of unequal diameter, wide at one extremity and narrow at the other, is placed horizontally, fluids forming a biconcave miniscus flow from the wide toward the narrow end. The hairs ought, therefore, to be spread out in the interior of the wound, and brought together near its lips, when tubes or spaces will be formed between the hairs, having their wide ends toward the inside of the wound, and their narrow extremities at the debouchement of the drain. Third, all liquids do not rise to the same level in capillary tubes, while some are actually depressed within them. Serum and liquid blood rise within these tubes, while laudable pus does not do so to any marked extent. For blood and serum, horse-hair is an excellent drain, but for pus it is not reliable. Even for blood and serum, the entire dependence on capillarity is a questionable practice, as this force is at best a feeble one. When hair is placed in a hollow in the wound, and is cut off close to the lips of the wound, these being at a higher level than the interior, the fluid will require to mount up; it then acts feebly as a drain, even for serum and liquid blood. Of course, it may be said that drainage can be effected by making an aperture in the most dependent part of the wound, and calling in the aid of gravity—a very excellent plan, but one not always commendable for other reasons.

Capillary Syphon drains.—There is, however, a much more efficient way of using the hair as a drain; by converting the tubes found between the individual hairs into syphons. The power of the syphon is much greater than that of capillarity. The wisp of hair may be easily formed into a syphon by leaving the portion on the outside of the wound longer than that which remains in the interior. Before a syphon acts, a vacuum requires to be made, or a liquid communication established between the fluid to be drained and the long arm. This communication can easily be effected by dipping the hair into a weak carbolised solution before introducing it. The capillary action possessed by these hair-spaces also aids in establishing the flow. [Experiments, showing the superiority of the hair-drain as a syphon over its purely capillary action, were exhibited.] In order to maintain the tube-like form, a hair is tied round the outer extremity of the wisp. The outer part of the hair is placed in contact with moistened gauze, which further increases the syphon action.

Resorbent Tubes: Disadvantages.—Capillary-syphon drains being inefficient for the drainage of pus, something else is required. Tubes other than capillary answer, if suitably placed. India-rubber tubes are employed by most surgeons; and objections to their use have already been stated. Recently, Neuhauer introduced what he called "resorbent tubes", which were drilled out of horse and ox bones, and then decalcified and carbolised—their object being to act as drains, and then to yield to absorption. In several cases in which they were used, they disappeared in a few days—two to five. These tubes, therefore, had one of the objections which pertained to the carbolised catgut drains, that of disappearing too soon. They acted during the period that blood and serum required to be drained, and disappeared before pus was likely to be formed. They only did the work which the capillary syphon drain could do a great deal better. Even had they been efficient, their price was such as to preclude their general application: when six were bought, they were obtained at 1s. 3d. each.

Drainage-tubes of Chicken-bone. The principle of using a tube which would serve its purpose as a drain, and then become absorbed, was excellent, provided this could be carried out practically. What was wanted was a tube which would remain in the tissues, as a drain, for eight or ten days; and which, at the same time, would be reasonable in price. It was determined to set about finding this. Instead of being at the expense of drilling tubes out of bone, it was thought that nature might undertake the duty for us. The hollow bones of birds and some animals could be easily converted into tubes. After examining and experimenting with the tibiæ and femora of many birds and animals, it was seen that the tibiæ and femora of the domestic fowl were the most suitable as to length and calibre. It was also found that the cooking necessary for preparing the fowl for table-use in no way impaired the value of the bone. This at once reduced the expense of the material, as an abundant supply of chicken-bones, previously regarded as refuse, could be obtained in every large hospital. The patients made their repast upon the chickens, while their tissues consumed the bones.*

Preparation of Drainage-tubes of Chicken-bone.—The method of preparation is as follows. The tibiæ and femora are scraped and steeped in hydrochloric acid and water (1 to 5), until they are soft. Their articular extremities are then snipped off with a pair of scissors; the endosteum is raised at one end, and pushed through to the other extremity, along with its contents. They are then reintroduced into a fresh solution of the same strength, until they are rendered a little more pliable and softer than what is ultimately required (as they afterwards harden a little by steeping in the carbolised solution). When thus prepared, they are placed in a solution of carbolic acid in glycerine—1 to 10. They may be used at the end of a fortnight from the time of introduction into the glycerine solution. Holes may be drilled in them with a punch, or clipped out with scissors.

Physical Properties of Drainage-tubes of Chicken-bone.—Tubes are thus formed, having the following physical properties. They are semi-transparent, pliable, and elastic, capable of retaining for some time their form under the weight of thick flaps. The tibiæ make the longer, the femora the wider tubes. The length and width vary considerably, the longest being a little over three inches, the widest being over half an inch.

The Advantage of threading Drainage-tubes with Hair.—Before describing their behaviour in the tissues, it may be well to remind you that these tubes are always threaded with hair before they are introduced into fresh wounds. Any kind of drainage-tube introduced into a fresh wound is apt to become blocked with blood-clot. Surgeons have been in the habit of removing drainage-tubes, cleaning them of the clot, and reintroducing them. The reintroduction irritates the wound, and at times sets up fresh bleeding. Lister, taking advantage of the shrinking of the blood-clot, left the tubes undisturbed, stating that space sufficient was left between the blood-clot and the tube to insure drainage. This has not always been found sufficient. To obviate the blocking of the tube, it is threaded with hair, which sheds the blood and serum of the first few days; after which, the hairs, being no longer of use, are removed, leaving the drainage-tube perfectly patent. If it be preferred, part may be removed at the first, and part at a subsequent dressing. In the case of the chicken-bone drain, the hair helps to maintain the calibre of the tube during the first few days, especially where the dressings might exercise pressure. The action of the hair as a capillary syphon is in no way impaired, but rather improved, by being introduced into the tube.

Duration of Chicken-bone Tubes in the Tissues.—Out of one hundred carefully recorded observations, the average duration of the chicken-bone tubes was something over eight days.

Chromicised Chicken-bone Tubes.—If the surgeon would like a decalcified tube which would resist the action of the tissues for a longer period, he can secure this by steeping the chicken-bone tubes in a chromicised, instead of a carbolised, solution. Some such have resisted the action of the tissues from a fortnight to about three weeks. These chromicised tubes are, however, seldom used, because our fresh wounds rarely require drainage for so long a period.

Are these Decalcified Chicken-bone Tubes absorbed by the tissues?—Some surgeons seem to believe that these tubes are not absorbed, but that they are simply dissolved, as they would be were they immersed in a quantity of blood-serum or pus, kept at the temperature of the human body. That this is not so, the following facts will show. The tubes do not disappear, except when in contact with living tissue in a wound in the soft parts. When they are placed in the midst of a slough, they soften; but there the action ceases—they do not erode. Tubes have been placed in osseous cavities not lined with granulations, from which putrid necrosed bone have been removed. There they have remained for weeks bathed in pus, which emanated from the neighbouring tissues, and they have undergone no other change than that of softening. On one occasion, a tube was placed in a collection of serum resulting from an injury over the muscles of the back. The cavity containing the serum filled rapidly after being emptied, so that the tube was only in

* These tubes were shown to the Pathological and Clinical Society of Glasgow at its meeting in the 19th February, 1880, and were noted in the BRITISH MEDICAL JOURNAL in due course.

contact with the living tissues for a very small part near the skin. This small part was eroded, while the remainder, steeped in the serum, was only softened at the termination of the tenth day. A puncture was then made in the most dependent part of the sac, the drainage supplied being so free as to permit the coalescence of the sides of the cavity, when the tube, which had not hitherto undergone absorption, became absorbed in four days. In another case, there was a slight depression in the limb of a patient, at the bottom of which a granulating surface existed, which discharged pus. On this granulating surface, a small portion of drainage-tube was laid. It was found that the tube was covered with pus after the lapse of six days. The tube generally was softened; but the only part which was eroded was that which lay on the granulating surface. These illustrations are sufficient to show that these tubes do not disappear by the chemical action of the secretions, kept at the temperature of the human body; but that they must be placed in contact with living tissue before they disappear, the leucocytes absorbing them.

In order to aid the observations of the behaviour of carbolised chicken-bones while in contact with the tissues, a small part of the tube was made to project beyond the lips of the wound. By-and-bye, this projecting portion was eaten through, and then dropped off; while the tissues closed over and absorbed the remainder. Tubes have been inserted into abscesses from which the pus has been thoroughly evacuated. When next looked at, fourteen days later, the portions of the tubes which projected from the wound were found detached, lying in the former opening; while a white ring, enclosed in granulation-tissue, marked the seat of the decalcified bone; and, finally, the epithelium covered both from sight. As a rule, however, especially when the tubes were originally threaded with hair, their calibre generally diminished, from pressure on their walls and from the penetration and coalescence of the tissues through the apertures made in them; so that the decalcified tubes, having served their purpose, were slowly removed by molecular activity. The tissues have in this way, so far, the control of their drainage. The greater the normal molecular activity, the more quickly will the wound heal, and the more quickly will these tubes be absorbed; the weaker the vitality, the longer will the healing process take, and the longer will the drainage-tube remain.

Button and other Sutures.—Regarding button-sutures, you are aware of the various kinds already in use. The objection to these is, that they have one aperture in the centre, through which a wire is drawn, and which is then fixed to a catch on one or other side of the button, thereby tending to tilt the button sideways, and so bruise the tissue with its border. This can be obviated by using the button which I show you, and which is in constant use in my wards. It has a couple of apertures, placed very near to one another in the centre, and a double thread is brought through these apertures and tied—so that the pressure comes from the centre of the button, and the wires or threads may be tightened or relaxed without tilting the edge. They are easily adjusted. They can be made in a few seconds by using a sharp-pointed pair of scissors. Lead has generally been used for buttons, on account of its pliability. Block-tin may be had sufficiently pliable, and it is free from the production of black deposits, to which the lead gives rise. Chromicised catgut may be used with these buttons, one end of the double thread being tied into a loop—so that it may be opened to permit tightening or relaxation, as the case may require. It becomes softened and absorbed when the buttons become loose. The edges of the wound are generally brought together by several deep sutures of chromicised gut, with a number of stitches of carbolised gut between; the latter absorbing in a few days, the former about the end of a fortnight.

Conclusion.—In conclusion, gentlemen, you will perceive that our aim is to place in wounds substances which, while effecting the purpose for which they were introduced, will yet produce no irritation, and will permit themselves to be absorbed in due course; so that, once having dressed a wound, we may not be forced to open the dressings for the purpose of readjusting the material employed. We aim at being able, after an operation, to judge of the character of the wound; make provision for its probable wants; and, while the patient is yet under the influence of the anæsthetic, apply a dressing which will remain untouched until the wound is healed, or, at least, well on its way towards being healed. By this means, the healing will take place more rapidly, and the patient will be relieved of much annoyance and pain. An accurately recorded rectal temperature will be a sufficient index of the constitutional condition of the patient; while a watchful eye on the dressings, to insure that discharge does not penetrate them, will secure the safety of the wound. If there should happen to be a discharge of blood during the first forty-eight hours, sufficient to stain the external dressing, the dressings are reapplied; and the opportunity is taken of removing the hairs from the tubes—unless chromicised catgut be used as a substitute. If there be no such discharge, the dressings are left on till the end of the first week; they are then opened, the wound inspected, the hairs removed, and the dressings reapplied. At the end of a fortnight, the wound is looked at for the second time; and, as a rule (in fresh wounds), it is found healed. You see excellent examples of this in the two excisions of the mammæ, in which the whole axilla had to be cleared out; and, in one of them, a large portion of the pectoral muscles had to be removed, as they were infiltrated with caseous deposits. These were looked at for the first time a week after the operation, and found almost quite united; the hair was withdrawn, and the dressings reapplied. At the end of a fortnight, they were looked at a second time, found firmly united, and the drainage-tubes absorbed. Again: in that Carden's amputation in 29 Ward, the same thing has happened; it was all but healed at the end of a week, and firm at the end of a fortnight. There was not a drop of pus from any of them.

HARVEIAN LECTURES

ON THE

PROGNOSIS AND TREATMENT OF CHRONIC DISEASES OF THE CHEST IN RELATION TO MODERN PATHOLOGY.

Delivered at the Harveian Society of London.

BY JAMES E. POLLOCK, M.D., F.R.C.P.,
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LECTURE III.—(*Concluded from page* 149.)

CAN we promote the healing of cavities? This is an important question, and is only part of another—Is phthisis ever curable?

The chronic single cavity, with sufficient communication with a bronchial tube, is, perhaps, the only variety which we could expect to close up and cicatrise.

The conditions under which it formed were necrosis of certain indurated products in the lung, tubercular or inflammatory, the result of compression and strangulation of the blood-vessels. Caseation and fatty degenerative changes followed, and hence the cavity.

The primary condition necessary for its closing or undergoing changes favourable to contraction, is a restoration of the circulation around it to a healthy state.

Fibroid changes in the neighbourhood almost always exist, and, being of low vascularity, oppose the healthy nutrient changes desired. On the other hand, they bound and limit cavities, and prevent their extension; they favour contractile processes, and, if the neighbouring lung-tissues be supplied with a vigorous nutrient circulation, may assist in the ultimate closing of the cavity. Another agent is found in the expansion of the healthy air-cells in the neighbourhood of the injured part; a very common condition, as we know.

We arrive then at this proposition: that when a cavity has become chronic, is cleared out and ceases to extend, every means tending to invigorate a healthy circulation in the neighbouring part of the lungs, and to expand its cells, would assist in its closing; possibly in its cicatrisation. I need not say that we know that such cicatrisations are often found. Now have we any such agents?

Healthy, invigorating exercise, increasing expansion of the chest in all its movements, is among the first of these.

Reading aloud, active out-of-door pursuits, athletic exercises (guided by medical advice), arm-movements, especially adapted to expansive action of the upper ribs, must forward healthy enlargement of the chest-walls. To the same end, the bracing application of cold to the chest-walls by daily cold sponging would minister. Singing, and, in cases not hæmorrhagic, the moderate use of wind-instruments might be advised.

The use of the compressed air-bath may also assist, and of this I hope to be able to record some results, as we have fitted such a bath for use at our new hospital at Brompton.

Climatic influences which tend to expansion of the lung, are important agents in cases of chronic cavity, which we may hope to assist in closing. Elevated positions, with diminished atmospheric pressure, may assist, and especially the bracing influence of cold air. It has always seemed to me that the danger most frequently met with in practice in sending such patients to elevated positions is hæmoptysis, of which I have known many examples; and it will be well to remember this caution, and to avoid sending those who are liable to this symptom.

While we are considering the interdependence of local and general symptoms, it may be well to speak of antiseptic agents applied directly to the lung. In cases of empyema, we are aware of their value.

When the cavity of the pleura has been emptied, and free drainage has been established, the use of carbolic acid and iodine and other injections is undoubtedly great; and the same may be said of the few cases of deep cavity of the lung which have been tapped. In certain instances, I have seen undoubted results for good from the use of antiseptic inhalations, as oxygen gas, chlorine highly diluted, and the sulphurous acid gas. The worst of naming these well-known agents is, that their supposed merits have been often exaggerated; also theories more or less improbable have been started, and the remedy has been almost formed to meet the theory.

But, without descending to the parasitic or any other supposition, we have, in the fact of a local suppuration, with necrotic products leading to secondary septic infection, and causing excessive fever and exhaustion as a result of the local changes, quite sufficient grounds for doing our best to treat such local conditions on the soundest surgical principles, as proved by modern experience.

I have sought to bring before you the relation between recent pathological research and treatment, and I find this prominently occupying the medical and surgical mind of the day: that many disorders, which we formerly thought to be purely constitutional, are now known to be of septic origin, that all necrotic degenerative processes in organs or on mucous surfaces, or in glands, or in any structure of the body, send out a morbid material, capable of repeating itself and forming new foci of disease in distant parts, and that so the patient is self-infected and poisoned. I find the later research of the day into the minuter structure of disease has not only informed us on those alterations which constitute local changes, but has revealed a connection between the local symptoms and the systemic disorder.

I notice also that—as is natural from such investigations—the local disorder has risen into a prominence hitherto less noticed; and men now say, if this phthisis be identical in products with inflammation, and if, like inflammation, it load the blood with impurities, and hence raise temperature and waste the patient; and if we observe a direct correspondence between the degree and extent of the disease in the lung, and the general condition of the sick man, let us by all means see whether we cannot save him, or raise him to a higher level of health by treating the local disease more actively than we have done, and especially by removing such material, and guarding against secondary affections.

And then this modern era of surgery has come upon us at the same time; nay, out of the same mode of reasoning; and if we see local disease in the joint, or deep-seated abscess, cured by free openings and drainage, and antiseptic dressings, why should not the lung be so treated?

And when this modern surgery demands for its patients a perfectly pure air, free from the possible contamination of atmospheric and organic impurities and dressings, which shall not permit the access of the germs of diseased products to the wounds, I say, shall we ask less for our phthisical patients who are suffering from like suppurative processes and local infections?

I do not advocate the theoretical views which I have brought before you in all their details. Some of them will doubtless vanish before future pathological research, and the inflammatory theory be replaced by another; but the practical outcome of these views about local septic disease is leading us in the right direction, and it is surely time for us to turn our attention actively to the remedy, as far as we can remedy them, of all septic conditions; to the removal, if possible, at the earliest possible period, of all products of degenerative disease inside the body, just as we would remove them in a limb; and to the perfect drainage of all collections of matter in the lung or in the pleura. This is sound leading of the pathologist, and we cannot err in carrying out such views.

I would remark here how poor and inefficient are at present our modes of introducing medicated air or vapour into the lung. We add a little carbolic acid or benzoin to a steam-spray, and let our patient inhale it for a quarter of an hour, a good part of which time is past in spasm and struggle, and but little of the remedy goes beyond the glottis. We require chambers, the whole atmosphere of which may be impregnated with the agents to be introduced into the chest, and in which the patient may remain for hours under the influence of iodine or chlorine, or carbolic acid, or other chemicals. It will interest you to know that, in the new hospital at Brompton, we have provided several chambers which may be so used.

From a like mode of reasoning, I would insist on the importance of the most perfect ventilation of the chambers inhabited by persons suffering from chronic lung-disease. The air must become loaded with impure matters where numbers of the sick are lodged together, as in hospitals.

Consumption hospitals are only excusable from the necessity of providing for many sick together in large cities. They should be in hospitals only for convenience of treatment, and not because it is the best mode of treating phthisis. The best place to treat phthisis is in pure dry air, away from cities, where the drainage of the soil is perfect, and the exposure to sun and air the best which can be obtained.

Consumptive patients should not be lodged together, so that no possible deterioration of air or contamination by morbid products should exist. The sputa should be frequently removed, and the linen of the bed and the body often changed. The surface should be daily sponged with tepid or cold water, or vinegar.

In hospitals for the chest, a high temperature is generally maintained; and I believe it is commonly too high. I regard everything above 60° as too high, and there should be chambers which it is possible to reduce much below this by excluding them from the system of warming. Who would like to treat a case of congestive hæmoptysis at a temperature of 65° to 70°? The cubic space should also be large for each patient.

In the hospitals artificially warmed, there is always a danger that the air may become stagnant. The attendants keep up the fires which warm the entering air; but, if the change of air in the wards depend on extraction, as it does in all modern systems, the extracting shaft must be heated day and night up to quite 10° to 15° above the temperature of the wards. It is the higher temperature of the extracting shaft which draws off the used and impure air, on which the system of ventilation depends.

These are some of the evils of hospitals. The advantages are found in the great financial convenience of treating numbers of patients together, and in the greater opportunity for scientific study of diseases so grouped. But country air and open windows, with good open fires in cold weather, form my ideal of the mode of lodging phthisical patients; and it may interest you to know that, by careful observations with an anemometer, we have proved that, for extracting air out of a room, there is nothing equal to an open fireplace.

As I am speaking of pure air, this is, perhaps, a fitting place to dwell for a moment on what is called change of air, and the influence of climate. I must here deal only with the general views arising out of our pathological knowledge.

First, while those degenerative processes which we have been considering are going on in the lung, patients should not be allowed to travel at all. Do not send the feverish abroad; for what is fever? The loading of the blood with detritus of degenerative processes. Do we find that patients gain in weight, improve in strength, or progress at all while fever is going on? Certainly not. Our examination into the real meaning of high temperature is, that it means, or is correlative with, waste—progressive local disease—nature's efforts at clearing out and draining off morbid material not completed. Why should such persons be sent to change of air? Will any climate stop such processes as are pouring septic matter into their blood? We say no; and add, such had better be in their own homes, with home comforts, surrounded by the accustomed faces, and the well considered provision for small wants. Locomotion would in itself be an evil—fancy the cabin of the steamer; the journey prolonged through the night to reach the favoured climate; the contracted cubic space of the railway carriage—to a man whose temperature is 102°, and who is undergoing the *malaise* inseparable from fever.

When local morbid processes have ceased (as we know, from want of further material on which to act), the system, well-nigh exhausted, may still be capable of revival. The moment wasting ceases and nutrition revives, that is the time for removal, for getting into sunshine, for breathing purer, dry, bracing air; and then only should a patient be removed. For there is no climate, just as there is no specific, which can cure this "consumption" of many forms; but there are influences which can second reviving nature, stimulate enfeebled digestive powers, and arouse vital energy. Among these is the influence of change—any change—of locality; but, above all, to countries where winter is short, and the sun shines on most days, so that the sick man can be out for a part at least of every day.

Fashion, guided by medical knowledge, has wisely of late set itself against sending much enfeebled patients to warm, damp, relaxing climates; and Madeira has been abandoned for the Engadine. The usual results and mistakes have occurred; some have benefited, and some have (from want of the selection on which I have dwelt) perished miserably on the mountain-side, who should never have left England. But, on the whole, we must say, as the result of our inquiry how far modern pathology has assisted us in treatment, that all which tends to lung-expansion and improved respiratory movements, all which promotes a healthy circulation in the parts of the lung surrounding defined cavities, all which tends to improve the tone, and therefore to lessen the secretion from the bronchial membrane, which forms so large a

part of phthisis, is to be preferred for our patient; and, therefore, bracing, pure, upland air is preferable to low, damp, ill-drained localities; and, as heat and moisture promote secretion and relax mucous membranes, hot and damp climates are not so suitable.

Again, the digestive processes are best strengthened in dry and rather cold air, and on them depends our patient's possibility of regaining flesh and repairing waste. It is well known that sea-air is very favourable in promoting all these requirements.

I make a summary of these views, on which I have acted for many years.

Persons ought not to travel at all with feverish symptoms; with secondary complications, as diarrhœa; with a large amount of local disease in any stage; with both lungs diseased; with poor digestion and greatly lowered nutrition; or in such a state of weakness or emaciation as to require home comforts, peculiar beds or chairs, or varieties of invalid cookery.

A case in the first stage, already chronic, does best for travelling about, with frequent change of residence. The complication with bronchitis or asthma is generally much benefited.

Chronic single cavity, with retraction of walls accomplished or proceeding, is favourable for removal to a dry, bracing locality, if the hæmoptysical element be wanting in the case.

That form of diffused disease in the lung which I have described—without much dulness or signs of massing of disease, with pretty large chest, and with moderate emaciation—generally does well on a sea-voyage.

I need not occupy much of your time, if you have followed our investigations, with the meaning of the several varieties of phthisis, by an inquiry whether any specific remedy for the disease is likely to be found.

A specific is an agent which meets some definite form of disease, and opposes its progress, or even effects its destruction. But have we in phthisis any such defined disorder? Examine it as we have done here, and it is resolvable into many forms, really differing in pathological results and in symptoms, in progress and in termination. Its history is made up of many progressive changes, and variety in mode is its very character. Such variety eludes the action of any remedy; and remedies of efficacy cannot be presumed to address themselves to multiform phenomena, and certainly cannot meet in succession and overcome those morbid changes which are the result of mixed chemical and vital actions, progressively increasing and changing their mode of destructiveness as the disease advances. We have been tracing the destructiveness of phthisis to the kind of degeneration which the morbid products undergo in the lung; to the nature of the lung-impaction, its form, limit, and distribution; and to the amount of suffering which the system undergoes from fever, waste, and secondary infections. To these influences are found added such agencies as hereditary features, age, sex, temperament, and the complications with other disorders. All these were described as essential considerations in estimating the gravity of any case of phthisis. But is not this summary of chronic morbid products in the lung—some tending to death and degeneration, others to more rapid disintegration, and others again to contractile results in the tissues—a picture, not of one, but of many disorders, which, while we have stamped them with a common name, have diverging tendencies and endless pathological variety?

To meet all this, we are to seek for a single remedy, if we are to search for a specific which shall so directly address itself to the morbid state that every progressive step which we know to constitute the history of phthisis shall cease. Again, if there be (as some suppose) a constitutional cause, inherited or acquired, which leads up to and decides the character of the local affection, this cause, involving deep-seated errors in the most vital processes of sanguification and nerve-power, can scarcely be supposed to be within the reach of a single agent.

My purpose here is to give expression to general views of treatment, gathered from our more recent pathological knowledge; and I conclude that we are in these days going farther away from "constitutions" and "specifics", and drawing nearer to the treatment which shall address itself to diseased local conditions. The tendency of the day to seize that which is tangible, and susceptible of proof by physical laws, is swaying the practice of medicine and surgery, as it is swaying our views of the whole universe and of man himself. In this we may, indeed, find much error and many fallacies; but, if it in the least assist us to practical views of treatment, we are bound to accept the teaching of this school, provided that it remain true to its own profession of only holding that which is susceptible of physical proof. Experiment first, and afterwards theory.

I must recommend, therefore, a thoughtful attention in practice to the local relief of the lung. Let us treat congestions, when they occur, by local depletion; let us not be in a hurry to stop a moderate hæmoptysis by styptics, while the flow of blood is relieving an overloaded lung. See what relief a bloodletting gives to an engorged right side of the heart with secondary congestion of lung, with hæmoptysis. We do not give gallic acid and ergot here, because the overflow is Nature's mode of relieving the engorged organ. No more should we treat moderate congestive hæmoptysis by astringents. Let us treat cavities in the lung on the same views that the surgeon treats abscesses with insufficient exit for matter. Let us drain them, and then dry them up, and during this process support our patient by rest and nutrients.

In speaking of rest in chronic chest-disease, we should remember the constant movements of the lung and of the chest. It is this feature which makes an essential difference between the lung and any other part of the body excepting the heart. It is always moving. It is its incessant movement which makes the surgical treatment difficult. The surgeon can rest a diseased joint; but he cannot rest a diseased lung. While, however, it is impossible to stop all movements of the chest, it is quite possible to control them; and, in certain conditions of disease, the strapping the lower ribs, so as to limit their motion in breathing, is a great relief to the patient, and gives time for reparative processes. Thus, in pneumothorax, it is a great relief to the suffering of the patient. In pleuritic pain, so common in the lateral and inferior parts of the chest, it will often at once enable the patient to breathe, and especially to cough, without distress. During certain periods also of disintegrative processes and of cavity-formation, strapping the side is useful; and again in chronic contracting fibroid alterations, where to fix the side is to imitate nature. It is also useful after operations of tapping either the lung or the pleura.

If you ask me whether, after some experience of the treatment of chronic lung-disease, I am of opinion that some forms are curable and cured; whether some varieties have had increased prolongation conferred on them by treatment; and, on the whole, whether the great load of consumption has been somewhat lightened of its pressure on the community in my time,—I answer frankly "Yes" to all these questions. Rapid forms of disease are still rapid and uncontrollable; acute tuberculosis is not amenable to any treatment; and so of the congestive form which I have described. But the chronic varieties of phthisis are much more prolonged in our day, because they are no longer shut up in hot rooms and denied fresh air and exercise; neither do they live so much surrounded by their own emanations; and the whole habits of society have improved their condition along with that of all others. The requirements of health are more considered; and, with a lessened mortality per thousand, man lives longer. The use of oil and nutrient medicines has added many years—I know not how many—to the phthisical life; but so have exposure to air, increased facilities for travel, increased personal cleanliness. We are not degenerating in this generation. And let it be said, once for all, that phthisis is not an English disease; and that, with all its disagreeables, I am satisfied that the subjects of phthisis unable, for want of means, to escape from it, live as long here as in any country.

Yet withal I know, as we all know, how much remains to be done; how much patient investigation—yes, even now—when we seem to have exhausted all microscopical and pathological inquiries, when we appear to know the whole story of the disease, and have accumulated a great literature about phthisis alone.

Again, if you ask me whether I think that this later German pathology, which seems so clear and has somewhat displaced the French pathology, will itself be replaced by-and-bye by some nearer approach to truth, I say surely "Yes". But in the meantime let us live by the best light we have; and, above all, if there be any practical truth, anything which can save a life or lessen a symptom of disease, let us seize hold of that and appropriate it, whether it contradict our own theory or not. It is by this light that I regard the views which dwell most on local disease and local remedies. This idea of localisation may be the key, as I believe, to much valuable treatment.

Before we conclude, I must ask you to consider briefly the possibility of the prevention of phthisis. It would appear that geographical position and temperature have little to do with the prevalence of phthisis. It is found everywhere except at great elevations, above 2,000 feet. Moist air and frequent changes most favour its production. Dryness of air is the best preservative against it. During seven years passed in the out-patient room of the hospital, I noted that the valley of the Thames and the beds of other great rivers furnished the largest number of our out-patients. That was over twenty years ago. We cannot pay too much attention to the fact of the diminution of the death-rate from phthisis in different towns where the Sanitary Act has been put in operation. I quote from Mr. Simon's and Dr. Buchanan's researches, reported to the Privy Council in 1867. I have extracted the table from the report.

"Reduction of Death-Rate from Phthisis in Fifteen Towns.

Salisbury	45 per cent.	Cheltenham	26 per cent.
Ely	47 ,,	Bristol	22 ,,
Rugby	43 ,,	Dover	22 ,,
Banbury	41 ,,	Warwick	19 ,,
Worthing	37 ,,	Croydon	17 ,,
Leicester	33 ,,	Cardiff	17 ,,
Newport	32 ,,	Merthyr	11 ,,
Macclesfield	31 ,,		

Mr. Simon and Dr. Buchanan agree that the *drying of the soil*, which has in most cases accompanied the laying of main sewers in the improved towns, has led to the diminution, more or less considerable, of phthisis. Still further, the diminished fatality of phthisis is *by far the largest* amendment, *if not the only one*, which has taken place in the local health. Works of sewerage, by which the drying of the soil is effected, must always of necessity precede by years the accomplishment of house-drainage, abolition of cesspools, etc., on which the cessation of other diseases (diarrhœa, typhoid, etc.) depends. Again, Dr. Bowditch (Boston, 1862, five years before the English reports were published) says "the medical opinions from physicians in 183 towns prove that *dampness* of soil is intimately connected with the prevalence of consumption". The Registrar-General of Scotland, in his Seventh Annual Report, makes the same statement; and Dr. Buchanan, who has collected a vast amount of information from personal investigations made for the Privy Council, is of opinion that "wetness of soil is a cause of phthisis, and that drying of the ground is found of most importance as a preventive measure". It is curious also, and to us deeply interesting, that diseases of the lung *other than phthisis* have not been reduced by drying of the soil.

In drawing these lectures to a conclusion, it will be evident to you, sir, and the members of the Society, who have given me such patient attention, that my line of thought has been suggestive rather than dogmatic.

In treating of the phenomena of disease, about which there has existed, and must still exist, much diversity of opinion, I have seized only the more prominent and pronounced features, and in all instances have endeavoured to trace the clinical fact in the living back to structural alterations purely pathological. On this connection must stand or fall all teaching which is to outlast the contests of schools, and remain as a fresh starting-ground for future investigators.

In reviewing our most recent knowledge, and comparing it with the teaching of a past generation, I have not expressed my own views, but have sought to make clear the difference, and so leave you to judge whether we have been gainers by the change.

Above all, I have sought to seize, if possible, the mind of the pathologists of the day; for these men are not mere investigators of abstract reasoning, nor arguers of a philosophic school, but in very deed the practitioners living among the sick, to whom is committed the very grave charge of the health of the community. I have said to myself, if these men know more than their predecessors about the nature of structural changes, it will be reflected in their practice, and have furnished them and us with new weapons against disease. And out of this study and comparison I seem to have gathered that the mind of the day is to believe less in constitution and more in local disorders, and to trace every systemic disturbance to derangement of some tangible part of the body. I recognise this tendency also in antiseptic surgery, and in the multiform symptoms attributed to uterine disorder and displacement. And we physicians are, in consequence, asked daily, Is this phthisis contagious or infectious? or has it not a parasitic origin? It is, further, a consequence of this tendency, that the limit and localisation of lung-disease has come to be recognised as having a peculiar bearing on its events and result. As this is susceptible of proof, I have brought it prominently before you, and have sought to connect varieties in the form, with corresponding deviations in the course of disease.

Finally in treatment, where I might have diverged into endless disquisitions about oil and iron, and the manner of so-called blood-remedies with which we have been lately deluged, I have preferred to state recent advances in the local treatment of the lung—in hæmoptysis, congestions, septic infections, and in efforts towards the healing of cavities.

Regarding the enormous amount of laborious research which this subject has received in this and other countries, it might be argued that no room is left for further investigation or improvement, at least as regards the nature of phthisis and its pathology. But I am far from thinking so; nor, indeed, do I believe that the present school of pathology can stand long where it is. In some respects, we seem only to have changed our names for certain conditions, without explaining them. In others, we can all recognise considerable additions to our knowledge; and as a distinguished man has said: "It is ever thus with the advancing tide of scientific research, which inaugurates new systems as the old ones ripen and die out.

ABSTRACT OF ADDRESS
ON
THE REGISTRATION OF DISEASE.

Delivered at the Fourth Annual Meeting of the Dublin Branch of the British Medical Association.

By ROBERT McDONNELL, M.D., F.R.S.,
President of the Branch.

My first duty is to offer to you my sincere thanks for the honour you have conferred upon me by electing me President of the Dublin Branch of the British Medical Association; my second, to express the profound regret I feel, in common with you all, at the loss we have sustained in the recent death of Dr. Alfred Hudson, first President of the Branch. You will remember a few years since the admirable address he delivered, from the chair I now occupy, on the history and objects of the British Medical Association—an address so exhaustive and complete that it left little for his successors to say upon that topic. The influence of the Association, he then told us, has been most decidedly felt in the improved relations of the members of the profession to each other and to the public, and the consequent increasing influence, both social and political, of the profession as a body, as well as in the promotion of that branch of preventive medicine called sanitary science.

The active, zealous, and untiring energy devoted to preventive medicine is, without doubt, one of the noblest traits of our profession. Let it not be supposed that I am not keenly alive to our professional faults and shortcomings; but it may be said that in this, at least, we compare favourably with any other calling, we never cease to seek to stay the progress of disease, even to our own loss. We unceasingly strive to arrest the growth of that dread harvest on which our gains depend, with a genuine unselfishness and exalted public spirit, in a great degree peculiar to our noble profession. It is, therefore, with genuine pride and satisfaction that I point to the work done during the past year by our Branch of the British Medical Association with reference to the compulsory notification and registration of infectious diseases.

It is unnecessary to recapitulate the details already laid before you in the report read by our secretary. I would briefly say that our Branch has, as regards this country, inaugurated a movement which will certainly make progress, and I hope, ere long, be so far brought into action in this city as to sensibly diminish that high death-rate for which Dublin is unhappily notorious.

As you are aware, a Bill on this subject has been already printed, and will shortly be introduced to the House of Commons by Mr. Edward D. Gray, our late respected Lord Mayor. Let me say in passing, that Dublin owes much to Sir John Gray for the admirable water-supply now pervading this city; but his son, if he succeed in the undertaking he has now taken in hand, will not less deserve the gratitude of his fellow citizens and fellow countrymen (for the scope of his Bill is not limited to Dublin). May he persevere and prosper in this work. So much I can say without expressing any distinct opinion on the details of Mr. Gray's measure.

His Bill, to a large extent, follows the language of the model clause prepared by Mr. Ernest Hart for the Parliamentary Bills Committee of the Association. It recites that "it is desirable that due notice should be given to sanitary authorities in Ireland of the existence of dangerous infectious diseases within their district," and proposes to enact that, upon the application of any sanitary authority, the Local Government Board for Ireland may declare the Act to be in force within the district.

Mr. Gray proposes to throw on the medical attendant—if there be a medical attendant in the case—the duty of informing the sanitary authority when any inmate of a building used for human habitation is attacked by small-pox, cholera, scarlatina, typhus, typhoid, puerperal or relapsing fever, diphtheria, measles, or erysipelas. This clause is one about which there will be much difference of opinion. From the side of our profession, it has been strongly urged that, by throwing this duty on the medical attendant, the confidential relationship between him and his patient is invaded.

I frankly confess that, although at one time inclined to take this view, I no longer do so. Once that any community, whether it be a club, a village, or a city, is pleased to make a rule that for its own benefit and protection, the various members of the community requiring their medical men to report certain infectious diseases, with the very laudable intention of preventing the spread of these formidable maladies, then it

ceases to be a breach of confidence if the medical man makes such reports.

I should hesitate to support this clause, not on the ground of any breach of confidence on my part, were I to carry it out, but because I doubt if it be the best method of attaining the object in view. It is also open to doubt whether the proposal would work well which requires that the medical attendant shall give notice to the master of the house, and on such notice the householder shall be required to communicate with the sanitary authority. Both of these propositions throw directly on the medical attendant the onus of taking the initiative.

While I admit that this part of the subject is surrounded with difficulties, I am disposed to think that it would be a just as well as a wiser course to throw on the householder the prime initial step. It is not unreasonable to say that every householder having on his premises an individual attacked by an infectious disease, is bound by his duty towards his fellow men, to prevent the spread of that disease. I should consider it to be his duty to ascertain from the medical attendant whether the disease was infectious, and I should require him to give notice, so that every precaution might be adopted against its spread. This might be accomplished by making every householder liable to indictment if disease were known to exist on his premises; but on obtaining a certificate from the medical attendant that the disease was not infectious, the indictment should be withdrawn. The effect of such an arrangement would probably be, that the householder would (when he understood his own liability) at once request his medical attendant to inform the sanitary authority; otherwise, in case of death or publicity from any other cause, the householder would be found out, and his offence would be legitimately regarded as deserving of punishment.

It has, I believe, been correctly stated that the important question of the compulsory notification of infectious diseases has now been (by Mr. Gray), for the first time, formally brought under the notice of the House of Commons. As to its desirability, it may be said that there exists absolute unanimity; no one doubts the enormous advantages which would arise from it. The real practical difficulty of bringing such a measure into active operation lies in a detail, but a detail of vital importance as regards its success. If we are to have compulsory notification of infectious disease, who is to be the person compelled to notify?

I do not believe there could be a question more worthy of being thoroughly investigated by a Select Committee of the House of Commons than this, or one the investigation of which would bear better fruit.

This Branch of the British Medical Association has the merit of having now directly brought the subject under the notice of Parliament; let us hope that it will urge the matter forward. Let us use every exertion, by appeal to the entire Association, to induce the Government to refer the question mentioned to a Select Committee of the House.

A CASE OF LONG MAINTAINED FIXED POSITION.*

By W. C. BLAND, M.R.C.S.,
Medical Superintendent of the Borough Lunatic Asylum, Portsmouth.

JOHN GREENWOOD, aged 31, widower, was admitted nearly fourteen months ago into the Borough Asylum, Portsmouth. Previously to this, he had been five months in Fisherton House Asylum, and in the Portsea Workhouse. The patient was an able-bodied seaman in the Royal Navy, and bore a first-rate character for intelligence and steadiness. He was drafted into the Coast-Guard.

One day, he put out in a heavy gale in the life-boat, and was reported by his comrades to have been struck by lightning. When he came back, he grew very excited and exalted, declaring that God had revealed all things to him. He was then taken to the workhouse, where he exhibited a demented behaviour. He would stand still for hours together, and, when addressed, only grinned fatuously. We have no accurate history of him, further than that he was taken to Fisherton House, whence he was transferred fourteen months ago to the asylum at Milton.

On admission, he was extremely emaciated; but all his thoracic and abdominal viscera appeared healthy. He has since been fed on minced food and sop, and has gained about thirty-five pounds. He has assumed a position, in which every limb is rigidly extended; the legs and feet pressed firmly together; and the arms and hands pressed to the sides. The eyes are closed; and, when one retracts the lids, he rolls his eyes upwards, so that it is impossible to see the pupils. The features are fixed and impassive, and the muscles are all well developed and firm. Although flies settled all over his face last summer, he never moved a muscle. All his food has to be given him with a spoon by the attendant. He moves his jaws but little, performing mastication chiefly with the tongue. He is held over the stool regularly, and every third day he has a motion. He sleeps well at night. The electrical reaction of his muscles is normal, and the muscles are all well developed and firm. The knee tendon-reflex is scarcely apparent; but, on pressing up his foot sharply, there is a distinct quiver in the calf and foot. He has been under continuous observation night and day, and only twice has he moved. On both occasions, he was seen by the night-attendant to lie on his side and rub his eyes. He has never spoken except once. When he was asked the day of his admission, he replied correctly, "Tuesday". He has been exercised for ten days by three attendants—two moving his legs, whilst one held him upright; and then every joint has been flexed repeatedly. And he has been maintained in an attitude of prayer for a quarter of an hour at a time; but, beyond slight exhaustion, this produced no effect whatever. Whenever one of his limbs is forcibly removed, it is brought back to its position immediately when let go, as though under the influence of a spring. Amyl-nitrite has not the slightest apparent effect on his condition, further than producing a blush. The patient was put under chloroform, when he opened his eyes, with the pupils widely dilated. An ophthalmoscopic examination showed the retina to be perfectly normal. Under the influence of the chloroform, he relaxed his muscles but little; but the narcosis was not very deep; and the relaxation was sufficient to show, if proof were needed, that there exists no spinal lesion.

It is impossible to classify this case under any known head. Catalepsy is excluded by the absence of a characteristic symptom; viz., the joints, when placed in a different position, are not retained in that position. There is nothing passive; the whole attitude is produced by voluntary muscular action. To me, the most satisfactory view is, that it is a result of a fixed delusion. But it is impossible to ascertain the nature of the delusion, or even its existence, with certainty.

* Read before the South Hants District of the Southern Branch.

RUPTURE OF THE MEMBRANA TYMPANI, WITH DIFFUSE MYRINGITIS: THE RESULT OF A SNOWBALL.

By ROBERT TORRANCE, L.R.C.P.Ed.,
Surgeon to the Newcastle-upon-Tyne Throat and Ear Infirmary.

J. L., aged 16, came to me on January 12th, 1881, with a pale and anxious expression, suffering as he said from "ear-ache", which had lasted over forty-eight hours. The history of the case was, that, while snowballing with some companions, he was hit by one on the right ear, which caused him the most intense agony; the pain, indeed, to use his own words, made him shriek and tremble. On examination with the otoscope, a rupture of the membrana tympani was discovered, slit-shaped, parallel and posterior to the handle of the malleus; there were also traces of hæmorrhage in the external meatus, which had evidently come from its vessels. In addition to this, however, there was a pinkish hue of the membrane, with a good deal of vascular injection, around the periphery of the drumhead, and along the handle of the malleus, though the other parts of the membrane remained of their normal colour. He complained of much tinnitus aurium—a loud buzzing in the ear, with confusion in the head—which was set down to concussion of the labyrinth; and probably correctly so, as the tuning-fork was heard less distinctly in the injured ear, and a watch that should have been heard at twenty feet, was only heard at about two inches. For days after the accident, there was a feeling on the same side of the tongue as if something cold had been rubbed over it, and the taste on that side also was impaired; but the sensibility of the tongue to touch remained intact. Antecedents were carefully inquired into, but the patient positively asserted that he had not previously suffered from defective hearing. The ordinary treatment was adopted of placing leeches over the tragus, using the warm douche, etc., when the pain speedily subsided, and the rupture healed perfectly in a few days, without a suppurative process, but the hearing power has only been partially restored.

REMARKS.—This case has been related on account of its extreme rarity, the membrana tympani having much resisting power, both from the so-called membrana flaccida, or Shrapnell's membrane, which yields when undue pressure is brought upon it, and from its oblique position in the canal, which causes a portion of it to be covered by the walls in such a way as not to receive the whole force of a column of compressed air. But, though it is well known to be ruptured from

explosions, or sudden and violent movements of the atmosphere, which cause the undulations to be condensed and forced inwards upon the drumhead, we do not often see it so injured by a blow upon the ear; and to my mind the following is a solution of the case in point. The lad was certain that his hearing had always been good; but it is possible that, during the snowstorm, he may have been suffering from some catarrhal affection, which prevented the air from freely circulating in the Eustachian tubes and the cavity of the tympanum; or there may have been some old Eustachian mischief, preventing the muscles of the tube from acting very quickly, as they always do, and forcing, as it were, a current of air in upon the drum-membrane from the inner side, which would have thus probably counterbalanced the effect of the sudden condensation of air upon the outer side. The other point of interest was the feeling on the same (right) side of the tongue, which was probably caused by injury of the chorda tympani nerve, as the same sensations are sometimes felt when a piece of cotton or wool is brought into contact with the cavity of the tympanum and with the nerve. Moreover, cases are on record which prove that its function is probably chiefly in connection with that of taste, which sustains this view, and its anatomy seems to indicate that it has very little to do with the function of hearing.

Two years ago, through the kindness of my friend Dr. Wicks, a patient was shown me, who was under his care at the late Throat and Ear Hospital of this town, suffering from injury by a snowball; but here the case resolved itself into total destruction of the auricle, with chronic otitis media.

PUERPERAL SEPTICÆMIA: RECOVERY.

By N. F. H. FITZMAURICE, L.R.C.P. & S.Ed., Stratmiglo, N.B.

Mrs. M., aged 46, an enormously stout woman, was delivered, on the evening of October 23rd, of her tenth child. The labour was easy and natural, but the placenta was retained and had to be removed in the ordinary manner, none being left. The child was put to the breast as soon after delivery as possible, as hæmorrhage was anticipated from the excited condition of the circulation. She passed a good night with the exception of a little trouble from after-pains, which were checked by an opiate on the following morning. On the second morning after delivery, she was seized with a severe long-continued rigor. At 9 A.M. the temperature was 104°, pulse 130; she had pains in the uterine region, tympanitic distension of the abdomen; the tongue was clean at the tip and edges, but coated to the base. At 10 P.M. the temperature was 105.19, the pulse 140, bounding. On the 26th October, pulse 130, temperature 104°. The urine was loaded with lithates; scanty, and containing one-fifth albumen. There was no œdema. On the evening of the 27th a slight cough was noticed; this was a little more frequent on the following morning, and the base of the left lung was congested; temperature 105°, pulse 121. The bowels were confined. The face was deeply congested. Headache was very severe. She was conscious. The pupils were normal. She had no appetite. She continued in much the same condition up to the 2nd November; the temperature occasionally falling to 103°, but sometimes being as high as 105.4°. The pulse was one evening 150, and very thready, but averaged 125. There was no vomiting at any time, except on one occasion, due to an over-dose of medicine (sulpho-carbolate of soda).

On November 2nd, temperature 101°, pulse 115. All the symptoms were correspondingly improved, and continued so until 3.30 P.M., when a recurrence of the febrile symptoms set in. The pulse at 6 P.M. was 140, the temperature 105°. This evening she was unconscious, but only for a short time; this was the only occasion on which she lost sensibility. During the night the skin acted slightly, and in the morning she was improved in every respect. A similar recurrence, however, took place at almost exactly the same hour as on the previous day, and followed a very similar course. The urine was slightly increased in quantity, but loaded and slightly albuminous. One other paroxysm, but much slighter, and at a later interval, occurred, after which the patient progressed steadily to convalescence. The lochia up to the present had been suppressed, but now again appeared, and the secretion of milk became established more naturally. The latter was never entirely suppressed.

Remarks.—Scarlet-fever and erysipelas have been epidemic for some time in this district. The sanitary surroundings of the patient were of the worst description; only two rooms for the children and father and mother. The prolonged initial rigor, continued high temperature, suppression of lochia and diminution of secretion of milk, point to the absorption, or at all events the action, of some septic material, for which there was ample opportunity. The insidious character of the pneumonitis would also favour that view. I may mention that, shortly before, another woman died in this locality after labour, but was not attended by me. The treatment was at first diaphoretic: a mixture containing liquor ammoniæ acetatis was given. Turpentine stupes were applied over the abdomen, and opiates given for abdominal pain, and were stopped on the subsidence of pain, not being considered advisable on account of the intense headache, and also the small secretion of urine. The tympanites, the most distressing symptom, was very effectually relieved by a mixture of sulpho-carbolate of soda and tincture of nux vomica. The bowels were relieved by enemata, containing turpentine. As the symptoms always appeared to be relieved by sleep, I tried on one occasion a mixture of chloral-hydrate and bromide of potassium, but had no good result from it. The pneumonitis was checked by turpentine epithems, and the internal administration of carbolic acid and chloral-hydrate, a modified Greenway's formula. On noticing the remittent nature of the attack towards the end of the disease, I gave thirty grains of quinine in small doses between the remission and exacerbation, with the effect first of postponing and afterwards of effectually preventing return. I may add, in conclusion, that from the first morning after delivery (before any febrile symptoms), vaginal injections of lotion of boracic acid were used morning and evening. When the attack was developed, lotion of carbolic acid was used three times a day.

CLINICAL MEMORANDA.

INTUSSUSCEPTION RELIEVED BY AN INJECTION.

John V., aged 21, joiner's apprentice, came to see me on March 17th, 1880, complaining of pain in the right side of the abdomen. He said it came on after a sudden twist. As he had no other symptoms, I gave a mild aperient, and told him to rest for a few days. On March 18th, he was not so well. Temperature 104.8°. He complained of sore-throat. As he had recently been exposed to the infection of scarlet fever, I expected he was going to be attacked. On March 19th, he complained more of the pain in his body. He could not bear pressure. Milk diet was ordered, and poultices to the abdomen. On March 22nd, the pain and tenderness of the abdomen was the same. I ordered one-eighth of a grain of morphia in pill twice a day. The symptoms remained much the same till March 29th; the bowels had acted slightly once or twice, and he remained tolerably easy with the morphia pills; the abdomen, however, became distended. Up till this time, I looked upon the case as one of peritonitis.

On the afternoon of the 29th, I found him vomiting, with an anxious expression; tongue brown and furred. He complained of pieces of jelly-like substance passing from his bowel, and of difficulty of passing urine. The catheter was used, but little urine passed. He had hiccough. On examining the bowel, I found the anus so dilated, that I could easily have passed in my hand. A quantity of jelly-like mucus was escaping. On passing my finger, I found a portion of bowel as large as a man's fist: it felt almost like the fœtal head in the perinæum; and every few minutes there was a violent bearing-down pain, which gave the impression that the descended bowel would soon pass through the anus. The finger could be passed all round the mass, and high up at the back I could just introduce the tip of my finger into the orifice of the invaginated portion. As I was some miles from home, and had no long tube with me, I returned on the following morning, March 30th. With some difficulty, I introduced the long tube of a stomach-pump through the orifice mentioned, and, with steady pressure, passed it about two feet, and then injected slowly three pints of soapy water. Flatus passed through the tube, and shortly afterwards liquid fæces. Some pain was caused during the injection, but almost immediate relief followed. On examining the bowel, I found the descended intestine much decreased in size. I gave strict orders that the motions, if any came, were to be passed on the back; but, on returning in about an hour, I found the patient seated on the night-chair, having the bowels very freely moved. On the following day, I found him with all his bad symptoms relieved. Nothing was to be felt in the rectum except fæces; and, from this date, he made a very rapid recovery.

Alfred Kebbell, M.R.C.S.Eng., Flaxton, York.

SCLERODERMA INFANTUM.

I have not heard of the affection to which I apply the above name, and communicate this case as a curiosity. Last month, I attended a woman in her sixth confinement. Previous labours had been natural, and other children were healthy. The os was very rigid; and, after I had dilated, as labour did not progress, I applied forceps. The child was of about seven months, small, and partially asphyxiated. Upon touching it, I found the skin hard, leathery, and tense—so much so that

the legs could not be got straight, and on no part of the body could a fold of skin be pinched up. With artificial respiration, I succeeded in getting it to give one or two faint gasps. I did not obtain a *post mortem* examination.

W. Peel Nesbitt, M.B., M.R.C.P.E., Honorary Medical Officer, Adelaide Children's Hospital, Adelaide, South Australia.

MULTIPLE LIPOMATA.

The records of fatty tumours furnish few instances of marked multiplicity; hospital reports quote a few instances—notably those of St. George's Hospital for 1879, when as many as five of these new formations were removed from one patient. Authors tell us they are exceptional; and six years of hospital practice (during which I was house-surgeon) certainly confirm such a statement. The following case, therefore, may be of clinical interest. K. W., a well-developed and somewhat corpulent man of sixty-two, looking younger than his years, and who had always enjoyed good health, sought advice for eczema. On examination of his arms, there was little evidence of the disease in question; but numerous little tumours—depriving the limbs of their natural contour, and giving a very unsightly appearance—presented themselves, varying in size from a hazel-nut to a Tangerine orange. There were as many as twelve of these homoplasms on the right, thirteen on the left, arm; soft and lobulated in feel; free from density, fluctuation, and pain; and, moreover, freely moving between the fingers, they appeared to be "floating in connective tissue", and in nowise adherent. In position, they were nearly symmetrical, occupying the flexor and ulnar aspects of the arms and forearms, the largest being on the former. Similar growths were also found on the extensor and inner aspects of the thighs, though smaller, and three on the abdomen. Their development has been but slow, as the patient (then an adventurer in Australia) noticed them about 40 years ago, as "small beads", beneath the skin. Neither his family history or his employment will explain their appearance; they cause him no pain or inconvenience, and he is free from any organic disease. Although the patient would not allow me to confirm my diagnosis by the use of the grooved needle, I yet have no doubt of their nature, happily hidden from view. He is wisely unwilling to submit to any operative interference, which, short of a general removal by dissection (involving extensive incisions), and the risking of other and greater evils, could in the end but effect a cosmetic result to the patient himself. I might mention that none of them show any evidence of secondary change, although the development of many would appear to be complete.

H. A. Smith, M.R.C.S.Eng., L.R.C.P.Ed., Gosport.

THERAPEUTIC MEMORANDA.

GELSEMINUM IN FACIAL NEURALGIA.

Suffering severely from facial neuralgia last night, I took a dose (ten minims) of the fluid extract of gelseminum, U.S.P. In half an hour, being very little better, I took another dose of the same strength. In fifteen minutes after the second dose, I was so drowsy that I could scarcely keep awake. There was great pain over the frontal region—no neuralgia. The pulse was weak, and intermittent. I had cold shivering and dizziness. The pupils were slightly contracted; and there was a general feeling of collapse. I took a cup of very strong tea, and in five minutes was very sick, vomiting freely, but not feeling any better. I had then given to me a glass of strong brandy and water, which was repeated in half an hour. In two hours, I was right again. The neuralgia has not reappeared. This may be of use to those who use the drug for neuralgia. I have frequently used it for others in smaller doses (four to six minims), but never gave such a large dose to begin with. I have found it very valuable in neuralgia of the face, even when due to bad teeth.

George H. H. De Wolfe, M.D.

BISMUTHIC BLACKENING OF THE TONGUE.

It has been observed by many medical practitioners that a patient's tongue is apt to blacken whilst he takes any of the usual preparations of bismuth. This reaction is probably due to the reduction of finely powdered metallic bismuth upon the tongue by the sugar formed in the saliva after eating starchy matters.

Having fasted for a few hours, I carefully rinsed out my mouth with water, and to a heated alkaline solution containing a salt of bismuth, I then added some of my saliva, when no change of colour took place. I next ate some bread, and subsequently introduced some of my saliva to the heated alkaline solution containing a compound of bismuth, when blackening of the mixture readily occurred.

J. Lawrence-Hamilton, M.R.C.S.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

WEST NORFOLK AND LYNN HOSPITAL.

(Under the care of Dr. Dale.)

A CASE OF ADDISON'S DISEASE: POST MORTEM EXAMINATION: REMARKS.

For the following notes we are indebted to Arthur G. Blomfield, M.B., M.R.C.S., House-Surgeon.

John M., aged 26, was admitted into the Lynn Hospital, on June 19, 1880, suffering from extreme weakness and bronzing of the skin. The history given was, that until about six months previously, he had always enjoyed good health and been fair. At this time he began, without apparent cause, to become weak; this weakness gradually increased, so that he had to give up his employment on the Midland Railway, at Derby; and, though the history was not very clear on the point, he said that he did not notice that his skin was becoming of a dark brown colour, until a month or six weeks before his admission.

State on Admission.—He was evidently of naturally spare build; there was no marked emaciation. There existed an uniform brown discoloration of the face, markedly so about the forehead, and also over the front of the neck. There was a bluish-black discoloration in the lower lip close to the junction of the skin and mucous membrane. The brown colour of the skin was also very evident over the whole trunk; the areolæ of both nipples were broad and dark brown in colour. The backs of both hands (*i.e.*, the exposed parts) were of a darker colour than the arms. The colour, too, was more marked around the loins and over the anterior aspect of both knees. The weakness was extreme; he lay on the bed in a semi-comatose condition; he could, however, be easily roused, and replied rationally but abruptly when asked questions, but speedily lapsed into his previous state, with the eyelids half closed and the conjunctivæ congested. When seen first, a week before his admission, the weakness was not so marked, and the conjunctivæ were of a pearly-white colour. On June 20th and 21st, there was persistent and uncontrollable vomiting of a yellowish-brown fluid, and whatever he took was at once rejected; but for a few hours before his death, on the 21st, the vomiting ceased. He frequently turned over from side to side. The breathing was shallow and quiet. The heart's action was distant and very feeble, the pulse all along being markedly feeble and indistinct, and during the last three hours of life could not be felt at either wrist. He passed very little urine, and the bowels were confined. He died quietly from asthenia on the evening of June 21st.

Post Mortem Examination, twenty hours after death. Rigor mortis was very well marked. The heart and lungs were normal. The pleura was not thickened, nor was there the slightest trace of fluid in the pleural cavities; the only appearance to be noted was the existence, especially between the visceral and parietal layers of both pleuræ, of delicate and abundant white bands, looking like lymphoid or young connective tissue; the appearance was not that of previous pleurisy. The peritoneum and mesentery were healthy. The stomach contained a small quantity (not measured) of a yellowish fluid, and, with the exception of a few scattered points of congestion (like minute ecchymoses), was healthy. The intestines, spleen, liver, and kidneys, were normal. Behind the stomach there existed a good deal of connective tissue involving the solar plexus and semilunar ganglia; the splanchnic nerves were prominent, but no minute dissection was made of these ganglia. Both suprarenal capsules were enlarged, prominent, and hard to the feel. The left was especially enlarged; both were imbedded in connective tissue and fat, and adhesions existed on the right side between the capsule and the liver and kidney; the left was adherent to the left kidney, but not to the spleen. The left capsule weighed half an ounce. On cutting into the suprarenal bodies, the outer portion, looking like a thickened investing membrane, was of a grey colour, semi-transparent, and of a firm consistence; within this, previous active inflammatory changes had taken place, as evidenced by its thickness and by the adhesions to neighbouring organs. Within this there was a mass of an uniform yellow colour, firm when cut, tending to split into flakes; and by very little manipulation this mass could be tilted, as it were, out of its bed, so that any relation which had previously existed between it and the outside opaque investing membrane had been destroyed in the inflammatory process. This putty-

like central mass was uniform in consistence, and apparently devoid of all blood-vessels. Here and there (but this was not marked) there were a very few yellow dots from which a friable material like soft, yellow tubercle could be pressed. Looking at the pathological state found on dissection, it was probable that the case had run a rapidly fatal course. The original structure of these organs was entirely destroyed, and for the sake of clearness the capsules in this case were in what Dr. Wilks describes as the *first stage* (*Vide* Reynolds' *System of Medicine*, vol. v, page 355). Dr. Heneage Gibbes kindly undertook the microscopic examination of the right suprarenal capsule, and his report of the appearances presented is subjoined. "I find the usual state of things in Addison's disease; nearly the whole of the suprarenal structure has become disintegrated, and is nothing but *débris*. In one or two places a few of the cells can be recognised lying amongst others, wholly or in part broken down. There is a large development of fibrous tissue round the capsule. I find an infiltration of small cells in one part, which, I think, is inflammatory. The capsule is enormously hypertrophied, and the interfascicular lymph-spaces in it are very large and numerous, with large corpuscles (connective tissue) lying in them. Nearly the whole of the adrenal proper is converted into a mass of *débris*, caseous in some parts. In one part some of the original cells are to be seen in various stages of disintegration".

REMARKS BY DR. DALE. I have seen four cases of "bronzed skin" in this neighbourhood during the last five years: two in private, and two in hospital practice. Of the former, one was a woman just over thirty, who died after a short illness, the chief symptoms being frequent vomiting and debility. The other was an aged woman, whose symptoms were simply excessive wasting and debility, with, of course, in both cases, the characteristic discoloration of the skin. Of the latter two cases, one a woman between fifty and sixty, is under treatment at present as an out-patient, and has no symptoms except "bronzing" of the skin, with great weakness; the other is the case reported above, which, as will be seen, was marked by negative symptoms only, in addition to the "bronzing", until within a few hours of his death; and is the only one in which a necropsy was obtained.

YORK COUNTY HOSPITAL.

ULCERATION OF FEMUR AFTER HIP-DISEASE.

(Under the care of Mr. JALLAND.)

FOR the notes of this case, we are indebted to Mr. W. H. BATTLE, House-Surgeon.

E. S., aged 12, was admitted under the care of Mr. Jalland, on November 18th, 1880. Her family history was good. One brother was stillborn; one brother and one sister, aged 14 and 9 respectively, were quite healthy. Six years ago, she was in the York County Hospital for eighteen weeks, with disease of the right hip-joint. She had much pain later in the hip and knee. She was treated by rest and extension; and stated that she could walk "quite straight" on leaving. Three months ago, her mother noticed that she walked "all of a side", and about the same time she began to suffer from pain in the right thigh, and also slightly in the knee of the same side; the pain jumped, but did not prevent her from sleeping at night.

On admission, she walked with a perceptible limp; and, on standing, the right shoulder was the higher of the two; and this was more especially marked when standing with both knees straight, her usual attitude being with the right foot advanced, the toes turned out, and the knees slightly bent; she felt most comfortable whilst in this position. The right buttock was flattened, but there was no further sign of disease in actual progress. There was no swelling or pain about the joint, the movements of which were perfectly free. When lying on her back, the right internal malleolus appeared to be about an inch below the level of the left. The measurements were as follow: from the right anterior superior spinous process of the ilium to the internal malleolus, 28 inches; from the left anterior superior spinous process of the ilium to the internal malleolus, 27½ inches; length of tibia on each side, 11½ inches; line drawn from the anterior superior spine perpendicularly backwards, joined at right angles by one from the top of the great trochanter, measured, on the right side, 2½ inches, on the left 2 inches. The right trochanter was thicker than the left. The circumference of the right half of the pelvis, measured round the upper part of the trochanter on each side, was almost a quarter of an inch more than the same measurement on the left.

THE French Academy of Medicine has lost four members during the last year: MM. Broca, Delpech, Piesse, and Personne; and has added to its number, by election, nine: MM. Jaccoud, Mehu, Constantin Paul, Dujardin-Beaumetz, Guéniot, Pidoux, L. Labbé, L. Colin, and Brouardel.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JANUARY 12TH, 1881.

W. S. PLAYFAIR, M.D., President, in the Chair.

Specimens.—MR. ALBAN DORAN showed an exfoliated portion of the mucous and muscular coats of the bladder, which had been discharged by a primpara twenty days after labour.

Dr. G. HOGGAN showed microscopic specimens and camera lucida drawings, illustrating the comparative anatomy of the uterine lymphatics, with photographs by Mr. Fowke.

Dr. MATTHEWS DUNCAN showed two ovaries, removed by Dr. Lediard in a case of double ovariotomy.

Dr. EDIS showed a simple form of syphon-douche.

Dr. CHAMPNEYS showed the uterus and appendages from a woman who had died from septicæmia from rupture of the upper part of the vagina.

Extirpation of Uterus and Ovaries.—Dr. THOMAS CHAMBERS read notes of a case of extirpation of the uterus and both ovaries, weighing ten pounds. The patient, aged 43, first noticed a lump in her right groin, which grew slowly for five years. After this, menorrhagia commenced, and gradually increased. Pain and hæmorrhage were excessive. The tumour was freely movable, soft, but non-fluctuating. There was a periodical discharge of watery fluid through the vagina. It was diagnosed as a fibro-cystic tumour. It was decided to extirpate the uterus. The abdominal incision was extended to eleven inches. The broad ligaments were tied with silk at each side, a parallel clamp placed above the ligatures, and the uterus cut away. The cervix was then transfixed by a double ligature, the clamp removed, the ligatures tightened, and the stump replaced. By the twenty-first day, the patient was convalescent, a free discharge of offensive matter from the vagina having taken place suddenly on the fourteenth day. The tumour proved to be a lobulated white fibroid, and contained very large vessels.—Drs. HEYWOOD SMITH and ROUTH made remarks on the case.

Inversion of Uterus.—Dr. ROGERS related a case in which he had successfully reduced a chronic inversion of the uterus by means of sustained elastic pressure.—Dr. AVELING stated that five similar cases had been reduced by his repositor.

Double Uterus.—Dr. MATTHEWS DUNCAN related a case of delivery with double uterus. The hand was introduced into the uterus to seek for the placenta, when it was discovered that there were two uterine cavities, the larger of which was the right, and contained the placenta. —Dr. BRAXTON HICKS related a case in which he had been called to determine the existence of an extra-uterine fœtation. He found a firm vaginal septum, with an os uteri on each side. The uterus on the right side was pregnant. Labour occurred naturally at term.

Labour with Fibroid Tumours.—Dr. PLAYFAIR detailed two cases of labour, with fibroid tumours of the uterus. In the first, the tumour rose above the pelvis, and did not complicate labour. In the second case, Dr. Playfair had to push the tumour out of the pelvis with the closed fist.

SURGICAL SOCIETY OF IRELAND.

FRIDAY, JANUARY 7TH, 1881.

E. D. MAPOTHER, M.D., in the Chair.

Bullet-Wound of Hip.—Mr. W. WHEELER exhibited a conical bullet which he had extracted from the hip of a gentleman a few days before. The history of the case was briefly as follows. The gentleman had purchased a revolver to protect himself, being a landlord, and was showing it to a friend, in whose hand one of the charges went off, the bullet striking the gentleman over the great trochanter, by which it was deflected upwards and backwards towards the sacrum. A long probe could be passed along the track of the bullet until the latter was struck, whereupon Mr. Wheeler cut down and removed it. The severe pain which had been experienced was at once relieved, and the case was doing well.

Partial Excision of the Tongue.—Mr. WILLIAM THOMSON communicated two cases in which he had performed partial excision of the tongue. In the first, that of a woman, aged 50, the disease had lasted for some months before she came under observation. She was suffering from epithelioma of the tongue, involving both sides, and extending backwards to the junction of middle and posterior third; the discharge from the ulcer was fœtid, the usual darting pains were complained of, but no enlarged glands could be felt. The anterior portion of the tongue was removed by means of the écraseur, an incision having first been made, as recommended by Mr. Collis, from the

anterior edge of the masseter muscle to the labial commissure. There was no hæmorrhage, and the woman was well in a fortnight. However, in three months, she again presented herself with a mass of indurated glands in the submaxillary region, with the skin ulcerated over them in one place. A secondary operation was deemed unadvisable, and the woman died shortly afterwards. The second case was that of a man, aged 58, who stated that three years before he applied to Mr. Thomson, after drinking and smoking to excess, he noticed three small blisters on his tongue, two of which disappeared, but the third continued sore, and eventually became warty, and presented the appearance of a filiform growth, occupying the middle of the left side of the tongue. It was about an inch in length; the hair-like growths were pale, and some of them very long, so as to lie on the surface of the tongue. There were no enlarged glands, but the patch was spreading, and the pain, especially after eating, was considerable. The very suspicious appearance of the growth and its history made its immediate removal imperative. The operation was done with the thermo-cautery, the cheek having been slit as in the first case. The tongue was removed in a few minutes, and there was no hæmorrhage except from two vessels in the centre, which were ligatured, and the wound in the cheek dressed. In eight days the cheek was healed, and the man allowed up. On the 9th day a sharp attack of secondary hæmorrhage occurred, which was arrested by Mr. White, the resident pupil, and in a week afterwards the patient was perfectly convalescent. Sections of the growth were exhibited under the microscope, which showed it to be a papilloma. Mr. Thomson had seen the man a short time ago—*i.e.*, nearly three years after the operation, and found him still perfectly free from any return: the gap in the tongue had greatly diminished, he could speak clearly and distinctly, and the cicatrix in the cheek was very slightly visible. Mr. Thomson then canvassed the advantages and disadvantages of the various methods of removing the tongue—viz., by the écraseur, the ligature, the knife, the thermo-cautery, and the electric cautery, and expressed his opinion that the thermo-cautery was of all the most safe, the most efficient, and the one to be preferred. It was rapid, bloodless, except where the large vessels were cut; it could be immediately reapplied, and to any required extent, should it be discovered that too small a portion of the organ had been removed. That it was more likely to be followed by secondary hæmorrhage than other methods, he would not admit. He laid particular stress on the very great importance of thorough removal, not only of the evidently diseased tissues, but of a considerable quantity also of apparently sound tissue beyond the margin of disease. For, far beyond the indurated piece of tongue, the tissues were almost certain to have in them the seeds of a fresh outbreak of the disease; the more radical the operation, the longer, in all probability, would be the interval before its return. As the lines of lymphatics were most numerous in the long axis of the tongue, he recommended that in cases of unilateral disease the organ should be split along the septum, as far back as the root, and the diseased half removed, as the danger of lateral infection was not very great unless the disease approached the middle line, in which case he advised extirpation of the whole tongue, separating it from the floor of the mouth, and cutting it as far back as possible. The operation was not often fatal, and the power of speech was preserved to a remarkable degree.—Dr. J. K. BARTON thought that Mr. Thomson's paper would help to clear away the doubt and difficulty which hung over the treatment of cases of cancer of the tongue, and hoped that, by following the method suggested, the statistics would in the future be more encouraging than were those of the past. He had, three years ago, removed the tongue by means of the thermo-cautery, from an old man about 80 years of age, for epithelioma of the posterior half of the right side of the organ. Two years after the operation, Dr. Barton heard of the man as being in perfect health.—Mr. W. THORNLEY STOKER expressed himself strongly in favour of the thermo-cautery, which, if properly applied, avoided the risk of secondary hæmorrhage as much as any other method, with the great advantages of the rapidity, ease, and thoroughness with which the removal could be effected. The ligature he characterised as a relic of barbarous surgery, which he trusted never again to see employed.—Mr. WM. I. WHEELER had removed the tongue from a patient more than four years ago by the écraseur and thermo-cautery, the écraseur being used to separate the floor of the mouth, the platinum knife being employed to cut through the tongue. The disease had occupied the whole of the anterior surface of the tongue. In this case the disease had not returned, and the patient was still in the enjoyment of good health. He considered that surgeons, as a rule, did not remove a sufficient amount of the tongue.—The CHAIRMAN also took part in the debate, and Mr. THOMSON replied.

Colles's Fracture.—Mr. KNOTT read a paper on this subject, and described a case which had been brought into the dissecting-room of the Royal College of Surgeons, in which the radius of each side presented evidence of former fracture of the lower extremity. He then gave a *resumé* of the literature of the subject of Colles's fracture. Unfortunately he was unable to produce the specimens, owing to an accident. The discussion, in which Dr. Bennett, Mr. Wheeler, Mr. Macnamara, and Dr. Abraham took part, was thus deprived of much of the interest which it would otherwise have had.

FRIDAY, JANUARY 21ST, 1881.

E. HAMILTON, F.R.C.S.I., in the Chair.

Recent Specimens.—Mr. KILGARRIFF exhibited the superior maxillary bone, with a tumour attached, which he had removed, eight days before, from a girl, aged 13 years, in the Mater Misericordiæ Hospital. The tumour had been growing for thirteen months, very slowly, and without pain. It extended from the last molar tooth but one, to close to the symphysis, and implicated the alveolar arch, completely blocking up the right cavity of the nose. The disfigurement caused by the growth was extreme, the right side of the face and lip were elevated, and the nose displaced to the opposite side, giving a frog-like expression to the otherwise comely features. Some difficulty of breathing was also experienced from the protrusion backwards and inwards of the mass. The operation was performed after the method of Fergusson, by means of chisel and lion-forceps, leaving the orbital plate intact, but removing all the remainder of the superior maxilla. The girl was rapidly convalescing without a single bad symptom. Mr. Kilgarriff had not examined the tumour microscopically, but a rough section showed the antrum to be entirely filled by the growth, there not being the slightest trace of a cavity. The patient was a well-looking, well-nourished girl; and, as no enlarged lymphatic glands could be felt, he leaned to the belief that the tumour was not malignant, but withheld an absolute opinion until a microscopic examination could be made.

Uterine Tumours.—Mr. THORNLEY STOKER made a communication on this subject. The commonest form of uterine tumour was, he said, the fibroma, or fibro-myoma as it was now more generally called. This form of tumour occurred in about 40 per cent. of women, who died after 40 years of age. Virchow had divided these tumours into two classes—viz., hard and soft, according as the fibrous or the muscular tissue was most abundant, and for clinical purposes the division was most useful. Mr. Stoker then read the details of a case of multiple fibro-myoma which had come under his care. The patient was an unmarried woman, aged 34 years, sallow, but one who had always enjoyed good health until the last two years, during which time she had suffered from dysmenorrhœa; the tumour had been gradually enlarging, but did not materially spoil her comfort until within the last two months, when defæcation and micturition were much interfered with. When examined by Mr. Stoker, the tumour extended from the pelvis to three inches above the umbilicus, and felt to the hand like a large, knobby Jerusalem artichoke in the abdomen. The superior portion could be freely moved, but the pelvic portion seemed quite immovable during life. Fluctuation could be felt about the umbilicus, but was lost before reaching the pubes. This was due to the over-distended bladder, the meatus being stretched, and thus allowing considerable displacement of the bladder and its contents. While the case was still in hospital, under observation pending an operation, the woman got a sudden fit of syncope and died. The *post mortem* examination showed that the proximate cause of death was most probably due to patency of the tricuspid valves, caused by a clot. The heart was enlarged; the kidneys showed parenchymatous nephritis of considerable extent. The ovaries were sound. The outline of the uterus was nodulated, in consequence of the numerous small tumours buried in its walls; these tumours varied in magnitude from half the size of the whole mass to no larger than a pea. There were two large tumours, one situated in the anterior, the other in the posterior segment of the womb. The cervix was unaffected. The tumours, which belonged to the myxo-fibromatous variety, were found in every stage of transformation from the small purely intramural, to the larger and entirely subperitoneal. None were found in the submucous tissue. These tumours were often spoken of as encapsuled. This Mr. Stoker considered misleading; they were never surrounded by a true capsule, but only by the compressed wall of the uterus in which they were formed, and which, as they grew larger and made their way to the surface, became gradually thinned, and gave the appearance of a capsule, out of which they could be shelled. The younger tumours were never encapsuled; but the older the tumour, the more easily could the so-called capsule be demonstrated, and the tumour shelled out. The very reverse of that was the case in true encapsuled tumours, in which, the older the tumour, the more adherent was it to its capsule. The bladder was pear-shaped, and its neck con-

siderably elongated, but its mucous membrane was healthy, nor was definite disease discoverable in the ureters. The sequence of events in the case was probably as follows. (1) The uterine tumours which, by filling up the pelvis, caused difficulty in defæcation and micturition from (2) obstruction of the urethra and rectum, resulting in dilated bladder and retention of urine, which caused (3) the kidney-disease, producing (4) hypertrophy of the heart, and thrombosis from the uræmic poisoning; the thrombosis being the actual cause of the sudden syncope. Mr. Stoker considered the case interesting as throwing light on the pathology of uterine tumours, and as demonstrating some of the other ill consequences to which pelvic tumours might lead, besides that of pressure on the rectum, which was usually the first symptom in such cases. He spoke at some length of the advisability of making a pelvic tumour abdominal if possible, and pointed out some anatomical points to be attended to, especially the necessity of making pressure in the right direction, so as to avoid getting the tumour hitched under the overhanging sacrum.—A discussion followed, in which Dr. H. Kennedy, Dr. Stack, and Dr. Doyle took part.

A Record of Cases treated Antiseptically, and of Cases treated according to Lister's Method, with reference to Cases treated without the use of Antiseptics.—Mr. W. I. WHEELER read a paper on this subject, and detailed a large number of cases which had been treated by him under each of the above methods. By "antiseptic treatment", he meant (1) surgical cleanliness, (2) rest, and (3) adequate drainage. By Listerism, he meant (1) the carbolic spray, and (2) gauze dressings. In the cases enumerated, the mean highest temperature was higher in those treated by Lister's method than in those treated "antiseptically", but the mean duration was somewhat shorter. Listerism was, he thought, less comfortable to the patients. The theories on which Listerism depended were next attacked; and authorities were quoted in support of the view that "as good results, if not better, were obtained by what he termed antisepticism, as by the most elaborate Listerism".—Mr. THORNLEY STOKER entirely dissented from the conclusions arrived at by Mr. Wheeler. He objected *in toto* to the nomenclature which Mr. Wheeler had thought fit to employ, and considered that he had no authority whatever for speaking of antisepticism as opposed to Listerism, the terms being inseparably connected in his mind.—Mr. Tufnell and Mr. H. Fitzgibbon also took part in the debate, which, on the motion of the latter, was postponed until the next meeting of the Society.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS IN IRELAND.

WEDNESDAY, DECEMBER 1st, 1880.

GEORGE JOHNSON, M.D., President, in the Chair.

The Late Dr. Alfred Hudson.—Dr. MCCLINTOCK proposed, and Dr. J. W. Moore seconded the following resolution, which was adopted in silence:—"That this Society desires to record with sincere regret the lamented death of Dr. Alfred Hudson, ex-president of the King and Queen's College of Physicians and of this Society, and Regius Professor of Medicine in the University of Dublin. At the same time the members of the Society would give expression to their respect for the talents, the honourable principles, and the many excellent qualities of their departed *confrère*, who, as a physician, enjoyed the confidence alike of the profession and the public, and as a high-minded, cultivated gentleman and generous benefactor possessed the esteem of all who knew him. That copies of this resolution, together with the warm sympathy of the Society, be conveyed through our honorary secretary to the widow and brother of the deceased gentleman."

A Case of Acute Eczema.—Dr. J. MAGEE FINNY reported at length a case of acute eczema, which presented some peculiarities. The subject of the disease was a married man, aged forty-four, of regular habits, a seedsman by occupation. He was large and full, weighed over thirteen stone, was fair-haired, of a delicate white skin, covered with but little hair. His attack began with an illness which was presumably simple continued fever. Six weeks after the first appearance of the eruption, and after a fortnight's treatment, a desquamation very unusual in eczema took place on the palms of the hands, which had not been affected. The desquamation was completed in five or six days. Commenting on the case, Dr. Finny asked, Was the initial rigor, which preceded by a fortnight the appearance of the eruption, the beginning of the eczema (as the patient imagined), or did it stand in the position of an exciting cause; or was the febricula but a coincidence? From the analogy of eczema being frequently developed (not produced) in scrofulous children by the slight febrile disturbance attendant on vaccination, he considered the attack of simple continued fever acted in this case as a predisponent and exciting cause of the eczema by its general depressant effect, and by the determination to the skin which it induced by the diaphoresis with which it ended. Again, Was the desquamation of the hands, which occurred six weeks after the first appearance of the eruption and a fortnight's treatment, due entirely to the local eruption, to the initial fever of eight weeks ago, or to both causes? It exactly resembled the desquamation following a mild case of scarlet fever. It occurred to him that it was a variety of dermatitis, pityriasis rubra or exfoliativa, but it had no features in common with that disease. Another peculiar feature of this case was the manner in which the eruption appeared on the trunk and lower extremities, and the unusual appearance and characters it presented. It was very uncommon—(1) to see eczema first attack these parts of the body in patches of the size of half an inch to two inches in diameter; to notice (2) these patches to come out in regular order, beginning above and extending down to the ankle; and to note lastly, that the eruption, so prominently vesicular in other places, should at no time ever reach the stage of vesiculation. These were, in truth, infiltrated inflammations of the skin, followed by slight desquamation, resembling in appearance, and yet differing in character from, erythema, and exemplified the truth of the observation of Dr. Liveing, that in the diagnosis of eczema it was necessary to bear in mind not only the different forms assumed by the disease in its various stages of development, but also that it might be arrested in its progress at any one of its stages without passing through all its usual phases; and that it might abort at a very early period.—Dr. WALTER SMITH observed that the diagnosis in the case was beyond question. Desquamation on the palms of the hands was very common when eczema attacked the backs of the hands. In such cases a distinct pink redness underneath the surface would often be seen. He would suggest to Dr. Finny to try the hydropathic treatment, or "wet pack", in the next case that presented itself.—Dr. HENRY KENNEDY said that where arsenic or phosphorus was given in eczema the first result was frequently to make the disease worse. This was an indication that the disease was under control.—Dr. FINNY replied.

Enteric Fever in South-eastern Africa.—SURGEON-MAJOR R. W. JACKSON, C.B., read a paper on enteric fever and its modifications by malaria, in South-Eastern Africa, as observed by him during the latter part of the late Zulu war, and subsequently with the force in the short campaign against Sekukuni. Immediately on landing at Durban, in Natal, it was obvious that a difference of opinion existed between the medical officers in the field, and those at the base hospital, regarding the fever—the former watching the ranges of temperature indicative, in most cases, of the remittent type, were in favour of a malarial form, while the termination of the cases and subsequent *post mortem* examination demonstrated the presence of enteric lesion, and caused the medical officers at the base to pronounce the fever typhoid. In one instance at Ulundi Dr. Jackson was present when a very animated discussion took place on the question. Although a specimen of an ulcerated ileum was shown, those in favour of the malarious type contended that the case could not be enteric on account of the ranges of temperature recorded. Although some cases of fever occurred among the small force attached to head-quarters as an escort, men had to be transferred to station or field hospitals in consequence of the frequent moves, and there was no opportunity for the medical officer in charge to record the course of the disease. During the Sekukuni campaign the head-quarters and Baker Russell's column were encamped for about three weeks on the Paquani hills, about six miles from Fort Weeber; several cases were sent to hospital from the camp, also some from the company of 21st Fusiliers attached to head-quarters. Two of the 21st —Privates O'Loghlen and Morton—while attending previous to transfer to hospital, had at first temperatures, with other symptoms, indicative of enteric fever; in thirty-six hours after the accession the temperature became normal, although the furred tongue, thirst, and lassitude continued. The day following the temperature again rose, and the men were sent to Fort Weeber, and Dr. Jackson was informed by Surgeon Branagan that the cases were undoubtedly enteric; he observed the same features in the early stage of cases of enteric fever. In the course of his very interesting paper, Surgeon-Major Jackson referred to the fact that the malarial taint clings to the system for years, merely awaiting an opportunity to show itself when its victim is suffering from any cause of debility. Dr. HENRY KENNEDY observed that in diagnosing typhoid fever he would be sorry to be guided altogether by thermometry.—Dr. FINNY believed in the identity of remittent and intermittent fevers. The late Dr. Stokes laid it down that intermittent fever followed its victim all through life, and modified any subsequent disease. The speaker thought that no indication of enteric fever was so valuable as that afforded by the thermometer.—SURGEON-MAJOR JACKSON, in reply, said that he could not regard intermittent and remittent fevers as being subdivisions of the same disease. In remittent fever the liver and the pyloric viscera were chiefly affected, whereas the

spleen chiefly suffered in the intermittent type. Quinine was a specific for intermittent, but not at all for remittent fever.

Typhus Fever in Graves' Disease.—Dr. A. W. Foot detailed the clinical history of a young woman who succumbed to an attack of typhus fever on the twelfth day. The patient had been nine weeks and four days in hospital for exophthalmic goître, and had very much improved: in fact, arrangements for her return home were being made, when she contracted typhus. On Friday, October 15th, 1880, she had a headache and could not eat. In the afternoon of the same day she had a rigor, which continued through the night, and was attended with a rise of temperature from 98° to 104° Fahr., and an increase in the rate of her pulse. Her pulse had hitherto presented the increased rate noticed in Graves' disease: 101 observations had been made on it before the invasion of the fever, and its mean average rate had been determined to be 129. On this evening (15th) it rose to 145. On the sixth day after the initial rigor a copious typhus rash made its appearance on the trunk, with a morning temperature of 105° Fahr. On the evening and night of the ninth day she was delirious, and frequently got out of bed and sat over the fire, when she presented a strange and startling appearance, her incoherent ravings and delirious excitement heightening the effect produced by her large rolling eyes, and dishevelled hair. On the tenth day she suffered greatly from dysphagia; in fact, the nurse thought she would be choked. This seemed to arise more from acute congestion of the thyroid gland than from nervous disturbance of the muscles of deglutition. The pulse at this time ranged from 164 to 180. She was given draughts every two hours containing drachm-doses of tincture of digitalis, after several of which the difficulty of swallowing was much diminished; according to the nurse's opinion, "the draughts were saving her life"; and she was able to get down a fair share of nourishment, viz., four ounces of whisky and two eggs made with milk into ten ounces of egg-flip, a pint of beef-tea, and three pints of milk. These full doses of digitalis, however, did not lessen the rapidity of the heart's action, or improve the character of the radial pulse, which was so flickering and uncertain that, on this account, and, owing to the *subsultus tendinum*, the rate of the circulation was habitually estimated at the heart with the stethoscope, instead of at the wrist. At 11 P.M. on the eleventh day, she had an attack of convulsions for ten minutes, and similar attacks recurred every half-hour till her death, which took place in the early part of the twelfth day. The digitalis draughts had been discontinued twenty-four hours before the convulsions came on, and she was not taking them at the time.

OBSTETRICAL SOCIETY OF DUBLIN.

SATURDAY, DECEMBER 11TH, 1880.

JOHN A. BYRNE, M.B., President, in the Chair.

Uterine Fibroid.—Dr. Walter G. Smith exhibited a large intramural fibroid, associated with malignant disease of the peritoneum, which had been taken from a married woman, aged 62.

Uterine Fibrous Tumour.—Dr. Atthill exhibited a fibrous tumour of the size of an egg, which he had enucleated from the fundus uteri of an unmarried woman, aged 45. The tumour had caused inversion of the uterus simulating polypus. The history was one of long-continued dysmenorrhœa and menorrhagia, and latterly of almost constant uterine hæmorrhage. This was the second case of a similar nature which Dr. Atthill had laid before the Society. No hæmorrhage followed the operation.

Unilocular Ovarian Cyst.—Dr. Atthill exhibited a unilocular cyst, which he had removed by the operation of ovariotomy. Notwithstanding that the operation was performed with strict antiseptic precautions, and was free from difficulties, peritonitis appeared in a few hours, and the case ended fatally.

Herpes (Hydroa) Gestationis.—Dr. Walter Smith communicated a paper on this subject, and read the details of a case which had come under his care in June 1880. Mrs. F., a fisherman's wife, aged 35, who had been married for thirteen years, and had been pregnant nine times, having had two miscarriages, the remaining seven being full-time pregnancies, stated that, five years previously, when six months pregnant of her third child, a rash, similar to that for which she now sought advice, had made its appearance, commencing at the umbilicus, and continued until two months after delivery, when it gradually subsided, uninfluenced apparently by medical treatment. From that time until October 1879, when three months pregnant of her seventh child, she was free from skin-disease of any kind. At that time, an eruption, answering exactly to her description of the former one, appeared around the umbilicus, commencing as a cluster of small vesicles, which rapidly extended over the legs, arms, and chin. Within a week after parturition, the disease evinced a marked increase of activity, and spread over the abdomen and chest; some large bullæ also formed as large as a sixpenny-piece, containing clear alkaline fluid. The affection gradually decreased after that until a few weeks ago, when she had a relapse. The eruption did not at any time simulate eczema, but looked in many particulars like herpes zoster; but it followed no regular nerve-distribution. The scars left by patches which had healed were pigmented. The case Dr. Smith considered interesting from its great rarity, only about fifteen cases having been placed on record since the year 1840, when it seems first to have been recognised as a distinct affection.

Placenta Prævia, with Hydrocephalus.—Dr. Arthur V. Macan detailed the history of a case which had come under his care in November last. Mrs. K., aged 40, mother of ten children, with none of whom had she experienced the least trouble, was taken in labour on November 25th, 1880. Three months before that, she had had a severe attack of hæmorrhage, and a repetition a fortnight ago. Labour was accompanied by copious hæmorrhage, and, when Dr. Macan arrived, four or five hours after labour had commenced, the woman was lying in a state of collapse, the whole floor of her room being a pool of blood. Examination showed placenta prævia, which was, however, in no place adherent to the cervix. The os was about the size of a half-crown, its edges thin, dilatable, and everywhere covered by the placenta. The fundus, felt through the abdomen, was tense, hard, and very tender, in so much that a careful external examination could not be made. It was deemed advisable to turn, which was easily effected, and extraction progressed until the head came to be delivered, when it became evident that the perforator must be used, as the powerful traction on the breech, aided by pressure over the fundus, proved powerless. On separating the blades of the perforator, a gush of clear fluid, like the liquor amnii, showed that the cause of the obstruction was hydrocephalus. Extraction was then easy, but the woman sank, and, in less than half an hour after delivery, expired, without any further hæmorrhage, the amount lost during the operation being scarcely appreciable. Dr. Macan wished to ask the Society's opinion as to whether he was right, having regard to the condition of the woman, to operate as he had done. He also wished to record the case, as showing the importance of a careful and thorough external examination, which, had it been possible in his case, would most certainly have made known the existence of hydrocephalus before the introduction of the perforator. He wished also to urge the necessity of making oneself acquainted with certain practical points when the hand was passed in to turn, before taking hold of a foot or knee; these were, 1. The exact size of the brim of the pelvis; 2. The exact position, size, and character of the head; 3. Whether or not there was pulsation in the cord. In conclusion, Dr. Macan expressed his own opinion to be, that the explanation of the woman's sudden collapse after delivery was rather to be sought in the wretched state of health in which she had been previously, than in the mere loss of blood from placenta prævia, or in shock due to the operation of turning.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, JANUARY 8TH, 1881.

A. W. Foot, M.D., President, in the Chair.

Disease of Os Calcis.—Mr. W. I. Wheeler exhibited a left os calcis which he had removed from a young lady, 15 years of age, on December 13th. She twisted her foot when "rinking". An abscess formed over the inner and posterior portion of the bone. When he first saw her, the abscess was discharging, and the bone could be felt with a probe. Remedies were adopted, but without success; and he operated with the intention of excising only part of the os calcis; but the anterior portion of the bone, even up to the cartilage which articulates with the cuboid bone, was so diseased, that excision of the entire bone was necessary. On examination of the bone the posterior part was comparatively healthy, save at the site of the abscess; but all that portion from and below the articulation of the astragalus up to the cuboid bone was diseased. The disease commenced in the bone, not in the ligaments, but the articulating surfaces of the astrogalus and cuboid bones were perfectly healthy. This was the second time Mr. Wheeler had excised the os calcis. The first case made an excellent result, and up to the present time the lady from whom the specimen was taken had favourably progressed. He thought the specimen interesting, as the operation was not a very common one, and as far as he knew, had only been performed on two other occasions in Dublin, by the late Mr. Hamilton and Mr. Tyrrell.

Vesical Calculus.—Mr. Wheeler showed a calculus, weighing 532 grains, which he removed from a male patient, 28 years of age, in the City of Dublin Hospital, by lateral lithotomy. The stone had an

oxalate of lime centre, and was coated with phosphates. It was of long formation, the symptoms being present for about ten years. It was not till it became rough and set up cystitis that the man suffered much from its presence in his bladder. Mr. Wheeler also presented another calculus, weighing three drachms (180 grains), which he removed by lateral lithotomy from the bladder of a boy aged 13 years, a patient in the City of Dublin Hospital. The nucleus in this specimen was also composed of calcium oxalate. Both patients made a good recovery.

REVIEWS AND NOTICES.

DR. PAUL BÖRNER'S REICHS-MEDICINAL-KALENDAR FÜR DEUTSCHLAND AUF DAS JAHR 1881. Cassel: Theodor Fischer. 1881.

THE edition of Dr. BÖRNER'S German Medical Calendar for the present year consists of two parts: one being arranged as a pocket-book and diary for the use of the practitioner; the other as a medical directory combined with a great deal of information regarding the laws affecting the medical profession in Germany. As regards the general appearance of the work, the first part—the pocket-book—retains the neatness and convenience which characterised it last year; while the second part is greatly improved by being put up in light cloth boards instead of being merely stitched in paper; as well as by being printed on a wider page, and by the names of towns and other head-lines being printed in a larger and more striking type than in last year's Calendar.

The pocket-book consists in great measure of a number of pages of paper, of good quality, ruled for memoranda for each day of the year—two days being allotted to each page. There is also at the end of each month a space for additional "notices"; and to the whole are appended four blank pages for addresses and four pages for midwifery engagements in columns indicating (1) the date of the last menstruation; (2) the probable date of labour; (3) the name of the woman who is expected to be confined at the date given in the second column. Prefixed to the calendar is (as last year) information regarding charges for letters and telegrams; and Dr. Börner has this year added a genealogy of the German reigning families.

Beyond the daily calendar, we first meet with four chapters, the value of which for accuracy and completeness is established by their being the work of Professor Liebreich of Berlin. These are: 1. The uses, doses, and mode of administration of the medicines contained in the *German Pharmacopœia* of 1872, as well as of other medicines in ordinary use, though not yet officially recognised; 2. A table of the maximum doses of certain remedies, which, in Germany, must not be exceeded unless the prescriber prefix the sign !; 3. A table of articles for subcutaneous injection, giving the proportion of water or spirit to be used and the quantity to be injected; 4. A tabular statement of poisons, the symptoms (acute) produced by them, and the antidotes. After this, there follow series of formulæ for inhalation, by Dr. M. Schaeffer of Bremen; and for medicated baths, by Dr. Reimer of Dresden; instructions as to economy in prescribing; tables of German and metric weights and measures, of solubility of various medicines, and of the equivalents of drops and spoonfuls; a list of recent changes in the Pharmacopœia; a table of charges for dispensing; a chapter on apparent death and resuscitation, and on the means to be employed in sudden accidents, by Professor Skrzeczka of Berlin; a chapter on clinical thermometry, and one on the analysis of the urine at the bedside, by Dr. Ewald of Berlin; an introduction to the determination of central acuity of vision, refraction, and accommodation (with Snellen's test-types) by Dr. Horstmann of Berlin; a chapter on colour-blindness; tables of measures and weights of the human body, with special reference to midwifery; a table for calculating pregnancy from the last menstrual period; a summary of the chief points regarding the most important baths and health-resorts (including in most cases the names of the resident practitioners) by Dr. Reimer of Dresden; a list of the lunatic and idiot asylums in Germany, also by Dr. Reimer; the official nomenclature of diseases; and a list of institutions for animal vaccination. This mere enumeration of the contents of the pocket-book is sufficient to show that the practitioner who possesses one, and carries it with him in his daily journeys, has always at hand a store of valuable information. The book is of convenient size for the pocket, and weighs little more than ten ounces.

A separately printed appendix to the pocket-book containing about fifty pages, consists of a Pharmacopœia Militaris; a chapter on the Dressing of Wounds, with especial reference to Lister's method, by Dr. P. Rupprecht of Dresden; an introduction to the hygienic examination of air, water, and soil, by Dr. C. Flugge of Berlin; and a chapter by Dr. Börner on the medical aspect of life-assurance.

The second and larger part, which is more adapted for reference in the library, consists of 654 pages, with an index of names of places and persons occupying 106 pages in addition. It is divided into two parts; one relating to civil and the other to military medical practice.

The first part commences with a chapter, by Dr. Börner, on the organisation of the medical profession in the several German states, with special reference to official appointments; a summary of the laws regulating the public appointments in the various states being given. There is also a statement of the fees payable for visits, operations, etc., to official and non-official practitioners respectively. Then comes a summary of the laws for regulating the duties of public medical officers in the German empire, drawn up by Dr. Wiener of Culn. Next follows a statement of the duties imposed on the medical officers in the several states of the empire, with regard to the notification of infectious diseases. This is followed by a summary of the most important ministerial regulations, changes, etc., in the German states from July 1879 to July 1880, with reference to public medical appointments, forensic medicine, apothecaries, the sale of poisons, midwives, the examination of meat, factories, the notification of infectious diseases, *post mortem* examinations, etc. Next come lists of the medical faculties of the universities and other medical institutions in Germany, Austria, and Switzerland; a register of public medical officers, and one of non-official practitioners, arranged in each case according to locality—reference being rendered easy by an index at the end. After this, there is given a table showing the proportion of medical men to population and to area in each state; and the first part concludes with information regarding provident and charitable institutions for the relief of medical men and their widows, including a chapter on life-assurance as a means of ensuring a competency for medical men in old age and of making provision for their widows and children.

The second part contains information regarding the military medical service, including the regulations for admission to the same, lists of the German army-corps, with their medical officers, etc.

We trust that this enterprise of Dr. Paul Börner is appreciated by his professional countrymen as, in our opinion, it deserves to be. It bears the mark of great labour and perseverance on the part of the author; who has also very judiciously availed himself of the assistance of competent authorities in the composition of several of the chapters. The style is throughout concise, and at the same time sufficiently clear.

The *Reichs-Medicinal-Kalendar* is a book which ought to be in the possession, for purposes of reference, of every university and college, and of every medical school and society in this country.

NOTES ON BOOKS.

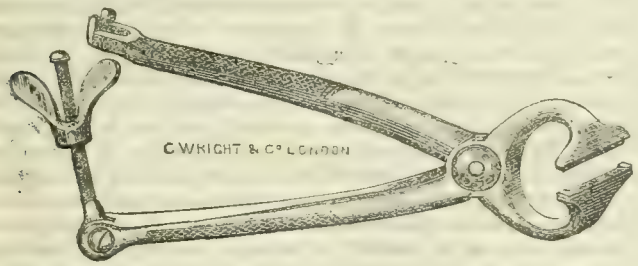
Lectures on the Human Eye in its Normal and Pathological Conditions. By ADOLPHUS ALT, M.D. New York: Putnam's Sons. 1880. Hitherto the materials for the study of the pathology of the human eye have consisted chiefly either of disjointed monographs, or else of large and expensive treatises like those of Becker, Poncet, Pagenstecker, and others. Dr. Alt's book goes far towards supplying the want, which has long existed, of a convenient sized, low priced, and clearly written manual on the histology of the eye. The book is the result of a great deal of painstaking research, and of conscientious and original observation. Its pages are singularly free from verbiage, its arrangement is simple and practical; while most of its statements can be relied upon as being in accordance with the latest teachings in pathology. If the book has any fault, it is that of undue conciseness. On the subject of glaucoma, for instance, the author is singularly meagre. He says scarcely a word as to the theories of the disease which have been taught and illustrated so ably by Donders, De Wecker, Smith, Brailey, and others. He gives, indeed, clearly and well, what may be called his own observations on certain glaucomatous eyes which he examined. These observations, though valuable in themselves, can scarcely be considered sufficient to elucidate the vast subject of glaucoma. The same remarks will also apply to his treatment of the retina and optic nerve. The best parts of the book are those devoted to the cornea, conjunctiva, iris, and crystalline lens; here the author lays down the general doctrines of pathology in a lucid and comprehensive manner. He draws his descriptions with a bold hand, and prefers to treat of pathological processes as a whole, rather than of their manifestations in particular tissues. Thus, when dealing with inflammation of the cornea, he recognises only two main divisions—infiltration and purulence; such pathological conditions as abscess, ulcer, and keratomalakia, he thinks, should be looked on as simply manifestations of one or other of these general causes. The book is well printed and illustrated; and the drawings have all been taken from preparations made by the author himself. On the whole, Dr. Alt's book is a very valuable contribution to histological pathology.

THE *Archives d'Ophthalmologie*, of which the first number appears, edited by M. F. Panas, E. Landolt of Paris, and F. Poncet of Cluny, promises to be one of the most important scientific journals of ophthalmology published abroad. It proposes to itself to publish the more detailed and elaborate work of French ophthalmologists, who have long been without an adequate representation in ophthalmological science and literature. The first part includes some important papers by Landolt, on a New Method of Blepharoplasty, and on a New Telemeter; by Poncet, on Pterygion; by Manfredi and Cofler, on Ocular Tuberculosis; by Charpentier, on the Sense of Light and Colour-Sense; by Badal, on Some Points in Physiological Optics; etc. It is well printed and illustrated, and reflects credit, by its mechanical execution, on the publishers, Delahaye and Lecrosnier, Paris.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

BENHAM'S CLAMP FOR THE TREATMENT OF HÆMORRHOIDS BY CRUSHING.

THIS clamp has been constructed by Mr. Benham, to carry out the treatment of Mr. G. D. Pollock of St. George's Hospital, by whom it is approved and used. Without enumerating other advantages, it is pointed out that it so completely crushes the pile, as to leave only a slight fringed remnant, without any pain or bleeding, rendering the convalescence of the patient a matter of a few hours. The patient suffering from hæmorrhoids, being prepared for the operation in the usual manner, is placed under the influence of an anæsthetic. He is then turned on his left side; the right leg is well flexed and fixed with a strap, which is carried under the knee and round the neck. The pile to be removed is drawn well down by pronged hook or forceps.



The clamp is applied to the base of the pile, and at once tightly and firmly closed by the action of the screw at the end of the handles. The portion of pile which protrudes inside the lips of the clamp is then removed by a pair of curved scissors or an ordinary scalpel. The clamp should afterwards be retained, still grasping the remnant of the pile, for about two minutes. If, after removing the clamp, there should be a slight oozing from any point of the fringed remnant, this may readily be arrested by the application of the torsion-forceps or a fine ligature (this process is, of course, to be repeated according to the number of masses to be got rid of). The dressing employed after the operation is completed is usually tarred cotton, or that prepared with salicylic acid, with warm bathing. The manufacturers are Messrs. C. Wright and Co., surgical instrument makers, 108, New Bond Street, London.

THE GROWTH OF THE HUMAN BODY.—At the last meeting of the Statistical Society, Mr. Dawson, in a paper bearing this title, gave the results of statistics he had collected from the records relating to the height and weight of prisoners in the Borough Gaol of Liverpool during three periods—viz., from 1857 to 1858, from 1867 to 1868, and from 1877 to 1878. The general inference was that the men thus passed under examination did not on the average attain their full height or their full weight much, if at all, before thirty years of age. The most general—indeed, the only common—use of such inquiries was, of course, a military one. The popular notion, he said, was that the age of twenty-one was that at which men arrived at maturity; but this was erroneous, and for lack of sound statistics he believed we had long been practising, in regard to our army, etc., with most precious material, a most unsound economy.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, FEBRUARY 5TH, 1881.

MEDICINE AND PHARMACY.

THE necessary connection between medical practice and pharmacy renders it advisable, from time to time, to watch any changes which may occur, or be attempted, on the part of the Pharmaceutical Society. Professedly, that Society was established to improve the qualification of the dispenser of medicine; it was encouraged in that effort by many leading members of the medical profession, who saw that the advance of what has been called "pure practice"—*i.e.*, the separation of prescribing from preparing medicine—would be facilitated by the greater dependence on chemists. That such a result has arisen, we are bound to admit; and, now that no man can hold himself forth as a "chemist and druggist" unless he has been duly examined and registered, prescribers have not the anxiety they formerly had as to the accuracy of the dispensing, and the quality of the medicines necessary for their patients.

We are led to these remarks by the perusal of the draft of a Bill which the Pharmaceutical Society proposes to submit to Parliament for the amendment of the Pharmacy Acts already in force.

The first proposition contained therein is to secure some further power to regulate the examinations; not, apparently, to alter the subjects on which candidates are to be tested; but, as we are informed, to enable the Society to enforce passing the "preliminary examination" at the very threshold. Inasmuch as the preliminary has regard only to primary education, and has been given in charge to the College of Preceptors, this is clearly a move in the right direction; it would secure young men of better education, in the first instance, and leave their period of pupilage more available for the acquirement of the technical knowledge necessary for a careful dispenser.

When the Pharmacy Act of 1868 was passed, due regard was held to vested interests; and it was provided that all men who had been in business on their own account prior to that date, might, on application and proper certificate, be registered as chemists and druggists. It is now proposed to close that door of admission after a period of two years, sufficient time having elapsed for all such men to preserve their rights.

The more important provisions of the Bill follow. In the first place, whereas, under the present law, the prohibition as to compounding only extends to medicines containing certain scheduled poisons, hereafter it is proposed to confine the right of dispensing all "medical prescriptions", whether they contain poison or not, to qualified men. Clearly it is of importance to a prescriber that his doses of medicine, whether enumerated in an arbitrary schedule or not, should be accurately administered; therefore, we see no objection to this. Perhaps some more definite words than "medical prescriptions" might be used.

Secondly, the Act of 1868 made a special exemption in favour of "patent medicines"; and although no person can buy laudanum, chloral, and other scheduled poisons, in their simple form, save under certain restrictions and safeguards, anybody may sell, and anybody may buy, the same dangerous articles, in the form of "patent medicines", without let or hindrance. As a result, coroners' inquests on persons killed by the improper use or abuse of them, have been frequent; and we believe the attention of the Council of the Pharmaceutical Society

has been called to that fact by Government. Under these circumstances, "patent medicines", containing poisons, are to be brought within the category of poisons. Short of abolishing "patent medicines" entirely, this is, perhaps, the best course to be taken, and the most likely to mitigate the evil arising from the indiscriminate administration of quack remedies, which may fairly be regarded as, if not illegal, certainly illegitimate practice.

The third proposition may raise opposition from the general public, although a matter of no moment to the medical profession as such.

The recent decision in the Court of Appeal, that the restrictions placed on the sale of poisons by unregistered persons does not extend to companies or corporations, has naturally caused much excitement in the Pharmaceutical Society; and, as an outcome, the thirteenth section of the proposed Bill states distinctly that, in construing certain clauses of the Acts of 1852 and 1868, "the word person shall include corporate bodies".

The advocates for the defendant, in the case alluded to, contended (beyond the plea that a corporation could not be regarded as a person, on which the decision actually depended) that, so long as the drug department of a company was in charge of a qualified person, the public safety was secured, and the terms of the Pharmacy Act complied with. To this, the Society reply that the privilege conferred by the Act, as well as the requirement of qualification, was intended to be personal; arguing, on behalf of chemists generally, that, having been put to trouble and expense in qualifying for their business, they are entitled to a certain equivalent advantage. They contend, also, that the public safety will be better cared for under such a condition; that, as the conscience of an association of men is always less strict than that of the same men individually, so the supervision of a board of directors will be less effective than that of individual proprietors. "That which is everybody's business is nobody's business." We think these points deserve consideration.

There is one other matter which we had almost overlooked, although we find it has special reference to ourselves. Section 4 of the proposed Bill repeals Section 11 of the Pharmacy Act of 1852, which provided that no member of the medical profession should be registered under that Act; and that, if any pharmaceutical chemist advanced to the profession, his name should be erased from the *Pharmaceutical Register*.

There is no probability of medical practitioners seeking to be admitted to a register outside of, and socially unequal to, their own; but the converse does occasionally happen: and when a pharmaceutical chemist joins our ranks, it appears, the Pharmaceutical Society may still be glad to retain him in alliance if he be so inclined.

RESEARCHES ON RABIES.

It will be remembered that Dr. Galtier, in a communication made to the Académie de Médecine of Paris on October 27th, 1879, appeared to establish, by a series of experiments, the transmissibility of rabies to the rabbit, and studied the period of incubation of the disease in animals. This period is, however, short, and scarcely exceeds an average of seventeen days. The question has been taken up lately by M. Lannelongue and M. Raynaud, in connection with the following case. A child, aged five and a half years, was admitted on the 8th December, 1880, to the Hospital of Saint Eugénie, presenting unequivocal symptoms of rabies. He had been bitten on the 10th November on the knee, on the left cheek, and on the temporal region of the same side, by a dog, which was immediately killed after having bitten other dogs, which were also killed. The first symptoms of rabies were manifested on the morning of the 7th December, and the child died on the 11th of December, after having shown typical manifestations of the disease. Three experiments were made on a rabbit: 1, inoculation with fluids collected from the child whilst still living; 2, inoculation with different fluids or tissue taken from the body twenty-four hours after death; 3, subsequent inoculation made from rabbit to rabbit. In the second series, two animals inoculated with bronchial mucus taken from the corpse died, one in forty-four, the other in forty-eight hours. Three animals were inoculated with the *débris* of salivary glands; only one died, very rapidly however, at the end of eleven hours. The submaxillary gland furnished this positive result. The product of scraping the lymphatic glands, which were found swollen, was inoculated in two rabbits; one survived at nine hours and a half; the other became ill on the second day, and then recovered. A fragment of the medulla oblongata was inoculated in another rabbit, which died on the fourth day. In the third series of experiments, all the rabbits died which were inoculated with the saliva of one of the animals which died in the preceding experiments. All the rabbits, five in number, succumbed in spaces of time varying from twenty to thirty hours. Twice, the blood of a rabbit, killed by inoculation of the blood, was taken immediately after death, and inoculated on another rabbit; it caused death once in thirty-two hours; and, in the second case, in forty-three hours. The blood of the latter rabbit, also taken after death, killed a third rabbit in thirteen hours. M. Maurice Raynaud is of opinion, until the contrary is proved, that these rabbits really died of rabies; and he considers that he has a double reason for so thinking; the impossibility of explaining their death otherwise, and the evidence of that cause of death in the human subject from which the inoculations were made. M. Pasteur addressed the Academy, and drew a figure of the parasitic organism which he had found in the saliva of the patient of MM. Maurice Raynaud and Lannelongue. M. Pasteur did not admit, however, that the disease observed in the animals in which he had performed these inoculations was rabies. He considered, on the contrary, this disease as a new affection not described and not observed previously, but certainly produced by the parasite which he had isolated and cultivated. A discussion arose between M. Colin and M. Pasteur, the former being of opinion that the animals died of septicæmia, which M. Pasteur denied. It resulted from this discussion, that the disease produced by the inoculations of M. Pasteur was not rabies, since it represented neither the period of incubation nor the symptoms of rabies. Various hypotheses may be formed as to the nature of these differences, but none is at present satisfactory. The subject is one, however, of which the importance cannot be overlooked, and must be highly estimated. The results which have recently been obtained by M. Pasteur, by M. Toussaint, and by Dr. Greenfield in this country following in their steps in relation to the cultivation of parasitic organisms connected with infectious disease, such as splenic disease or fowl-cholera, all point in the same direction, viz., to the possibility of attaining preventive, and probably therapeutic, means, by the aid of this line of physiological investigation; and however much antivivisectionists may rage against experiments of the kind, it is certain that they will not carry with them reasonable people in any opposition to a line of experiment which has already been productive of vast benefit to mankind, and is apparently on the eve of yielding results of inestimable value and extensive application in the prevention of the most destructive, and, at present, incurable forms of disease. Inoculation or invaccination of poisons, modified by passing through various animal organisms, lead to results which may, on the one hand, be preventative and prophylactic, as in the case of small-pox, fowl-cholera, bacteria, and splenic disease; and may, where such preliminary prevention is, by the circumstances of the case, put out of the question, be useful, in the early stage, in producing a mild concurrent form of disease, which may greatly modify the more violent poison.

MIDWIFERY IN THE PARIS HOSPITALS.

It appears that the Municipal Council of Paris are at length bestirring themselves to make a reform, already too long-needed, in the working of the obstetric arrangements in the hospitals of Paris. Lately some most scandalous facts have become public. Pregnant women are admitted for delivery into nearly all the general hospitals in Paris. As a rule there is one ward set apart for *accouchements*, but this continually overflows into the general medical and surgical wards of the hospital. Now at not one of the general hospitals in Paris is there attached an

obstetric physician. The women, therefore, are attended in their labours by the physician or surgeon into whose ward they may happen to have been admitted. But this is not all: no precaution is taken to guard the lying-in woman from surrounding infection. She is placed in a general ward, and may have in the bed on one side of her a patient dying of pyæmia, and in the bed on the other side there may be a case of scarlet fever or diphtheria. It is not astonishing that in such circumstances the mortality is beyond anything reached elsewhere. The wonder is that any women pass through the ordeal with their lives. It is not only in labour at term, however, that the evils of the system are seen. In all the hospitals young women are being constantly received who are aborting at various stages of pregnancy. These poor creatures are lucky if they fall into the hands of a physician or surgeon who can diagnose the nature of their case. Too often it is discovered on the *post mortem* table. An English student in Paris lately saw a young woman, in a general ward, aborting. The physician, under whose care she was, overlooked the fact that she was septicæmic from a partially discharged ovum. He had the abdomen painted with collodion. This remarkable remedy failed to clear out the uterus of the disintegrating ovum, and the woman died. At the *post mortem* examination, the uterus was found to contain a partially discharged ovum. This is but one example of what is almost of daily occurrence in the Paris hospitals. To entice women into hospitals, where they expect all the resources of medical science to be at their aid, and to give them treatment, compared with which that of the most ignorant midwife would be immeasurably superior, is indeed a disgrace to civilisation and to Paris. It makes one's blood run cold to go through one of these wards, and see one victim after another of a system which is murderous, mediæval, and barbarous in its cynical cruelty and ignorance. We hope, for the sake of humanity, that the Municipal Council of Paris will boldly and effectively wipe out this blood-stain of murdered women and children. In no other city in the world could such things happen. Paris, first in so many arts and sciences, is last in that merciful art which assists poor women at the moment when they are most helpless, and at the same time most deserving of help.

DR. HILTON FAGGE has been elected Physician to Guy's Hospital.

MR. DAVIES-COLLEY has been elected Surgeon to Guy's Hospital.

THE order for sending out Mrs. Deeble and six lady-nurses to the Transvaal has, it is stated, been cancelled, and they are not going out.

DR. T. W. THURSFIELD has been appointed one of the magistrates for the borough of Leamington.

MRS. HERBERT WILLIAMS has given £500 to the funds of the Dorset County Hospital, in memory of her late husband.

WE have authority for stating that the report that Dr. Marshall is about to resign his office as physician in attendance at Court, or that any successor has been appointed, is entirely without foundation, and contrary to the fact.

DR. NACHTEL has received the Cross of the Legion of Honour in recognition of his services in having established a night medical service in New York, and for his laudable efforts in endeavouring to establish an ambulance-service for street-accidents in Paris.

DR. ROCHARD, Inspector-General of the health-department of the navy, has been appointed President of the French Society of Public Medicine for 1881. Dr. Rochard was to deliver his introductory address on Wednesday of this week.

MR. LANGTON has been elected Surgeon to St. Bartholomew's Hospital. For the vacant assistant-surgeoncy, Mr. Walsham, Mr. Cripps, Mr. Macready, and Mr. Shuter are candidates. It is probable that additional assistant-surgeoncies will be created before long at St. Bartholomew's Hospital.

A DENOMINATIONAL analysis of the Metropolitan Hospital Sunday Fund, published by one of the religious journals, goes to show that, of the £28,000 received at the Mansion House in 1880, nearly £22,000 was contributed by congregations of the Established Church, £500 by the Roman Catholics, £2,000 by the Independents, and £1,100 by the Baptists.

THE death-rate of London rose last week to 29.8 per thousand annually, and was greater than in any of the preceding fifty weeks. Deaths from zymotic diseases are considerably below the average, but the mortality from diseases of the respiratory organs was very largely in excess.

THE Imperial Sanitary Bureau of Germany is at present organising a comprehensive plan for reporting all cases of infectious and contagious diseases occurring throughout the Empire. Special post-cards are to be distributed among the chief medical officers and authorities of districts, who will send in weekly reports for inscription in the central register; and thus the progress of an epidemic will at all times be observable.

ILLNESS OF MR. T. CARLYLE.

DURING the last two years, Mr. Carlyle, who is now in his eighty-sixth year, has been gradually becoming more and more enfeebled by old age. The breaking up of a most active and vigorous constitution has been almost imperceptible in its slow, successive, but certain stages. For the first time for many years, Mr. Carlyle did not leave town last summer for his accustomed holiday. Instead of going out every day, he came to leave his house at first only three times, then twice a-week; at last, not at all. Finally, he found himself obliged to remain in his room, unable to undergo the fatigue of descending and ascending the stairs. The late arctic-like frost proved too much for his remaining diminished vital powers; he became prostrated, and has remained so. When Dr. Maclagan saw him on Thursday morning, he was in a drowsy state, moaning now and then in his sleep. He was almost pulseless, and in such an extremely exhausted condition, that Dr. Maclagan fears the heart's action may cease at any moment. No special organ is implicated; the condition is a gradual cessation of vital function.

THE PRESIDENT OF THE ROYAL COLLEGE OF PHYSICIANS.

FOLLOWING a precedent, which, so far as concerns the dignity of the College of Physicians, is, perhaps, "more honoured in the breach than in the observance", the outgoing President of the College, Dr. Bennett, is to receive knighthood. That is a dignity which is, perhaps, better reserved for civic personages; and if the College of Physicians is to receive an honour of the kind, it should be by the dignity of a baronetcy; and the College would, in the opinion of many, do better if, in future, it requested its outgoing president to decline knighthood if proffered in cases where there are difficulties in the way of conferring a baronetcy. A dignity more appropriate to the position of the College and the grades of the medical profession would either be a K.C.B.ship or the position of a Privy Councillor. Lawyers holding eminent official positions, members of Parliament who have rendered services in a public capacity, are frequently called upon to receive a recognition due to the bodies to which they belong and the offices which they have held, from their personal ability and services, by receiving the title of "Right Honourable", and becoming members of that great State body the Privy Council, to which they can be summoned on questions affecting the subjects in which their experience may be available. Knighthood has been dragged so low by its civic and municipal associations, that to expect knighthood as a distinction due to an eminent body, such as the College of Physicians on the part of an outgoing president, after a lengthened service, is, in our opinion, anything but an adequate recognition of the claims of the medical profession, or of such a body as the College of Physicians This opinion is not a new one: it was expressed pretty freely among the profession before, on a similar occasion; and it is, we think desirable that it should be repeated.

OBSTETRICAL SOCIETY OF LONDON.

DR. PLAYFAIR, the retiring president, gave his last annual address at the meeting of the Society on Wednesday. He referred to the flourishing financial condition of the Society, as well as to its increasing numbers. The new president, Dr. Matthews Duncan, will take the chair for the first time at the March meeting.

ENGLISH NURSES IN PARIS.

WE understand that Miss Longstaff, whom we mentioned in our last week's issue as being connected with the Institution for English Hospital Nurses, established in Paris by Mrs. Robert Holland, has ceased, since August 1879, her relationship with that institution, which is now under the able direction of Miss Molony.

VACCINATION FROM THE CALF.

MUCH comment is made on the slowness of the Local Government Board in fulfilling the public pledge given by the President, that vaccination from the calf should be established, and that supplies of fresh calf-lymph should be sent to public vaccinators from a central vaccine establishment in London. In the present state of public business, some difficulty may be apprehended in bringing this matter again before Parliament; but the Parliamentary advocates of this proceeding, to whom the faith of the Government is pledged, will, we understand, take an early opportunity of calling the attention of the Government to the delay which has occurred. Offers were, they state, made last year by highly skilled persons, thoroughly accustomed to calf-vaccination, to undertake attendance week after week at the proposed English calf vaccine station, free of expense to the Government, and in a pure spirit of scientific and medical devotion to the cause of progress. These offers were rejected, on the ground that the Government preferred that officers of their own should be trained, although it is not easy to see why that training should not have been as well, if not better, effected on English ground in their own establishment, at the hands of efficient persons already well trained, as by visitors to foreign stations, where their means of observation and trial would hardly be more effective than they can be made at home. However this may be, and assuming with willingness that not only the best intentions exist at the Central Government Board in respect to the carrying out of these pledges, but that the best methods also have been pursued, it is very desirable that some announcement should be made as to the precise course of events up to the present moment; and at what time the promised calf-vaccine station may be confidently expected. The medical staff of the Local Government Board is very heavily worked with duties of inspection and special sanitary investigation, which, under a better organisation, could be as effectively performed by local medical officers of skill and capacity.

ANIMAL VACCINE.

DR. J. W. COOK, of Manningtree, Essex, has recently been engaged in conducting experiments on calf-vaccination on a large scale, at his own expense. Last autumn, he procured some calf-lymph from Dr. Buchanan of the Local Government Board, who had brought it from Utrecht. Since October 1880, Dr. Cook has regularly vaccinated a calf every fifth day with calf-lymph, and in no case with any lymph that had passed directly or indirectly through a child. At an early date in the course of these experiments, Dr. Cook offered, in the pages of a contemporary, to supply any medical applicant with calf-lymph, on condition that he should be informed of the result of its use. We are aware that many physicians have availed themselves of this offer, and found that the animal vaccine has answered very well. Dr. Cook now repeats his invitation, and is ready to forward by post to any medical man some specimens of lymph from his calves. The vaccine is preserved by him in capillary tubes, on points and on glass. He does not believe in the tubes, nor recommend anybody to apply for them. On the other hand, he considers the glasses to be much the best means of preserving the lymph. The following directions are supplied by Dr. Cook with the specimens of lymph which he forwards to applicants. "Tubes: Break off the sealed ends of the tube, and blow out the lymph on the point of the lancet. If there is any difficulty in blowing the lymph out of the tube, first immerse the tube for a few seconds in warm water. Glasses: Mix the lymph with a small quantity of a solution of glycerine and water (equal parts) on the glass, and carefully rub to a fine pulp. Points: plunge quickly the points into tepid water; and, after taking them out, allow the vaccine to soften for two or three minutes. Carefully rub the lymph into the abraded surface on the child's arm with the ivory point. In making the incision on the child's arm, be careful only to penetrate the epidermis. If blood flows, allow it to dry up, and most carefully rub the lymph into the abraded spot. Calf-lymph requires to be much more carefully rubbed into the wound than humanised lymph does." With each glass tube a packet of points is enveloped in a wrapper, upon which is inscribed the number of the calf as registered by Dr. Cook, and the date of the removal of the preserved lymph. Should the Government start a station in London, and supply calf-lymph instead of animal vaccine from the National Vaccine Institution, Dr. Cook would be ready to give up his establishment; but till then he hopes to keep it going, and to benefit humanity by the supply of a material superior and safer in many respects to that which is usually employed in vaccination.

CLINICAL SOCIETY OF LONDON.

AT the meeting of the Clinical Society, which took place on Friday last, January 28th, Mr. Lister, the newly elected President of the Society, occupied the chair for the first time, and delivered an address on the catgut ligature, a *verbatim* report of the first part of which will be found at page 183 of this present issue of the JOURNAL. The address was received with marked attention, and occupied nearly the whole time of the meeting. At its termination, Mr. Jonathan Hutchinson proposed a vote of thanks to Mr. Lister; the proposition being seconded by Mr. Christopher Heath, and carried with much applause. Mr. Heath, in the course of his remarks, suggested that the discussion on the President's address should be deferred to some future date, after opportunity should have been given to the members of the Society to make trial of the methods recommended by Mr. Lister for the preparation of the ligatures. Such a plan of procedure will probably, therefore, commend itself to the members of the Society; and the results of the suggestions made by Mr. Lister will be anxiously anticipated by the profession at large.

TREATMENT OF SUPPURATION OF THE KNEE-JOINT.

A SERIES of cases of more than usual clinical interest were brought before the Medical Society of London last Monday evening, showing the good result which may follow the effect of free incisions into, with subsequent drainage of the suppurating knee-joint, even without the employment of special antiseptic precautions. Dr. Alder Smith brought one such case there, and Mr. E. Owen three. In each instance the movements of the knee-joint remained but little, if at all, impaired. The President (Mr. Gant) remarked that the patients which were there exhibited formed a most interesting surgical spectacle. All four cases were those of children; but we understand that other patients, adults, in whom equally good results have occurred, are likely to be exhibited at a future meeting of the Society.

INHUMANITY TO PRISONERS ON TRIAL.

AT the Manchester Assizes, on Friday, January 27th, during the trial of Wallace Rennie, proprietor of the *Oldham Chronicle*, on a charge of libel, Mr. Justice Field refused the application of Mr. Pope, Q.C., that the prisoner should be accommodated with a seat in the dock; saying that he could make no difference between A. and B., but must obey the law. Judicial impartiality is, of course, an admirable quality; but, with reference to the matter in question, it might, we think, without impropriety, lean to mercy's side, and permit A. and B., and all the other letters of the alphabet, the cheap privilege of a chair while they are on their trial for any offence or crime. We know nothing of the law on the subject, which Mr. Justice Field is bound to obey; and

strongly suspect that it is only the law of a bad custom—a relic of those times when a prisoner on trial for felony was not allowed the services of counsel. If there be a law, however, that prisoners must stand while on trial, the sooner it is altered the better. It is, of course, seemly and proper that they should stand while pleading, asking questions, addressing the court, or receiving sentence; but, at all other stages of the trial, they should be provided with a seat—and a comfortable seat, too—which will free them from the distractions of physical uneasiness at a time when they ought to have all their wits about them. Until found guilty, prisoners are presumed to be innocent; and it is intolerable that, while still unconvicted, and while, perhaps, harassed by the most painful emotions, they should be subjected to the inconvenience and indignity, and to what is, indeed, sometimes the torture, of standing and maintaining bodily equilibrium for, perhaps, many hours together. To be the "cynosure of neighbouring eyes", in a dingy and badly ventilated court of justice, while the issues of guilt and innocence tremble in the balance, is in itself a sufficiently painful experience, without adding to it the gratuitous suffering of fatigue. If the judges imagine that halberdiers and marshals, and full-bottomed wigs ("old-fashioned rubbish" they were designated in the House of Commons last session, by a gentleman who is now himself a judge), help to maintain the majesty of law, let such harmless, though somewhat expensive, pomp and panoply be preserved in pristine grandeur; but surely no problematical notions as to the dignity of the bench, and the deference due to it, can in these days be permitted to lead to the infliction of cruelty. No doubt, judges and magistrates are often considerate and kind, and readily assent to an application for a seat, or even themselves suggest that one should be supplied, where bodily weakness is clearly perceptible. But "evil is wrought by want of thought, as much as by want of heart"; and many a poor trembling wretch, with no very obvious outward indications of debility, is left painfully clinging to the dock-rail for support during a protracted trial. Lamentable instances might probably be referred to, in which pregnant women and diseased persons have suffered serious injury from being compelled to stand during a trial, when they were in a state of acute mental tension, and ill able to sustain, in addition, severe muscular exertion. We think steps should be taken immediately by the Home Secretary, or by Parliament, if need be, to ensure that henceforth seats shall be provided for all prisoners undergoing trial.

MEDICAL REFORM BILLS.

We have reason to believe that Mr. Mundella will shortly move for the reappointment of the Select Committee on Medical Reform; and that Mr. Hardcastle's and Mr. Errington's Bills will be referred to it for consideration and report. This decision we cannot but consider as eminently satisfactory; and the publication of the evidence taken from so considerable a variety of sources, combined with the official summing up, will be looked forward to with great interest by the profession.

REVACCINATION IN THE METROPOLIS.

In view of the present recrudescence of small-pox in London, the Local Government Board have issued a circular letter to the various metropolitan boards of guardians, urging increased energy in looking up defaulters, and in securing the prompt vaccination of children as soon as they become legally liable to the performance of the operation. They urge, also, that means should be taken for making known the great importance of revaccination at or after the age of puberty. In addition to the well known experience of the London Small-pox Hospital (dating from 1835) of the protective effects of revaccination as regards the nurses and servants of that institution, the Board refer to that of the Metropolitan Asylums Board, which shows that, of the numerous nurses employed by the managers in their large hospitals, although such nurses inevitably come into contact with cases of small-pox of the most malignant type, not one has ever died from that disease; and, in the three or four instances in which they have contracted it, it has shown itself in a very modified form. It has been the practice to revaccinate these nurses on their entering upon their duties, but not to repeat the operation; showing that revaccination, properly performed, affords almost absolute protection from small-pox, and entire immunity from fatal attacks of that disease. The Board might have added that the same experience as to protective effects of revaccination is to be found in the armies and navies of this and other countries when revaccination is obligatory on admission into those services. As regards Great Britain, the experience is very striking; and those who care to study the actual figures on the subject, may do so in the Army and Navy Medical Reports, or in the abstract which was prepared by Mr. Ernest Hart for *The Truth about Vaccination*.

THE METROPOLITAN HOSPITAL SUNDAY FUND.

The eighth report of this fund has recently been issued. The past year has been noteworthy, because the sum collected, £30,424, was the largest amount ever obtained on Hospital Sunday in the metropolis; and also because the expenses of management have been reduced to a little over 3½ per cent. of the receipts—a great improvement on former years. It is noteworthy that these management expenses include, for the first, and, we hope, for the last, time, the rent and incidental expenses of maintaining an office, in addition to a goodly extra sum incurred, for the first time, by the additional necessary expenses in connection with the scheme for providing surgical appliances for hospital patients. This last scheme has worked admirably; and the Council have wisely decided to devote two per cent., instead of one per cent. as heretofore, of the receipts to this useful purpose. The regulations for the supply of surgical appliances through this fund are so admirably simple, that we hope they will be adopted by the Surgical Appliances and Truss Societies. Unless these latter institutions abolish the ticket system, and decide to do more work in a less restrictive way, they will, we fear, soon find their occupation gone; as the public will cease to subscribe to maintain a system which has been proved to be harsh and undesirable in practice. We cannot look with favour upon the appeal for legacies which the Council have made this year for the first time. They have no claim to such bequests; their function is to criticise, and, as far as possible, by a wise distribution of the funds entrusted to them, to prevent the mismanagement of the metropolitan medical charities. If they are to acquire invested property and considerable bequests, we fear this useful function will be seriously impeded, and that the collections in the places of worship will gradually diminish in consequence.

OLEO-MARGARINE.

The question asked in the House of Commons by Sir H. Maxwell, on Tuesday last, may be taken as a sign of the growing interest excited in this country with regard to the artificial butters, known as "oleo-margarine", "butterine", "bosh-butter", "juene", and other names, that are now being so largely exported from America. In the United States, the battle of genuine *versus* artificial butter has, for some years, been raging with great fury; and, in an instructive Parliamentary paper issued by the Board of Trade last session, reports and chemical analyses appeared, side by side, demonstrating the perfect wholesomeness of oleo-margarine, and its extreme unwholesomeness. The language used by both parties was such as to render it almost impossible to form an unbiassed judgment as to the purity or otherwise of the products in question; and their wholesomeness, therefore, as articles of food, must still be regarded as a moot point. Whatever be their quality, however, the fact cannot be blinked that enormous quantities are being increasingly exported from the States for sale in this and other countries. Mr. A. E. Bateman, one of the officials of the Board of Trade, shows, in a letter just printed as a Parliamentary paper, that, during the first nine months of 1880, no less than 15¾ millions of pounds of admitted oleo-margarine (to say nothing of the further amounts fraudulently shipped as genuine butter) were exported from the port of New York alone. Rotterdam took the greater part of these shipments; but Antwerp, London, Liverpool, and especially Glasgow, are also credited with very large consignments. In Holland, the oleo-margarine is mixed with milk and colouring agents, to give it

a resemblance to butter; and is then churned and converted into butterine, and reshipped, chiefly to this country. There can, indeed, be no sort of doubt that a vast proportion of the cheaper butter now on sale is, to a great extent, composed of this substance; and it is significant as showing the need that is being felt for some supervision over its sale, that, in the local Bill promoted by the Town Council of Birkenhead this session, is a section (No. 487) proposing to give the medical officer of health, or inspector of nuisances, the same powers of inspecting "butterine, or any preparation intended to represent butter", as with regard to unsound meat. So long as butterine is sold as such, there is, of course, no fraud on the consumer; but it seems certain that it is customarily sold as genuine butter. In that case, it will, of course, come within the provisions of the Sale of Food and Drugs Acts; and since it seems, from the published reports, that the expense of the manufacture of oleo-margarine is but little less than that of genuine butter, its sale under its right name would probably not be sufficiently remunerative in this country for it to displace butter in public estimation to any serious extent.

AMERICAN PORK.

A LARGE consignment of pork from New York has been seized at Lyons, and its sale for human consumption interdicted, on account of the presence in the meat of trichina spiralis. Microscopical examination of fifty samples, taken from different casks, resulted in the discovery of encysted trichinæ in three: a proportion that, supposing the samples to be representative of the whole consignment, would represent no less than six per cent. of the pieces as infected by the parasite.

THE WEIGHTS AND MEASURES ACT.

ELIAS CHARLES WHITTLE, of Townshend Road, St. John's Wood, chemist and druggist, appealed at the Middlesex Sessions, against a conviction of Messrs. Bernard and Ross for having in his possession four defective minim medical measures. The proceedings were taken under the Weights and Measures Act, 41 and 42 Vic. cap. 49 sec. 25, which recites that every person who uses or has in his possession for use, any weight, measure, scale, balance, etc., which is false or unjust, shall be liable to a fine not exceeding £5, and for a second offence £10. The magistrates inflicted a fine of only sixpence, for the purpose of sending the case to another Court for decision. This was the first prosecution under the Act of any person carrying on the business of a chemist and druggist. The proceedings were instituted in answer to a summons taken out by Mr. F. W. Tibbey, inspector of weights and measures for Marylebone, and from his information it appeared that the four minim measures referred to were from 1½ to 2 minims deficient in quantity. On the part of the respondent magistrates, it was urged that under the recent Act it became incumbent on the part of chemists and druggists dispensing drugs to be most accurate in the quantities required, as serious consequences might otherwise ensue. On the other side it was argued that if the measures were properly stamped, and had passed the inspector, the tradesman who purchased them was relieved of all liability, even if on examination they were found to be not strictly accurate; and, further, that the slight difference that was found, was by no means serious in its effect. In answer to this, the respondents' counsel, Messrs. Poland and Mead, urged that they relied upon the words of the Act of Parliament, which rendered any one liable to a penalty who used any false measure, or had such a measure in his possession. A long legal and technical discussion took place as to the meaning of the Act and of the word "false" as used in a penal enactment, one side contending that "false" meant fraudulent, and the other that it only meant inaccurate, but no determination was come to upon it. A number of engravers of medical glass were called as witnesses for the respondents, and they stated that by means of the pipette there was no difficulty in making either conical or cylindrical glasses correctly, and that there ought not to be a variation of more than half a minim in fifty minims. Since the passing of the Act referred to, additional precautions in marking were required, but all these witnesses stated that when the marked glasses passed the inspector they presumed that they were correct. The Assistant Judge said that, after hearing the arguments of all the learned counsel, the court were of opinion that the conviction must be quashed, as there was no proof that the tradesman was in possession (according to the terms of the Act) of false or unjust measures, as they were stamped by the Government inspector.

THE HOMERTON SMALL-POX HOSPITAL.

A DEPUTATION of the inhabitants of Homerton waited on the Right Hon. H. Fawcett, M.P., and Mr. John Holms, M.P., the members for Hackney, on Thursday last, in the conference room of the House of Commons, with respect to the extension of the Homerton Small-Pox Hospital. The deputation was introduced by Mr. J. J. Jones, of the London School Board, who stated that this hospital was situate in a densely crowded district, and, besides endangering the health of the locality, was a serious hindrance to business, and depreciated the value of property in the neighbourhood. Several other members of the deputation addressed the right hon. and hon. gentlemen, who consented to accompany the deputation to the Metropolitan Asylums Board, and to recommend that the Homerton Hospital should be only used for cases occurring in the borough of Hackney.

FATAL CAB ACCIDENT.

A SAD accident has cut short the career of a very promising young man, who had but just qualified himself to enter on the active duties of his profession. Mr. Ernest Craven Lunn, youngest son of Dr. W. J. Lunn of Hull, on Thursday, the 20th ultimo, passed his final examination for membership at the Royal College of Surgeons. On the following Tuesday evening he accompanied a lady, to whom he was engaged, to the Gaiety Theatre. After the performance was over, and while they were crossing the Strand, a cab came dashing along; and, in order to protect the young lady, Mr. Lunn stepped forward, and was struck on the head and thrown to the ground. On being removed to King's College Hospital, Mr. Lunn was found to be in an insensible condition, suffering from fracture of the skull and ribs, and other injuries. His brother, Mr. J. Reuben Lunn (one of the house-surgeons to St. Thomas's Hospital) was sent for, and he was accompanied by Mr. Bellamy to King's College Hospital, but his brother expired just before their arrival. Mr. E. C. Lunn had studied at St. Thomas's Hospital, where he had held all the appointments tenable by students.

SUPPLY OF SEA-WATER TO LONDON.

A PROJECT is now before Parliament by which it is proposed that the sea-water shall be taken from the English Channel, at Lancing, about eight miles west of Brighton, and, after being pumped to a sufficient height, will gravitate to London. The roads and streets, along which it is proposed to lay the mains, are macadamised, no paved roads being interfered with. The pipes between Putney and Walham Green will be ten inches in diameter, other pipes in London will not exceed six inches in diameter. The water will be discharged in Battersea, Hammersmith (near Addison Road station), and in Victoria Street, Westminster. At each of those places, bathing establishments, comprising two swimming baths of one hundred and fifty feet by fifty feet each, and numerous private warm baths, will be erected. At six of the principal swimming baths in London, five charging 6d. and one 1s., the daily average for one hundred and twenty days in the year is eight hundred bathers at each bath. It is proposed to charge for the swimming baths, 6d. first class, and 3d. second class, and, providing the School-Board for London approve the project, as affording opportunity for children attending the board-schools to learn swimming, 1d. for each child. Within a radius of one mile from each bathing establishment, it is estimated that there are not fewer than twelve board schools, numbering five thousand boys above the age of ten; two thousand of these children would, probably, under certain regulations, use the baths at stated intervals. Depôts will be established, and stand-pipes erected for the distribution of the water for use in private dwellings, hotels and hospitals. The charge will be one halfpenny per gallon if delivered, and less if

taken at the depôt, and to large consumers it will be 2s. 6d. per thousand gallons. Provision is made by the Bill to lay, subject to the sanction of the local authorities, distributing pipes, to convey the water into private houses. Applications for a continual supply of sea-water were received last year from householders and hotel-proprietors, whose consumption would have yielded to the company an income of £2,500 a year. It affords strong evidence of the desire on the part of the public to have a supply of pure sea-water placed within their reach. Over one hundred physicians communicated their approval of the project as an important sanitary measure, and one which would be highly beneficial to the health of residents in London.

VACCINATION AT SHOREDITCH.

In consequence of a communication from the Local Government Board, the Shoreditch Board of Guardians now recommend that the vaccination offices should be kept open in the evenings as well as the mornings of the regular vaccination days; and that bills should be circulated and posted throughout the parish to that effect, for the benefit of the artisan class. They also advise that each child born in the infirmary should be, with the approval of the medical officer, vaccinated fourteen days after birth; and that children entering the house be vaccinated, if the operation has not been previously performed.

THE SYNOPTIC STUDY OF WEATHER.

A publication of the Meteorological Office is mentioned by *Nature* as serving to mark the advance in meteorological theory, which has been achieved during the last fifteen years. The old "Barometer Manual and Weather Guide" of the Board of Trade has been replaced, so far as it relates to the weather of the British Isles, by a work entitled *Aids to the Study and Forecast of Weather*, prepared, under the direction of the Meteorological Office, by the Rev. W. Clement Ley. Though some of the views put forward in the later work may, perhaps, be regarded as not sufficiently established by observation, yet a comparison of the two works cannot fail to leave upon the reader's mind the impression that, in the interval between their respective dates of publication, some real progress has been made in meteorology. Perhaps this is most conspicuous in the enlarged ideas that are now entertained concerning the conditions upon which the changes of weather depend. Local weather was first discovered to be contingent upon travelling areas of disturbance, each of which averaged many hundreds of miles in diameter; while, at the present time, the relation of these areas to one another, as parts of a single terrestrial system, has become a prominent topic of inquiry. If meteorology has thus been, to a certain extent, rescued from the ever-accumulating chaos of numerical tabulations, which threatened to engulf the whole science, the improvement is mainly due to the development, in recent times, of the synoptic study of weather over large regions of the earth's surface, to which a great impetus has been given by the extended facilities of telegraphic communication.

MEDICAL INSPECTIONS OF THE LOCAL GOVERNMENT BOARD.

A very important and instructive return, prepared by the Local Government Board, with regard to the medical inspections made under their directions during the last ten years, was issued as a Parliamentary paper on January 26th. The return was moved for in the last Parliament by Lord Sherbrooke, then Mr. Lowe; but, having become a dropped order, was revived last session by Mr. Alexander Brown, the member for Wenlock. It gives the names and populations of the places inspected, the grounds on which each inspection was made, the chief facts brought out by the inquiry, and the action taken thereon by the local authorities concerned. It is, of course, in the facts given under the last heading that the real interest of the return lies; and there is opportunity for much profitable study in the information given on this subject. We shall have occasion to refer more in detail to this return on a future occasion; but meanwhile may note the extreme feebleness of the measures of improvement that have, in many cases, followed the visit of the inspector. This, no doubt, is mainly the fault of the local authorities concerned; but it may be doubted whether, if the Local Government Board were more firm in pressing their recommendations and requirements, so pitiable a record of action taken would appear in the return. The Blue-book relates to nearly 400 places or sanitary districts.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

The annual meeting of this Association was held on Wednesday, January 6th, at 8.30 P.M., when the Treasurer announced that the finances of the Society were in a most prosperous condition; and the retiring President (Mr. W. A. N. Cattlin, F.R.C.S.) delivered an able address "On the Imperfections of the Dentists' Act, with suggestions as to the alterations required to protect the interests of qualified surgeons". The following is a list of the newly elected officers of the Society. *President:* T. Edgelow, Esq. *Vice-Presidents;* J. A. Baker, Esq.; Samuel Cartwright, Esq.; W. A. N. Cattlin, Esq.; F. B. Imlach, Esq.; S. J. A. Salter, Esq., F.R.S.; and John Smith, M.D., F.R.S.Ed. *Treasurer:* S. H. Cartwright, Esq. *Honorary Secretary:* J. Hamilton Craigie, Esq. *Council:* E. Bartlett, Esq.; T. Fairbank, Esq.; Francis Fox, Esq.; C. Gaine, Esq. (Bath); W. A. Hunt, Esq. (Yeovil); W. D. Napier, Esq.; W. G. Ranger, Esq.; and A. Winterbottom, Esq.

LIGATURE OF THE CAROTID AND SUBCLAVIAN ARTERIES.

On Monday, January 31st, Mr. Howard Marsh ligatured the right carotid and subclavian arteries in a man aged thirty, the subject of intrathoracic aneurism, involving the innominate artery, and probably part of the aorta. The operation was performed, with antiseptic precautions, at St. Bartholomew's Hospital; and Dr. Macewen's chromicised catgut ligatures were employed. Considering previous results, the fact of antiseptic precautions being employed, and, lastly, the crucial test to which the newly invented ligature (fully described by its inventor in last week's number of the British Medical Journal) has been, in this instance, subjected, Mr. Marsh's operation cannot fail greatly to interest surgeons abroad as well as in the British isles.

LEGISLATION ON COLOUR-BLINDNESS.

In the last session of Congress of the United States at Washington, the committee on naval affairs reported a Bill in support of a proposed international commission to agree upon standard tests for colour-blindness and visual power in navies and mercantile marines, and standard requirements of these faculties. Resolutions in recommendation of this commission have been passed by the American Ophthalmological Society at their Newport meeting, the ophthalmological section of the British Medical Association at Cambridge, and the International Congress of Ophthalmology at Milan. The next United States Congress will act on this Bill to initiate the commission.

THE TELEPHONE AND MICROPHONE IN MEDICINE.

In an interesting discussion of the causes of the failure of these instruments to fulfil the expectations which had been avowed of their clinical value, Dr. C. J. Blake, in the *Boston Medical Journal*, concludes that, for successful auscultation, a microphone must be constructed which will respond only to very low tones of slight intensity, the contact-surfaces of which shall not be subject to slight mechanical disturbance, and the adjustment of which shall be fairly permanent. In view of the work in electrical sound transmission, during the past four years, no one would be so rash as to assert that these conditions cannot be fulfilled. The reasons for the failure in auscultation stated by Dr. Blake are these.—1. In the telephone, there is very considerable loss of power in the transmission of sound. In a series of experiments made for another purpose, in 1878, it was found that, in response to a tone of 448 vibrations, the centre of the disc of the transmitting telephone, without the magnet, moved through a space of 0.2625 millimétre, while the disc of the receiving telephone made a corresponding movement of only 0.0135 millimétre, a loss in motion of 92.9 per cent. between the two telephone discs. With so great a loss by telephonic transmission in a tone of considerable intensity, it is alleged that the proportion of so weak and dull a sound as that of the

heart, its overtones damped by transmission through soft tissues, given forth by the receiving telephone, would be inaudible to the human ear. 2. While the telephone creates its own current of electricity, a certain proportion of the working force which moves the disc of the transmitting instrument being expended in this operation, the microphone takes a current already provided by a battery, and merely varies the amount of the current passing from one to the other of its opposing contact surfaces. The whole of the motive force therefore, generally speaking, is expended in varying the resistance. With this great saving, the instrument is much more susceptible to very slight sounds, but it is also fatally susceptible to the influence of very slight mechanical movements which vary the relations of the contact surfaces to each other, thereby varying the amount of current passing, and producing corresponding sounds in the telephone. These sounds are usually very loud and sharp, and interfere materially with the hearing as well as with the transmission of regular musical tones. It may be briefly put, that for the delicate purpose in question the telephone transmits too little, and the microphone, in any of its present forms, transmits too much. Several microphones and sphygmophones for auscultation have been constructed in France and Germany. Dr. Blakes says that he has had no opportunity to experiment with them, but from the details of their construction they do not differ essentially from those used in these experiments, and he is disposed to judge them to be open to the same objections.

THE LEGION OF HONOUR.

PROFESSOR WURTZ has been promoted to the rank of grand officer of the Legion of Honour. M. de Quatrefages, professor in the Museum of Paris; M. Worms, formerly principal medical officer; and M. Hémand, principal medical officer at the Military Hospital at Vincennes, have been made commanders of the order; and the rank of officer has been conferred on MM. Legrand du Saulle (of the Salpêtrière), Gaujot, Villemin (of Val-de-Grâce); Marcessac, Lagreula, and Tourraine (of the army); and Romain and Richard (of the navy). M. Bouchard, professor in the Faculty of Medicine in Paris, and several military and naval medical officers, have been made knights of the order.

SCOTLAND.

MR. W. GRANT, M.R.C.S., of Blantyre, has been placed on the list of Justices of the Peace for Lanarkshire.

THE Samaritan Society, which conducts its beneficent operations in the Edinburgh Infirmary, has during the last year extended its benefits to 150 patients, to the amount of £463, and has at present a balance of £247.

THE ROYAL HOSPITAL FOR SICK CHILDREN, EDINBURGH.

THE report for 1880 submitted at the annual meeting of the contributors to the Sick Children's Hospital, which was held on January 21st, shows that during the year 546 children had been treated in the wards of the hospital: a large increase on the previous year, when 114 fewer were indoor patients. Of 503 patients admitted, 186 had been cases of zymotic disease, of which no fewer than 128 were scarlet fever. To the large number of bad cases of scarlet fever the greatly increased mortality among the patients is largely due, as, out of 96 deaths, 35 were from scarlet fever. Some of these must have been almost moribund on admission, as 9 of them died within twelve hours of admission, and other 9 within twenty-four hours of admission, while others only survived a few days. Of these 35 deaths, 7 occurred during the first two-thirds of the year; the remaining 80 per cent. occurred during the latter third. Pulmonary diseases caused 23 deaths, fully a half of these being due to pneumonia. In the outdoor department, 6,612 cases had been treated—an increase of 1,651 over the preceding year. The total number treated at the hospital was 7,158; and since the opening of the hospital, twenty-one years ago, 99,753 have received treatment. The maximum number of applicants in one month (August) was 873, and the minimum in December (310). The financial report showed that increased effort and liberality would be necessary to enable the institution to overtake the large responsibilities incurred by the increase of applicants for its benefits. In connection with this, it may be noticed that the Earl and Countess of Breadalbane have intimated an annual donation of £25 towards the support of two "Taymouth Beds" in the hospital, and expressed their desire to be added to the list of patrons of the institution.

EDINBURGH DENTAL HOSPITAL AND SCHOOL.

AT the annual meeting of directors and subscribers to the Edinburgh Dental Hospital, Dr. Alexander Peddie was appointed consulting physician, in place of Professor Sanders, who is at present incapacitated by illness. From the directors' report it is seen that, during the year, 2,000 males and 2,433 females applied at the Dental Hospital for treatment. Details are given of the trades and occupations of the patients. Of course the greater number came for extraction of teeth; but no fewer than 153 cases had been treated by stopping the teeth, and various cases of cleft palate and malformation were dealt with. The number of students attending was as satisfactory as could be expected during the second year of the institution, and their attendance at the hospital had been all that could be desired. Mr. Macleod was appointed Dean and Treasurer, and Mr. J. K. Chisholm Dental Secretary. The dental staff was reappointed, and voted the thanks of the meeting. Financially, the institution is in a satisfactory condition.

THE ABERDEEN TOWN COUNCIL AND THE UNIVERSITY MEDICAL BURSARIES.

THE Endowed Institutions and Educational Committee of the Town Council, to whom a remit was made to carry into effect the Provisional Order under the Endowed Institutions' Act, met last week, and had before them a memorial from the Faculty of Medicine, recommending that the tenure of the medical bursaries should be three years instead of four, and that students be examined at the end of the first year of their study upon the subjects which they are taught during that year, instead of being examined at their entrance as hitherto. The Town Council proposed to give £220 to the Medical Faculty, but the Commissioners reduced that to £160. The committee resolved to abide by the instructions of the Town Council, which embodied the recommendation that the tenure of the bursaries should be three years, but to make no recommendation to the Home Secretary as to adding to the bursaries.

THE GLASGOW EYE INFIRMARY.

THE annual meeting of the subscribers to the above institution was held on January 28th, when the annual report was read and approved. From this report, it appears that the total number of cases dealt with during the past year was 9,521, as against 8,814 in the previous year, showing an increase of 707. Of these cases, there were dismissed cured by ordinary treatment, 4,899; cured by operation, 839; relieved by ordinary treatment, 847; relieved by operation, 125; incurable, 34; dismissed, 35; remaining under treatment, 2,742. Of the aggregate number of cases dealt with, 5,117 were treated in Berkeley Street, and 4,404 in Charlotte Street. The financial statement showed an excess of income over expenditure, and there had been increase in all the departments of revenue, especially in the contributions of the artisan class, for whose benefit the institution was chiefly designed.

THE GLASGOW LOCK HOSPITAL.

THE annual general meeting of the supporters of the above institution was held on January 25th, when the seventy-fifth annual report was read and approved. From this report, it appeared that there had been an increase in the number of admissions over the previous year to the extent of 42. During the year, the total number treated was 414, of whom 390 were dismissed cured, and 24 are still under treatment. The average time each patient remained in the house was twenty-six days, and the average cost of each patient dismissed cured was £1 14s. 6d. The annual return of the admissions showed that the largest number of

the patients were young persons, and the average age of the whole dismissed cured did not exceed 21½ years. From the medical officers' report, it appears that the disease for the cure of which the hospital was opened has become milder in its type, and its prevalence has also become greatly diminished.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending January 22nd, it appears that the death-rate in the eight principal towns was 31.1 per 1000 of estimated population. This rate is 9.4 above that for the corresponding week of last year, and 6.5 above that for the previous week of the present year. The lowest mortality was recorded in Edinburgh—viz., 21.4 per 1000; and the highest in Paisley —viz., 38.1 per 1000. The mortality from the seven most familiar zymotic diseases was at the rate of 4.2 per 1000, being a slight increase on the rate for last week. Acute diseases of the chest caused 307 deaths, or 116 more than for the previous week. The increase in these diseases occurred chiefly in Glasgow and in Dundee, being 94 in the former and 17 in the latter town. The mean temperature was 21.7°, being 2.2° below that for the week immediately preceding, and 11.9° below that for the corresponding week of last year.

LECTURES AND DEMONSTRATIONS ON COOKERY.

THE importance of a knowledge of the *cuisine* of the sick-room is becoming more appreciated daily. Important evidence of this is given in the fact that a course of lectures and demonstrations on the subject to medical students and practitioners has been commenced in the Edinburgh School. The course was inaugurated in the large theatre of the Edinburgh Royal Infirmary on Saturday, January 22nd, when Professor Fraser presided and introduced the teachers. In doing so, he spoke of the importance of medical men thoroughly understanding the preparation of suitable food for invalids, and paid a just tribute to the Edinburgh School of Cookery for the good work it has already achieved towards other members of society. The teachers then proceeded to prepare and cook certain articles; and these, when ready, were submitted to the critical and gustatory examination of the audience. The demonstration was successful, and earned a hearty vote of thanks. The second demonstration was on Saturday last.

GLASGOW ROYAL INFIRMARY.

THE annual general meeting of the subscribers to the above hospital was held on January 31st; and from the report, which was adopted, it appears that the whole number of patients treated in the infirmary during the year was 5,593, of whom 2,534 were medical cases, and 3,059 surgical. Of the former, 297 died, giving a mortality of 12.7 per cent.; and of the latter, 177 died, giving a mortality of 6.4. The total mortality of all the patients treated to a conclusion in the hospital was 9.3 per cent.; but, deducting the 147 deaths which occurred within forty-eight hours after admission, the mortality is reduced from 9.3 to 6.6 per cent. The number of out-patients treated at the dispensary was 21,232, of whom 10,515 were medical, and 10,715 surgical. The grand total of patients treated during the past year in all the different departments was 31,676, against 32,534 in the previous year. From the financial statement, it appears that the expenditure had exceeded the revenue by £4,000, and an earnest appeal is made by the directors to the public for increased funds. The report also shows that not only was the accommodation found inadequate during the year, notwithstanding the greatest economy of space, but that, if the directors had regulated the accommodation by the subscriptions, not more than two-thirds of last year's cases could have been received.

THE CRICHTON ROYAL INSTITUTION AND SOUTHERN COUNTIES ASYLUM.

THE Crichton Royal Institution, which, since its incorporation by Act of Parliament in 1840, has proved itself a worthy memorial of its founder, the late Dr. Crichton, of Friars Carse, Dumfries, is under considerable alterations and improvements, rendered necessary by its increasing popularity and the greater demands upon its resources. The establishment of local lunacy boards, to make provision for the reception of pauper lunatics, led to an arrangement being entered into between the counties of Dumfries, Kirkcudbright, and Wigtown, and the trustees of this institution, which resulted in the erection of a separate asylum, in close proximity, for the benefit of pauper lunatics, and which is now known as the Southern Counties Asylum. With a splendid endowment and other advantages, its benefits soon exceeded the limitation of its early contemplations. The doors of this institution are now open to wealthy patients, who have shown a readiness to avail themselves of its advantages, while the gains thus obtained have gone toward the reduction of the charge to the middle class of patients. There are, we understand from a contemporary, 156 patients in the Crichton, and 356 in the Southern Counties Asylum; while the patients and their attendants, and the servants, form a considerable community by themselves. Cattle are killed, and bread is baked, within the walls of the estate; there is a resident chaplain, and a periodical that appears, as its name indicates, with *The New Moon;* there are literary and natural history societies, and field-sport clubs; there is an elegant recreation-hall, as well as two chapels; there are drivings and junketings beyond the estate, and an endless series of entertainments within. Under Dr. Adam, the present medical superintendent, important changes have been introduced. The drawing-room, library, and billiard-room accommodation has been extended; the patients dine, as far as practicable, together, *à la Russe;* and the attendants, who used to dine with them, now dine after them, and in another part of the house, a proper social distinction thus being preserved. The corridors and galleries have been papered and painted, adorned with pictures and statuettes; and, where it was needed, the light has been increased. The bedrooms and parlours have been similarly improved. In the Southern Counties Asylum, the work of renovation, more needed, is being conducted on a larger scale, and there the improvement is more manifest. The tendency of the whole is to increase the comfort of the patients, to conserve material, and to promote a salutary discipline in the numerous staff.

IRELAND.

THE EPIDEMIC OF FEVER IN TANDRAGEE.

AT a meeting of the Banbridge Board of Guardians on last Monday, Dr. James Taylor, medical officer of Tandragee Dispensary District, reported that the epidemic of typhoid fever which has existed in his district for the past six weeks was almost entirely abated. The following numbers show the weekly rate at which the cases occurred. First week, December 10th to 17th, 1880, 22 cases; second week, December 17th to 24th, 38; third week, December 24th to January 1st, 1881, 30; fourth week, January 1st to 8th, 26; fifth week, January 8th to 15th, 7; sixth week, January 15th to 22nd, 3; total cases for six weeks, 126. The deaths up to same date have been 14; of which number 7 occurred among dispensary patients.

IRISH MEDICAL ASSOCIATION.

THE following resolutions were passed at the special general meeting of this Association, held on the 15th ultimo. 1. That a superannuation allowance of the full pay and emoluments should be claimable as a matter of right, upon retirement, by all medical officers of the Poor-law Service who have served forty years. 2. That a superannuation allowance of two-thirds of the salary and emoluments should be claimable as a matter of right, upon retirement, by all medical officers of the Poor-law Service who have served thirty years, or who have become incapable of performing their duties with efficiency, by reason of old age (such age being not less than sixty years) or permanent infirmity of mind or body. 3. That any medical officer in the Poor-law Service not qualified as aforesaid to claim the maximal pension, shall be entitled, upon retirement at any time after a period of ten years' service, to a retiring allowance of one-fortieth of his salaries and emoluments at the time of his retirement for every year served.

4. That the period of service of a medical officer in the Poor-law Service shall comprise all the years he held office as such, whether in one or more unions, and that his superannuation allowance shall be computed thereon; the Local Government Board having power (in the event of such officer having served in more than one union) to decide whether his pension shall be payable wholly by the union in which said officer last served, or partly by each said union, proportionately or otherwise, as the said board shall deem expedient. 5. That the Committee of Council do take immediate steps to have a Bill embodying these resolutions drafted by Council, and submitted to Parliament; and that the Committee of Council are hereby authorised to accept, on behalf of this Association, the best terms obtainable, after due exertion, for a system of compulsory superannuation on the lines above laid down, or as near thereto as may be.

HOSPITAL SUNDAY IN DUBLIN.

At the annual meeting of the council of this fund held yesterday, a decline in the amount collected last year was announced. Collections were made in 229 places of worship, being three less than in the previous year. Thirteen churches, which in 1879 yielded £40 2s. 11d., had no collection in aid of the fund in 1880, while ten churches which had not collections in 1879, contributed to the fund in 1880, to the amount of £64 2s. 2d. The total amount contributed by congregations and individuals in 1880 was £4,050 7s. 9d., which shows a decrease of £264 11s. as compared with 1879. The amount collected from congregations in addition was £3,757 16s. 3d., against £4,034 2s., showing a decrease of £276 5s. 9d.

SAMARITAN HOSPITAL, BELFAST.

The annual meeting of the friends of this institution was held on the 26th instant, presided over by the Mayor of Belfast. The chairman stated that he had taken part in laying its foundation-stone, and that he had watched with interest its continued growth and progress. The special forms of disease which the hospital treated brought patients within reach of the most approved medical skill, and had been the means of restoring to health many who otherwise would not have been able to secure the great care necessary in their treatment. During the past year, 1,401 persons were treated in the hospital (at an expenditure of £700), of which number 169 were intern patients; being an increase in the latter of 49 over the preceding year. In the free ward, 64 patients were under treatment, the average number of days for each free patient in hospital being twenty-seven. The Rev. Charles Seaver moved a vote of thanks to the physician, Dr. McMordie, and the members of committee, for their attention to their respective duties during the past year. Dr. Browne, J.P., in seconding the motion, which was unanimously adopted, referred to the care and attention Dr. McMordie bestowed upon his duties in connection with the hospital. Five free beds were maintained during the year, at the moderate outlay of £12 6s. each; and were of great service to those unable to contribute to their support in the hospital.

CORK OPHTHALMIC AND AURAL HOSPITAL.

The annual meeting of the above institution was held last week, the chair being occupied by the Mayor of Cork. The Committee, in their annual report, referred to the large amount of good the hospital had effected during the past year. The total expenditure for the year was £480 os. 6d.; of which sum, the intern paying patients contributed £227 15s. 6d. There was a debt of about £70 still due on the hospital, and the Committee appealed to the public for the necessary funds to clear it off; besides this, a new outlay was urgently required for some of the wards, more particularly in the matter of beds. The total expenditure—including establishment charges for each patient treated at the hospital—was five shillings and sixpence. From the surgical report, read by Dr. Macnaughton Jones, we learn that 1,772 patients were treated in the hospital, 200 of whom were admitted into the wards. Of those admitted to the hospital, 5 were discharged as hopeless cases, and 195 were sent out cured or greatly benefited. Five hundred and fifty-six cases of diseases of the ear and throat were relieved or cured. The report states that it was difficult to estimate the total percentage of permanent cures in an ophthalmic hospital, from the migratory character of many of the patients who attended, and the difficulty of following up results; but it was rather under the estimate to place it at from 80 to 90 per cent. of the patients relieved. Clinical instruction was afforded to the students of the Queen's College, Cork, who attended the hospital during the past year. A vote of thanks was given to the medical officers, Dr. Jones and Dr. Atkins, for their services during the year.

ULSTER EYE, EAR, AND THROAT HOSPITAL.

The Mayor of Belfast presided at the annual meeting of this institution, which was held on January 27th, at the hospital. The Committee of Management, in submitting their tenth annual report, stated that the number of new patients treated during the year was 1,949, of which number 146 were admitted as intern patients. The visits of extern patients were 8,777; and the aggregate of the days of the intern patients in hospital amounted to 3,000, being an average of about 20½ days for each patient. Of the 1,949 extern patients, 1,295 paid a nominal fee, and 654 were treated free. In the intern department, some patients were admitted free, but the majority were paid for either by those interested in them or by Poor-law unions; and a total of £209 13s. 5d. was received from intern patients during the past year. The Committee earnestly invited those who had the means to support one or more free beds for the year, and thus to insure the treatment of many deserving cases. Dr. McKeown, the medical officer, said that he had for some time discontinued the practice of giving a tabulated report of the cases treated, as he thought the Committee's report quite sufficient for ordinary purposes; and he reserved to himself the privilege of publishing a special report, dealing with medical and surgical cases, for the members of his own profession. He thought, also, that the real success of an institution of the kind depended on the judgment of the medical profession; and, indeed, the majority of the patients who came there were recommended by doctors in the country, and he wished to give them good grounds for recommending more. He added that they required five or six free beds to meet the necessities of the poor honest people of Belfast, who were deprived of employment through failure of vision; and he would be very glad if funds were provided for these, and he would have no trouble in finding patients. The cost of a free bed is about £20 a year; and we are sure the Committee will have little difficulty in obtaining the requisite amount from the citizens of Belfast, who, as one of the speakers stated, are ever ready to support every charity in which they have full confidence, and in which they find that the funds are properly distributed.

HEALTH OF DUBLIN: QUARTERLY REPORT.

During the quarter ending January 1st last, the number of births registered in the Dublin Registration District amounted to 2,206, being equal to an annual ratio of 1 in 35.7, or 28.0 in every 1000 of the population. The deaths numbered 2,561, affording an annual ratio of 1 in 30.7, or 32.6 in every 1000; omitting the deaths (61) of persons admitted into public institutions from localities outside the district, the rate was 31.8 per 1000. The average number of deaths registered in the fourth quarter of the ten years 1870-79 was 2,130, equivalent to an annual mortality of 27.1 per 1000 persons. There were 515 deaths from zymotic diseases, being 20 per cent. of the deaths from all causes; and equal to an annual rate of 6.5 per 1000 of the population; a number 62 in excess as compared with the corresponding quarter of the ten years 1870-79. Small-pox caused 14 deaths, being 42 under the number registered in the previous quarter; measles, 28, being a decrease of 44 as compared with the third quarter of 1880; scarlatina, 120; diphtheria, 5; whooping-cough, 69; fever, 112, or 35 more than those recorded in the previous quarter; and diarrhœa, 76, against 284 in the September quarter. Convulsions carried off 228 persons; phthisis caused 257 deaths; hydrocephalus, 33; mesenteric disease, 68; cancer,

37; and gout, 4. Diseases of the respiratory organs proved fatal in 524 instances, of which 397 were due to bronchitis, 94 to pneumonia, and 28 to lung-disease unspecified. Fifteen deaths were attributed to cephalitis, 34 to apoplexy, 50 to paralysis, 99 to diseases of the heart and circulatory organs, 6 to jaundice, 26 to liver-disease unspecified, 16 to Bright's disease, and 12 to kidney-disease unspecified. The mean of the mean weekly temperature for the quarter was 42.3°, and the rainfall during the thirteen weeks measured 15.004 inches.

PATHOLOGICAL SOCIETY OF LONDON.

At the meeting of this society on February 1st, the newly-elected president, Dr. Wilks, F.R.S., delivered an address, of which the following is an abstract:—Dr. Wilks, after referring to the unpropitious state of the weather on the evening of the society's last meeting, which had led to the postponement of his inaugural address, said that he had not prepared any set, elaborate oration, nor did the occasion seem to him to demand it. In the first place, he desired to thank the society for the honour which it had done him in electing him to the office of President. Advantage no doubt accrued to the society from the plan of choosing every two years a new President, inasmuch as by that means men with diverse and fresh sympathies were found to lead the society in varying directions, and so prevent it from getting into a groove. Still he could not but feel it to be unfortunate for himself to follow Mr. Jonathan Hutchinson; to succeed one whose knowledge and whose sympathies were so many sided; one who had shown so impartial an appreciation of the value of all branches of pathology that he might, if ever any man might, have served the office of perpetual President. The difference in the proclivities of the various Presidents had shown itself in their inclination to direct the society on the one hand towards the accumulation of details; or on the other, towards the discussion of large and general questions. The interest which these latter discussions excited throughout the profession, and the large audiences which they attracted, testified to their popularity, but Dr. Wilks thought that the profitable work of the society was to be found rather in the exhibition and description of interesting specimens, than in the mere expression of opinions. In this condemnation he did not include the debate on syphilis, or the recent discussion on rickets, for then many specimens were shown, and various members had brought forward original observations. The object with which the society was founded ought to be kept in mind. It seemed to him but the other day that the preliminary meeting was held to discuss its foundation. *Post mortem* examinations were then most imperfectly conducted, and whether they were performed at all or not, depended very much upon the caprice of the physician, who might or might not feel curious to have his diagnosis confirmed. The subject of pathology was not included in the curriculum of medical studies, and this society was founded to give to the workers, especially to the young workers, in what was practically a new science, a place in which to compare and to chronicle their observations. No doubt there had been great observers and collectors of facts before this time; but the results of their work were not the common property of the profession. The knowledge which most physicians then had of the processes of the body was about on a par with that possessed by the speaker himself of the mechanism of a watch; he knew that there was a spring, and a chain, and a barrel, and that if any one of these got out of order the watch stopped; so the physician then knew that the body contained brain, heart, and lungs, and that if any one member of this triplet of life went wrong, the man died. Now-a-days, when we say that a man has died of disease of the heart, or of disease of the brain, we know that the determining cause of death may be but a part, or a consequence of some wide general change; that apoplexy, for instance, may have its cause not in nervous disease at all.

Beginning with the simplest things, with the heart, in which the changes were evident, and easily demonstrated, the society had, stage by stage, passed on to the more complex organs; simple crude facts recorded in the early volumes of the society's *Transactions*, having been bound together to form the groundwork of what are now well known laws. Thus, one year a case of mutiple enlarged glands is reported; in the next year another case; a little later two more cases; and so gradually the whole subject of lymphadenoma was revealed. So with Addison's disease; Addison himself had observed its symptoms so completely and so accurately, that but little has remained to be added; but its pathology had been worked out at this society's meetings; in fact, its *Transactions* are an epitome of pathology. The way in which the subject of visceral syphilis has been cleared up illustrates well the advantage of making the exhibition and discussion of specimens the chief work of the society. The first cases shown were brought forward timidly and with doubt; syphilis, it was said—Dr. Wilks had heard it said to this society,—affected only the outside, the skin, and the hair, and the bones perhaps; the mouth too, and the upper end of the alimentary canal so far as might be seen, and its lower end as far as could be reached with the fingers, but not the internal organs. This was believed in merely because *post mortems* were not made on persons dying of syphilis; when people began to look for changes in the viscera, they soon found them. And this subject shows also the practical value of the society's work: how many cures have been effected, how much suffering relieved by recognising the significance of these changes. There is a doctrine abroad which teaches that therapeutics has a basis of its own: that men can be taught to cure without learning anything of the morbid processes which are giving rise to the symptoms. Such a doctrine is, perhaps, too heterodox to be discussed before such a meeting; but there is another doctrine, more orthodox perhaps, but to Dr. Wilks equally incomprehensible: that clinical teaching need not go hand in hand with pathology. How can phenomena observed at the bedside be comprehended if we do not follow the case to the *post mortem* room, and see and handle the diseased organs? Do not let the young worker be discouraged by the question: To what practical result are your investigations leading you? Let him work on in good hope; there is no such thing as great or small in science, every child's book of natural philosophy will tell him how many of the greatest truths have come out of apparently small and trivial matters. The "Lumen siccum" of Bacon is the only light which he must trust; if some friend shall say to him that his work leads towards no great discovery, tends to no practical end, let him say—as to every other tempter—"Get thee behind me."

Their *Transactions* contained many curious or unusual cases; would it not be an advantage if they also contained references to some more general subjects? for instance, a large number of cases might be recorded showing the relation between primary and secondary growths in cancer; when not long ago there was a discussion on this subject, there were no facts at hand to help to a conclusion. One of the great questions of the day was that of heterologous and homologous growths. The histologists were working at it from one direction, the members of the society might attack it from another, by collecting all the cases occurring in the practice of the London hospitals. At a *post mortem* once, a bystander said, "How seldom does one see the small intestine, the upper part especially, affected by cancerous growth? Why, if we were only all jejunum we might live for ever!" So again with cancer of the lungs, it was so rarely primary that, if a case were reported, many members might be inclined to put it down as an error of observation. Certain tissues, too, were prone to be affected by inflammatory processes in a particular way, thus, if we see an abscess in the lungs, we immediately put it down to pyæmia, if in the kidney, we know we have to do with a condition produced by an external cause: with surgical kidney. He merely instanced these subjects to show that much might be done by merely connecting cases together, and that by this means they might arrive at the same end as the histologist.

He had been led to speak at greater length on the past services of pathology, and the field for future work, by reading—since their last meeting—some remarks in one of the medical journals, which seemed to call for some defence from him. In conclusion, he was confident that, when the History of Medicine in England came to be written, the doings of this society would be written in letters of gold and if as much shall be done in the two years of his presidency as has been done heretofore, he, for one, would be well contented.

MEDICAL PRACTITIONERS.

At the Southwark Police Court, a few days ago, A. W. Wordley was summoned by Mr. George Brown, secretary of the Medical Defence Association, for unlawfully and falsely pretending to be a registered medical practitioner to Louisa Lusky, on December 25th last, and to several other persons on prior occasions.—Mr. C. C. Scott, instructed by Mr. Pridham, prosecuted; and Mr. Bordman appeared for the defendant.—Louisa Lusky said her mother was taken very ill on the 25th ult., and she went to 8, Great Suffolk Street. On the door were two brass plates; one "Dr. Harding," and the other, "Mr. Wordley, accoucheur." She asked for the doctor, and Mr. Wordley attended her mother, who died a few days afterwards. Defendant gave her a certificate of death, which the Registrar refused to receive, as Wordley was not a registered medical practitioner.—Kate Carroll, of 10, Green Street, stated that in May last she went to the defendant's place with her baby, and asked to see the doctor. Wordley answered her, and attended to her child and her husband.—Herbert Jeunach, brass-founder, Blackman Street, said that the Saturday before Christmas-day

defendant came to his father's place and brought a brass plate to be altered from Mr. Wordley, accoucheur, to Mr. Wordley, accoucheur and medical practitioner.—Mr. George D. Harding, surgeon, of Peckham Rye, said he also carried on business at defendant's house in Great Suffolk Street. He produced the certificate from Apothecaries' Hall, showing that the defendant was admitted as a medical practitioner on the 23rd of last month.—In cross-examination, he stated that he had known Wordley five or six years, and he had occasionally attended cases for him, but not urgent ones. All such he sent for witness specially to attend to.—Mr. Bridge asked whether there was any arrangement between them as to the fees paid by patients defendant attended.—Mr. Harding replied that the defendant received all fees for cases he attended. As for urgent cases, he paid cab fare for witness, and paid him his ordinary fees.—Mr. Bordman, for the defence, contended that no offence had been committed, as his client was a duly qualified practitioner when he attended Lusky on the 25th, and that as that was the only case specified in the summons, he called on his worship to dismiss it.—Mr. Bridge observed that the evidence disclosed an illegal and disgraceful arrangement between Mr. Harding and the defendant. However, all the cases except the last one were transacted more than six months ago, therefore they could not be proceeded against. The last was on the 25th ult., and as at that time defendant was duly qualified, this summons must be dismissed. He considered that the association had acted perfectly right in taking these proceedings, and although the case was dismissed; it would do an immense deal of good in preventing such unprofessional practices.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH.—A general meeting of this Branch will be held at the rooms of the Medical Society of London, 11, Chandos Street, Cavendish Square, on Wednesday, February 23rd (in place of 9th, as announced last week), at 8 P.M., when Mr. Timothy Holmes will introduce a discussion on "Hospital Management".—ALEX. HENRY, M.D., W. C. GRIGG, M.D., Honorary Secretaries.

STAFFORDSHIRE BRANCH.—The second ordinary meeting of the session will be held at the Infirmary, Stafford, on Thursday, February 24th, at 3.30 P.M.—VINCENT JACKSON, J. G. U. WEST, Honorary Secretaries.—Wolverhampton, January 30th, 1881.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.—The fifth ordinary meeting of the session will be held in the Medical Institute, New Edmund Street, on Thursday, February 10th. The chair will be taken by the President, Mr. R. Prosser, at 3 P.M. Mr. Oakes has given notice of his intention to move the following resolutions: "1. That the members of this Branch record their opinion that the establishment of the Birmingham and Midland Skin and Lock Hospital was not necessary. 2. That the members of this Branch express their unqualified disapproval of the procedures of the promoters of the Skin and Lock Hospital, inasmuch as the initiation of the institution was conducted in private and the medical officers were secretly appointed. 3. That in the interests of the students of the local medical school, it is desirable that a department for skin-cases be opened at one or both of the general hospitals, and that to this end the clinical board be memorialised to take such steps as they may deem advisable." The following papers are promised. Mr. Solomon: Homœopathy: its present aspects. Mr. Bartleet; Antiseptic Osteotomy. Mr. F. E. Manby: Osteotomy for Osseous Deformities. Members are invited to exhibit patients, pathological specimens, new drugs, instruments, or appliances, at the commencement of the meeting.—E. MAITNS, M.B., 8, Old Square; E. RICKARDS, M.B., 14, Newhall Street, Honorary Secretaries.

PROCEEDINGS OF THE COMMITTEE OF COUNCIL.

AT a meeting of the Committee of Council, held at the Offices of the Association, 161a, Strand, on Wednesday, January 12th, 1881: Present, Dr. ALFRED CARPENTER, President of the Council, in the Chair, Professor G. M. Humphry, F.R.S., President, Mr. B. Barrow, President-elect, Dr. W. F. Wade, Treasurer, Dr. Clifford Allbutt, F.R.S., Dr. Bushell Anningson, Mr. Alfred Baker, Dr. T. W. Barron, Dr. M. De Bartolomé, Dr. L. Borchardt, Dr. C. Chadwick, Dr. J. Ward Cousins, Dr. A. Davidson, Dr. G. F. Duffey, Dr. B. Foster, Mr. R. S. Fowler, Dr. E. Long Fox, Dr. Gibson, Dr. W. C. Grigg, Dr. C. Holman, Dr. D. J. Leech, Mr. C. Macnamara, Mr. F. E. Manby, Mr. F. Mason, Mr. R. H. B. Nicholson, Dr. C. Parsons, Mr. H. Power, Dr. E. H. Sieveking, Dr. R. C. Shettle, Dr. E. M. Skerritt, Mr. H. Stear, Dr. A. P. Stewart, Dr. W. Strange, and Mr. C. G. Wheelhouse,

The minutes of the last meeting were read and found correct.

Read letter from Dr. Arthur Renwick, President of the Sydney and New South Wales Branch, expressing satisfaction upon receiving the resolution recognising the Branch.

Resolved: That the letter of Dr. Renwick be received and entered on the minutes.

Read letter from Miss Farr, acknowledging, on behalf of her father, the medal for distinguished merit and the resolution accompanying it.

Resolved: That the letter of Miss Farr be received and entered on the minutes.

Read letter from Mr. Husband resigning the office of Treasurer for the reason of ill health.

Resolved unanimously: That the Committee of Council, through their chairman, communicate to Mr. Husband their deep regret on the receipt of his communication, not merely in consideration of the great loss which will be sustained by the Association, but likewise for its cause, the serious failure in his health.

The proofs Mr. Husband has given through the many years of his active interest in the aims and operations of this Association, and the efficient assistance he has rendered, alike as President of Council and Treasurer, in promoting their successful accomplishment, fill the Committee of Council with the warmest gratitude, and they desire to express to Mr. Husband their sanguine hopes that by temporary retirement his health may be restored, and that he may once again resume a more or less active function in their affairs.

Resolved: That the 102 gentlemen whose names appear on the circular convening the meeting, and the 61 whose names appear on the supplementary list of the 8th instant, be, and they are hereby, elected members of the British Medical Association.

Resolved: That the minutes of the Journal and Finance Committee, together with the minutes of the Office and Printing Subcommittee, both of to-day's date, be approved and adopted, and the recommendations carried into effect.

The minutes contain a recommendation to appoint Dr. W. F. Wade of Birmingham, Treasurer, in place of Mr. Husband (who resigned), in accordance with by-law 34; the examination of the quarterly accounts, amounting to £3,165 14s. 2d.; and a recommendation that the Treasurer be authorised to invest a further sum of £2,000.

Resolved: That the minutes of the Trust Funds Subcommittee of the 11th instant be approved and adopted, and the recommendations carried into effect.

The minutes contain a recommendation that a marble bust of the founder of the Association, Sir Charles Hastings, be ordered from Mr. Brock, the sculptor, at a cost of 150 guineas, to be placed in some suitable place in the city of Worcester, to be paid for out of the Hastings Memorial Fund and that the balance be allowed to accumulate.

Read minutes of Subcommittee appointed to consider resolutions of Metropolitan Counties Branch on Medical Education.

Resolved: That the report of the Subcommittee be received and adopted.

Resolved: That the Subcommittee on Medical Education be requested to publish their report, and to circulate the same among the profession, sending copies especially to the General Medical Council and to each of the licensing authorities.

Resolved: That the minutes of the Arrangement Subcommittee of to-day's date be received and approved, and the recommendations carried into effect.

Resolved: That the minutes of the Habitual Drunkards Committee of the 3rd December last be received and approved, and the recommendations carried into effect.

Read resolution of the Annual Meeting, of which the following is a copy:

That, in the opinion of this Section, the subject of the Communicability of Disease to Man by Animals used by him as Food, urgently demands careful inquiry, both in regard to the actual state of our knowledge thereon, and to the legislation which is desirable in connection therewith; and that the Committee of Council of this Association be invited to appoint a Committee for the purpose of reporting on this matter.

Resolved: That a Commission be appointed to consider and report upon the resolution referred to this Committee by the Cambridge Meeting, and that Dr. Greenfield, Mr. Vacher of Birkenhead, Dr. Ewart, and Mr. Fleming be the Commission, and the President of the Council as *ex officio* member; that the reference to the Commission be the diseases transmitted by the flesh of animals and by milk; and that a grant of £100 be made to the Commission for their services.

Resolved: That the President of the Council, the Treasurer, and the General Secretary, be authorised to affix the seal of the Association to the London and North-Western Four per cent. Debenture Bond for £477, being the investment of £539 13s. 4d. of the Hastings Memorial Fund ordered at the meeting of the Committee of Council of August 13th.

Resolved: That the question of a composition fee be referred to the Journal and Finance Committee.

Resolved: That, a subscription having been commenced with the object of addressing the entire profession of the United Kingdom on the subject of Medical Reform, the sum of £100 be granted by this Association towards the expenses.

Resolved: That the London and Westminster Bank be informed that W. D. Husband has ceased to be Treasurer to this Association,

and that W. F. Wade has been duly appointed Treasurer, and that the Bank be instructed to honour the signature of W. F. Wade till further notice.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH: ORDINARY MEETING.

THE third meeting of the session was held at the Infirmary, Worcester, on the 20th instant; the President, D. EVERETT, Esq., in the chair.

The late Sir Charles Hastings.—Dr. Strange having stated that the Committee of Council had decided that a marble bust of the late Sir Charles Hastings should be made by Mr. Brock, sculptor, it was resolved: "That this meeting approves of the action of the Committee of Council in this matter."

The Annual Meeting of the Association in 1882.—A Committee was formed to make arrangements for the annual meeting of the Association in 1882, consisting of the staff of the Infirmaries of Worcester and of Hereford, the Council of this Branch, and various other members of the Association residing in Worcestershire, Herefordshire, and the adjacent counties.

The Next Meeting of the Branch will be held at Malvern in April.

Papers.—The following were read:

1. Dr. Strange: The General Results of One Hundred Cases of Chorea treated in the Worcester Infirmary.

2. Mr. Batten (Bromsgrove): The Treatment of Certain Cases of Hernia by Large Doses of Belladonna.

DUBLIN BRANCH: ANNUAL MEETING.

THE fourth annual meeting of the Dublin Branch was held on Thursday, January 27th, in the hall of the King and Queen's College of Physicians; ROBERT MCDONNELL, M.D., F.R.S., in the chair. There was a large attendance of members, among those present being the President, Dr. George Johnston, and the Vice-President, Dr. Walter Smith, of the College of Physicians; Dr. McClintock, President, and Mr. Chaplin, Vice-President, of the Royal College of Surgeons in Ireland; Surgeon-Major Jackson, C.B.; Dr. Mapother, Dr. Banks, Mr. Porter, Dr. Danby, Dr. Patton, Dr. Duncan, Dr. Corley, Dr. Cranny, Dr. King, Dr. Arthur Benson, Dr. Fitzpatrick, Dr. Robinson, Dr. Peele, Dr. Stoker, Dr. Davis, Dr. Thomas Jackson, Mr. Stokes, Dr. Grimshaw, Mr. O'Grady, Dr. Croly, Surgeon H. G. Croly, Dr. C. B. Ball, Dr. Cosgrave, Dr. Ingram, Dr. Doyle, Dr. Hayden, Dr. Jacob, Dr. Kidd, Mr. I. Wheeler, Dr. Harvey, Dr. Quinlan, Dr. Atthill, Dr. Ashe, Dr. Hadden, Dr. Delahoyde, Dr. R. Kirkpatrick, Mr. Stoker, Dr. Purcell Atkins, Dr. Hawtrey Benson, Dr. Truell, J.P.; Dr. Finny, Dr. Scott, Mr. E. Hamilton, Dr. W. J. Smyly, Dr. Foot, Dr. S. Gerson, Dr. Murphy, etc.

Dr. GEORGE F. DUFFEY, Honorary Secretary, read letters of apology from the Presidents of the three other Irish Branches, regretting their inability to be present.

New Members.—Nineteen gentlemen were elected members of the Association, and twenty-six gentlemen members of the Branch.

Report of Council.—Dr. DUFFEY, Honorary Secretary, read the annual report of the Council for the past year, of which the following is an abstract:

"In presenting the fourth annual report, the Council had the satisfaction of announcing a further increase in the number of members. Since the last annual meeting, one had died, five had resigned, and three had left the district. The number of new members admitted had been 32; making the total number at present 177; an increase of 23, as compared with last year. Having referred in suitable terms to the death of Dr. Hudson, the first President of the Branch, the report went on to state, that, at the last annual general meeting, the Branch adopted unanimously the following resolution, on the motion of the President of the King and Queen's College of Physicians, seconded by the President of the Royal College of Surgeons: 'That this Branch is of opinion that the compulsory and early notification of the occurrence of infectious epidemic diseases in a large city like Dublin is of the greatest importance to the public health.' And the Council was directed 'to take whatever steps may seem to them best calculated to promote the attainment of this object'. The Council accordingly appointed a sub-committee to communicate with the Public Health Committee of the Corporation, and to report how the resolution of the general annual meeting could best be carried into effect. This sub-committee was subsequently authorised to enter into communication with the King and Queen's College of Physicians, the Royal College of Surgeons in Ireland, and the Irish Medical Association, with the view of obtaining the assistance and co-operation of these influential bodies in the endeavour to secure for Dublin the advantages of a system of compulsory notification and registration of infectious diseases."

The various steps taken by the Council in furtherance of this object, as reported from time to time in the JOURNAL, were recited; and—continued the report—

"Your Council consider that the Branch has reason to take some credit to itself in initiating a movement in Dublin, which has for its sole object the benefit of the citizens of this notoriously unhealthy city. The Branch may also well congratulate itself on the support the action of its Council has hitherto received. The Public Health Committee of the Corporation have officially informed your Council 'that they approved and recognised the necessity of an efficient system of notification of infectious diseases, and would be prepared to support any effort to secure the same'. The College of Physicians and the College of Surgeons not only passed resolutions approving of the principle of the proposed measure, but also evidenced the importance with which they viewed the matter, as brought before them by your Council, by both appointing committees to report upon it. The Irish Medical Association, with that warm concern it always shows for every matter affecting the public health and professional interests, also gave very full consideration to the subject when brought under its notice. A special meeting of its Council was summoned, and a resolution adopted thereat, recognising, on the part of the Association, the advantage of an efficient system of early and compulsory notification and subsequent registration of infective diseases. The Executive Committee of the Dublin Sanitary Association and the Society of Metropolitan Medical Officers of Health, Dublin, have also pronounced in favour of the adoption of such a system.

"Your Council are of opinion that all these bodies deserve the thanks of the Branch, not only for the consideration they bestowed on the subject, and for the official suggestion of many important details in the working of the proposed measure, but also for the great courtesy they have shown to the Branch, and the important support they have given it."

Having further given an account of the interviews the Council had with the ex-Lord Mayor of Dublin (Mr. Gray, M.P.), and with the Corporation, with a view to the introduction of a local Bill for Dublin into Parliament, providing for the compulsory notification of infectious diseases; and having also referred to the deputation from the Corporation to the Chief Secretary for Ireland, the report stated that the Council had adopted the suggestion of Mr. Gray, that it would be better, instead of seeking for a local Bill for Dublin, to introduce a Bill giving powers to all large Irish towns to avail themselves of the proposed scheme. Since this view was quite in accord with the feelings of the Council, who were aware that a general Act for all England, in distinction to the piecemeal legislation in force in different towns, is viewed with much favour in influential quarters, Mr. Gray has since introduced a Bill "To provide for the better information of Sanitary Authorities in Ireland in cases of outbreaks of Dangerous and Infectious Diseases".

"So far, therefore, your Council, in endeavouring, as directed by the Branch, to promote the attainment of the compulsory notification of infectious diseases, have succeeded in getting the subject brought under the notice of the legislature, supported by influential lay and professional opinion in favour of the principle of the measure. As regards the important questions of detail that must be provided for in any Act that is put forward, there must be naturally a considerable difference of opinion. But the Honourable Member for Carlow has stated his willingness to receive suggestions from the Council of the Branch when the Bill comes to be considered. And your outgoing Council doubt not but that their successors, whom you shall elect this day, will watch the interests of the members of the Branch, as those retiring have endeavoured to do during their period of office.

"The accounts of the Branch up to the 26th instant have been audited by Dr. E. H. Bennett, and show a balance in favour of the Branch of £9 7s. 10d.

"The thanks of the Branch and of the Council are again eminently due to the President and Fellows of this College for their courteous permission to hold their meetings within its walls.

"In conclusion, your Council congratulate the Branch on its prosperity, and on the recognised position, as an organised body of the profession in this city, it has so rapidly assumed."

Mr. CHAPLIN (Kildare), Vice-President of the Royal College of Surgeons in Ireland, moved: "That the report of the Council, as now read, be received and adopted." Thanks were due to their Honorary Secretary, Dr. Duffey, for the trouble he had taken in preparing so valuable a statement. Great credit was due to the Branch for having inaugurated the movement in favour of the proper notification of infectious diseases. The result was that a Bill, a copy of which he now held in his hand, had been introduced into the House of Commons by Mr. Gray, M.P. No doubt one of its clauses might not be acceptable to the great bulk of the profession in Ireland—he alluded to that providing that the medical man should be compelled to give a certificate to the

sanitary authority of each case of infectious disease that he attended. He believed that a great number of medical men in Ireland would deem that clause most objectionable. He thought, however, that their thanks were due to the sanitary authorities for having brought the matter forward, and also to Mr. Gray for the Bill which he had brought in. It was capable of great amendment in committee; and he was sure the outcome of it would be that the present existing slur upon their sanitary arrangements, and the want of proper notification of infectious diseases, would be removed; and that householders would be compelled by penal enactment to give that notification.

Dr. WALTER SMITH, Vice-President of the College of Physicians, seconded the motion, which was unanimously agreed to.

President's Address.—The PRESIDENT (Dr. Robert McDonnell, F.R.S.), delivered the annual address, which is published in abstract at page 190.

Election of Officers.—The following were elected officers and Council for 1881. *President:* Thomas Hayden, F.K.Q.C.P. *President-Elect:* Alfred H. McClintock, M.D. *Vice-Presidents:* John T. Banks, M.D.; George H. Kidd, M.D. *Council:* E. H. Bennett, M.D.; Thomas Darby, F.R.C.S.I.; J. M. Finny, M.D.; Samuel Gordon, M.D.; T. W. Grimshaw, M.D.; E. Hamilton, M.D.; Reuben Harvey, M.D.; S. Haughton, M.D., F.R.S.; E. D. Mapother, M.D.; R. Mcdonnell, M.D., F.R.S.; P. C. Smyly, M.D.; William Stokes, M.D. *Representatives on the General Council:* Isaac Ashe, M.D.; Rev. S. Haughton, M.D., F.R.S.; Thomas Hayden, F.K.Q.C.P.I.; James Little, M.D.; A. McClintock, M.D.; R. McDonnell, M.D., F.R.S; G. H. Porter, M.D.; William Stokes, M.D. *Honorary Secretary and Treasurer:* George F. Duffey, M.D.

The New President.—Dr. HAYDEN, the newly-elected President, then took the chair amid applause; and briefly thanked the Branch for the honour it had conferred upon him.

Vote of Thanks.—The PRESIDENT of the COLLEGE of PHYSICIANS proposed: "That the cordial thanks of the Branch be given to Dr. Robert McDonnell, F.R.S., for his address, and for the able and painstaking manner in which he had performed the duties of President during the past year."

The PRESIDENT of the COLLEGE of SURGEONS, in seconding the motion, remarked that it might be truly said of Dr. McDonnell, "Nihil tetigit quod non ornavit". He (Dr. McClintock) held the opinion that notification of infectious diseases would be most thoroughly and efficiently carried out if it were done by the attending physician.

The vote was carried unanimously.

Dr. MCDONNELL, in responding, said the question of compulsory notification of infectious diseases was a very difficult one. They should all avail themselves of any opportunities, that might be presented, of seeing what systems were in operation already, and how they worked; and should be ready to modify their opinions, if necessary, without regard to anything that could be called selfishness. Their profession never shrank from performing useful duties because they happened to be disagreeable. For his part, he would be quite prepared to modify his opinions. It was in the highest degree desirable that the subject should be investigated by a Parliamentary Committee.

The proceedings then terminated.

The Dinner.—In the evening, the members and their friends (to the number of sixty-three) sat down to dinner in the great hall of the College of Physicians; Dr. HAYDEN, President, in the chair. Amongst those present were: Lord Rathdonnell; the High Sheriff of the City, Sir George Owens; the President of the College of Physicians; the President and the Vice-President of the College of Surgeons; the President of the Irish Medical Association; the Registrar-General; Dr. Banks, Physician to the Queen; Mr. Porter, Surgeon to the Queen; Surgeon-Major Jackson, C.B.; Dr. Atthill; Dr. Jacob, *Medical Press;* Mr. Scott, *Irish Times;* Mr. J. P. Maunsell, *Evening Mail;* Surgeon-Major Preston, etc. During the evening, in addition to the usual loyal toasts, the toast of the "College of Physicians and Surgeons" was proposed, and responded to by Dr. Johnston and Dr. McClintock. That of the "British Medical Association and the Irish Branches", was spoken to by Dr. R. McDonnell; the "Irish Medical Association", by Dr. Chapman; and the "Visitors", by Lord Rathdonnell. The health of the "President of the Branch" was proposed by Dr. Banks, and was warmly received; as was also the toast of the "Honorary Secretary". Several beautiful glees were sung in an excellent manner by some musical members of the Branch; and the toast of "these gentlemen", which was received with great enthusiasm, was admirably responded to by Dr. Peele.

ARMY HOSPITAL CORPS.—Lieutenants of Orderlies James Gordon, William Pike, and H. S. Webb sailed for Natal with the Bearer Company on the 24th January in the mail steamer *Tartar*.

CORRESPONDENCE.

WIDOWS AND ORPHANS OF MEDICAL MEN.

SIR,—No one rejoices more than I do myself at the great amount of good accomplished through the agency of the Medical Benevolent Fund, but it is to me most astonishing that medical men residing within London and a radius of twenty miles, who have the opportunity offered them of providing, at the trifling annual expenditure of two guineas, that their wives and children shall not be left in want in case of their death, should neglect to use it, and fail to become members of the Society for the Relief of the Widows and Orphans of Medical Men. Can it be, that we as a class, who more than any others are conversant with death at all periods of existence, are so confident of our own physical strength that we flatter ourselves that this fate can never overtake us? Or are we so selfish that we grudge this comparatively trifling annual payment on behalf of those who should be dearer to us than even our own bodies? I cannot believe it; but would rather hold to the opinion that anxieties of business, hope for the future, and perhaps more than anything else, real ignorance of the means and working of our Society, form the great reasons why only three hundred and seventy-five out of the thousands of medical practitioners who reside within the sphere of our operations have attached themselves to our Society. May I therefore point out, that we have an invested capital amounting to £76,495 1s. 5d., and that the interest of this, together with the subscriptions of the members, is divided among the widows and orphans of the members who have died without leaving a provision for their families. Any gentleman can receive full particulars by applying either to myself, or to our energetic secretary, Mr. J. B. Blackett, 53, Berners Street, Oxford Street.—I am sir, your obedient servant,

WILLIAM FULLER, Acting Treasurer.

THE MEDICAL BENEVOLENT FUND.

SIR,—Dr. Broadbent, in his letter in the JOURNAL of the 22nd instant, refers to an "idea of Dr. Stanley Haynes, who pointed out that five shillings annually from each member of the British Medical Association would amount to £2,000 a year". Twelve months ago, when my friend Mr. George A. Brown of Tredegar brought forward his scheme for the formation of a local medical benevolent society, I proposed for discussion a scheme which should incite the voluntary contribution of five or ten shillings annually from every member to form a benevolent fund in connection with the Association. I believe some legal difficulties stood in the way. I cannot see why some such idea may not be carried out still, but in connection with the Medical Benevolent Fund, instead of the Association. I would suggest that the Committee of Council issue a circular to all the Branches, inviting their attention to this subject. Spurts are good in their way; but what we want is a steady inflowing of a large number of small subscriptions year by year, and this could be easily and successfully carried out by the various Branches. The Secretary of each Branch, in getting in his subscriptions, would only have to add the words "Medical Benevolent Fund, five shillings," to his circular; and I believe the amount would be readily paid in every instance. If any member desired to give more, he could do so. I believe myself that ten shillings would not be too much to ask from each member. I sincerely hope that something may come of this suggestion, and soon. I will undertake, at our next meeting, that the matter shall be discussed.—Yours, etc.,

ALFRED SHEEN, M.D.,
Honorary Secretary South Wales and Monmouthshire Branch.
Cardiff, January 25th, 1881.

THE MODE OF ELECTION OF THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

SIR,—Mr. George Pollock's proposal of a committee of election (although at one time it seemed to me to contain a promise of satisfying the conditions) has long been dismissed from my mind by the actual knowledge of what can be made out of such a body.

To any thoughtful dweller in a town where the American "caucus" system exists, it will appear little short of disaster were such a committee to be created; it would most surely devour our scanty little privilege! For my part, I never could admit the force of the arguments adduced against the proxy vote; viz., that it "would result in organised canvassing," and "throw the power into the hands of the journals," etc. I have a greater faith (founded on some experience) in the acumen of such an educated constituency as ours, than to fear that any partisanship could ever be allowed to interfere with

the selection and election of the proper men under a "proxy vote", which would enlist an interest in college affairs that now is stifled by long distance.

The provincial Fellows have a reasonable ambition and right to be represented on the Council, and, though in a large majority of numbers, will be, I take it, quite content with a minority proportion (say a fourth part) of the representative body as their share.

It must, too, be remembered that many large towns now (as indeed they have done at all former times) boast of having among their citizens not a few of the very foremost surgeons of the day.

And, notwithstanding Mr. Holmes, and the difficulties which may or may not exist, and which, if they do exist, will most likely take a lesson from other difficulties and melt away when fairly tackled, I am far from certain that his position, about the provincial surgeon being "utterly incapable of serving the laborious office of president", is a tenable one. If I be not much mistaken, there are men amongst us who, having reaped a fortune from their fame, may, and do justly aspire even to the presidency in due time; and, if it be not ungracious to put it so, even at their own pecuniary loss.

It might, in fact, suggest itself to practical minds that the vice-presidents should take a larger share of this "laborious" work, and so ease the chair. Mr. Holmes's other proposal to discuss college affairs in the branches of the Association, I can only regard as a slight misapprehension; for, staunch Association man as I am, not for the life of me can I see what the Branches have to do with the government of the College of Surgeons.

To be brief, however, I believe the proxy vote would give us the very men we want to advance "measures"; certainly we care little about men, however good, who will not advance them.

I do not believe that the proxy vote would give rise to the much dreaded "organised canvass"; the thing would be too big, in such a diffused constituency as ours, for the wire-pullers, and their calculations would always be liable to be upset. On the other hand, a committee of election would be morally certain to degenerate into a veritable "caucus". I am convinced that provincials are both able and willing to undertake any duty (even of the chair) to which their fellows may call them; it is difficult to conceive any real evidence to warrant a contrary conclusion.

Given a fourth part of the Council as our recognised share, and the proxy vote, we shall be content. The best men will always desire to represent us, and will most surely always be returned. I mean, of course, not only the best provincial men, but the best representative men of the whole body. If my letter savours more of faith than of argument, let the fault be mine; but the proxy vote is a just demand that, soon or late, must be satisfied.—I am, your obedient servant,

Wolverhampton, January 25th, 1881. FREDK. ED. MANBY.

OBITUARY.

ROBERT GRIGOR, M.D., FLEET-SURGEON, ROYAL NAVY.

FLEET-SURGEON ROBERT GRIGOR, R.N., died on the 20th January at his residence in Institution-road, Elgin, after an illness of about a fortnight's duration. Dr. Grigor was born in 1811, at Newmill, Alves, N.B. The earlier part of his education was received at the parish school, and during his youth he assisted his father in the duties of schoolmaster. As a lad he was employed at Elgin under the late Dr. Robb, and under the charge of Dr. Stephen. About 1830 he was sent to Aberdeen to study for the medical profession, proceeding thence to Edinburgh, where he graduated in 1834. He then returned to his native country in the capacity of resident physician at Gray's Hospital, Elgin. In September, 1837, he entered the navy as acting assistant-surgeon, and was shortly afterwards appointed to the *Racehorse*, sloop, Commander Crauford, serving with it on the North American and West Indies Station until 1842, the two last years under the commission of Commander, now Admiral, Sir Edward Harris. In 1843 he joined the *Cyclops*, on her being recommissioned by Captain H. T. Austin, but was shortly afterwards transferred to the *Stromboli*, steamer, commanded on particular service by Commander Plunkett, now Admiral Lord Dunsany. In March, 1846, he obtained his promotion to surgeon, and remained unemployed until September, 1849, when he was appointed to the *Encounter*, Captain G. T. Gordon. He served with that vessel through her three years' commission in the Mediterranean. He was then appointed to the *Imperieuse*, frigate, Captain Rundle Watson, for service with the Western Squadron, and subsequently proceeded with her to the Baltic in 1854, serving throughout our two expeditions, and taking part in the blockade of the Gulf of Finland, bombardment of Sveaborg, and other operations (Baltic medal). At the close of the war, Dr. Grigor proceeded to take his M.D. degree, and was appointed, in March, 1859, surgeon of the *Queen Charlotte* on her being commissioned as flagship to Vice-Admiral Edward Harvey at Sheerness. In July, 1861, he received the appointment of medical storekeeper surgeon of the Victualling Yard at Deptford, where he did duty for eight years, taking his retirement in April, 1870, when he settled down in Elgin. The deceased was unmarried. Dr. Grigor delivered two lectures in the South Free Church at Elgin in 1879 and 1880, one describing the voyage of the *Challenger*. He was known among a large circle of friends as one widely read and versed in the modern arts.

JAMES MACKIE, L.R.C.S.ED.

THIS old and highly esteemed practitioner died at his residence, Heighington, near Darlington, on January 17th, at the ripe age of seventy-two years. Mr. Mackie was a native of Glasgow, and was the son of a small laird near that city. He came to Heighington in 1844, and became engaged in an extensive country practice, of which that village was the centre. In 1852, he became a member of the British Medical Association, and in 1875-6 he was President of the South Durham and Cleveland Medical Society. For many years he was Poor-law medical officer for the district, and for the last seven years he was medical officer of health for the Darlington Rural Sanitary Authority, with the charge of forty townships. He was regarded by his patients and friends with affection and respect, and he faithfully fulfilled his duties in the various professional matters in which he was engaged. Mr. Mackie was genial and sociable, intellectual and well read, and a great lover of the classics, even until the last year or two of his life. A year ago he had a severe attack of bronchitis, which with some heart symptoms, and ultimately dropsy, caused his death. His funeral took place at the village churchyard, and was numerously attended by mourners, both friends and patients. The pall-bearers were his old medical friends, Mr. J. Jobson, J.P., Dr. Eastwood, J.P., Dr. R. Smith, Dr. H. Clark, and Mr. R. Tweddle, and there were also other medical friends present, Mr. F. Wilson, Mr. S. Fielden, Mr. Manson, and Mr. J. G. Hardy. The Rev. C. C. Chevallier, vicar of Heighington, conducted the service, and many of the mourners were deeply affected, for the loss was universally felt.

MILITARY AND NAVAL MEDICAL SERVICES.

THE BRIGADE SURGEONCY OF THE GUARDS.

THE first appointment to the brigade surgeoncy of the Guards, gazetted on Tuesday night, must have caused many to regret the disappointment of a zealous and hard-working officer. To those who have not carefully followed the somewhat mysterious ramifications of medical promotions in these regiments, it may seem somewhat strange that Mr. Elkington, who has only served twenty-eight years, should supersede Dr. Robinson, with his thirty-four years of faithfully discharged duty; and the explanation that the former was earlier appointed regimental surgeon-major than the latter can only be satisfactory in the rigidly official sense. For it must be remembered that in former years, before the inexplicable and unnecessary change from regimental to brigade promotion took place, Mr. Elkington actually served as assistant-surgeon to Dr. Robinson in the Scots Guards; but, being transferred, on obtaining a step, into the Grenadier Guards, the lucky junior soon distanced his senior in the race for higher rank, and, by a fresh turn in the wheel of fortune, now jumps fairly over his head.

Of course, no one can deny that the present appointment is strictly legal; but, considering the senior position of Dr. Robinson, his eminent professional standing, and the fact that his compulsory retirement by age could not be long delayed, it would only have been a graceful act on the part of the authorities to allow him to enjoy for a short time a position which he is in every respect fully qualified to fill, and which would have furnished a substantial addition to his retiring allowance. So rigid an interpretation of a rule, which might readily have been set aside in such a special case, is in no degree calculated to increase the popularity of the Army Medical Department; and the trifling saving thus effected by some zealous official seems hardly sufficient to balance the injustice done to a deserving officer, who has served his country long and well, both at home and abroad.

ARMY MEDICAL DEPARTMENT.

SIR,—Along with other young medical men of my acquaintance, I have been considering the advisability of presenting myself for examination for the Army Medical Department; but I am unable to find out a few particulars which it is desirable one should know before determining on such a course. If any army medical officer

will kindly answer, through your columns, the three questions which I append, I shall take it as a great favour; and so, I am sure, will many others who, like me, are in a state of absolute ignorance on the subject.

1. Is it possible for one, with only his pay to depend on, to get along comfortably in the Army Medical Department?

2. Is there a reasonable prospect of his being able to marry after a few years?

3. What is the cost (approximately) incurred from the date of passing the London examination till he is appointed to a regiment—this to include stay at Netley, necessary surgical instruments, uniform, etc.?—Your obedient servant,

IGNORAMUS.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, February 3rd.

Naval Medical Service.—Dr. FARQUHARSON asked the Secretary to the Admiralty whether the report of the Committee on the pay and position of naval medical officers would be circulated before the next examination of candidates for the medical service of the navy.—Mr. TREVELYAN said the report would be presented as soon as the correspondence with the Treasury had terminated. He intended shortly to introduce a scheme for the improvement of the position of naval medical officers.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

IN our issue of Jan. 22, we briefly referred to the resolutions adopted at a special meeting of the Irish Medical Association, called together to consider the question of compulsory superannuation for all poor law medical officers who have served ten years and upwards, and as the points raised (if eventually drafted in a Bill) are important in their bearing on the interests of the services in the three divisions of the kingdom, we will briefly quote them, subsequently making such observations as appear to us to be desirable.

The first resolution is to the effect, "That full pay and emoluments should be conceded, as a matter of right, to every medical officer who has held office uninterruptedly for forty years." On this we would remark that the necessity for such provision would so seldom arise, that in our judgment it would be inexpedient to raise the subject.

The second resolution is, "That two-thirds of the salary and emoluments should be accorded as a matter of right to all officers who on retirement should have served thirty years, or who have become incapable of continuing in office by reason of old age (such not being less than sixty) or by permanent infirmity of mind or body." This resolution meets with our hearty approval, and shall receive all the aid in our power to cause it to become law.

The third is, "That any medical officer in the Poor-law service, not qualified as aforesaid to claim the maximum grant, shall be entitled on retirement at any time after ten years' service, to a retiring allowance, of one-fortieth of his salary and emoluments at the time of his retirement, and for every additional year served." As circumstances may arise which may render it incumbent on the medical officer to retire at an earlier period than twenty or thirty years, such power to claim consideration for his term of office, should be accorded him.

The fourth resolution is, "That the period and service of a medical officer shall comprise all the years he has held office, whether in one or more unions, and that his superannuation allowance should be computed thereon, the Local Government Board having the power to decide in such contingency from whence his superannuation allowance should proceed, *i.e.*, whether wholly from the union he has finally left, or partly from that and from the other unions." We decidedly are opposed to such resolutions being drafted in a Bill. We feel that it would excite opposition that might be fatal to the scheme. We should prefer that it was left to the Local Government Board to determine, on reference being made to them, that in the event of the resignation of any officer who has held office in more than one union, whether such officer was entitled to superannuation allowance, and if so, from what source such superannuation grant should be obtained.

The fifth, "That the Committee of Council of the Association take immediate steps to embody in a Bill the above resolutions, and that the said committee are hereby authorised to accept the best terms obtainable for the recognition of the principle of compulsory superannuation on the lines above indicated, or as near thereto as may be."

We have quoted in detail the above resolutions, because we feel that on the whole they have been carefully elaborated, and cover the whole field of Compulsory Poor-law Medical Officers' Superannuation; and because we further feel, that if eventually adopted by the legislature, they will form the basis on which a similar measure will be propounded for Scotland and England.

To secure the success of such a Bill it is absolutely necessary that the service in the three divisions of the kingdom should co-operate in pressing upon such friends in the House as they may chance to know the advisability of supporting the same, and of petitioning in its favour. We learn that the council of the English Poor-law Medical Officers' Association has been specially summoned to meet with the view to such co-operation. For ourselves, recognising the importance of every measure that acknowledges the national benefits that must arise from a contented poor law medical service, we shall be happy at all times, to lend our aid in advocacy of this or of similar measures designed for its benefit.

YORKSHIRE ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

A MEETING of the members of this Association was held at Wakefield on Wednesday, January 19th. The members of the Association assembled at the Town Hall, and then visited the Infectious Diseases Hospital recently erected by the Corporation of Wakefield, near Park Hills, and the West Riding Pauper Lunatic Asylum, where they were courteously received by Dr. Major, the medical superintendent. In the afternoon, a general meeting of the members was held in one of the committee-rooms of the new Town Hall. Mr. S. W. North of York, the medical officer of health for that city and the President of the Association, occupied the chair; and there were also present the following gentlemen: Mr. B. Kemp of Horbury; Mr. F. H. Wood of Wakefield; Dr. Wade of Wakefield; Dr. Scott of Ilkley; Dr. Farquhar of Pudsey; Dr. Hime of Sheffield; Dr. Butterfield of Bradford; Mr. J. Mitchell Wilson of Doncaster (Secretary to the Association); Alderman Sellars, and Councillors Flower, Tattersall, and Sherwood, of Wakefield.—The PRESIDENT, in opening the proceedings, alluded to the great interest which is being taken in regard to the prevention of infectious diseases. Referring to infant mortality, the President said that a very large number of deaths had taken place from diarrhœa and other causes; and arrangements were being made for a conference of medical officers of health to be held at Leeds or York in April to discuss the matter. The President also remarked that Dr. Barry, the late Secretary to the Association, had been appointed medical officer for the island of Cyprus; and during the meeting he was elected an honorary member of the Association.—Dr. WADE, the medical officer of health for Wakefield, read a paper on the sanitary condition of Wakefield during the last ten years; and it was followed by an interesting discussion, in which the President and Dr. Butterfield, Dr. Farquhar, Dr. Hime, and Dr. Wilson took part. The last-named gentleman, in referring to a suggestion that schools should be closed as one means of preventing the spread of infectious diseases, said that this was a question in which teachers were greatly interested, because, if children were not permitted to attend school regularly, teachers lost a portion of the Government grant. He, therefore, thought that the matter was one which ought to be laid clearly before the Education Department.—Mr. BUTTERFIELD mentioned that a serious outbreak of scarlet fever had been caused at Bradford by two children who had had a mild attack of it going to school before they had thoroughly recovered, and by other children in the school amusing themselves by picking the skin off the fingers of the children who had been infected. Mr. Butterfield read some notes on woolsorters' disease; but he and his fellow-commissioners have not yet completed their inquiry.—Dr. HIME exhibited a cheap and simple apparatus for testing the quality of milk.—A vote of thanks was given to the Mayor and Corporation for the use of the Town Hall, and subsequently some of the members dined together at the Bull Hotel.

THE INSPECTION OF COWSHEDS AND DAIRIES.

IN consequence of the great increase in the number of outbreaks of foot-and-mouth disease (one hundred and nineteen from December 3rd to January 15th), the Special Purposes and Sanitary Committee of the Metropolitan Board of Works have considered it desirable that a general inspection of all the cowsheds in the metropolis should be made, with a view to ascertain those in which disease existed, and this was accordingly done simultaneously by the board's inspectors; and, by this means, twenty-eight cases of disease were discovered, and all suspected stock was examined by the veterinary inspectors. The premises upon which affected stock was found, had been declared infected places, and the movement of cattle therefrom prohibited. The attention of the committee had also been called to the question of the disposal of the milk

from the affected cows. Section 8 of the Dairies, Cowsheds, and Milk-shops Order of July, 1879, provided that the milk of a diseased cow should not be mixed with other milk or sold for human food, and only sold for food of animals after it had been boiled. With the view of securing, as far as possible, the observance of this section, the committee had directed that the attention of the medical officers of health should be called to the premises in their respective parishes at which disease existed; and that the owners of such premises should be warned of their liability for infringing the section referred to.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted members on January 27th, 1881.

Beale, Edwin Clifford, M.B., Cambridge, 16, Langham Street, W.
Saunders, Charles Edward, M.D., Aberdeen, 21, Lower Seymour Street, W.
Willis, William, M.D., Edinburgh, 168, Stanhope Street, N.W.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College, at a meeting of the Court of Examiners on the 26th instant.

Messrs. Henry Smith, L.S.A., Plumpstead; James M. Rogers, L.S.A., Berners Street; Edgar English, L.S.A., Whitby; Edward J. Biden, L.S.A., Peckham; William H. Legge, L.S.A., Derby; Charles Crossley, L.R.C.P.Ed., Leicester; Arthur Kidd, Liverpool; Charles H. Downes, L.S.A., Sydenham; Charles W. Whistler, Ashburnham; William H. P. Lewis, Guilsfield, Montgomeryshire; and Arthur G. S. Mahomed, L.S.A., Brighton.

Six candidates were rejected.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, January 27th, 1881.

Burrows, Charles William Grimes, Chesterfield.
East, Frederick William, 2, Clapton Square.
Green, Harry, Padstow, Cornwall.
Holroyd, John, Rushworth, Halifax.
Thurlow, John Howard, Boston, Massachusetts, U.S.

The following gentlemen also on the same day passed their Primary Professional Examination.

Faulkner, Henry William, Charing Cross Hospital.
Lea, Francis James, University College Hospital.
Osborn, Frank Charles, St. Mary's Hospital.
Williams, John Henry, London Hospital.

At the Preliminary Examination in Arts, held at the Hall on the 21st and 22nd of January, eighty-four candidates presented themselves, of whom forty-five were rejected, and the following thirty-nine passed and received certificates of proficiency in general education. In the First Class, in order of merit:

1. Cornelius Clement Caleb. 2. W. V. Carden and Caroline Keith. 4. Josephine S. MacDonogh.

In the Second Class, in alphabetical order:

H. D. Adcock, James Anderson, A. H. Armstrong, G. P. Barton, John Bate, L. Bathurst, H. G. Beville, J. Blackford, C. Campbell, A. E. Carey, C. Christopherson, Elizabeth S. Collier, Horace S. Collier, Jessie Crosfield, William Davies, A. C. Gaskin, T. Greaves, E. T. Gregory, G. C. Harrington, J. J. Lewington, E. H. Lingwood, B. MacDonogh, A. J. H. Montague, Elise Morgan, E. J. Neville, F. Norman, C. C. Piper, R. J. Reece, Eliza Jane Stacey, Oswald R. Swete, E. S. Wallis, Lydia Maria Webb, W. P. West, Frank F. White, and Harrie Yeo.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, January 10th, 11th, 12th, and 13th, the following candidates were successful.

First Professional Examination.—William Henry Holden, Anna Jacob.
The Licence to practise Medicine.—Humphrey John Broomfield.
The Licence to practise Midwifery.—Robert Samuels Archer, Liverpool; Humphrey John Broomfield, Rathdowney; Nicholas John Halpin, Bengal Army.

The following Licentiates of the College, having conformed to the by-laws relating to Membership, have been duly admitted Members of the College.

James Berry Kenny, 1868, Killeshandra; Alexander Lane, 1860, Ballymoney; George Lyndon, 1877, Ballinanagh; Hugh Warnock, 1876, Clogher, Co. Tyrone.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced:—

BALLINROBE UNION—Medical Officer for Ballinrobe Dispensary District. Salary, £100 per annum, with £25 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 10th February.

BRACKLEY UNION—Medical Officer to the Sulgrave District.

BURY ST. EDMUNDS FRIENDLY SOCIETIES MEDICAL AID ASSOCIATION—Dispenser and Assistant to Medical Officer. Applications, with testimonials, to Mr. Hazell, Victoria Street, Bury St. Edmunds, on or before February 8th, 1881.

CITY DISPENSARY—Surgeon. Applications, with testimonials, not later than February 10th.

*COMRIE—Parochial Medical Officer. Applications, on or before February 7th, to Mr. P. Brough, Inspector of Poor.

HACKNEY UNION—Medical Officer. Salary, £80 per annum, exclusive of midwifery and surgical fees and drugs. Applications upon forms obtainable at the office, Sydney Road, Homerton, E., on or before February 8th.

OLDHAM INFIRMARY—House-Surgeon, doubly qualified. Salary, £80 per annum. Applications, with testimonials, not later than February 10th.

*ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, Ventnor, Isle of Wight.—Resident Medical Officer. Salary, £100 per annum, with board and residence. Applications, with testimonials, to the Secretary, 12, Pall Mall, London, S.W., on or before Monday, February 14th.

ROYAL NORTHERN SEA-BATHING INFIRMARY, Scarborough—Lady Superintendent. Salary, £70 per annum; residence at Infirmary. Applications, with testimonials, not later than Monday, February 7th, to Mr. George Taylor, 43, Queen Street, Scarborough.

*ROYAL SOUTHERN HOSPITAL, Liverpool.—Junior House-Surgeon. Salary, 60 guineas per annum, with board and lodging at Hospital. Applications, with testimonials, to A. Garrett, Esq., Treasurer, at the Hospital, on or before the 16th February.

MEDICAL APPOINTMENTS.

JEFFREYS, Richard, M.R.C.S.Eng., L.S.A.Lond., appointed Medical Officer to the New Industrial School, Chesterfield.

LATIMER, Henry Arthur, M.R.C.S., appointed Surgeon to the Swansea Hospital, *vice* J. G. Hall, M.R.C.S., resigned.

LYTLE, Joshua, M.D., appointed Senior House-Surgeon to the Royal Albert Edward Infirmary and Dispensary, Wigan, *vice* W. R. Williams, M.R.C.S., resigned.

NORRIS, Edward S., M.A., M.B.; elected Honorary Visiting Surgeon to the Windsor Royal Infirmary, *vice* J. W. Gooch, M.R.C.S., resigned.

PECK, E. G., B.A.Cantab, M.R.C.S.E., appointed House-Surgeon to St. George's Hospital, *vice* A. M. Shield, appointed House-Surgeon to Addenbrooke's Hospital, Cambridge.

RAWLINGS, John Adams, M.R.C.P.E., appointed Physician to the Swansea Hospital, *vice* J. Paddon, M.B., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

BUSHE.—On the 29th January, at 74, Lower Leeson Street, Dublin, the wife of Cecil J. L. Bushe, M.B., Army Medical Department, of a son.

HIGHET.—On January 30th, at Derwent Street, Workington, the wife of John Highet, M.B., of a daughter.

SICCAMA.—On the 1st instant, at Portland, the wife of Fleet-Surgeon R. R. Siccama, H.M.S. *Warrior*, of a daughter.

DEATHS.

ASKWITH.—On the 27th ultimo, at Huntly Lodge, Cheltenham, suddenly, Robert Askwith, M.D., M.R.C.S., formerly of Leeds, aged 65.

DABBS.—On January 30th, at 11, Brunswick Terrace, New Road, Bucklands, Hants Fleet-Surgeon George Henry Dabbs, R.N., aged 79.

LUNN.—On January 25th, Ernest Craven Lunn, M.R.C.S., L.S.A., youngest son of W. J. Lunn, M.D., Hull, aged 24.

THE annual dinner of the Hunterian Society will be held at the Albion, Aldersgate Street, on Saturday, February 12th, at 6.30 P.M.; John Couper, F.R.C.S., in the chair.

THE annual report of the Royal Infirmary, Liverpool, shows an adverse balance of £3,602, which is a source of great anxiety to the committee, inasmuch as it has been steadily increasing for some years.

Dr. John Ward has resigned his appointment as Medical Officer of Health for Cockermouth and Workington Urban Sanitary Authority. His successor has not yet been appointed.

THE LARGEST MAN IN AMERICA.—The largest man on the American continent was the late Lewis Cornelius, of Pike County, Pennsylvania, says the *Philadelphia Medical Reporter*. He was considerably larger than Daniel Lambert. Mr. Cornelius' dimensions are entered upon the record books in the prothonotary's office at Milford, Pike County, as follows: "Lewis Cornelius: born 1794. Height, 6 ft. Circumference below waist, 8 ft. 2 in.; circumference above waist, 6 ft. 2½ in.; circumference of arm above elbow, 2 ft. 2 in.; circumference of arm below elbow, 1 ft. 9 in.; circumference of wrist, 1 ft. 3 in.; circumference of thigh, 4 ft. 2 in.; circumference of calf of leg, 2 ft. 7 in.; circumference of ankle, 1 ft. 7 in. Weight, without any clothing whatever, 645½ lbs." This is the only authentic record of Mr. Cornelius' size extant. As he had been sick some time, he lost over fifty pounds of his weight. He was not weighed until after his death, and when in full health would have tipped the scales at seven hundred pounds. His wife was a very slight woman, and weighed just one hundred pounds.

PUBLIC HEALTH.—The annual rate of mortality last week, which was the fourth week of this year, in twenty of the largest English towns averaged 31.0 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Leicester 18, Sunderland 21, Bradford 23, Newcastle-on-Tyne 24, Hull 26, Brighton 26, Portsmouth 27, Leeds 27, Sheffield 28, Plymouth 28, Bristol 28, London 29, Norwich 30, Birmingham 32, Wolverhampton 34, Oldham 34, Salford 36, Nottingham 38, Liverpool 40, and Manchester 46. Scarlet fever showed the largest proportional fatality in Oldham, Sunderland, and Sheffield; and whooping-cough in Liverpool and Leeds. The death-rate from fever (principally enteric) was again considerably below the average. Small-pox caused 53 more deaths in London and its suburban districts; one in Birmingham, and one in Plymouth; no fatal case was recorded in any of the seventeen other large towns. In London, 2,114 deaths were registered, which exceeded the average by 347, and gave an annual death-rate of 29.8, exceeding the rate in any week since the middle of February 1880. During the past four weeks of the current quarter, the death-rate in the metropolis has averaged 25.5 per 1,000, against 27.2 and 27.0 in the corresponding periods of 1879 and 1880. The 2,114 deaths included 52 from small-pox, 28 from measles, 45 from scarlet fever, 8 from diphtheria, 43 from whooping-cough, 2 from typhus fever, 12 from enteric fever, 5 from ill-defined forms of continued fever, 8 from diarrhœa, 2 from dysentery, and not one from simple cholera; thus, 205 deaths were referred to these diseases, being 53 below the average. The deaths referred to diseases of the respiratory organs, which had been 371 and 617 in the two preceding weeks, further rose last week, under the influence of the continued low temperature, to 702, and exceeded the average by 249; 481 were attributed to bronchitis, and 120 to pneumonia. Different forms of violence caused 74 deaths; 70 were the result of negligence or accident, including 14 from fractures and contusions, 16 from burns and scalds, 3 from poison, and 22 of infants under one year of age from suffocation. The deaths of three adults were directly referred to "exposure to cold". At Greenwich, the mean temperature of the air was 32.5°, and 7.4° below the average. The mean was below the average on each of the first six days of the week; the coldest day being Wednesday, when the mean was only 23.5°, and was 16.4° below the average. On Saturday, the mean rose to 45.3°, and showed an excess of 5.1°. The direction of the wind was variable, and the horizontal movement of the air averaged 8.3 miles per hour, which was 5.6 below the average. Rain or melted snow was measured on four days of the week, to the aggregate amount of 0.49 of an inch. The duration of registered bright sunshine in the week was equal to 3 per cent. of its possible duration. The recorded amount of ozone was below the average during the early part of the week, but exceeded the average on Saturday.

THE *Broad Arrow* says, "The want of a serviceable head-dress for the officers of the Army Medical Department is much felt. The existing cocked hat with plume is everywhere condemned as cumbrous, unserviceable, affording no protection from sun or rain, and impossible to be worn with comfort in a high wind. No strain need be put on the inventive genius of the authorities who supervise the tailoring branch of the Horse Guards to devise a new head-dress. The helmet now worn by the Army Hospital Corps is in every way suitable for the medical officers, and a simple order is needed directing this helmet to be worn by all medical officers under brigade surgeon's rank. The senior grades might still wear the cocked hat until it is given up as a dress by the entire staff of the army."

ARMY MEDICAL DEPARTMENT.—Surgeon-Major William Ironside, M.D., in medical charge at Piershill Barracks, died at Edinburgh on the 16th January in his forty-sixth year. The deceased, who was born on the 28th October, 1835, entered the Army as assistant surgeon in April, 1861, and was shortly afterwards appointed to the 71st Highland Light Infantry, with which he did duty in India until transferred to the Royal Artillery. He was afterwards for several years in the Bombay Presidency, and returning home in 1878 was employed first at Stirling and later on at Piershill.—Brigade-Surgeon E. M. Sinclair, from Chatham, proceeds to South Africa in place of Brigade-Surgeon Sampson Roch, withdrawn on account of ill-health.—Surgeons-Major David Renton, from Canterbury; Dr. C. W. Heather, from Jersey; and P. W. Stafford, from leave, are also under orders for the seat of war. All three officers served in South Africa during the Zulu war. Mr. Stafford was in charge of the stretcher bearers at Ulundi.

PRESENTATION.—As a mark of the esteem in which the Very Rev. Principal Caird is held by the community of Glasgow, a portrait of the reverend gentleman, by Millais, was presented, on January 26th, to the Senatus of the University of Glasgow by a number of subscribers. A replica was presented to Mrs. Caird.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 9.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2 o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th. 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Sir Joseph Fayrer, Lettsomian Lecture on Tropical Diarrhœa.—Odontological Society of Great Britain, 8 P.M. President's Address. Casual communications from Mr. A. Coleman, Mr. Percy May, and Mr. F. Canton.

TUESDAY.—Royal Medical and Chirurgical Society, 8 P.M., Ballot. 8.30 P.M., Mr. Frederick Treves, Case illustrating the Condition of Large Arteries after Ligature under Antiseptic and Non-Antiseptic Measures; Mr. Jeremiah McCarthy, Case of Aneurism of Axillary Artery, probably Ruptured, treated by Antiseptic Ligature of third part of Subclavian Artery.

WEDNESDAY.—Hunterian Society, 7.30 P.M. Annual general meeting for the election of officers. At 8 P.M., Hunterian Oration, by A. H. Smee, Esq., in the theatre of the London Institution.

FRIDAY.—Clinical Society of London, 8.30 P.M. Dr. Sutherland, A Case of Chronic Vomiting, in which no food except Koumiss was taken for sixteen Months; Mr. J. W. Teale (Scarborough), A Case of Quiescent Scirrhus; Mr. Heath, A Case of Gangrene of the Arm from a Poisoned Wound: Amputation at the Shoulder, and Recovery; Dr. Whipham, Case of Small Round Celled Sarcoma of the Dura Mater, encroaching on the Left Tempero-Sphenoidal Lobe of the Brain, and producing Extensive Softening in its neighbourhood: Absence of Aphasia, the Patient being Left handed.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE MEDICAL PROFESSION AND INTEMPERANCE IN ALCOHOL.

SIR,—I like the candour of Dr. Reid's letter under the above head in last week's issue; and have no doubt, if each medical man were to forward you an honest account of his individual experience in the same way, you would have more than enough evidence to prove the wisdom of having the subject thus ventilated, and the need for greater care in prescribing alcohol.

Although I have only one sad case in my medical experience of complete drunkenness following the administration of alcohol during sickness, I have known many cases where I had strong reason to believe intemperate habits were established as the result of alcoholic medical prescribing. Mr. Baker is fortunate if he has no painful memories of this sort.

I agree in the main with the remarks in Miss Richardson's recent letter on the subject. (I know her well enough to believe she is incapable of maligning anyone, and am persuaded she thinks, as I do, that medical men, in the discharge of their duties, will bear favourable comparison with any other section of the community, notwithstanding Mr. Tennyson's splenetic effusion). But it may not be unprofitable if we ask, and conscientiously answer, ourselves a few such queries as the following.

1. Is there any truth in the charge sometimes made, that we medical men derive a very large proportion of our work and fees from the direct and indirect effects of intoxicating liquors; and that, from fear of giving offence, we fail in moral courage to condemn the use of alcoholic liquors to those we know are injured thereby?

2. Whilst admitting that alcohol has a therapeutical place on the shelf among the drugs (the only safe place), do we exercise conscientious care in prescribing it, or warn our patients respecting its vicious tendency?

3. Is it not usual and natural to take the doctor's advice; and is it not the nature of alcoholic drinks to educate a craving for taking more, until, unhappily, in many cases the moral balance is lost?

4. Do we not believe that, if an epidemic disease were to break out and destroy a fiftieth part of the number that are destroyed by alcoholic liquors, that the medical forces would be speedily in action to relieve and remove it?

5. Finally, do medical men sufficiently recognise the moral aspect of this question, or feel their true responsibility as guardians of the public health, and do we honestly believe that the questionable therapeutical value of alcohol in any degree compensates for the unquestionable amount of evil wrought by it; or, in other words, should we contend for the medicinal use of arsenic if its widespread abuse and results were so painfully evident as is the case from alcohol?—I am, sir, yours faithfully,

JOHN BRANSON, L.R.C.P., etc.

Carnson House, Rotherham, January 12th, 1881.

SIR,—Permit me to reply to the allies of Mr. Baker, by saying that if any evidence was necessary to prove the want of a sound preliminary education, they supply it. Mr. Richmond's letter is a mere begging the question. I wish to inform him that his hopes are vain; for it is thirty-nine years since the poor old woman was seduced from the faith, and thirty-seven since the publican, in a fit of the blues, sought a grave for his terrors in the sea. It was not in reference to the indiscriminate use of alcohol, but to the varieties of the liquors—brandy, gin, porter, claret, champagne, whiskey, bitter beer, and porter—according to circumstances, that "I prescribed it right and left"; in curtailing my letter, I might have said for this, that, and the other malady I ordered this or that liquor.

Dr. White twice makes me say "ten years"; this is scarcely correct; I wrote "fourteen years". It is fifteen since I ceased to lend my countenance to aid the sale of drink. I deny that I abused the profession. Does he know what the Duke of Northumberland said at the opening of the Newcastle and Durham Medical University? He, in his own observations in his long life, and on the authority of a London physician, fired off some very heavy shots, and the faint hisses of one or two fast students showed he had hit the mark. Neither did "I plead guilty to the indiscriminate use of alcohol ten years ago". He censures me for espousing Miss Richardson's cause, and confining myself to ladies. Would he wish me to tell of men in our own ranks who have shortened their lives? Of three I knew well "who died like a dog; their hands were not bound, nor their feet cast into fetters". In one small town, for three successions of two each, every one of the six practitioners filled a drunkard's grave. How many drunkards did these six men make, both by precept and example? They were not few. "*Cave canem.*" "Do not whistle till you are through the wood." For fourteen years, by tongue and pen, I have laboured in the cause. I boast not of the many, in and out of the profession, I have influenced. I only regret many have not been converted. And now, sir, in conclusion, do insert this closing sentence, which was in my last: "Right glad am I that the younger men are now better taught, and that many of their elders have with your help from time to time become wiser men and sounder and safer practitioners".—I am, sir, yours most respectfully,

J. C. REID, M.D.

Newbiggin-by-Sea.

HERPES AFTER PUNCTURE OF A HYDATID CYST.

SIR,—I notice an account of herpes occurring after puncture of a hydatid cyst. Here, where the disease is common, such an occurrence is recognised as being frequent.—I am, etc.,

W. P. NESBITT.

Adelaide, South Australia.

THE WEST CHESHIRE PROVIDENT DISPENSARY.

SIR,—In reply to the letter of "M.D.", published in the JOURNAL of January 29th, I beg to offer the following remarks.

1. It is true that of the six medical officers on the acting staff of the institution when it was first opened, only three are now on duty. One has died, one has left the locality, and the third has just resigned, finding the dispensary work too great a tax on his time. Theoretically, this last-mentioned medical man is still on the staff; *i.e.*, till the term of the required notice is completed, there is no vacancy the committee have power to fill.

2. It is true the committee in the first instance invited all, or almost all, the medical men in Birkenhead to join the dispensary; and that, since the occurrence of the two vacancies just referred to, some of the younger men have again been requested to join.

3. The exact number of provident members who, after joining, resigned, and the exact amount of donations received, are given in full in the official report for the year, which we send you in due course; and these were published in the notices of the annual meeting which appeared in the local papers.

4. It is true that donations were asked for to defray primary expenses, etc.; and also that a concert was kindly given in aid of the institution by amateurs on the 18th ult., and £28 10s. was thus added to the funds.

5. The "entirely false basis" on which the dispensary has been formed, is the basis approved by the Charity Organisation Society. All the information necessary for starting the institution was obtained through that Society; and the Society's model rules, with scarcely an important alteration, are those which have been in use from the first up to the present.

6. It is true that the West Cheshire Provident Dispensary has admitted members whose weekly wages amount to 40s., or nearly this sum.

I cannot comment upon the observations of your correspondent as to my bad taste. *De justibus non disputandum.*—I am, sir, yours very sincerely,

FRANCIS VACHER.

SIR,—Will you allow me to correct a slight error which occurred in your valuable JOURNAL of the 15th inst., with reference to the above institution? You state that "one of his (Mr. F. Vacher's) latest works is the establishment of a provident dispensary at Birkenhead". Now, although Mr. Vacher was its first president, and since its establishment has rendered very valuable services, directing it through a critical period, when funds were low and opposition strong, still it cannot be said that he was the founder of it, but that it is the result of a long-felt want amongst the working classes in the borough, who had to choose between very heavy (and, in case of long illness, almost ruinous) doctors' bills and the unsatisfactory and pauper-like mode of obtaining medical advice and medicine through the out-patient department of the charitable hospitals. This feeling having become so general, a few working-men waited upon a well-known local clergyman and some others, laying the case before them, and seeking their advice as to the remedy. They were advised to try the provident dispensary system, which appeared to work so well in many other places. Hence the establishment of this dispensary.

As a working-man, I can assure you that we do not like the idea of obtaining medical aid from charitable institutions when we are able and willing to pay small monthly sums on the mutual-assurance principle, much as we appreciate the kindness and forethought of those benevolent gentlemen who have provided such valuable institutions for our benefit in case of accidents, etc., so that we may have the best nursing, etc., better than we could hope for at our own homes; but we think that these hospitals should not be made to do a work which ought to be done either by the parochial authorities or at provident dispensaries.

For our guidance we obtained from the central office of the Charity Organisation Society in London a copy of the model rules and other important documents, on which have been based the rules and proceedings of this dispensary. Further, as you will see from the enclosed copy of our rules, two-thirds of the committee are composed of provident members.

Before this dispensary was opened, a public meeting was held in the Craven rooms, summoned by placards. It was largely attended, and the question fully discussed. Shortly afterwards, another public meeting was called in the same manner, and also well attended, at which the necessary arrangements were made for opening this dispensary. We are determined to make the institution a success; and are grateful to you for your kindly support.—I am, sir, yours respectfully,

Birkenhead, January 22nd, 1881. ALFRED JUDD, Honorary Secretary.

EXPLOSION OF KITCHEN BOILERS.

SIR,—It serves no useful purpose for making apologies for the old-fashioned, but unfortunately not yet obsolete, system of supplying hot water to rooms above the basement by means of a high pressure boiler, working in conjunction with a hot water circulating cistern upstairs and with a cold water tank situated above that. To continue so dangerous a system, and one which is continuously coming to grief, is even criminal. I would not for any client, or for any fee, specify this system of hot water supply, because, under certain conditions of frost or other impediments choking the pipes, danger nearly always accrues; or, if it do not at once accrue, the inmates of the house live in perpetual terror. No amount of expansion pipe or safety valves can completely remove from this ordinary system of hot water supply its dangerous factors. As long only as the sleeping dogs lie all is well.

The only safe system is to abolish altogether the circulating cistern upstairs, and to place it, cylinder-fashion, beside the kitchen fire, in such a manner and at such a level that neither the boiler nor cylinder can be emptied by any draw off. Of course, there would be a sluice to clean the cylinder out during the summer. During the present hard frost, one of these cylinders has been examined, and the evaporation from the cylinder, with a heavy kitchen-fire on, was under three inches, making it certain that it would safely compensate for a three months' frost. This system can be adapted to any kitchener or open fire whatsoever, removes the necessity for a high pressure and low pressure boiler; and has this further great advantage: that the water is even hotter at the top of the house than at the bottom. There are, unfortunately, cylinder systems and cylinder systems; and it is a pity that the rush-to-snatch custom, by unwisely varying the one good pattern, should lead to a batch of *fiascoes* in every country. I have had a hundred or more of these original cylinders fixed during the last six years; and they have never caused me one five minutes' worry.—I am, etc.,

W. EASSIE, C.E.

11, Argyll Street, W., January 27th, 1881.

FRACTURE OF THE FRONTAL BONE.

SIR,—I regret that I did not see Dr. W. B. Hadden's inquiry concerning my case of fractured frontal bone sooner; I should have answered it more promptly if I had. A letter was the means of drawing my attention to it this morning. I have not, so far, been able to find out any change in the mental condition of the subject of the injury described.—I am, sir, yours sincerely,

M. R. J. BEHRENDT.

Burringham, Doncaster, Jan. 27th, 1881.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

MR. TENNYSON AND THE DOCTORS.

UNDER this head, "Penelope", whose excellent letter we quoted recently from the ladies' column of the *Bolton Weekly Journal*, has issued a reply to various correspondents, which will be read with not less interest than her first letter.

"*To the Editor of the Journal.*

"SIR,—A strange and unwarrantable interpretation has been persistently put upon the observations I made in your *Journal* a few weeks ago on Mr. Tennyson's new poem, the "Children's Hospital", by a certain set of impulsive persons, because I strongly object to the picture there drawn of a surgeon, and assert that it is not fair to allow such a portrait to be considered a typical one of a class, as it undoubtedly is, and will be, by most readers. I have never written one word which can be construed in a vindication of, or in sympathy with, vivisection; and yet I am accused of sympathising with vivisection and all sorts of cruelties, and am actually requested to argue this vexed question in your columns. Now, I feel myself as incapable of doing this as I should like the hot-headed railers at men of science to confess themselves to be. Neither I nor they possess sufficient knowledge of what is required to confirm a great physiological experiment to enable us to pronounce an opinion. Where we are ignorant, let us be silent. I know very many medical men—many surgeons and physicians to hospitals—and I gladly bear testimony to their kindness, gentleness, patience, and reverence in the performance of their work. I am at a loss to imagine where Mr. Tennyson found his model. There may be a man in the profession answering to his description; I never saw him, and I think it wrong and unfair that such a picture should be allowed to go forth amongst the ignorant as that of a typical hospital doctor. Mr. Tennyson should have named his man if he be not intended for one of a class. It is very unlikely that the majority of practising surgeons ever performed or witnessed an experiment on a living animal; they do but take advantage of such knowledge as that which was arrived at by the great John Hunter, who tied the arteries in a stag's antler, and thereby discovered the possibility of curing a certain form of aneurism in a human being, a disease entailing long months of agony, ending only in death, and considered to be utterly incurable till this carefully performed experiment showed a way of escape, to which many since John Hunter's time owe their lives. Yet, whether the modern surgeon be responsible for his own experiments, or whether he do but avail himself of the conclusions of others, is not to the point of my letter. I would, as far as I am able to do so, vindicate the character of a body of men whom I value and respect. I am content to leave the question of how their education shall be conducted in their own hands. I believe the men who decide on these matters know far better what is required than either I or Mr. Tennyson, or any of my critics, can tell them; and I also believe them to be as humane and earnest, and as unwilling to commit a cruelty or a wrong as any one of their revilers. Men who spare not themselves in the search for truth; whose tenderness and kindness are proverbial; whose own lives are freely given to save those of others, in whom danger, greater than that of the soldier on the battle-field, creates no dismay in the discharge of their holy and noble calling; may surely be trusted to do what is right, by those who know nothing whatever of their studies or their work. However much my nature may shrink from the idea of inflicting or witnessing pain in any creature, I am willing to trust where I cannot understand; but, where I find goodness, to believe others as averse to cruelty as myself, and not to allow the outcry of the ignorant and uninformed to undermine my faith in humanity as I know it to exist. Until to-day, I was not aware that Mr. Tennyson is related to the treasurer of Guy's Hospital, whose doings in the nursing department of that noble old charity have lately caused so much public discussion. This fact may account for the *animus* of portions of the poem in question. It seems to me that the improved education, both of men and women, in the present day, tends greatly to the increase of conceit, and that we are proving how dangerous is a "little knowledge". Ignorant men and sentimental women now enter the lists to argue with and to decry the practice of men whose whole lives have been devoted to particular and special research. Let such persons go through the same training, and devote years to the study of facts and phenomena of which they are now entirely ignorant, before they venture to criticise and denounce what they ought reverently to respect, if they cannot understand. It is in this attitude that I feel myself on this vexed and painful question.—I am, sir, faithfully yours, PENELOPE.—London, Jan. 18th, 1881."

THE FEVER AT TANDRAGEE.

SIR,—I would feel obliged if you would kindly find room for this correction of an error in my letter about the fever at Tandragee which appeared in your last issue. The sentence, "Nine deaths had occurred in the Union Hospital", should have been "Nine deaths had occurred, *one* of these taking place in the Union Hospital, Banbridge".—Yours, etc.,

EDMOND SHACKLETON, L.K.Q.C.P.I., & L.R.C.S.I.

Tandragee, January 30th, 1881.

"RECTIFICATION".

SIR,—One evening in the early part of the present week, a gentlemanly man about fifty-five years of age, above the average height, with grey hair and beard, called upon me, and requested that I should visit a young gentleman at South Kensington, and report upon his state of health, as he was desirous of borrowing money upon his life policy. On expressing my willingness to take a trip over to South Kensington, my visitor promised to call again on the following day at 5.30, and furnish me with "full details". He then withdrew from his trousers' pocket about a sovereign in silver coin, which he proceeded to count; this done, my visitor stated that, owing to his detention at the Court of Exchequer that day, he had been prevented from "getting up to Coutts'", and that it would be a great accommodation to him if I would lend him five shillings, which he would "rectify" the next evening. He has, however, up to the present time, failed to "rectify" the little debt he had incurred.

I write this with a hope that it may be a means of warning members of the medical profession against this man.—Yours obediently, J. FRENCH BLAKE.

1, Princes Street, Storey's Gate, S.W., January 28th, 1881.

STAMMERING.

SIR,—I am anxious to obtain information on the above subject. Is there any work giving a system by which it can be cured or relieved? I have a patient (an intelligent boy) whose parents are willing to give any amount of attention to the carrying out of any system by which the defect may be remedied; but circumstances will not permit of his going into any institution from home.—I am, etc.,

Liverpool, January 27th, 1881. A. H. F. CAMERON.

INHALATION OF BENZOATE OF SODA IN PHTHISIS.

SIR,—Could you or any of your readers oblige me with the information as to the best mode of inhaling benzoate of soda in the treatment of consumption? It is a German discovery.—I am, yours truly, ROBERT BIRD WILKINS.

Castlehold, Newport, Isle of Wight, Jan. 30th, 1881.

*** Its use by inhalation was recommended by Klebs and Rokitansky (*vide* leading article in BRITISH MEDICAL JOURNAL of January 3rd, 1880, p. 23); but it has not been successful in Germany or elsewhere.

DR. STAINTHORPE.—A treatise on Cottage Hospitals, giving details of construction, cost, etc., by Mr. H. Burdett, is published by Messrs. Churchill and Co.

CHILBLAINS.

SIR,—Will you allow me to call the attention of the readers of the BRITISH MEDICAL JOURNAL to the admirable effects which "anodyne amyl colloid" (Ferris and Co.) has in allaying the irritation of chilblains. After being exposed to the cold and snow for several hours, I suffered intensely from the irritation of chilblains on my feet. I applied the anodyne, and the relief was instantaneous. I have since tried it on several patients, and in each case the result has been the same.—Yours, etc.,

W. J. H. LUSH, M.D., F.R.C.P.E.

Fyfield, near Andover, January 24th, 1881.

TRAPS FOR COUNTRY PRACTITIONERS.

SIR,—For several months past I have been using a "Sanspareil Gig", built by Harrison and Brass of Elgin. The body of this gig rests upon two springs placed transversely; the front spring being immediately under the feet stops all knee-action; and the back, which is situated under the body of the trap, is so constructed as to avoid the jolting caused by passing over uneven surfaces. This is the easiest and lightest trap I have ever ridden in; and for long journeys is less fatiguing to man and horse than most. The only drawback to it is the fault appertaining to most gigs—the egress. It is very elegantly and strongly built.—I am, sir, yours faithfully, M.B.

Oxfordshire.

DR. WM. SMYTH.—To what solution does our correspondent refer?

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. Vincent Jackson, Wolverhampton; Dr. C. R. Francis, London; Dr. Bell Fletcher, Leamington; Mr. W. Fuller, London; Dr. Crichton Browne, London; M.B.; Dr. Thomas Thursfield, Leamington; Mr. E. W. Wallis, London; Mr. H. A. Latimer, Swansea; Experimentia Docet; Dr. J. W. Cook, Manningtree; Dr. W. A. Satchell, Tunbridge Wells; Dr. James Lyon, Glasgow; Dr. S. Dyer, Ringwood; Dr. G. H. De Wolfe, Dore; Mr. Shirley F. Murphy, London; Mr. Richard Jeffreys, Totnes; Messrs. Stodder and Co.; Mr. E. G. Peck, London; Mr. F. Reed, St. Leonard's-on-Sea; Mr. M. R. J. Behrendt, Doncaster; Dr. S. Rees Phillips, Exeter; Mr. M. Cameron, Liverpool; Mr. W. Y. Martin, Walkden; Mr. Francis Toulmin, Upper Clapton; Mr. Lawrence Hamilton, London; Dr. Stainthorpe, Hexham; Dr. Charles Mercier, Leavesden Asylum; Mr. C. S. Lock, London; Professor Haughton, Dublin; Mr. G. Eastes, London; Mr. Arthur H. Benson, Dublin; Our Edinburgh Correspondent; Dr. J. Rogers, London; Mr. Marion Sole, Devonport; Our Glasgow Correspondent; Dr. J. W. Allen, Glasgow; Dr. W. Smyth, Banbridge; Dr. R. C. Smith, Ardwick; Mr. C. Roberts, London; Dr. J. H. Hay, Alloa; Dr. F. Partridge, Stroud; Mr. G. Cartland, Windsor; Mr. T. Sympson, Lincoln; Dr. W. Macewen, Glasgow; Mr. J. Branson, Rotherham; Mr. A. Cooper, London; Dr. F. Milford, New South Wales; Our Dublin Correspondent; Dr. Boerner, Berlin; Mr. M. F. Bury, Barnet; Mr. W. Webster Hoare, Tadcaster; Dr. E. Markham Skerritt, Clifton; Mr. R. Bird Williams, Newport; Mr. G. H. Darwin, Manchester; Mr. J. F. Blade, London; Dr. C. E. Shelly, Hertford; Dr. W. H. Broadbent, London; Dr. Graham Browne, Edinburgh; Dr. A. Ogston, Aberdeen; L. E. X.; Dr. Sutherland, London; Mr. James Hinds, Hulstead; Inquirer, Wandsworth; Squire, Fox, and Co., London; Dr. J. Ingleby Mackenzie, London; etc.

BOOKS, ETC., RECEIVED.

Drainage for Health, or Easy Lessons in Sanitary Science. By Joseph Wilson, M.D. Philadelphia: P. Blakiston.

The Retrospect of Medicine. Edited by W. Braithwaite, M.D. London: Simpkin, Marshall, and Co.

Year-Book of Pharmacy. London: J. and A. Churchill.

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Agent for the Advertising Department in France; J. ASTIER, 67, Rue Caumartin, Paris.

AN ADDRESS
ON
THE CATGUT LIGATURE.

Delivered before the Clinical Society of London, January 28th.

BY JOSEPH LISTER, F.R.S.,
Surgeon to King's College Hospital; Surgeon Extraordinary to the Queen; President of the Society.

[*Concluded from page 187 of last number.*]

I NEED hardly say that this mode of preparation (gradual "seasoning", as the result of mere lapse of time), interesting though it is, would not be satisfactory; it would only have, in a more aggravated form, the inconvenience of the extremely long period which our old method requires. Besides that, it by no means fulfils all the conditions that are required for a perfectly satisfactory state of the catgut for surgical purposes. These conditions I will now mention. In the first place, I have spoken of a short period of preparation. This is very desirable. Then it is essential that the catgut should have proper strength, so as to bear any reasonable strain that the human hands can put upon it, in the thicker forms; as when used, for instance, in such cases as the circumferential ligature of the thyroid vessels in the removal of a goître, or for securing the pedicle in ovariotomy. And it is not sufficient that it should be strong to start with; it is easy to get catgut strong in the dry state; it is necessary that it should be strong after steeping in blood-serum for a while. Take, for example, the case of tumour of the thyroid. I employed six ligatures, and in a former case, where the tumour was larger, I thought it prudent to pass as many as eight, so as to subdivide more the mass that had to be tied; but it is not convenient to tie each of these ligatures as soon as it is passed; and the process of passing takes a considerable time. Now it would be a very sad thing if the residence of the catgut among the tissues soaked with serum for a few minutes, or even a quarter of an hour, should render the catgut so soft that it should give way when we put the strain of the hands upon it. That, then, is another point essential, if the material is to be useful for all the purposes for which it is desired. Then, again, it is necessary that a knot tied upon it should hold with absolute security, not merely in the first instance, but after soaking for an unlimited time in blood-serum. It is further needful that it should not be too rigid; for, as we shall see immediately, it is possible for catgut to be over-prepared; in which case it may remain almost like a piece of wire among the tissues, and ultimately, perhaps, come away by suppuration in consequence of the mechanical irritation which it produces. But while the animal juices must be able to soften it sufficiently to render it mechanically unirritating, yet, on the other hand, it will not do for it to be too rapidly disposed of by absorption. If it is to do duty for the ligature of an artery in its continuity in the immediate vicinity of some large branch, it must remain for a considerable time of good strength, unabsorbed; and, when it is at length absorbed, it is desirable that it should be removed in such a manner that, while it is reduced in thickness, it should still, as long as any of it remains, retain its tenacity.

Now, these are a series of conditions which, I assure you, it is not easy to fulfil completely. I have in various experiments complied with some of them easily enough, but failed in others. Sometimes I have succeeded with all but one, and one has baffled me. I have tried various materials, as you will naturally suppose. One substance that suggested itself was tannic acid, so as to convert the fibrous tissue of the catgut into leather. I succeeded well enough in some respects with tannic acid, applied in different ways; but in one respect I did not succeed. I have not obtained, by means of tannic acid, a kind of catgut that is not too speedily absorbed. Even a piece of kid-leather, cut into a suitable shape for sutures, and rendered aseptic, became too rapidly absorbed. Chromic acid was another agent which I very naturally tried on account of its well known effect in hardening tissues. Chromic acid alone does not work very well; but I found that the addition of some other substances to it aided its action very greatly. By adding, for instance, to the watery solution, a little glycerine, thus producing a reducing action on the chromic acid, we get a different sort of liquid, which acts much more energetically on the catgut. I was highly delighted with the results of the action of this mixture of chromic acid and glycerine; and just at this time it happened that Mr. Oliver Pemberton of Birmingham applied to me for a piece of catgut, for the purpose of ligaturing the external iliac artery in a remarkable case of three aneurisms in one limb—two in the femoral artery and one in the popliteal. I thought I could not do better than send him a piece of my recently-prepared chromic catgut. I did so; and a month afterwards he wrote to me, saying that nothing could be more satisfactory than the result. He had operated antiseptically; the wound had united by first intention; and, so far as the case could go well, all had gone well. There was, indeed, gangrene of the lower part of the leg, which Mr. Pemberton had predicted would occur, in consequence of the existence of four successive obstructions in the course of the arterial channel; viz., the ligature and three solid aneurisms. But the case, under proper management, was doing well. Four weeks later, however, Mr. Pemberton wrote to me again, telling me that, soon after his last report, the patient had begun to show signs of suppuration about the seat of the wound. After a while the abscess opened in the cicatrix, and one day the ligature which he had placed on the artery was found lying unaltered on the granulations. It is now on one of the cards before you—an over-prepared ligature, which had come away, rigid and wire-like, making its way out, as a piece of glass might have done, by mechanical irritation. This opened my eyes for the first time to the possibility of having catgut over-prepared. This over-preparation by means of chromic acid is, I understand, to be found illustrated in a large German school at the present time. I have been told by an American physician, who has lately been in London after spending some time at that school, that the catgut ligatures come away from all wounds to which they are applied in that clinique. They count the ligatures as they put them on, and invariably see them all before the case is done with. The catgut has been over-prepared.

It is by means of chromic acid, however, that I have at length arrived at a result which appears to satisfy all our conditions. But before speaking of the new method, I wish to say a few words more with regard to the old. To what is it that it owes its virtue? In this bottle is some catgut which has been nearly ten months in our old preparing liquid—namely, one part of carbolic acid which has been liquefied by means of water, to five parts of olive oil. In this other vessel again we have catgut which has been the same length of time in a solution of carbolic acid in water. Water will only take up one-twentieth part of its weight of carbolic acid; but the effect produced upon the catgut by the watery solution is very much greater than that brought about by the four times stronger oily solution. In the former case, as you can see, the catgut is almost black, a sort of purple-black; while the other is comparatively pale, very little altered from its original colour. This circumstance shows two things. In the first place, the effect of the watery solution of carbolic acid upon the catgut explains the efficacy of the water in our old method. It is the watery solution of carbolic acid in the liquid of the old method that is the effective agent. But in the second place we see that, when the watery solution is mixed with oil, the fact that it is so mixed limits and checks its operation. If catgut is kept in the watery solution only, there seems to be no limit to the degree of continuous preparation of the gut—so that it becomes more and more dark in colour, and more and more difficult of absorption by the tissues. It is otherwise when the watery solution is blended with the oil. Though the process does go on for many months, there comes a time when it comes to a stand-still. You need not fear that catgut prepared by the old plan is ever over-prepared. There is a specimen on the table, which, at the end of twelve years, is as limp, after steeping for a while in blood-serum, as it would have been at the end of a single year. Therefore we possess in the carbolic oil a means of checking any mode of preparation that we may adopt, keeping it from that time forward not materially further prepared; while, at the same time, the large proportion of the carbolic acid to the oil (one to five) ensures the catgut being maintained perfectly aseptic.

The method of preparation which I have now the honour to bring before you is the following. I dissolve one part of chromic acid in 4,000 parts of distilled water, and add to the solution 200 parts of pure carbolic acid, or absolute phenol. In other words, I use a 1 to 20 watery solution of carbolic acid—only that the carbolic acid is dissolved, not in pure water, but in an exceedingly dilute solution of chromic acid. But minute as is the quantity of the chromic acid, it exerts, when in conjunction with carbolic acid, a most powerful effect upon the gut. The first effect of the addition of the carbolic acid to the chromic solution is to change its pale yellow colour to a rich golden tint. But if the liquid is allowed to stand without the introduction of the catgut, it changes in the course of a few hours to a dingy reddish brown, in consequence of some mutual re-action of the two acids; and a considerable amount of reddish-grey precipitate is formed. If, however, catgut about equal in weight to the carbolic acid is added as soon as the ingredients are mixed, the

* For an account of this case by Mr. Pemberton, see *The Lancet*, Aug. 4th, 1877.

liquid retains its brightness, and the only change observed is a gradual diminution of the depth of the yellow colour; the precipitate which, I presume, still occurs, taking place into the substance of the catgut. As soon, therefore, as the preparing liquid has been made, catgut equal in weight to the phenol is introduced into it. If you have too large a proportion of catgut, it will not be sufficiently prepared; if you have too small a quantity, it may run the risk of being over-prepared.* At the end of forty-eight hours, the chromic element of the liquid has nearly spent itself, and precipitation is complete. The catgut is then taken out of the solution and dried, and, when dry, placed in 1 to 5 carbolic oil: it is then fit for use. I have here a sample of catgut prepared by this method. Although it has been steeped in warm blood-serum since this morning at eleven o'clock, it is still translucent and firm without being rigid, and a reef-knot tied upon it holds with the most perfect security.

The strength of the catgut depends upon different circumstances. In the first place, sheep differ as to the strength of their intestines; and the catgut-maker, if he understands his business, will insist upon having his raw material of a proper kind. In the next place, the intestines must not be allowed to putrefy—they must be used when quite fresh. For these things you must, of course, rely upon the maker of the catgut. In the next place, the preparing liquid causes a certain amount of softening of the catgut, and if it is introduced in loose hanks, this will tend to produce a little uncoiling of the twisted cord, and a still greater degree of uncoiling will take place during drying. It is of very great importance that this should not occur, because it involves weakening of the thread, and that in different degrees in different parts; and this may lead to the gut giving way when you subject it to a strain. The catgut, then, should be prepared on the stretch, both when it is put to soak and when it is put to dry.

I need not enter into the mode in which this can be done by the manufacturer. I may only say this, that the surgeon who wishes to prepare it himself may do it in different ways. For instance, he may take two large test-tubes, one a little larger than the other, and he may wind the catgut on the smaller tube, fixing one end by sealing-wax, winding it round, and then bringing it up again, and fixing the other end with sealing-wax at a higher level than the liquid will reach, putting sufficient liquid into the larger test-tube, and introducing the smaller test-tube with the catgut wound round it, with a little shot to keep it down in the liquid. After forty-eight hours, he takes out the smaller test-tube, and leaves it till the catgut is completely dry. I merely mention this as an illustration, and also as furnishing a hint to some surgeons in private practice who may desire to prepare the catgut themselves. Or a couple of gallipots, one larger than the other, will do just as well. But, as I have already said, the principal uncoiling takes place during drying; and for all ordinary purposes a sufficiently good article is got by putting the catgut loose into the liquid, and making it dry on the stretch by tying the ends of each hank to two fixed points in a room.

In the dry state, catgut prepared by this method is as strong as need be. As to strength in the condition after steeping in blood-serum, I confess it is only this very day that I have obtained evidence that catgut thus prepared is really all that we can desire in that respect. The catgut of the hank from which this specimen was taken measured in the dry state 2⅔ hundredths of an inch in diameter, and broke at 13 lbs. 6 oz. I have found, by experiment, that 10 lbs. is the utmost strain that my arms are able to put upon a cord. Thirteen pounds six ounces, then, is amply sufficient; while, at the same time, the catgut is not at all too large for going into the eye of an aneurism-needle. Having obtained, the other day, some fresh blood of a cow from the slaughter-house, I took some of the serum to-day, and put two pieces of this same hank of catgut in the serum, and I placed it in a stoppered bottle in a warm box at a temperature of 98° Fahr. After more than half an hour, I tested the breaking strain (I must not stop to explain how that is done†); and I found that the breaking strain of the same catgut which in the dry state had broken at 13 lbs. 6 oz., was 11 lbs. 4 oz.; that is, though suppled by the serum, it had only lost in strength two pounds out of thirteen. I think that is really all that can be desired.

The only remaining condition to be considered regarding the new catgut, is its suitable behaviour among the tissues. Before describing this, I wish to say a few words regarding the manner in which catgut is absorbed. It has been said of late, by various persons, that the catgut is dissolved by the serum. I must confess that this is entirely contrary to my own experience. I have already said that, in order to test the quality of catgut, you must have it steeped in blood-serum. I have tested in this manner catgut prepared in various ways. The serum has sometimes been putrid; sometimes it had no smell at all; and sometimes it had a little odour. This serum has been kept about the temperature of the body; but I have never seen the slightest indication of any chemical solution of the catgut. Then, again, as to the behaviour of the catgut in the body: suppose we use it as a stitch, if the catgut were disposed of as a matter of chemical solution, we should expect that, when it is employed as a suture, and a piece of our protective is put over it, which is always kept moist with serum perpetually oozing from the wound, the outer parts of the stitch, the parts outside the skin, as well as the parts among the tissues, would show signs of diminution. It is never so. The diminution is always absolutely limited to the parts within the tissues. It is still more striking, as was suggested to me by Mr. Cheyne, to consider the case of catgut used as a drain. There its very function is to drain out the serum, and it is perpetually washed with it. You might suppose that a stitch might perhaps become a little dry; but here there can be no mistake: the serum from the wound is perpetually flowing over the gut; yet, as in the case of the suture, we find the diminution of the catgut is absolutely limited to the part within the tissues. This seems to me sufficient evidence that it is not a question of the mere chemical solution of the catgut, but of the disposal of the catgut in some way or other by the living textures.

Now, if we examine catgut in the process of diminution, we find that it may be affected in one of two ways. If it have not been properly prepared, the substance of the catgut becomes converted in the course of a very few days into a soft pultaceous mass, which, when we examine it by a microscope, we see consists of remains of the old cellular tissue of the submucous coat, with the interstices among the fibres filled with cells of new formation. The catgut tissue is infiltrated with young growing cells, and it is obvious it is this infiltration which is the cause of the softening. But, on the other hand, if the catgut is properly prepared, instead of being infiltrated by the cells of new formation, it is only superficially eroded. I have here a pretty example of catgut prepared by the new method that has been served in that way by the tissues. You will see that, at the part which was among the tissues,



In this woodcut, the suture referred to is represented magnified five diameters. Its actual thickness was one fiftieth of an inch. The part between *a* and *b* is that which had been among the tissues.

there remains a very slender residue of the catgut, all the rest having gone; but that slender residue continued firm and translucent, showing not even a superficial infiltration; in short, having exactly the characters that we desire for catgut required for the ligature of an artery in its con-

* A moderate excess of the liquid, not exceeding twice the prescribed amount, does not produce any serious degree of over-preparation.

† The mode of proceeding was as follows. A piece of steel, of horse-shoe form, is suspended by a ring on the middle of its convexity, so that the horns of the horse-shoe are dependent; these horns being perforated for the reception of a cylindrical bolt of steel, which thus lies horizontally, and can be removed at pleasure. A piece of the catgut having been tied in a double knot, the bolt is partially withdrawn, and is readjusted after the noose of the catgut has been slipped over it. Into the lower part of the catgut-ring thus suspended is passed the upper end of a pot-hook, to the lower part of which are attached weights approaching what the gut is likely to bear, and also an empty bag, into which shot is poured till the cord gives way. The shot is weighed; and the result, added to the other weights, gives double the breaking strain of the gut; for, as the cylindrical bolt works with perfect smoothness in its bed, it adjusts itself so as to prevent inequality of strain in the two sides of the catgut-ring, which thus take an exactly equal share in sustaining the weight.

tinuity—namely, that till the last, even though reduced in dimensions, it shall retain some degree of its original firmness and tenacity. We know that antiseptic treatment has shown that a piece of dead bone may be absorbed, provided it be not putrid: the granulations that overlap it superficially may, so to speak, erode it. It is not necessary for us now to consider how that is effected; but certainly, in some way or other, the granulations do what mere steeping in serum, whether putrid or non-putrid, never would do. Never, I believe, would the bone be dissolved by the serum. And just as a non-putrid sequestrum is served by the tissues, so is a well-prepared specimen of catgut; it is superficially eroded. I have here a stitch that I removed to-day from a wound made ten days ago—a wound made for stretching the anterior crural nerve, which was stretched, as well as the sciatic, in an aggravated case of sciatica. You may see that, as yet, it shows no signs of erosion. We know by experience that, if it were left three or four more days, we should probably find it eroded, as the former specimen shows; but, until nearly a fortnight has elapsed, erosion does not begin. It then proceeds gradually, and, therefore, the thicker the catgut, the longer is the time required for its complete removal. We may fairly consider that from a fortnight to three weeks is long enough for the persistence of a ligature upon arteries, without continuity. [Three days later I removed two remaining ligatures from the case last referred to, and found both of them slightly eroded superficially.]

I have brought with me the carotid artery of the calf in which I first established the fact of the substitution of new living tissue for the dead old tissue of the catgut.* If any gentleman will examine the specimen after the meeting, he will see the ligatures of new formation incorporated with the external cellular coat of the artery. I have been strangely misunderstood as having intended to convey the idea that the catgut, when it becomes organised, comes to life again. Gentlemen, such an absurd notion certainly never entered into my head any more than, when I have spoken of the organisation of a blood-clot, I have meant by that expression to convey the idea that the blood-clot becomes organised by its own inherent virtue. I found the term "organisation" ready to my hand; it was no term of my invention. It was used with reference to lymph. Now pathologists, in speaking of lymph as becoming organised, did not, I suspect, mean by that expression to imply that it was the lymph-substance that had the power of self-organisation, as distinguished from any influence that surrounding tissues might exert upon it. So in the same way the expression "vascularisation of lymph", was used when it was universally believed by pathologists that the blood vessels were formed only as loops from pre-existing blood-vessels. Now-a-days a different view may be taken, but the term "vascularisation of lymph" was employed without any notion that the lymph itself created the blood-vessels. And so when I spoke of the organisation of the blood-clot or of catgut, I never meant to convey the idea that either the one or the other did the work itself. As to the blood-clot, we know that if it remains free from putrefaction among the tissues, it speedily becomes infiltrated with cells of new formation. Whether the white corpuscles originally present in the clot take any part in the formation of these new cells is a question now under discussion, and one, I conceive, not at all prejudiced by the use of the term "organisation of the blood-clot". With regard to catgut, I think if gentlemen would refer to my original paper in the *Lancet*, they would see that I stated very explicitly that new tissue forms at the expense of the old, that the old tissue is absorbed by the new, and that as the old is absorbed, new is put down in its place.

In conclusion, gentlemen, I venture to recommend the new chromic catgut as in all respects deserving of your confidence, and at the same time to thank you sincerely for the patient attention with which you have listened to this address.

* See *The Lancet*, *loc. cit.*

NATIONAL HOSPITAL FOR CONSUMPTION, VENTNOR.—The annual meeting of the governors was held at the offices, 12, Pall Mall, on Wednesday, February 2nd. In the absence of the president, Viscount Eversley, the chair was taken by Sir Harry Verney, Bart., M.P., vice-president. The report presented recorded a continuance of the efficiency of the institution, and that an increased number of patients had been benefited by treatment at the hospital during the past year. The receipts for the year amounted to £7,216, and the expenses to £7,380. Legacies amounting to £637 4s. 11d. had been received. H.R.H. Prince Leopold was elected president in succession to Viscount Eversley. The medical report was read by the hon. visiting physician, Dr. Sinclair Coghill, and it stated that 598 patients had been treated, the mortality being only 2.8 per cent. The report was adopted, and the meeting terminated with a vote of thanks of the chairman.

A LECTURE
ON
BACKACHE, AND THE DIAGNOSIS OF ITS VARIOUS CAUSES, WITH HINTS ON TREATMENT.

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GENTLEMEN,—The careful study of a particular prominent symptom, with a view to ascertain the various causes from which it may arise, is often of great practical utility. I propose now to make this inquiry with regard to the very common symptom *backache*. A patient comes to us complaining of pain in the back; and, as an essential preliminary to the suggestion of a remedy, we endeavour to ascertain the precise seat, the nature, and the cause of the pain.

I will first refer to the more common causes of backache, and afterwards to those which are of less frequent occurrence.

In the great majority of cases, the pain of backache has its seat in the muscles, and is a simple result of strain or over-fatigue of the lumbar and erectores spinæ muscles and tendons. Everyone must have had personal experience of the pain and soreness resulting from muscular fatigue consequent on any unaccustomed or unusually prolonged or violent exertion or strain. One remarkable feature of the pain which results from excessive muscular exercise is that, while it may continue more or less during rest in bed, it is usually much increased by the first movements after rest, but gradually diminishes after moderate exercise.

While investigating the various causes of muscular lumbago, it is well to bear in mind that standing still is more fatiguing for the legs and the back than walking, and that leaning forward puts a greater strain on the muscles of the back than standing erect. The backache resulting from fatigue of the dorsal muscles is often bilateral, and equally severe on the two sides; but not unfrequently it is confined to one side, or is much more severe on one side. This is accounted for by the common practice of throwing the weight of the trunk, while standing, more upon one leg; the spine being more or less laterally curved, and the muscles on one side, therefore, having a greater strain upon them than those of the other.

A common cause of painful overstrain of the dorsal muscles is an excessive weight in the abdomen, such as results from the advanced stage of pregnancy; an accumulation of dropsical liquid, whether ascitic or ovarian; or an excessive development of fat. It is obvious that the continued effort required to maintain the erect posture with an exceedingly ponderous abdomen must often cause a painful strain of the dorsal muscles.

I do not propose now to discuss the treatment of abdominal dropsy. Pregnancy in due course brings its own natural cure; and an excessive weight of fat may be lessened and regulated by a system of diet which reduces to a minimum the amount of oily, saccharine, and farinaceous articles of food. It happens to me very frequently to be consulted by fat men and women suffering from pain in the back, who come to me under the impression that their pain has its seat in the kidneys. For the permanent relief of these cases, I rely mainly upon the following dietary; and I have received many grateful acknowledgments of the relief thereby afforded.

*Diet for Excess of Fat.—May eat:** Lean mutton and beef; veal; lamb; tongue; sweetbread; soups, not thickened; beef-tea and broths; poultry; game; fish of all kinds; cheese; eggs; bread *in moderation*; greens; spinach; water-cress; mustard and cress; lettuce; asparagus; celery; radishes; French beans; green peas; Brussels sprouts; cabbage; cauliflower; onions; broccoli; seakale; jellies, flavoured, but not sweetened; fresh fruit in moderation, without sugar or cream; pickles.—*May not eat:* Fat bacon and ham; fat of meat; butter; cream; sugar; potatoes; carrots; parsnips; beetroot; rice; arrowroot; sago; tapioca; macaroni; vermicelli; semolina; custard; pastry and pudding of all kinds; sweet cakes.—*May drink:** Tea, coffee, cocoa from nibs, with milk, but without cream and sugar; dry wines of any kind in moderation; brandy, whiskey, or gin, in moderation, without sugar; light bitter beer; Apollinaris water; soda water; seltzer water.—*May not*

* If any of the above permitted articles of food or drink should be found to disagree, they are of course to be avoided.

drink: Milk, except sparingly; cream; porter and stout; sweet ales; sweet wines. As a rule, alcoholic liquors in any form should be taken only very sparingly, and never without food.

There yet remain for special mention some varieties of backache having their seat in the muscles. Amongst the patients who consult me under the erroneous impression that they are suffering from disease of the kidney, are a considerable number who, in addition to pain in the back, are alarmed by the turbidity of the urine. The urine is excessively acid, often of high specific gravity, and, on cooling, deposits an abundant sediment of urates. Neither albumen nor sugar is present; but an excess of nitric acid often causes a copious crystallisation of nitrate of urea. Most of this class of patients are dyspeptics, and not a few eat and drink to excess. Now there is good reason to believe that the backache and the muscular pains in the limbs of which these patients complain are the result of malnutrition and irritation of the muscles, consequent on some defect in the processes of digestion and assimilation. Muscular rheumatism may be a result of *muscular dyspepsia*. It is highly probable that, for instance, a mutton-chop—the muscle of a sheep—which should be so thoroughly digested and assimilated as to nourish and strengthen our human muscles, may, through some defect of the primary digestive or secondary assimilative processes, reach the muscles in a state unfit to nourish them, and rather calculated to fret and annoy them. Thus, in this form of dyspeptic myalgia, while the muscles are starved and tortured, their unassimilated nutriment is ejected by the kidneys in the form of urea and urates.

The successful treatment of this class of cases obviously depends upon our ability first to discover and then to remove the causes of the imperfect digestion, which is the primary source of the muscular pains. With this object in view, each case requires a separate and careful study, in order to discover which amongst the numerous causes of imperfect digestion is operative in any given instance. Amongst the most common removable causes of indigestion is imperfect mastication of the food, either from the loss of the molar teeth or the common habit of rapid eating without thorough mastication; the result being, first, that the food is not sufficiently mixed with the saliva which is poured into the mouth during the process of mastication: and, secondly, that the food is swallowed in large masses which are difficult of digestion. In a large proportion of cases, the diet requires to be carefully regulated as regards both quantity and quality, especial care being taken to avoid excess of any kind, whether in food or drink; and most dyspeptics should be warned to avoid soups, sauces, nuts, pickles, spices, salted, smoked, dried, potted, or otherwise preserved meats, on the principle that most *antiseptics* are *antiseptics*, the process of digestion being, in fact, a form of regulated physiological fermentation; The following articles of food and drink are also more or less indigestible, and therefore to be avoided by dyspeptics: veal, pork, dried fish, lobster, salmon, pies, pastry, new bread, cheese, jams, raw vegetables, dried fruits, malt liquors, effervescing wines, liqueurs, cyder, and all stimulants without food.

There is a form of muscular pains from which young people often suffer, and which are commonly called "growing pains". These pains are, in fact, the result of over-fatigue of young and growing muscles. I have a vivid recollection of having suffered severely from these pains when I was a rapidly growing youth. The chief remedy or preventive is to be found in rest and the avoidance of over-exertion and fatigue, while the nutrition of the muscles is promoted by fresh air and wholesome food in sufficient quantity.

There is a severe form of lumbago which often comes on suddenly during the act of stooping to pick up something from the floor, or perhaps to pull on a boot. The patient, in the act of stooping or rising, is suddenly seized with a severe pain in the back, which is aggravated by every attempt to assume the erect posture. This sudden pain is probably caused by cramp or the rupture of some fibres of a muscle during the act of contraction. It is a well-known fact, that a muscle may be torn across by its own active contraction. The late Dr. Sibson, who was a remarkably fine muscular man, and much given to athletic exercises, was one day amusing himself by swinging a heavy wooden club, when, on stepping backwards, he had a sudden sensation of having been sharply struck by a stick on the calf of the leg. The muscles of the calf were found to have been extensively and deeply torn across; and the result was, that for several weeks he had to walk with crutches, while the suicidal muscles were undergoing repair. It is manifest that, short of such extensive injury as this, severe and prolonged myalgia may result from strain and mechanical tearing of over-exercised muscles and tendons. There are few persons who have not had personal experience of the muscular soreness which remains often for days after a severe attack of cramp. The common exciting causes of cramp are fatigue and cold and disorders of digestion. An indigestible article of food, which in one individual will cause pain and cramp in the stomach, may in another excite cramp in one or more muscles, thus affording another illustration of "muscular dyspepsia".

When the nutrition of the muscles has been impaired by long inaction, the result of confinement to bed by illness or a mechanical injury, such as a broken leg, pains in the back and limbs often follow the first attempts at exercise during convalescence; and these pains usually continue with more or less severity until by degrees the muscles regain their normal state of nutrition and vigour. It is often necessary to warn those who are attempting to strengthen their muscles by exercise, that over-exertion and fatigue tend rather to weaken than to invigorate the muscles.

Amongst the exciting causes of muscular pains, whether in the back or elsewhere, exposure to cold and damp is no doubt common and influential. A so-called stiff neck is often excited by a draught of cold air, and a severe attack of lumbago has often been excited by sitting or standing in damp clothes. For the relief of this form of myalgia or muscular rheumatism, the diaphoretic influence of a hot-air or Turkish bath, or of a warm-water bath followed by a vigorous rubbing or shampooing, is often very efficacious. Another useful local remedy is an embrocation composed of equal parts of Mr. Cum belladonnæ and linimentum opii, either rubbed into the skin over the seat of pain or sprinkled on the rough surface of piline, which is then bandaged over the painful part.

Aneurysm of the Aorta.—Amongst the less frequent, but more formidable causes of severe and persistent backache, is pressure on the bodies of the vertebræ by an aneurysm of the abdominal or of the thoracic aorta. In all cases of severe pain in the back the possibility of aneurysm should be constantly borne in mind, and the signs carefully investigated. In case of suspected abdominal aneurysm, place the patient on his back, with the thighs flexed towards the abdomen, and the abdominal muscles relaxed; then press the ends of the fingers backwards towards the aorta, taking care not to mistake the merely nervous pulsation which occurs in excited states of the circulation, especially in anæmic women, for the expansive pulsation of an aneurysm. A soft blowing sound may always be excited by the pressure of the stethoscope on any large artery, but in most cases of abdominal aneurysm a more or less rough murmur is heard on applying the stethoscope even lightly over the pulsating tumour; and this sound, being conducted through the bones, is often distinctly audible at the back over the spinous processes of the corresponding vertebræ.

It not unfrequently happens that an abdominal aneurysm bursts, and forms a false aneurysm behind the peritoneum; and such a tumour, taking a lateral course towards the loin, may seem to be so remote from the aorta as to be mistaken for a tumour of a different kind.

In September, 1877, I had under my care in the hospital George V., aged 39, who for several months had suffered from very severe pain in the back and in the left loin and thigh. We found, beneath the false ribs on the left side, a soft pulsating tumour, over which a bellows-sound was heard. I took it to be a medullary tumour, so vascular as to give rise to the pulsation, and a blowing sound; the pain being caused by the pressure of the tumour on the lumbar plexus of nerves. In spite of the free hypodermic employment of morphia, the poor man died on November 4th, worn out by the pain, and we found that the tumour was a false aneurysm. There was a small opening at the back of the aorta, just below the diaphragm; and the blood, having forced its way behind the peritoneum, had quite surrounded the left kidney. There had been no escape of blood into the cavity of the peritoneum. A false aneurysm in this situation sometimes attains an enormous size.

On September 17th, 1872, I saw at my own house a gentleman, Mr. J. T., aged 35, who for fifteen months had suffered from severe pain in the back, and latterly in the left testicle. I found a pulsating tumour in the epigastrium, over which a loud bellows-sound was heard. The impulse of the aorta was distinctly heard over the lower dorsal spinous processes. Two days afterwards I saw him at his own house, and was told that the night before, while lying on the sofa, he had a sudden increase of pain in the left side of the abdomen, and appeared to be dying. He now complained of tenderness in the left loin, where I found a pulsating fulness over which a bellows-sound was audible. I concluded that the aneurysmal sac had given way, and a false aneurysm had formed in the connective tissue behind the peritoneum. On September 26th, I again saw him, and found that the pulsating tumour extended from the margin of the ribs to the crest of the ilium, and as far as the median line of the abdomen. He died a few days afterwards, having been seen in the interval by Sir James Paget and Sir William Gull, who confirmed my diagnosis. No *post mortem* examination was made.

I have met with two cases in which the diagnosis of abdominal aneurysm was rendered somewhat doubtful by the liver being placed in front of the aneurysm. The first case occurred in the hospital, under

the care of Dr. George Budd, when I was house-surgeon, in 1843. A man, D. M., aged 38, had suffered from pain in the back for three years, and for a year there had been pain in the right shoulder. A tumour, having the form and position of the liver, extended as low as the umbilicus. The hepatic dulness extended as high as the right mamma, and the lower ribs bulged outwards. Over the whole abdominal portion of the tumour a strong heaving impulse was felt, and a loud, rather rough murmur was heard. The murmur was also heard at the back over the lower dorsal spinous processes. After remaining some days in the hospital he died quite suddenly. I saw him, with my friend Dr. Russell of Birmingham, who was then house-physician, immediately after his death, when we found that the hepatic swelling had disappeared, and had been replaced by a feeling of fluctuation over the whole abdomen. The abdominal cavity was filled with blood, which had escaped from a ruptured aneurysm of the aorta, large enough to hold at least a gallon. The liver had become flattened and expanded over the surface of the aneurysm, so that along the longitudinal fissure the hepatic substance was not more than half an inch thick.

The other case was one, the history of which I published in the *Pathological Transactions*, vol. x, p. 99. A carpenter, aged 37, had suffered from pain in the back for a year before his admission into the hospital, December 31st, 1858. About seven weeks before admission he first detected a swelling at the pit of the stomach. There was a pulsating tumour at the epigastrium, rather to the left of the median line; above, it seemed to press beneath the ribs, but below it had a well-defined margin about an inch above the umbilicus. Its anterior surface was rounded and convex, and it distinctly descended during a deep inspiration. No murmur was at first heard over the tumour or over the spinous processes at the back, but on January 13th it was first noticed that a bellows-sound was audible, not over the most prominent part of the tumour, but at its upper margin, just below the ensiform cartilage. The sound continued to be heard from that date. The tumour appeared to increase in size, until it could be just covered by the half-closed hand. On February 6th, while he was sitting up in bed, he suddenly vomited a large quantity of fluid blood, his face became blanched, and he quickly died. After death, the tumour in the abdomen could not be felt. On opening the abdomen, it was found that the tumour which had been felt during life was formed by the lower margin of the right lobe of the liver. This portion of the liver was indurated by a deposit which was probably a syphilitic gumma, though he denied having had syphilis. The morbid mass was separated from the bulk of the liver by a deep fissure, evidently the results of atrophy of a portion of hepatic tissue. The liver weighed 3lbs. 14ozs. The semi-detached portion of liver before mentioned lay in front of an aneurysm, which sprang from about the middle of the abdominal aorta. It was about the size of the double fist; its pressure had caused erosion of the bodies of the second and third lumbar vertebræ, and its cavity communicated by a round opening, about two or three lines in diameter, with the lower portion of the duodenum. The stomach and the small intestines contained much clotted blood.

The phenomena in this case were very perplexing. The persistent backache, the pulsation, and the bellows-sound led me to the diagnosis of an aneurysm, but until the abdomen was opened I could not explain the movable tumour which descended at each deep inspiration.

Aneurysm of the *thoracic aorta above the arch* is, according to my experience, of less frequent occurrence than aneurysm of the abdominal aorta. It is usually associated with severe pain in the back, resulting from the pressure of the aneurysm on the vertebræ and the ribs. In one case which I saw, with the late Mr. Lavies, at the Westminster Prison, the physical signs were dulness or percussion in the left interscapular region, with an audible impulse and bellows-sound. In another case, seen many years since, with a deceased relative, in the Cranbrook Union House, the aneurysm had caused absorption of the ribs, and formed a prominent pulsating tumour below the angle of the left scapula.

Cancerous Glands in the Abdomen are amongst the comparatively rare causes of pain in the back. Within the last three years I have seen in consultation four cases of malignant disease, in which, there having been a pulsating tumour in the abdomen, the diagnosis between cancerous glands and abdominal aneurysm was in the earlier stages by no means easy.

Case I. Mrs. H., aged 65, was seen with Dr. Butler, of Winchester, in July 1878. There had been constant pain in the back and in the left loin and thigh since April. The pain *was worse at night*. A pulsating tumour was felt at the epigastrium without audible murmur, but the pulsation was heard over the lumbar spinous processes. There was loss of flesh, which went on increasing. In September, a hard swelling was felt at the umbilicus, and another in the right groin, which, as Dr. Butler in writing to me said, confirmed the diagnosis of malignant disease. She died at the end of December. In the meantime, the liver had become much enlarged; there was some jaundice, ascites, and swelling of the legs. There was no *post mortem examination*, but the disease was evidently malignant.

Case II.—Mr. G. B., aged 38, seen, with Dr. Hearnden, of Sutton, and Mr. Drake, of Brixton, first in September 1878. In this case there was constant pain in the back, *worse at night*. A pulsation was felt, and a bellows-sound heard at the epigastrium, and my first diagnosis was aneurysm; but in the course of a few weeks, he rapidly lost flesh; and when I last saw him, in March 1879, he was much emaciated. He had been jaundiced for some weeks; there was ascites and some swelling of the legs. He died in April. There was no inspection, but it was undoubtedly a case of malignant disease.

Case III.—Mrs. H., aged 67, seen with Mr. Holberton, of Hampton, in September 1878. There had been pain in the epigastrium and back for three months, uninfluenced by food; also loss of flesh and strength. There was a diffuse pulsation in the epigastrium without audible murmur. She continued to lose flesh and strength, the pain in the back continued, and towards the end there was vomiting. There was no inspection, but Mr. Holberton wrote to me that latterly he believed that both the stomach and the liver became involved in the malignant disease. She died in March 1879.

Case IV.—J. T. A., aged 31, seen with Mr. James Connor, of Battersea, on April 4th and 30th, 1879, had pain in the back—*worse at night*—since January. The pain was not made worse by food, or by exercise. He was pale, and had lost flesh considerably. A pulsating tumour was felt in the epigastrium, and a blowing murmur was heard. He continued to lose flesh and strength, and died on October 5th. A large mass of cancerous glands was found "behind and below the stomach, and in front of the aorta," as I learn from my friend Mr. Connor, who made the *post mortem* examination.

In all these cases, it will be seen that pain in the back was a constant symptom. In all there was a pulsating tumour at the epigastrium; in two there was an audible murmur, while in the others no murmur was heard, though in one of these the sound of pulsation was conducted through the vertebræ to the back. It is remarkable that in two cases the pain was more severe at night, and in only one was it spoken of as made worse by exercise. The pain of abdominal aneurysm is usually relieved by rest in the recumbent posture, and aggravated by exercise. In all the cases there was a more or less rapid loss of flesh and strength, and death within a period of about nine months from the commencement of the symptoms.

The persistent backache and epigastric pulsation are common to cases of abdominal cancer and aneurysm. In the former a blowing murmur is less common than in the latter. One main difference between the two diseases consists in the evidence of serious constitutional disorder, with progressive emaciation, and death within a year from the onset of malignant disease.

Diseases of the Kidneys, although a less frequent cause of pain in the back than is generally supposed, is a not uncommon cause of more or less severe pain in one or both loins. The forms of kidney-disease which are the most frequent causes of lumbar pain are calculus in the kidney, but especially in the ureter, malignant or scrofulous disease with enlargement of the gland, acute congestive forms of Bright's disease, temporary blocking of the ureter by a blood-clot in cases of renal hæmorrhage, distension and dilatation of the pelvis of the kidney resulting from retention of urine, whether caused by stricture of the urethra, enlargement of the prostate, or paralysis or other morbid condition of the bladder. In some gouty and dyspeptic subjects, nephralgia appears to result from the highly acid and irritating quality of the urine. I do not propose now to discuss the diagnosis of the various forms of kidney-disease to which I have here referred. To do so would require more than one lecture, and I have discussed this subject fully elsewhere.

Gastric Ulcer.—It may be well to mention in passing that the pain of simple ulcer of the stomach is usually felt not only at the seat of the ulcer, which is generally at the lesser curvature or in the posterior wall of the stomach, but it is also referred to the corresponding spot at the back. This is an example of a referred or reflected pain.

Uterine Disease and Displacement.—Amongst the common causes of backache in females, are certain morbid conditions and displacements of the uterus, the diagnosis of which is important, inasmuch as many of them admit of much relief by suitable treatment. As this is a special subject of which I have little practical knowledge, I dismiss it with this brief reference.

Disease of the Bones of the Spine, and of the Spinal Cord.—Amongst the most serious forms of pain in the back are those which result from disease of the bony column, or of the spinal cord, or its membranes.

The most common form of disease of the vertebræ is the strumous, with angular curvature, and often with lumbar or psoas abscess. The bones of the spine, too, are sometimes the seat of malignant disease. The spinal cord and its membranes may become secondarily implicated in cases of primary disease or injury of their bony sheath, but more frequently disease of the cord and its coverings is unconnected with disease of the vertebræ. In cases of *spinal meningitis*, there is, as a rule, more pain in the back than when the substance of the cord is alone affected. The pain is usually increased by movement, by percussion on the spine over the seat of disease, and by hot applications to the surface. The pain is often referred to the extremities of the nerves which pass out from the part affected, and is commonly associated with numbness, a sense of tingling, and other perverted sensations.

A sense of constriction across the chest is a frequent symptom. There is often spasmodic twitching of the muscles; and in proportion to the affection of the substance of the cord is the frequency of paralysis (paraplegia) affecting the parts below the seat of disease, and implicating not only the voluntary muscles, but also those of the bladder and rectum, with resulting retention or incontinence of urine and fæces.

Disease of the spinal cord itself is usually attended with less pain than when the membranes are the seat of disease. Inflammation of the substance of the cord (myelitis) may quickly result in paraplegia, with little or no local pain in the back. In some cases of spinal *hæmorrhage*, too, paralysis below the seat of pressure has been associated with little or no pain; while, in others, more or less severe dorsal pain has marked the onset of the hæmorrhage.

Pressure on the spinal cord by a *tumour*, fibrous, strumous, or cancerous, has often been associated with severe pain in the back. In a case recorded by Mr. Shaw (*Pathological Transactions*, vol. ii, p. 24), paraplegia was caused by two scrofulous tumours occupying the interior and lower part of the spinal cord, and invested on all sides by a thin layer of medullary matter. In that case, the pain in the lumbar region was so severe that the symptoms were supposed to result from caries of the vertebræ; and the more so, as there was a slight projection of one of the lumbar spinous processes.

The pain resulting from a tumour pressing on the spinal cord is very variable. In one case quoted by Dr. Abercrombie, the first symptom was neuralgic pain in the arm, which diminished as paralysis came on; in another case, the patient had sciatic pain extending to the toes. Mostly the pain is referred to the back, and indicates the seat of the disease; thence it radiates in the direction of the nerves whose roots are invaded. When there is no actual pain, there may be modifications of sensation, such as a sense of coldness or heat, or sudden alternations of these; numbness and pricking, or formication. Next in frequency to pain are muscular contractions in the affected limbs, followed in some cases by rigid flexion of a limb, and attended by a great susceptibility to the excito-motor stimulus, and, in a yet further stage, by complete paralysis. In short, the effect of moderate pressure on the cord is to cause spasm and neuralgia, passing on, with increase of the lesion, to paralysis and complete anæsthesia.

I scarcely need warn you to be vigilant and careful not to mistake any of these formidable diseases of the spinal cord and its membranes for the muscular and rheumatic affections to which I referred in the earlier part of this lecture.

There is an acute and transient form of backache which probably has its seat in the spinal cord. I allude to the pain in the back which occurs at the commencement of many acute diseases, especially the febrile exanthemata, and which is usually much complained of during the initiatory fever of small-pox. In some cases which have proved to be nothing more serious than febrile catarrh, the initiatory backache has been so severe as to excite a suspicion of incipient small-pox.

EPILEPSY PRODUCED BY PICROTOXIN.—Drs. Chirone and Testa thus sum up the result of their researches on the action of picrotoxin, in the *Annali Universali di Medicina e Chirurgia* for April 1880. 1. Picrotoxin is capable of producing a true artificial epilepsy. 2. This epilepsy is independent of the psycho-motor centres; it is, indeed, more intense after their removal. 3. The picrotoxin acts first on the medulla oblongata and on the commissural fibres between the brain and spinal cord, and then on the spinal centres themselves. 4. This shows the existence of a functional antagonism between the psycho-motor centres, and the motor centres of the medulla oblongata and spinal cord. 5. The convulsive movements of the limbs produced by picrotoxin are due in the first place to its action on the medulla oblongata. This action is propagated to the spinal cord. 6. In the frog, the influence on the spinal functions is more marked than on the cerebral; while in higher animals the cerebral motor centres are more affected. 7. Cinchonidin is capable of producing epilepsy of cerebral origin; picrotoxin, epilepsy of spinal origin.

CLINICAL LECTURE
ON
SOME VARIETIES OF NERVOUS HEADACHE.

Delivered at the Samaritan Hospital.

BY WILLIAM HENRY DAY, M.D.,
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2. *Neuralgic Headache.*—In my last lecture (BRITISH MEDICAL JOURNAL, January 24th, 1880), I spoke of nervous headache, and I attempted to divide the subject into four varieties. I alluded to the characters of each variety, and I remarked that it was difficult to assign to each a separate and independent classification. To-day, I will devote myself to the consideration of that variety of nervous headache which is generally unilateral, seizing one side of the head, and is recognised as neuralgic headache. I say generally unilateral, because I have known the paroxysms of frontal headache to recur so regularly, and to last such a definite length of time, and, moreover, to produce such characteristic sensations belonging to the neuralgic type, as to bring them within this category, and to yield to the same remedial treatment.

I shall have to speak, as we proceed, of some curious features in connection with this form of headache, its mode of origin, severity, duration, and locality; how various are the phenomena in different individuals, though fundamentally agreeing in general principles. In support of these facts, I shall cite some examples, giving such an explanation as each case may appear to justify.

Neuralgic headache is a type that deserves our attentive study, since it is as common as it is obstinate to cure.

Just as recurring neuralgia of the sciatic nerve ultimately impairs the sensation of the limb, and weakens its muscular power, so will recurring attacks of neuralgic headache affect the nervous tissue of the brain, till the patient is no longer able to exercise his intellect as he did formerly, or even to undergo the ordinary avocations of life, without feeling a strain on his nerves, which is certain to become worse.

I would define neuralgic headache as that variety of the nervous form in which the trunk or the special branches of a nerve are affected. It is a local pain affecting one side of the head. Unlike frontal headache, it is an unsymmetrical pain; its origin is one-sided. Now, the fifth nerve, either at its origin, or in some part of its course, is oftenest implicated. Its deep origin from the medulla is significant, when we bear in mind that the centre of the vaso-motor system is also traced to the medulla oblongata. The transference of impressions due to peripheral irritation (through cold, decayed teeth, etc.) or to central mischief, from excessive or diminished blood-supply, depending on morbid vaso-motor conditions, or through mental troubles acting on the sensorium, can be readily understood, when this association of brain, medulla, and fifth nerve is remembered. In any particular case of headache, a correct and precise explanation of its pathology is uncertain, owing to the difficulty of tracing the fibres of any one peripheral nerve to its centre, and likewise to the innumerable complications which may engender fallacies in clinical examination.

I would, however, impress this point upon you, as it is worth our serious notice. The causes which invite nervous headache in most instances are the same, or closely allied to those, which originate neuralgic headache. Both constantly happen to the same individuals at different times, and one variety is succeeded by the other. Severe neuralgic headache is often the outcome of the nervous type, and, therefore, we should avoid falling into the error of regarding them as essentially different. They belong to the same great family of neurosal disturbances in the brain, they are intimately related to each other, and they only vary as do the features and mental proclivities of individuals springing from a common parentage.

There are seldom two cases of neuralgic headache precisely alike, either in locality of nerve-disturbance, or in severity; but, making allowance for age, sex, and psychological peculiarities, they have many points in common, and wonderfully harmonise in the several phenomena they induce, when the same set of nerves are involved, and one portion of the brain is congested or hyperæmic—which probably happens, if we may judge of the heat on one side of the head, the flushed cheek, and

red eye, compared with the normal state of the corresponding side. Still, I would have it understood, that one side of the head may be severely affected when there is extreme pallor of the whole countenance, and, except from the patient's evidence, it would be impossible to say what nerve, or set of nerves are implicated. Minute discrepancies exist in the symptoms experienced by patients of their sufferings from neuralgic or one-sided headache, but the general details are essentially the same.

Neuralgic Headache (Hemicrania : Migraine of the French, Migrane of the Germans), is one of the most characteristic forms. It possesses a peculiar degree of interest to the physician, and demands a special line of treatment. It may be independent of decayed teeth, malarial poisoning, ovarian excitement, or losses of blood. It may be the simple expression of nerve-exhaustion. With some persons it begins with a slight aching or uneasiness in the superficial branches of the fifth nerve, as they radiate over the temporal region; it is evanescent in its duration, and interferes but slightly with their duties or pleasures. You would scarcely know they were suffering, if they did not say so ; a mere reticence and dulness of manner may be only observable at first ; but later on, irritability, fretfulness, and disquietude are prominent features of the pronounced condition. They accomplish their duties after a fashion, and the pain is not severe enough to entirely prostrate their energies. And this may be the order of symptoms in a large number of cases—modified neuralgic distress and annoyance destroying all enjoyment while they last, yet never culminating in severe pain. In other instances, and they are invariably the most severe, neuralgic headache is the consequence of the genuine nervous headache attacking the anterior lobe of the brain, or the origin of the fifth nerve, and producing that fearfully distressing pain which compels these patients to isolate themselves from others, and to be alone. Irritability has now vanished, and helplessness and despair take its place.

Neuralgic headache, so resulting, is extremely severe ; it induces a great degree of exhaustion, and incapacity for any kind of exertion, mental or bodily. The extremities are cold, the pulse is slow and feeble, the eyes are dull and fixed in the orbits, the pupils are contracted, the eyelids dark and stiff, and the sight is easily wearied. The drawn features, the pallid cheek, the beseeching attitude of the patients as they pace the room, and throw their heads languidly upwards and downwards, tell a tale of indescribable agony, bringing them to the verge of distraction. I have known the collapse so profound when the pain has continued for many hours, that the patient has been almost pulseless, and incapable of swallowing. When at length the seizure subsides, the prostrating effects may be felt for a week afterwards; and some patients complain that their legs are so unsteady that they are unable to walk. These neuralgic headaches are very variable in the way of their onset. A woman, aged 33, when the attack was on her, had every night at bedtime a feeling like the ticking of a watch as soon as she laid her head on the pillow. It would begin, as neuralgic headache generally does, in one temple, or over one eye. She was kept awake at night from a feeling at the back of the eyes like the weight of a heavy stone, giddiness and confusion of ideas succeeding the next day. This patient, nearly all her life from a child upwards, had been subject to *bilious* headaches ; but, when menstruation came on, they changed their character, sickness was no longer a feature of the case, and they became neuralgic or one-sided headaches. She described them as altogether different. When a woman has been subject to nervous headaches all her life, the attacks frequently become aggravated as menstruation is established. A day or two before each returning catamenial period, the patient begins to flag in her health, she is fidgety, loses her appetite, and is sick ; but as soon as the pain has come on she is resigned to her fate, and the excitement passes off; she dreams and can obtain no sound sleep at night. The pain keeps over one eye, or concentrates itself over one temple, then it spreads over the entire parietal bone, and finally through the whole head, settling on the top, causing a sensation like a burning coal. Deafness in one ear is by no means rare, coming on with the attacks of headache, and ceasing with them. In these cases, menstruation may be perfectly normal, there is no dysmenorrhœa, nor is the drain at all profuse. Where it is, we have the type of symptoms described elsewhere ; the brain, robbed of its arterial supply, is very badly nourished ; and the cerebral cells are in a state of great irritation.

A case has been mentioned to me, where a lady, when thirty-three years of age, became the subject of neuralgic headache on the left side of the head. It recurred at irregular intervals, till she reached the age of sixty-four, when she was again free, and remained so till her death, at the advanced age of ninety-two, proving how little such nerve-disturbance influences the duration of life. During the time she suffered from the seizures, the eyelids of the affected side lost their normal activity, and one upper eyelid especially became dark, drooping, and wrinkled. In the course of a few years, the eye of the affected side was closed completely, and the patient had no power to separate the lids. After these seizures, and in proportion to the length of interval from suffering, she was able to exercise some power over the eyelids ; but gradually they became paralysed, and remained closed. This was possibly owing to a profound impression on the sympathetic system, affecting the superficial nerve-branches distributed to the eyelids, and had no immediate connection with the nerve issuing direct from the brain, because the pupil was normal in size, and the vision was unaffected.

Neuralgic headache is sometimes associated with neuralgia in other parts of the body. I have met with cases in delicate young women, who have suffered on and off for years with pain in the left side of the thorax and over the cardiac region, lasting for an hour and a half at a time, and coming on in bed when at rest, or just before a meal. I have often known it succeed the ordinary sick-headache of early life. A case came before me where sick-headache was occasional till twelve years of age, and then the patient was free till twenty-four years of age, and she so continued till two years and a half after this. Then pain came on in the left temporal region, of a dull, aching, paroxysmal character ; but it did not extend over the head. The pain was increased at the catamenial periods, which were profuse. Attention to the uterine functions, and styptic preparations of iron and ergot, completely cured her ; and, three years later there had been no return. The neuralgia vanished on on an improvement of the general health.

Sometimes the disease is more prevalent in a damp situation than it is in a dry one. I knew a lady in 1879, who had lived in a wet neighbourhood, and, during her residence there, she had neuralgic headache for many years on the left side. On returning to a part of London where the soil was dry and gravelly, the headache left her altogether. Two of her children suffered from headache ; one had both near and long sight ; the other had headache, with an affection of the third nerve. Thus, we have a strong family predisposition to nerve-disorder.

Among children, I will describe the case of a boy who suffered from a most singular variety of nervous headache. I have never before met with one at all like it. I would call it neuralgia, because it was so paroxysmal in its seizure, though it differed from its customary tendency, in not confining itself, or at least during some part of its duration, to one half of the head ; and, unlike frontal headache generally, there was no nausea or loss of appetite.

A. A. was eleven years and a half old when I saw him on January 31st, 1879, for the first time. There were seven other children ; all of whom, like the patient, were nervous and excitable. One of them, a girl eight years of age, was suffering from a second attack of severe chorea. The father was nervous, the mother self-possessed and healthy. The patient had had measles, but never scarlet fever. He was gifted with rare intellectual ability, and his love of reading was so great, that his chief enjoyment was to lie on a sofa the greater part of the day, and pore over books, even when suffering from much pain and discomfort in his head. On returning from school, in August 1878, he began to experience severe frontal headache, which came on after breakfast, and obliged him to lie down the rest of the day, unable to do anything. A month later, he lost the sensation of taste and smell. From that time, the headache changed its character, and became the same as it was when he consulted me. The taste and smell returned at Christmas. He had now three separate attacks of headache in the course of the day. The first attack began at 8.40 A.M., and lasted exactly thirty-five minutes ; it was always of the same character, and, as to time, his parents were certain that there was no error about it, for this had been tested over and over again without the patient's knowledge. The second attack began at 12.40 P.M., and its duration was also thirty-five minutes. In all respects, it was like the previous seizure. The third attack began at 1.40 P.M., and lasted precisely twenty-five minutes. During the seizure, he exhibited the appearance of a person suffering from acute pain. His eyelids were screwed up so as to exclude the light from his eyes ; yet vision was not affected. The pain resembled a heavy weight across the whole forehead ; he was restless and unable to remain quiet. The tongue was clean, the pulse quiet, and the bowels regular ; the urine was pale, acid, and non-albuminous. Many of his teeth were decayed. Several medical men had been consulted, and large doses of quinine, arsenic, croton-chloral, gelseminum, bromides, and bark had been given without avail. One eminent authority thought there might be inflammation in the course of the nerve-trunks. I advised that all study, however light, should be abandoned at once ; that he should go to the seaside, and be as much as possible in the open air ; that the seizures were to be disregarded, beyond applying hot water to the feet and a mustard leaf to the back of the neck when the attack threatened. His diet was to be plain and nutritious, without a stimulant of any kind. In the shape of medicine, he was to take one-

thirtieth of a grain of phosphorus in a capsule daily after food for a week, and then to exchange it for a mixture of bromide of potassium and nux vomica for another week. On February 18th, it was reported that he had taken twelve capsules, and a few doses of the mixture. There was only this to remark in the way of change, but at least it was satisfactory—the first morning seizure had in no way changed either in time or in character, but the second now began at 11.10, and the third at 12.10. They continued as long, and were equally intense. The former medicines were now given up, and he was ordered a drachm of the tincture of quinine in a small cup of milk before getting up in the morning, and a mixture twice a day after food, containing the syrup of the hypophosphite of iron, and bromide of potassium. On March 10th, it was reported that he had an excellent appetite, had gained flesh, and seemed well in health. The headaches were the same, except that one day they came on four times in the twenty-four hours, at irregular times, and of varying duration, one lasting only three minutes. He was advised to go on in the same way, and to be kept apart from the choreic sister. On March 21st, the report reached me that he was quite well, the headaches having left entirely; and for the previous five days he had been quite free. On the 14th, he had had three attacks as usual, the last being very brief in duration; two on the 15th, the second being very short; and one on the 16th, which only lasted ten minutes. The medicine was ordered to be continued. On June 1st, his mother wrote to say that he had returned to school a month previously in good health, and that he had now only a headache of an ordinary kind.

This is a rare and curious case, and yet not so curious when carefully inquired into, if we suppose the disease to have been neuralgic, and therefore marked by periodicity; but it was singular, inasmuch as frontal headache is rarely periodical; it commences in the morning, and usually lasts through the day. A night's rest is generally necessary before relief can be obtained.

This patient returned to school in May and remained till August, when he only suffered from an occasional headache, and that chiefly at breakfast-time. It went off during the day, but it sometimes recurred during any excitement. There was no sickness with it. He described this headache as being quite different from the former seizures. He was now restless, moving from one chair to another, unable to remain quiet for an instant; his appetite was capricious, and his heart agitated. Bromide of ammonium and the ammonio-citrate of iron with strychnia were ordered to be taken twice a day after food. He went to the seaside.

I will now consider another curious type of neuralgic headache, not so much in the character of the pain and its situation as in the consequences resulting from it, and the altered appearance of the patient's features.

Miss B., aged 29, of dark hair and complexion, consulted me on March 18th, 1879, for neuralgic headache, which she traced to anxiety. It affected her left temple, left brow, extending round the eye, and down the left side of the body. She was stout and healthy looking, and had never suffered any definite illness. The pain was described as dull and heavy; it begins on waking, and goes off at mid-day. It did not prevent her from following her occupation. The neuralgic headache was attended with a burning sensation of the face, which was flushed and hot, and it continued for fifteen minutes. This variety of headache never came on till she suffered much worry of mind. She was now irritable and easily put out, which was not usual with her. The pulse was quiet, the tongue clean, the bowels and catamenia regular. The heart's sounds were normal, and the urine was non-albuminous. In addition to this kind of headache, she experienced one of quite a different character, which she called bilious; she had had it at intervals for eighteen months; when the attack was on her, she became pale and vomited, and her skin was cold and shrivelled.* But the singular part of the case is, that the eyelashes of the upper and lower left eyelid had been dropping out during the last two months, and the chief of those that remained (about seventy) were perfectly white. The eyelid was thickened and inflamed. She thought the change was quicker in the lower than in the upper eyelid, and she did not observe it till the change took place. The left eyelid drooped a little more than the right, and it was always worse if she were fatigued or worried, and especially when the headache was bad. She complained, too, of some dimness of vision, and that the eye ached; but she saw well at the ordinary visual distance. There were also patches of pityriasis over the left cheek and half the lip, where the hairs were also turned white. Over the scalp on the affected side were spots of alopecia, but there was no change in the colour of the skin on the right side of the face.

Mr. W. H. Power, who made an ophthalmoscopic examination, reported that "the discs of both eyes can be very well seen through the perfectly clear media. They present a very well-defined central (physiological) depression, the borders of which are unusually steep. The rest of the disc is of a normal colour, with clean cut periphery. The vessels are unusually large and numerous. The rest of the fundus, fovea centralis, and adjoining parts appear to be healthy". There was an error of refraction in both eyes, but particularly the left. Quinine and arsenic, with bromide of potassium, were prescribed, and an ointment of vaseline and binoxide of mercury was ordered to be applied to the offending cilia.

In women who have been for some years sufferers from nervous headache, whether neuralgic or not, we may sometimes notice yellow patches, having the tint of chamois leather, looking like small ruptured encysted tumours, containing caseous matter, lying superficially beneath the skin. The patches are soft, irregular in outline, and may remain stationary for years without increasing in size. There is no tendency to ulceration or suppuration. They are generally seen on the upper and lower eyelids, at the inner canthus, and the patches are permanent. The affection is seen in cases of severe nervous headache, which have lasted for years, and they always attest the severity of the paroxysms. I have not noticed these spots in young subjects. They all occurred in women of middle or advanced life, and several had experienced uterine disorder, especially menorrhagia. In two well-marked cases, one was the subject of hepatic congestion, and the other died of malignant disease of the liver. Not that I believe for a moment there is any relation between these spots and liver-disease, seeing that these peculiar spots are almost exclusively confined to women. This complaint is the *Xanthelasma Palpebrarum*, described by Erasmus Wilson, Hutchinson, Liveing, Tilbury Fox, and other dermatologists. Hutchinson, who has studied this curious complication very minutely, has found it occurring in association with any disorder that can produce dark areolæ around the eyes. "The minute anatomy of xanthoma was first accurately described by Waldeyer and Murchison; it consists of a fibro-cellular growth, infiltrated with a yellowish oil, which is found in and around the cells; it is this oily fat which gives to the structure its bright yellow colour, and it is well to remember that it is an essential part of the disease, and not the result of degeneration" (*Handbook of the Diagnosis of Skin-Diseases*, by R. Liveing, M.D., page 209).

3. *Occipital Headache*:—This is another variety of nervous headache, which possesses much interest to the physician. It is so intimately connected with nervous and neuralgic headache, as to justify a separate classification. It is a form of headache which would be shrouded in mystery, if the anatomical arrangement of the implicated nerves were not well understood. The free communication between the pneumogastric nerve and the inferior cervical ganglion of the sympathetic (which supplies a plexus to the vertebral artery), readily effects a transference of morbid impressions received by the peripheral extremities of branches of the vagus in the abdominal or thoracic viscera to the vaso-motor nerves of the chief nutrient vessels of the occipital region. In a similar manner, the vaso-motor nerves of the occipital and posterior auricular arteries may be affected.* In fact, if looked at through the wide area of nerve-communication, it will explain the gastric symptoms, the sickness, the nausea, and vomiting, when the great sympathetic and par vagum are in unfriendly union. Again, congestion of the lateral and occipital sinuses is a most probable occurrence in languid individuals, who continue in a recumbent posture for a longer period than is required for necessary repose. Headache, produced by such congestion, is the homologue of the hypostatic pneumonia of patients kept for a long period in the supine position, during recovery from surgical injuries and operations. Lastly, rheumatism may happen to attack the pericranium or dura mater in the occiput. But, when we have to deal with occipital headache, the possibility of disease of the occipito-atlantoid or atlo-axial articulations must never be overlooked when the pain is fixed in this situation, and rotation of the neck is painful. I have elsewhere referred to cases, in corroboration of Mr. Hilton's statement that pain at the back of the head is sometimes owing to organic disease (*On Rest &c.*, third edition, 1880, page 104). A patient, who was in the last stage of consumption, came under my care in 1860. He had great pain over the occipital region, and he could not move his head for weeks together. It was pitiable to watch the expression of his countenance when he swallowed food, or when an attempt was made to move him from one side of the bed to the other. Two

* This is a point of great clinical importance, to which I shall accede again when I speak of bilious or sick headache. Sufferers from nervous or neuralgic headache often tell me that they get once or twice a year a common or bilious headache, as they term it: it affects the whole forehead and vertex; the pain is acute and throbbing, as if the brain would burst; and there is fearful nausea and vomiting.

* For a rare mode of the relation of innervation to pain in the occiput, see "The Etiology and Treatment of Occipital Headache", by Dr. Woakes (*Practitioner*, vol. xx, p. 259).

months before his death the pain abated, and he found he could hear a grating noise in the neck on slight rotation of the head. On a *post mortem* examination, the two first cervical vertebræ were found to be carious.

Mr. Hilton has recorded the case of a gentleman whom he saw in consultation with Dr. Bright. The patient was twenty-eight years of age, and had suffered from pain at the back of the head for some time. It was thought to be rheumatic. "The cause of the pain was the question to be decided. Dr. Bright entertained an opinion that pain at the back of the head resulted sometimes from the close proximity of the vertebral artery to the suboccipital nerve, between the occiput and the atlas, or to the great occipital nerve, between the atlas and axis, and that the pressure of the artery upon one of these nerves produced the pain at the back of the head; and herein is the chief reason for my mentioning this individual case, because I believe the explanation will not hold good as regards the suboccipital nerve, for that nerve rarely sends normally any filaments to the skin beyond the muscles; indeed, it is chiefly a motor nerve coming off only from the anterior part of the spinal marrow. The great occipital nerve supplied the skin where the pain was felt by this gentleman, and in tracing this nerve towards the spine we came to the cause, viz., disease between the first and second cervical vertebræ. The patient was ultimately cured by continued rest in the nearly horizontal position; the cure, however, consisted in complete ankylosis of the bones, and a fixed neck, with the head turned somewhat downwards and towards the left side. This patient died from pulmonary consumption twelve years after his recovery from his disease of the spine" (On Pain and the Therapeutic Influence of Rest—The *Lancet*, vol. ii, 1860, page 379).

I have noticed occipital pain often enough in cases of nervous and neuralgic headache. When the patient has a mere tingling sensation at the top and side of the head, the pain at the back of the neck may be almost unendurable: it may fix itself over the occipital protuberance and involve the lower half of the bone from ear to ear, so that he feels he cannot support his head. If the pulse be slow and feeble, and there are the symptoms of acute congestion, the cerebellum and the veins in its neighbourhood are probably so full of blood as to act prejudicially on some part of the brain itself.

Professor Hermann Meyer states that the right lateral sinus is larger than the left, and that the blood which flows through it goes on in a quicker stream than that which passes through the left side. This, he says, is owing to the more vertical course of the right innominate vein, which is almost in a straight line with the vena cava superior below it, and with the internal jugular beyond it, the sinus opening directly into the latter vein. The more horizontal position of the left innominate vein probably retards the return of blood from the left lateral sinus (the *London Medical Record*, October 15th, 1878, page 431).

From all that has been said, we shall scarcely overlook the importance of carefully inquiring whether the patient who complains of occipital headache has at any time received a blow at the back of the head, which might be forgotten with the lapse of time. Slight injuries received in early life at the back of the neck, over the spine, have been followed in after years by disease of the vertebræ and the brain itself. Dr. Bastian has recorded two cases of children, aged respectively five and ten, where symptoms, indicative of disease of the cerebellum, followed an injury to the occiput. Dulness of manner, attacks of vertigo, sickness, staggering gait, and severe occipital pains, lasting many months, were the leading symptoms in one case. An improvement took place under iodide of potassium and cod-liver oil. In the second case, the occipital pains were associated with vomiting, and, after the patient had remained in bed five weeks, "she had a sort of fit". She could not support her head, and staggered in her walk. Her sight also began to fail. Similar treatment was adopted to that of the first case, and a year later she was well, except that in walking she kept her legs apart, and slightly reeled (*Ibid.*, page 436). In the first case, Dr. Bastian thinks it not improbable that a small tumour may have formed, and that, in the second, there was a small abscess which had become absorbed, and the cyst shrunken. It would seem to me that, in the absence of fever, epileptic seizures, or rigors, severe congestion or slight inflammatory effusion would be enough to account for the symptoms in each case.

I will consider on a future occasion those varieties of nervous headache attended with a disturbance of vision, and with disordered sensation of the upper and lower extremities.

GLASGOW ABERDEENSHIRE ASSOCIATION MEDICAL BURSARY.—This bursary, of the annual value of fifteen guineas, is tenable for three years by a medical student of the University of Aberdeen. After competitive examination, it has been awarded to Mr. John Gordon, of Aberdeen.

THE TREATMENT OF RINGWORM BY CROTON OIL.

By ROBERT LIVEING, M.D., F.R.C.P.,

Physician to the Department for Diseases of the Skin at Middlesex Hospital.

THERE is no lack of efficient remedies for common ringworm; sulphur, salts of mercury, carbolic acid, chrysophanic acid, iodine, and many more; but there is one essential condition of success in treatment on which everything, as it were, depends, and that is, that the remedy be brought into close contact with the disease; without this, all remedies are equally useless. In illustration of this point, we constantly see a patch of ringworm on the neck cured by a single application of iodine; but it may take years to cure a similar patch on the scalp. The disease is exactly the same in the two cases, and would be just as easily cured in the one as in the other, if only the remedy could be brought into direct contact with the parasites, as indeed readily happens in ringworm of the scalp in infants. The proverb, "You may bring a horse to the water, but you cannot make him drink," is, as it were, reversed in ringworm, for if you can only get him to the water he is bound to drink; the difficulty is getting him there. Now, croton-oil supplies us with just such a remedy as we want, for it has the property of reaching the disease, and setting up a deep seated follicular inflammation which destroys the trichophyton. Although this remedy has long been used in France, we are indebted to Dr. Alder Smith for thoroughly working out the subject in this country; and more especially for pointing out clearly the object to be aimed at, namely, the artificial production of kerion over a small surface. Croton-oil liniment is very useful as an irritant, just as iodine liniment is; but, for the special purpose of setting up a kerion, or deep-seated inflammation of the follicles, pure croton-oil is best. It is now about four years since Dr. Alder Smith called my attention to the subject; and since that time I have adopted the croton-oil treatment in a fair number of carefully chosen cases, and always hitherto with satisfactory results. I would add, however, that it is quite possible to produce a slough, and consequently a permanent bald patch, by the too free use of croton-oil, just as sometimes happens accidentally from the application of other strong remedies in more common use; and further, if croton-oil be used without discrimination, or a due regard to the age of the patient and the extent of the surface involved, it is sure to be brought into unmerited disrepute, the fault being, not in the croton-oil, but in the person who recommended it in unsuitable cases.

I can best enforce this by an example, thus: a typical case for the use of croton-oil, and one which frequently occurs in practice, is that of a boy aged from twelve to fourteen years (when time becomes valuable), who is very anxious to return to school, but is prevented by one or two spots of intra-table ringworm. In this case, and in others like it, croton-oil is invaluable, and the little extra trouble it gives is readily borne for the sake of saving perhaps a year at school.

The best way of using the croton-oil is as follows. A single small spot, not larger than a shilling, should be treated first; the croton-oil should be carefully but thoroughly painted on with a small stiff camel's hair brush; a few hours afterwards, a warm poultice should be applied and kept on all night. The croton-oil must usually be applied again the next day, followed as before by constant poulticing; a third and sometimes a fourth application may be necessary to set up the required amount of inflammation; the skin should be swollen, boggy, and discharging freely, like a natural kerion; the production of this is much favoured by warm fomentions and poultices. As soon as this condition is produced, no more croton-oil should be applied; frequent warm fomentation is all that is then necessary; and when, in the course of a day or two, the inflammation has a little subsided, the stumpy hairs should be extracted entire; this is easily done, as they are for the most part loose in their follicles, and can then be removed without pain. If a good kerion have been established, the *cure is complete*; if only an imperfect one have been formed the process may, after some time, have to be repeated over part of the same area. It is astonishing how quickly the new hair generally grows over the bald patch when the cure is complete. It is true that natural kerion is sometimes, though rarely, followed by a permanent bald spot, and it is conceivable that such an accident might follow from the use of croton-oil, without any error in the choice of the case or in the application of the remedy; I would add, however, that I have never yet met with such a result; if it occurred at all frequently, we might perhaps turn croton-oil to account in the removal of superfluous hair.

Those who wish to use croton-oil with safety and success should adopt the following rules, which err, perhaps, a little on the side of caution:—1. Not to use it for children under ten years of age; 2. Never to apply it at any one time to a surface larger than a florin; 3. To use it

only in chronic cases that will not yield to ordinary treatment; 4. To use it only with the consent of the patient's friends; the nature of the treatment, and the effect of the croton-oil on the skin, being first fully explained. If the last rule be not carried out, parents are apt to think that their children are being over-treated.

MENINGITIS IN TYPHOID FEVER.

By H. TOMKINS, M.D.,
Medical Officer, Monsall Fever Hospital, Manchester.

To those familiar with the morbid processes associated with typhoid fever, it is well known that, of all the anatomical lesions found in that protean disease, acute meningitis is the most rare. Cerebral congestion, with marked œdema of the brain-substance, together with serous effusion into the ventricles and arachnoid space, are common, but the signs of true meningeal inflammation are but seldom seen. The delirium, however violent and prominent as a clinical factor, is no evidence of encephalic inflammation; and the *post mortem* appearances found in the brain in cases characterised during life by the most active delirium are not uncommonly of an entirely negative character. The statistical researches of Louis on this subject confirm these statements; and Hoffman found only four cases of acute meningitis in 250 *post mortem* examinations.

That the most violent psychical disturbances are unattended with any demonstrable anatomical alteration in the brain, is doubtless due simply to the fact that the changes which have occurred in the nervous substance are of that fine and more delicate histological nature, that it is most difficult, with our present knowledge and methods of examination, to demonstrate the existence of definite parenchymatous changes. As an example of the coarser and more rare lesion of meningitis, the following may be of some interest.

Thomas P., aged 47, a milkman of corpulent habit, was admitted into this hospital on October 1st, 1880, suffering from an apparently mild attack of typhoid fever. He had been ailing about two weeks, commencing with vague and indefinite feelings of *malaise*. He lay heavy and disinclined to any exertion, but when spoken to, was perfectly intelligent, and free from any rambling. Pulse 96; respirations 24. The tongue was moist, furred; the urine free from albumen, 1020. There was a scanty eruption. Temperature 102°. The bowels were costive. For the next fourteen days, his general condition remained almost unchanged, with the exception that he became somewhat more prostrate. His temperature remained steady, from 102° to 103°; he took all that was given him without trouble; complained absolutely of nothing but being tired; lay heavy and lethargic, without purging the whole time. On the 15th, he appeared less intelligent, and complained of headache and intolerance of light. On the following day, there was not much change, and the temperature being 103° in the morning, it was resolved to reduce it, as it had shown no signs of remission. For this purpose, he was given 15 grains of sodium salicylate every three hours; this, in twenty-four hours, reduced it to 99°, and, on the evening of the 19th, it was normal. The salicylate of soda was then given in 7½-grain doses only, with the result of the temperature rapidly rising again to 104.4° on the morning of the 20th.

The soda produced the usual physiological effect of that drug, and, until the morning of the 21st, little change was observed, except increasing hebetude and lethargy. It now became apparent that we had to deal with some cerebral complication; he was with difficulty roused or made to comprehend anything, his urine was passed involuntarily, the bowels were not open. The salicylate was increased again to 15 grains, but failed to reduce the temperature below 101.4°, and was discontinued on the evening of the 22nd.

On the morning of the 23rd, he had internal strabismus of the right eye, pupils both dilated, and sluggish in action; semicomatose, and, during the day, became completely so, with apparently right hemiplegia, and died the following day.

The *post mortem* examination revealed a few small ulcers in the lower part of the ileum, none in the cæcum; mesenteric glands enlarged; spleen dark, soft, 11½ ounces in weight. On removing the dura mater from the brain, the latter was found covered with a sero-purulent exudation, especially on the left vertex. On removing it from the skull, the base was covered with a thick layer of purulent exudation, extending over all the under surface of the pons and medulla, and across the fissure of Sylvius on each side. A considerable quantity of sero-purulent fluid was in the base of the skull, whilst both ventricles were distended with a clear serous fluid, free from any lymph or pus.

Out of a total of forty cases of typhoid in which I have had opportunities of *post mortem* examination, this is the only one in which I have found evidence of a true meningitis. It also illustrates how liable is even the mildest case of enteric fever to some serious complication, for the greater part of the progress of this case presented only the features of an ordinary mild attack of the disease.

INTRAVENOUS INJECTION OF MILK.

By AUSTIN MELDON, F.R.C.S.I., M.K. & Q.C.P.I., M.R.I.A.,
Surgeon to Jervis Street Hospital.

At the last meeting of this Association I read a paper on the "Intravenous Injection of Milk." At that time my experience was derived from five cases; and there were only twenty-two cases on record. Since then, however, I have performed the operation twenty times. And my object in again bringing forward this subject is to give briefly the results of those cases. Twelve of them were performed in cases of phthisis, in all of which the patients had reached an almost moribund condition, with the result that, in every instance, without exception, life has been prolonged. In one, the patient had apparently only a few hours to live, yet, after the operation, he rallied so much that for some months he was able to follow his usual avocations. At the end of that time, when he was rapidly getting worse, I repeated the operation, with the result of improving his condition, although only for a still shorter time. He has since succumbed. In another case, that of a lady, the subject of well marked phthisis, who came from India for the purpose of having the operation performed, I injected four ounces of goat's milk. From the date of the operation she commenced rapidly to improve, and within a fortnight all her worst symptoms were relieved. Three months later, however, they returned; she has since died. A third case was similar to this in all particulars. In all the other cases the patients are still alive. In one of them there was dyspnœa, which was not, however, increased by the operation. Diarrhœa, where it existed, was invariably checked; in fact, it was difficult to free the bowels for a few days after the operation. Perspiration was at first increased, afterwards lessened; cough was always relieved. The general feeling left on my mind was one of disappointment at the very temporary improvement which followed in all these cases; and I fear that in cases of phthisis much benefit cannot be hoped for beyond lengthening life for a few months.

I have operated on four cases of pernicious anæmia, all of which were cured by the injection. In one, the transfusion was performed twice, in the others but once. Two were cases of exhaustion from hæmorrhage, both of which recovered. One was from uterine hæmorrhage, which recovered very rapidly. The second was from recurring hæmorrhage from a wound of the palmar arch which had bled at intervals for four weeks. The patient was so exhausted that he was quite unable to walk across the room, I injected six ounces, and repeated the same quantity on the following day. In three weeks this patient was as strong as before the accident. The last two were cases of exhaustion after typhoid fever. Both were benefited by the operation, one recovered and the other has since died.

Such has been my experience of the intravenous injection of milk. I look upon it as a much better and safer operation than transfusion of blood.

The difficulty in obtaining and defibrinating the blood, and the danger of coagulation in injecting it, in my opinion account for the reason that the operation has not come into general use in cases of emergency. It is quite different with milk. In any place, whether it be town or country, it is easily procured within a few minutes, and with proper precautions the operation is devoid of danger. Some deaths have occurred during or immediately after the operation, but in these cases the milk was either acid or kept for too long a time, or too large a quantity had been injected. The milk of any animal kept in confinement is slightly acid even when it leaves the udder, and as the blood will not tolerate the presence of an acid, it is not to be wondered at that very unpleasant symptoms often develope when milk in that state has been injected. To prevent the possibility of this, I always add ten grains of carbonate of ammonia to each injection. This, besides rendering it certain that the milk is alkaline, prevents that depression which so frequently follows the operation. I invariably use goats' milk, as it is much more easy to bring that animal in close proximity to the patient, thus avoiding any unnecessary delay between milking and the injection. I never use more than six ounces of milk. When time will not allow fresh milk to be obtained, that at hand may be boiled and strained.

This was done in two of the successful cases. In conclusion, I have only to hope that in suitable cases a fair trial may be given to this operation, which seems already to have fallen into unmerited disrepute both here and in America.

CLINICAL MEMORANDA.

BACKACHE.

MANY patients, especially weak-looking girls, apply to the doctor for a cure for a pain in their backs. Their cases are gone into; they are auscultated and percussed; their menstrual functions inquired into; the question as to whether they have piles or not gone into; in fact, they are thoroughly overhauled and medicated with whatever should make them well. But they keep a pain in the back, and they say—"It is always worse in the morning." It is not many years since I was house-surgeon at St. Bartholomew's. We had a visit from Mr. Charles Lafayette Taylor of New York, who showed us many pieces of apparatus for Pott's disease of the spine. He has since corresponded with me, and sent me many valuable monographs, and one on this subject. The fault is often not in the patient, but in the bed. The bed so sinks down under the superincumbent weight, that the patient is always lying with the back bent, and the whole of the posterior muscles of the spine pulled out to their utmost stretch. The remedy is simple; so simple, as not to be often found out. A pillow, about one-third of the size of an usual bed-pillow, made rather empty, so as to easily take the form of the back, is all that is necessary. If placed in the "small of the back", in cases where the stretching of the muscles is the fault, the relief is at once apparent, and, without medicine, a mechanical defect is remedied.

WM. SQUARE, F.R.C.S., Surgeon to the South Devon and East Cornwall Hospital.

THERAPEUTIC MEMORANDA.

CHOLERA TREATED BY HYPODERMIC INJECTION OF CHLORAL-HYDRATE.

THE following cases of cholera were treated by the hypodermic injection of a solution of chloral-hydrate (one grain to ten minims of water).

CASE I.—At Partabgarh Dispensary, on April 23rd, 1880, in a male, aged 4, a Hindoo, collapse had just set in. One grain of chloral was injected. He recovered.

CASE II.—April 25th; a male, aged 20, Hindoo. When he was first admitted, collapse was pending; he very soon passed into severe collapse. At 7 P.M., six grains of chloral were injected; and again at 10 P.M. On the 26th, four grains were injected at 3 A.M., and six grains at 9 A.M., and again at 4 P.M. In all, twenty-eight grains were injected. Collapse was passing off at 4 P.M. Urine was not passed, however, till the morning of the 28th. He had reactionary fever, for which he was treated with quinine. He recovered.

CASE III.—A male, aged 35, Mussulman, was admitted on April 28th, at 10 A.M. He was attacked the previous morning; he was now in intense collapse, with severe cramps. Six grains of chloral-hydrate were injected at 10 A.M., 2 P.M., 3.30 P.M., and at 7 P.M. At 10 P.M., collapse was still intense; but he had passed a few drops of urine. Six grains of chloral were injected. On April 29th, at 2 A.M., six grains were injected. At 7 A.M., the collapse continued, but he had passed more urine. At 2 P.M., I injected six grains of chloral. In all, forty-two grains of chloral were injected. At 3 P.M., the collapse was passing off. He had slight reactionary fever, for which he was treated with quinine. He recovered.

CASE IV.—A male, aged 35, Hindoo, had been a patient in the dispensary for lupoid ulceration since May 30th, 1880. On the morning of June 30th, decided symptoms of cholera manifested themselves; he passed characteristic rice-water stools; had vomiting and severe cramps; pulse barely perceptible; collapse was evidently pending. At 10 A.M., I injected six grains of chloral, and again at 11 A.M. At 1 P.M., he had passed urine. He had no cramps; the pulse was not improved. At 1 P.M., six grains of chloral were injected, and again at 3.30 P.M.; the total amount being twenty-four grains of chloral. At 7 P.M., the pulse was improving; he passed urine. On July 1st, he was convalescent, and recovered.

CASE V.—On July 5th, a female, aged 30, Mussulman, was admitted in severe collapse. She was four months advanced in pregnancy. At 7.30 A.M., six grains of chloral were injected; and the same quantity at 10.15 A.M., 3.30 P.M., and 7 P.M. Improvement began after the last injection. She slept well during the night; passed urine in the morning. She was discharged on July 7th.

The hypodermic treatment of the collapse stage of cholera with chloral has engaged my attention in a late epidemic of the disease in this district (Oudh) in Upper India to which I am attached. Unfortunately, only five cases those now submitted to the profession, were treated at a dispensary. All these recovered. Twenty cases were treated at their homes, at varying distances from head-quarters; and, except in three cases in which chloral was injected twice, each of the patients had only one injection. For adults, six grains of chloral is the quantity used in each injection. The twenty cases referred to were all in different degrees of collapse. Amongst these, there were seven deaths, or thirty-five per cent. Amongst the population at large, the proportion of deaths to attacks was sixty-four per cent.

G. D. MCREDDIE, M.D., M.R.C.S.Eng., Civil Surgeon, Partabgarh, Oudh, India.

SALICIN AND SALICYLATE OF SODA IN ACUTE RHEUMATISM.

THE instructive and interesting cases reported in the JOURNAL of January 29th of the action of the salicylate of soda in acute rheumatism may prejudice the profession against the employment of pure salicin in that disease. This is greatly to be deprecated; and I venture briefly to state my experience of upwards of eighty cases in hospital practice.

Experimentally, I tried, four years ago, in two cases of equal gravity, salicylate of soda and salicin; and I found that the former produced decidedly alarming and toxic results, while the latter excited its harmless and beneficial influence. I was so much impressed at the time with what I witnessed, that I resolved never to give the artificial compound again in the disease, but to trust to the natural product, and in doing so I have been led to formulate the following conclusions.

1. In uncomplicated cardiac cases, salicin in doses of twenty-five grains, dissolved in warm water or milk, will lower the temperature in forty-eight hours.

2. When this has been accomplished, diminish the frequency of the repetition of the dose mentioned to every six hours; and finally, after two days, stop it altogether, as its further continuance is useless and depressing, and retards convalescence.

3. If the temperature be not lowered in the time mentioned, in all probability the heart is affected; and if such should be the case, the medicine should be countermanded, for it will then in no way diminish the fever. The cardiac complication may not be detected by auscultation at the time; but it will invariably be found that a cardiac murmur exists at the natural termination of the disease. For this cardiac complication, I apply a large blister over the region of the heart, and do not allow it to heal quickly.

4. Previously to employing salicin, I test the urine for albumen; and if this be detected, and if there be a suspicion of old-standing kidney-disease, as revealed by the history of the patient, it is probable that the drug may not be properly eliminated from the system. That it is so, can be readily seen by testing the urine at intervals by tincture of perchloride of iron, when a purple colour will be observed, owing to the action of the iron transformed in the system into salicylic acid. Should this reaction not be seen, it is well to discontinue the use of salicin.

5. Finally, I may state that I have never in any case found salicin to cause thirst or delirium. These phenomena may be attributed to impurities in the artificial compound—probably to carbolic acid. Salicin seems to me to have some special action in rheumatism, for it will be found not to lower the temperature in other affections where this is high. Thus, in a case of advanced phthisis, it is inert in large doses; while quinine, in similar circumstances, exerts its usual antipyretic virtues, when given at a different time to the same patient.

In a recent visit I made to some of the chief Continental hospitals, I found that the pure salicin was now alone employed, and, I may add, implicitly believed in, for acute rheumatism.

MATTHEW CHARTERIS, Professor of Therapeutics and Materia Medica, Glasgow University, etc.

SURGICAL MEMORANDA.

THE TREATMENT OF CHRONIC ULCERS BY LINEAR SCARIFICATION.

IT is perhaps scarcely known that the healing, of one kind at least, of the most inveterate of ulcers may be readily and invariably accomplished by means of linear scarification of the ulcer. This mode of treatment which I, some years since, in the columns of this JOURNAL, advocated for the treatment of lupus, in its ordinary non-ulcerating condition, has since then become pretty generally adopted, both here and abroad, in the treatment of non-ulcerating lupus; but it is not yet generally known that a coarsely granulating and pus-bathed ulcer may, with the greatest advantage, be boldly attacked by this method. This

result I can, from repeated trial, confidently claim for the ulcers resulting from the later developments of the disease known as *Lupus vulgaris*: and I believe that the speedy healing of long-standing lupous ulcers, under this mode of treatment, is a consequence of the deeply acting stimulus of the procedure—a depth of action demanded by the comparatively deeply seated nature of the lesion: whereas the application of solutions, and even of superficially acting quasi-caustics (such as the solid nitrate of silver), attacks only the superficies directly, or even indeed indirectly, so far as any fairly ready result is ever by them attained. Other chronic ulcers resemble those of lupus; at least in this respect, that their granulations are as deeply rooted in the entire depth of the cutis as those of lupus. I have no opportunity of treating the commoner varieties of chronic ulcer, since these are not generally regarded as diseases of the skin; nevertheless, my experience, so far as I have found it possible to extend it, has led me to a belief that chronic ulcers in general may be vastly benefited by the means I have indicated. The instrument I have for long employed is a multiple scarificator, which has been constructed for me by Messrs. Weiss and Son of the Strand—a device which is now known to all those who are specially interested in the treatment of skin-disease. By means of this instrument, the little operation may always be expeditiously performed.

BALMANNO SQUIRE, M.B.Lond.

COMPOUND FRACTURE OF FRONTAL BONE AND INJURY TO THE BRAIN.

IN July 1880, I was sent for to a man who had been struck with the buckle of a soldier's belt on the forehead, which produced a wound of three inches in extent, fracturing the whole of the external wall of the frontal sinuses, also splintering the internal table of the frontal bone. On opening the wound, two pieces of bone were found loose, and were extracted; and two were removed that were penetrating into the substance of the brain. Altogether, when the pieces of bones were approximated, they would exactly cover one square inch. The man recovered without a single bad symptom. The external wound healed under antiseptic treatment by the first intention. His intellectual faculties were quite unimpaired; but he has lost all sense of smelling.

JOHN SWIFT WALKER, M.D., F.R.C.S.Ed.,
Hanley, Staffordshire.

OBSTETRIC MEMORANDA.

INVERSION OF THE UTERUS.

IN reply to Dr. Aveling's very courteous criticism of my treatment of the case of inversion of the uterus, reported in the JOURNAL for January 22nd, I am free to confess that, with regard to the description of the method of employment of pressure, the account of the case is somewhat obscure. Dr. Aveling is in error in supposing the elastic bands to have been attached to the extremity of the vulcanite stem, as they were really connected with the base of the cone of spiral wire added to this; and the result of tightening the posterior bands would be to occasion the production of a bend of the cone forwards in its long axis—a curvature exactly corresponding to the perineal curve of his own repositor. In the number of the JOURNAL for September 6th, 1879, which contained Dr. Aveling's paper, a paper on the same subject by Dr. Atthill appeared, in which forcible reduction, by means of pressure of the chest on an elastic spiral spring attached to a vulcanite cup-shaped repositor having a pelvic curve, was advocated. A consideration of the facts and arguments contained in these two papers led me to believe that the safest, and therefore the best plan, in which to deal with my case, was to adopt the principle of elastic pressure from the one, and that of directing the pressure steadily upwards and forwards from the other; and it is quite certain that, within a very brief period of the application of the repositor in the manner indicated, a perceptible diminution in the size of the uterine displacement occurred, and that the general condition of the patient began simultaneously to improve.

I would, in conclusion, respectfully suggest to Dr. Aveling the question, whether the element of time is not of less importance than that of safety; and whether, therefore, slow reduction of the inverted uterus by the application of elastic pressure, is not attended with less risk of serious consequences, than rapid replacement by means of a rigid instrument.

T. SYMPSON, Lincoln.

THE Aston Local Board and Urban Sanitary Authority have, upon the recommendation of the Sanitary Committee, decided to pay a small fee to the medical practitioners of the district for giving information to the medical officer of health of cases of infectious diseases coming under their notice.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON.

EMPYEMA: FOUR YEARS' DURATION: RESECTION OF RIBS, AND FREE DRAINAGE: IMPROVEMENT.

(Under the care of Dr. TATHAM).

R. M., aged 34, had gastric fever, fourteen years ago, in Glasgow. He went to India nine years ago, and had a slight malarious fever on first landing. He was employed for five years as cargo-clerk on a coasting steamer, trading in the Gulf of Bengal. He enjoyed good health until the onset of the present illness, in the spring of 1876. He was then, after severe exposure, seized with shortness of breath, cough, and sharp pain in the left side. He was in bed a week in Port Blair, and was then transferred to the hospital at Calcutta. His breathing became so much embarrassed, that he could not lie down, and a fortnight afterwards he was tapped; a large quantity of clear straw-coloured fluid was drawn off, amounting, he said, to a gallon. Six weeks later, it was again necessary to tap him; the fluid drawn off was smaller in quantity, but less clear. Three weeks later, he was so much better, that he returned to his work; but, after a month, he was compelled, by increasing shortness of breath, to apply to be invalided home. On the voyage, he became worse so rapidly, that it was necessary to land him at Malta. In the hospital there, he was tapped for the third time; the fluid drawn off was about the same in quantity, but darker and thicker. After this, he resumed his journey; and, ten months after the beginning of his illness, he was tapped (for the fourth time) in Glasgow. As the fluid on this occasion was purulent, a permanent opening was left, through which a purulent discharge had ever since—three years—continued to drain; it was sweet, except when he was left without dressing for two or three days, and varied in quantity from half to three-quarters of a pint *per diem*.

He was admitted into the Brompton Hospital on March 23rd, 1880. He was a spare-built, active-looking man, with a pale, worn look of face. He stated that he had always been temperate. No history of hereditary predisposition to chest-disease could be obtained. On physical examination of the chest, the right side was found expanded, with clear percussion all over, and to one inch beyond the left border of the sternum. The breathing was puerile. The left front was flattened, with diminished resonance to the third rib; below this, and laterally, there was absolute dulness; posteriorly, in the suprascapular and interscapular regions, was diminished resonance; below this, absolute dulness. Over the area of diminished resonance, the breath-sounds were feeble; below, they were absent. There was a small fistulous opening in the eighth left intercostal space, in the mid-axillary line, from which escaped about two or three ounces of pus, free from fetor, the patient being able to apparently empty the pleural cavity by contracting the left side and coughing. The tympanitic stomach-note extended up to the sixth rib laterally. The heart's apex was felt rather above, and to the outer side of, the left nipple. The sounds were healthy; no murmurs. The urine was of specific gravity 1020; no albumen; some phosphates. He complained of no pain; he could lie on either side; cough was only slight. His appetite was moderate; his bowels regular. On the whole, his general health was fairly good.

April 14th. During the three weeks he had been in the hospital, his general health had improved. He felt strong; his appetite was very good; he slept well. The discharge, still purulent, had lessened in quantity.

May 14th. As, in spite of the continuous discharge, the patient had gained in health and strength, Mr. Marshall, who had previously examined the chest, determined to resect two or three of the lower ribs, with the view of allowing the chest-wall to fall in, and so lead to the obliteration of the suppurating pleural cavity. The patient having been put under the influence of ether, Mr. Marshall cut down upon the seventh, eighth, and ninth ribs in the mid-axillary line; the periosteum was detached from the ribs, and a portion of bone about 1½ or 1¾ inches in length removed. The wound was dressed with lint soaked in carbolised oil. Two days after the operation, a sea-tangle tent was introduced into the old fistulous tract, and, on its removal, an India-rubber tube could be passed into the pleural cavity. At the suggestion of Mr. F. J. Hicks, resident medical officer, this tube, four inches long,

had its outer end thinned, and expanded into a convolvulus-like cup, which lay flat against the outer wall of the chest, without any danger of slipping in. The discharge, which now had a free exit, was soaked up by a pad of oakum; the cavity was syringed out daily with carbolic lotion (1 in 40). Fifteen days after the operation, the quantity of discharge that could be forced out of the wound (in the manner described above) was only half an ounce; and it was found that the cavity, instead of containing, as it did before the operation, eight ounces of fluid, would only admit three or four ounces of lotion. The incisions made at the operation were quite healed. The tube was gradually shortened, and, on June 29th (about seven weeks after the operation), the discharge having practically ceased, it was entirely withdrawn. The divided ribs had become reunited, the site of the resections being occupied by a mass of new bony material. There was marked drooping of the left shoulder (quite two inches), general contraction of the side, and some lateral curvature of the dorsal vertebræ to the right. The lower angle of the left scapula was one inch lower than the right, and projected backward and inward so as almost to touch the spine. The measurements were: nipple-line, right 17 inches, left 14 inches; three inches below this level, right 16¼ inches, left 14 inches. The expansion at the nipple-line on the right was 1¼ inches, on the left little or nothing. The heart's apex was felt two inches to the left of, and an inch above, the left nipple. There was slight alteration of, or faint murmur with, the first sound at the apex; the sounds were otherwise healthy. The resonance of the right lung extended to the left of the sternum as far as to a vertical line drawn from the centre of the left clavicle to the third intercostal spores; downwards, it reached to the sixth rib, where hepatic dulness was first met with. The left side was dull elsewhere, until the tympanitic stomach-note was met with at the fifth interspace in front, and the ninth rib behind. The breath-sounds were exaggerated (puerile) on the right side, and to the mid-clavicular line on the left. No other breath-sounds were heard on the left, except faint tubular breathing above the spine of the left scapula, and close to the vertebral groove. There were no signs of enlargement of the liver, or of the other abdominal viscera.

After he left the hospital, he continued in pretty good health until the beginning of September, when, he thinks, he caught cold. He wrote to Dr. Tatham from Glasgow (under date October 11th), saying that, for a month or more, he had been troubled by slight cough, nausea, loss of appetite, and depression. A discharge was again running from the old fistulous opening. "It is", he wrote, "slightly tainted, as if it was for some time accumulated in a cavity in my chest". On December 3rd, he wrote more cheerfully. He had passed a tube along the fistula twice a-week, and drained off the accumulated matter, which never amounted to more than "half a tumbler at the utmost". Since he had done this, "I have", he writes, "enjoyed very good health and comfort".

REMARKS.—Resection of ribs, in empyema, was recommended by Dr. Ewald in a paper read before the Medical Society of Berlin (*London Medical Record*, July 15th, 1876, p. 324). But few cases of resection of ribs in empyema have been published. The earliest cases we have been able to meet with are referred to in a paragraph also in the *London Medical Record* for August 1876, p. 359. Two cases operated on by Peitavy are there shortly reported. The first was a man aged 64, in whom incision and drainage had failed; the second was also an adult, aged 56, in whom drainage had failed. A portion of one rib was removed in each case, with the object of facilitating discharge and injection. A case by Th. Simon, in which the operation was performed in order to permit approximation of the ribs, and so hasten contraction of the chest, was also mentioned in the same paragraph. Messrs. Taylor and Howse reported to the Clinical Society (*Transactions*, vol. xiii, p. 19), a case in which the latter gentleman excised portions of three ribs in a child for empyema, which had been treated before by incision and drainage. The patient did well for three weeks; the wound healed rapidly, and all seemed favourable; the discharge came on again, however, and the opening had to be enlarged by a tent. She died about fifteen months after the operation with lardaceous disease. The ribs had been completely reproduced. In the *Birmingham Medical Review* (April 1880), Mr. Wm. Thomas reports nine cases, all in children. In all the cases, other modes of treatment (incision in seven cases, opened spontaneously) had been tried. Four of his cases recovered with expansion of the lung and restoration of the resected rib, the interval between the operation and cessation of discharge being on an average six weeks. In three cases the discharge had ceased, and the lungs had more or less expanded; one other is reported as doing well. One patient, 18 months old, died of asthenia six hours after the operation, having been almost moribund when admitted. In all these cases only one rib was resected. These are the most favourable statistics we have met with, but it must be remembered that all the patients were children, the eldest being 8 years old. It seems evident that a distinction ought to be drawn between children and adults in regard to this operation. The chief object of the operation may be said to be to favour the falling in of the ribs, and the contraction of the side, an object under any circumstances far more likely to be obtained in the elastic thorax of the child. The object with which Peitavy first performed the operation—that, namely, of allowing free drainage—is of secondary importance, inasmuch as it can generally be attained by free incision of the pleural cavity without meddling with the ribs. No doubt, resection of one or more ribs must render it more easy to drain the cavity, and so do away with the necessity for using injections, which experience show to be not unattended by danger. In all the cases, the operation was conducted subperiosteally. Messrs. Taylor and Howse, however, now advise a freer removal of periosteum, even if the thickened pleura has to be taken away with it, inasmuch as one of the reasons for failure has been the too rapid reproduction of ribs; the freer opening would also allow a more thorough exploration of any communicating sinuses. The case now published is especially interesting from the length of time during which a discharge from the pleura had existed; about four years. It was concluded that all that unassisted nature could accomplish in the way of retraction must have been done. After the operation there was a very notable diminution in the capacity of the chest, and the general condition of the patient improved.

UNIVERSITY COLLEGE HOSPITAL.

RUPTURE OF VAGINA INTO DOUGLAS' POUCH: PERITONITIS: RECOVERY.

(Under the care of Dr. JOHN WILLIAMS.)

[From the notes of Mr. C. J. WATKINS, Acting Obstetric Assistant.]

MRS. L., aged 28, had had five labours, all long and lingering; one miscarriage three years ago. Her third labour (six years ago) lasted three days; the forceps were eventually used (by a midwife, she said). After this she had a vesico-vaginal fistula, which was operated on successfully in the London Hospital. Two years ago (and after the operation), she had a child, born without assistance.

Labour commenced at full term on November 13th, 1879. She was first seen at 9.30 A.M. The os just admitted the tip of the finger. At 10 P.M., the os was about the size of a five-shilling piece; pains slight. At 7.30 next morning, the head was found engaged in the first cranial position, with a large caput succedaneum. When first seen by Mr. Watkins, she was found in a very weak state; vomiting frequently; pulse 120; temperature 101°. The conjugate diameter was found to be narrowed by the projection forward of the sacral promontory, over which the posterior wall of the vagina was tightly stretched; the posterior lip of the os could not be felt, but the anterior was jammed against the pubes. An attempt was made to deliver by forceps, but failed, owing to the inability to make the blades lock. Dr. John Williams was sent for; he confirmed the above observations; the head was now moulded to a considerable extent, and projected partly through the constricted brim. A catheter was passed up by the side of the head, and a quantity of liquor amnii, of yellowish-brown colour and offensive odour, drawn off. The patient now stated that a similar discharge had been draining from the vagina all the morning. Dr. Williams, concluding from this condition of the liquor amnii that the child was dead, and estimating the conjugate diameter as less than three inches, determined on craniotomy. The operation was performed without any particular difficulty. The descent of the head, until it had passed the constriction, was rather slow; the body followed more rapidly. After the removal of the placenta, Dr. Williams found, on vaginal examination, that the posterior wall of the vagina, just above the obstruction, and in the situation in which, during labour, the vagina had been most tightly stretched across the promontory, had given way, rupturing through into Douglas's pouch. He was able to pass his finger into the peritoneal cavity, and to feel the rectum immediately under it. She was ordered to take a grain of opium in pill every six hours; and to have the urine drawn off twice a day.

November 15th. She was quite comfortable. The pupils reacted to light.

November 16th. Pulse 86, weak and compressible. Temperature 99.4°. There was some tenderness at the right side of the uterus. The breasts were beginning to fill. The lochia were very offensive. She was ordered to have a grain of opium in pill every three hours, and belladonna to the breasts.

November 17th, 3.30 P.M. Pulse 104, hard and wiry. Temperature 100.4°. The tongue was dry and furred; the abdomen much distended. She had sharp shooting pains in the abdomen, an anxious expression, and hiccough. Opium fomentations were ordered. She was directed to take 20 minims of spiritus terebinthinæ in mucilage every four hours

and to have three ounces of brandy daily. 8.30 P.M. She was easier. Temperature 99.4°; pulse 100; tongue dry and brown.

November 18th. The tympanites was less. She was vomiting a good deal. Temperature 99.4°; pulse 90. She was ordered to leave off the turpentine, and take three minims of hydrocyanic acid with bismuth every four hours.—8.30 P.M. She felt easier; the hiccough was less; there was no vomiting. The tongue was less dry.

November 19th. She vomited every half-hour through the night; less frequently since 7 A.M. The abdomen was less tender. Temperature 100°; pulse 102, more compressible. The tongue was moister, cleaning. As she was not fully under the influence of opium, she was ordered to take one grain every three hours.—11 P.M. She had not vomited since the morning, and felt comfortable. The lochia were less offensive.

November 20th. There was no vomiting, no pain, very little tenderness. The tongue was moist; the bowels open. Temperature 100.6°; pulse 104, soft and compressible. From this date she rapidly convalesced. She attended Dr. John Williams as an out-patient for some months to undergo treatment for anæmia and debility, and did well.

ROYAL FREE HOSPITAL.

TUMOUR OF THYROID: REMOVAL.

(Under the care of Mr. WILLIAM ROSE).

For the following notes we are indebted to Miss HITCHCOCK, dresser of the case.

Martha P., aged 27, single, was admitted into the hospital on November 27th, 1880, suffering from bronchocele. The enlargement was apparently confined to the right lobe of the thyroid gland; it had been growing for eight years, and now presented the appearance of an ovoid swelling about the size of a turkey's egg. The tumour moved but slightly during deglutition; it was not attended by pain, but there was occasional dyspnœa, and a great sensation of suffocation, so that the patient was most urgent in wishing for its removal. She had been under treatment, both local and general, at intervals for six years, without deriving any benefit. On admission, the right axillary glands were enlarged and painful, as also one of the cervical glands just above the right clavicle. The patient remained in the hospital for three weeks, during which time her general health improved, and the glandular swellings just referred to entirely disappeared.

On December 16th, Mr. Rose proceeded to operate for removal of the right lobe of the thyroid gland, the patient being placed under the influence of an anæsthetic; a longitudinal incision was made, two inches in length, a little to the right of the median line, the centre of the incision corresponding to the position of the thyroid isthmus. Having carefully dissected the overlying muscles from off the capsule, and causing them to be held aside with retractors, Mr. Rose inserted his fingers, and succeeded in so far enucleating the growth, as to cause it to protrude through the wound. A loop of carbolised catgut was then passed round the base or pedicle of the tumour, drawn tight, and knotted. The tumour was then removed.

The hæmorrhage was slight, and due in the first place to laceration of the capsule by the finger at one spot, and, secondly, to the inferior thyroid vein, which latter was easily secured. The edges of the wound were then brought together with silver-wire sutures, and a drainage-tube inserted at the lower angle of the incision. The strictest antiseptic precautions were observed throughout.

The patient's progress after the operation was eminently satisfactory. The drainage-tube was shortened on the second day, and removed with the stitches on the fourth day from the operation. There was one subsequent dressing on the twelfth day, when the whole line of incision presented a healthy and firm cicatrix. The tumour, on examination, was found to be composed of hypertrophied gland-tissue.

ANTIPYRETIC ACTION OF CARBOLIC ACID.—M. Desclats has arrived at the following conclusions on this subject. 1. Carbolic acid is a reliable and prompt antipyretic with brief action, and may be employed in all febriculæ. 2. It should be used boldly, though its effects, especially at the outset, should be watched carefully. 3. Intermittent administration in large doses (enemata of from 50 centigrammes to 7½ to 30 grains) gives better results than continuous administration. 4. While it is probable that sweating has an influence on the lowering of the temperature, it cannot be said that this alone produces it, since it is frequently absent. 5. When carbolic acid is used for a long time together, the condition of the heart and kidneys must be carefully noted; notwithstanding that up to the present time there are no positive data for stating that the long-continued administration of carbolic acid brings on degeneration of these organs.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEBRUARY 8TH, 1881.

JOHN ERIC ERICHSEN, F.R.C.S., F.R.S., President, in the Chair.

A CASE ILLUSTRATING THE CONDITION OF LARGE ARTERIES AFTER LIGATURE UNDER ANTISEPTIC AND NON-ANTISEPTIC MEASURES.

BY FREDERICK TREVES, F.R.C.S.

THE specimens upon which the paper was founded consisted, together with other parts, of the right carotid and subclavian arteries from a man aged 47, in whom those vessels had been ligatured for innominate aneurysm. The patient gave a history of previous good health, and no definite date for the commencement of the local symptoms. A small aneurysm of the innominate artery was diagnosed, and ligature of its two branches resolved upon. On June 30th, 1880, the right carotid was ligatured above the omo-hyoid muscle by Mr. James Adams, under whose care the patient was. The operation was performed under antiseptic precautions without hindrance or difficulty of any kind: a stout catgut ligature was used, and tied in a double and then a single hitch. The wound healed rapidly by first intention without the formation of a drop of pus, and in twelve days the antiseptic dressings were discontinued. After the operation, the aneurysm, although it did not diminish, ceased to increase. On July 21st, 1880, Mr. Treves ligatured the third part of the subclavian: the operation was also performed antiseptically, and the vessel was readily found; a stout catgut ligature was used, and was tied in two simple hitches. During the night after the operation, the patient loosened the antiseptic dressings and exposed the wound. On the evening of the next day, he had a chill; his temperature rose to 101.6; and the edges of the wound were red and swollen; the wound began to suppurate very freely; the stitches had to be removed to allow of the freer discharge of pus; and, in thirty-six days, the incision was almost healed, having closed up from the bottom. The carotid incision might fairly be regarded as a type of healing under antiseptic measures, and the subclavian incision as an open suppurating wound. After the subclavian was tied, the aneurysm improved greatly; all the previous symptoms of discomfort gradually disappeared; and the man was discharged, thirty-six days after the operation, with the tumour apparently cured, or at least greatly benefited. He returned, however, on October 14th, 1880, complaining of severe pain in the back, of cough, and of general feebleness; and was readmitted. After a slight attack of hæmoptysis, the patient died suddenly two days after admission. At the time of death, therefore, one hundred and eight days had elapsed since the carotid had been ligatured, and eighty-seven days since the subclavian operation. Death was found to be due to the rupture of an aneurysm of the thoracic aorta; this had produced great destruction of some of the dorsal vertebræ. The great vessels were examined *in situ*. A small aneurysm, about the size of a Spanish chestnut, was found connected with the innominate artery at its commencement: its sac was almost filled with laminated fibrin, leaving only a cavity about the size of a horse-bean in the centre of the tumour, and that communicated with the vessel. The brachiocephalic vessel was quite patent, as were also the first portions at least of its two branches. In the region of the carotid operation, the restoration of the parts to their normal condition was remarkable: the skin-scar was slight, and had formed no adhesions to the parts beneath; no trace of wound could be detected in the carotid sheath; no adhesions had formed between the artery and the vein, and every trace of the ligature had disappeared. No constriction could be seen in the vessel, and its external outline was unaltered, and the seat of ligature indicated only by a faint transverse bluish mark on the vessel, due, apparently, to the thinness of the arterial coats in that situation. The vessel was found to be patent, but to be narrowed at the seat of ligature by a kind of perforated diaphragm or miniature pylorus, leaving a central aperture about one and a-half lines in diameter. This diaphragm was formed by the incurvings of the ruptured ends of the middle coat, and as the external coat retained unaltered the external outline of the vessel, a minute triangular interval was then formed, having its base represented only by the isolated external coat, and indicated by the bluish line, and its apex by the margin of the diaphragm where the two cut ends of the middle coat met. As the two portions of the middle coat were only united to one another by the scantiest of connective tissue, the artery was very weak at the seat of ligature, and allowed of considerable angular bendings. The third part of the subclavian artery was found embedded in a mass of very firm inflammatory material, and was occluded for three-quarters of an inch, and entirely obliterated for half an inch. No trace of the

ligature could be detected. The subclavian vein was patent; the aorta was very atheromatous, and the summit of its arch calcareous, the aperture leading from the aorta to the left carotid was extremely small, and that vessel was found to be occluded, save for a minute channel through which air could only with some difficulty be forced. This unsuspected closure of the left carotid was evidently present at the time of the patient's admission, and much embarrassed the early diagnosis; for when the patient came under notice, it was observed that the left temporal pulse was much feebler than the right, that the aneurysmal *bruit* (most clearly marked over the innominate tumour) was more distinct in the left than in the right carotid, and that in the left vessel a thrill could be felt, not noticeable in the right. These symptoms aroused strong suspicions of aneurysm of the aortic arch, and were explained by the almost solid condition of the left carotid. As an operation for closing a blood-vessel the carotid operation must be considered to have failed, and the reasons of that failure were matters of great importance. In reviewing the subject, Mr. Treves dealt in detail with the comparative physiological condition of the two vessels at the time of ligature, and urged that in this respect the condition of the subclavian artery at the time of ligature was actually less favourable than was that of the carotid when subjected to operation. In the details of the two operations, and in the health and general surroundings of the patient, no differences were apparent that could account for the difference in result. The conclusion, therefore, would appear to follow, that the failure of the carotid ligature was due to the antiseptic measures adopted. It would appear that these measures might almost err on the side of perfection by producing too ready and too complete a return of the parts to their condition previous to disturbance. Anatomically the healing of the wound was perfect, but would seem to have been too perfect for surgical purposes. A little so-called reaction in the wound, and a little of that firm inflammatory material almost too bountifully supplied about the subclavian incision, would probably have effected the permanent closure of the artery. The comparative risks, however, attending the healing of the two wounds, had to be considered. The question remained as to whether for some surgical purposes the perfect healing aimed at by the supporters of the antiseptic treatment was desirable or successful.

ANEURYSM OF THE AXILLARY ARTERY, PROBABLY RUPTURED, TREATED BY THE ANTISEPTIC LIGATURE OF THE THIRD PART OF THE SUBCLAVIAN ARTERY: PARTIAL RESTORATION OF THE LUMEN OF THE VESSEL. BY JEREMIAH M'CARTHY, M.A.

F. G., aged 51, a sailor, was admitted into the London Hospital on September 7th, 1880. In 1879, he had been under the care of Mr. James Adams for diffused aneurysm of the right popliteal artery, with the result of cessation of the *bruit* and pulsation in the aneurysm after eight hours' digital compression of the femoral artery. Five days later, gangrene necessitated amputation above the knee. The wound had healed well, and the man was discharged cured in November 1879. Ten days prior to his second admission, he felt pain in the left axilla, which recurred on September 6th with great intensity; and a swelling was observed in front of the left shoulder. There was a pulsating tumour immediately below the clavicle, which stretched the pectoral muscles so that the man sat with his body bent forward. A loud *bruit* was heard over the swelling, and its pulsations were synchronous with those at the left wrist. It was evident that a small axillary aneurysm had suddenly ruptured. The subclavian artery was at once ligatured antiseptically with a catgut ligature, arresting pulsation in the tumour and left wrist. In four days, the tumour and the œdema had almost disappeared; and the wound healed by the eleventh day, when slight pulsation could be detected in the left radial artery. On the twenty-first day, the patient complained of severe pain in the shoulder; and examination was made for its cause. A harsh *bruit* was heard below the inner third of the clavicle, but none in the consolidated mass close to the shoulder. A hypodermic injection relieved the pain. On the forty-second day, the tumour was spreading towards the shoulder, and ice was tried externally, and iodide of potassium internally; and on the forty-sixth day, on the supposition of the subclavian artery having become permeable, an examination was made; but no pulsation could be detected in the subclavian beyond the ligature. On the fifty-seventh day, the arm became œdematous, the pulse at the wrist no longer perceptible, and the tumour steadily enlarging. On the sixty-second day, the arm became of a dusky red colour; some bullæ formed; and the tumour was obviously about to burst in the axilla. On the sixty-fourth day, there was oozing of blood from the axilla, and Mr. M'Carthy amputated at the shoulder-joint. The pectoral muscles, and parts of the axillary and brachial arteries, were indistinguishable in the pultaceous mass, composed of old and recent blood-clots. The remains of the axillary aneurysm could be seen, with three large vessels opening into it, which, with five smaller vessels, were then tied. The man died an hour and a half afterwards. The author gave a full description of the *post mortem* appearances of the subclavian artery, and of the microscopic examination of its coats, which were much thickened at the seat of ligature; but there were no traces of the tunica intima having been completely divided, though in the media some of the elastic fibres had evidently been ruptured. The tunica adventitia was much thickened; and in it were imbedded the remains of the ligature, surrounded by giant-cells. With regard to the question how the artery became pervious, the author suggested that the catgut ligature, applied with effectual antiseptic precautions to an artery in its continuity, did not do sufficient injury to ensure permanent closure of the vessel.

The PRESIDENT said that, as there was but little definite knowledge on the subject of these papers, thanks were due to the authors for their contributions. About sixty or seventy years ago, discussions were going on in that Society upon the same subject; and ligatures of catgut, doeskin, and other animal substances, were then being used; the ligatures being cut short, and the wounds closed over them. Sir Astley Cooper had thus used them, and great hopes had been entertained of such ligatures; but surgeons gradually came to give them up, because such ligatures were found not to be so trustworthy as silk or hempen ligatures. It would be exceedingly interesting to arrive at the exact trustworthiness of the present carefully prepared carbolised catgut ligatures when used, as now, with all the resources of modern surgical science. In both the cases related at that meeting, the diaphragm and open lumen in the ligatured vessels were remarkable, as they had not occurred within the President's knowledge in any case where silk or the hempen ligature had been employed.—Mr. MORRANT BAKER inquired why Mr. Treves considered the non-occlusion of the artery to be due to the perfection of the antiseptic system.—Mr. BARWELL remarked that the formation of a diaphragm in a ligatured artery was a new matter of knowledge, and some points in connection with it required much elucidation. The papers they had heard were consequently worthy of careful study. In the right carotid artery in Mr. Treves's case, there was no mention of a clot above and below the ligature, which was so much relied upon by the older surgeons for the prevention of secondary hæmorrhage. Did the application of the antiseptic treatment prevent the formation of the clot? The tunica intima in that same vessel had not been ruptured, it was said; but he (Mr. Barwell) thought it had been ruptured, and covered by epithelium, which prevented the site of rupture from being seen. The catgut ligature had, perhaps, been unreliable; and he believed that certain specimens did vary immensely, and that surgeons thereby ran considerable risk. The catgut, he thought, was sometimes too rapidly absorbed, and the aneurysm not closed for a sufficient length of time. Nevertheless, for eighteen days, in this case, the pulsation had ceased. Did the absence of inflammation outside the vessel stop the clotting inside? He himself hardly thought so; but the point seemed worthy of consideration. He considered it a rare occurrence that after the ligature of the left subclavian in the second case, the pulsation in the right radial artery had at once increased. In one of Sir Astley Cooper's cases, abscesses had formed about the arm.—Mr. HULKE said that his experience of catgut ligature, used with antiseptic precautions, was confined to two cases of ligature of the femoral artery. The wound healed almost with primary adhesion, but not quite, and, therefore, kept him constantly on the alert. He believed that in both cases related in the papers read that night the tunica intima had not been cut through. Now the clot in the vessel was said to be of no use; but he thought that if the ligature held sufficiently long, so that proliferation of the tunica intima could go on, then the clot might be of service.—Mr. GANT thought the open healing of the wound was efficacious in closing the artery. The only objections to that kind of wound were due to the greater risk of secondary inflammatory troubles run by the patient. In ligature of the carotid the wound was comparatively superficial, and healed at once; in the case of the subclavian it was deep and lacerated.—Dr. BERNARD O'CONNOR thought that if catgut not sufficiently long prepared were used as a ligature, the knot would be apt to slip.—Dr. J. HARLEY said that a knot in a catgut ligature swelled out when it was moistened, and was, therefore, probably apt soon to loosen.—Mr. T. SMITH thought the main teaching of the cases was that the carbolised catgut ligature was untrustworthy when used for the ligature of an artery in its continuity. The tunica intima was now found to be formed into a diaphragm, and, as Mr. M. Baker had suggested, the ligature probably did not hold long enough, but, giving way, the circulation was restored. In a case operated up on by himself, the catgut having been supplied by Mr. Lister, an aneurysm formed at the point of ligature. He (Mr. Smith) was now accustomed to put on two ligatures, and to divide the artery between them. With the adoption of this plan he had had no trouble.

The carbolised ligature did not seem to him to be able to resist pressure in the longitudinal direction. He asked if the surgeons of St. George's Hospital, who had received some kangaroo-tendon ligatures, could give information respecting them. It seemed to him that tendon would be a good substance for ligatures, as its function was to resist strains in the longitudinal direction; in which it differed much from catgut.—Dr. GILBART SMITH inquired if catgut ligature was capable of dividing the internal coat of a large artery, and if such division was considered necessary for the security of the ligatured vessel?—The PRESIDENT said that James, of Philadelphia, had tried to show seventy years ago, in the controversy on Jones' experiments, that division of the internal coat was not necessary.—Mr. BARWELL had experimented much with carbolised catgut, and found that ligatures of that substance always divided the internal coat of the vessel.—Mr. TREVES, in reply, said there was now no means of knowing if there were any clot in the ligatured vessel when it was removed. The internal coat seemed to him to have been divided; and the middle coat certainly appeared to have been cut across. If the catgut would stand the amount of force applied to it, it would undoubtedly divide the two internal coats.—Mr. MCCARTHY thought Mr. Baker and Mr. Smith had dwelt too much on the mechanical action of the ligature itself, and not sufficiently on the change which occurred in the wall of the ligatured vessel. The ligature might occasionally slip, but it did not appear to have done so in his case, so intimately was it found to be embedded in the wall of the artery. The whole evidence in his case supported the position that the ligatures had been put on quite tightly enough. The late Mr. Maunder had ligatured arteries in dogs, and had found the tunica intima sometimes divided, sometimes not, although the force used was about the same. In his case the intima was proliferating, and there was no clot remaining; had there been one, it had been swept away. He thought a certain amount of inflammation was necessary for the closure of the vessel. The barrier in his case had become gradually overcome by the force of the blood-current.—Mr. SAVORY made a few observations, and the meeting adjourned.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, FEBRUARY 1ST, 1881.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

Tumour of the Thigh.—Messrs. BECK and GODLEE presented a report on a tumour of the thigh, shown by Mr. Hutchinson at a former meeting. They considered the tumour to be an epithelioma, differing widely, however, from the usual form, and resembling in some respects a rodent ulcer; but evidently not of this nature, as the lymphatic glands were affected. No opinion could be hazarded as to the tissue from which it originated, though it might be surmised that the sweat-glands had formed the starting-point.

Strangulated Hernia reduced en masse.—Mr. MCCARTHY showed a specimen of the parts in a case of strangulated hernia reduced *en masse*. The patient was a man, sixty-two years old; the rupture had existed for some years, and came down frequently; he had always succeeded in returning it himself until two days before admission into the London Hospital. Taxis had been employed before admission, and was repeated in the hospital without success. When seen by Mr. McCarthy, the tumour was about the size of a cocoa-nut. As there were no urgent symptoms, and as the man refused any further interference, an ice-bag to the parts was the only treatment resorted to. Next morning, the house-surgeon reduced it with the greatest ease. Vomiting continued, and a distinct fulness was felt above Poupart's ligament. The patient continued obstinate in his refusal to permit any operative interference until three days later; but, at that date, the bowels had acted, and the fulness in the groin had disappeared—so that it was not thought prudent to operate. That night he died. *Post mortem*, there was evidence of acute peritonitis, and about a foot of intestine was found in the left iliac fossa, in a gangrenous condition, strangulated by a narrow band. The sac was found in the scrotum; its upper edge was torn and ragged, and projected into the abdomen, so as to look like the bowl of an egg-cup. Nothing (Mr. McCarthy thought) could have been of any use except abdominal section. He believed that no exactly similar case had been reported.—Mr. BRYANT said that it was not easy to understand how the neck of the sac could be torn off; if this had been so, the sac would have been found loose. Was not the constricting ring described really a product of old inflammatory action detached by the taxis? Further: was this a congenital or an acquired hernia? for generally, in these odd cases of reduction *en masse*, the hernia belonged to the former class. He thought the case was almost unique. Mr. MCCARTHY did not wish to imply that the constricting band was anatomically the neck of the sac, but that it was a structure that went to make up the existing neck. He quite accepted Mr. Bryant's theory of its chronic inflammatory origin. The patient, in his efforts at reduction, had probably displaced the upper part of the sac—so that the operator, in applying taxis, grasped the contracted portion, and not the true neck.

Rupture of Aorta.—Mr. MCCARTHY showed a specimen of rupture of the aorta, taken from a girl aged 12, who died with signs of collapse after being trampled on by a pony. The posterior mediastinum was found at the necropsy full of blood, and in the descending part of the arch there was a rupture, which, in the middle and inner coats, was quite clean cut, as though made by a knife. The head of the third left rib projected, and the aorta had probably been nipped between it and the front of the chest.—Dr. WILKS thought that a chapter ought to be added to our books on forensic medicine, describing the situations in which organs gave way under strain. All organs in a state of tension gave way at certain points, according to definite mechanical laws; the heart, for instance, gave way on its posterior surface.

Recurrent Multiple Sarcoma.—Mr. W. H. CRIPPS showed microscopical sections from two cases of recurrent multiple sarcoma, which had been under the care of Mr. Willett at St. Bartholomew's Hospital. The first patient was a lad aged 19. In November 1879, a small sarcoma was removed from the popliteal space. Three months later, the tumour had recurred locally, forming a fungating mass as large as a fœtal head; the thigh was amputated at the junction of the lower and middle third. Three months later (June 1880), he was readmitted; there were no local recurrences, but over the right side of the chest was a small tumour; he was greatly emaciated, and suffered from hæmoptysis. At the necropsy, a mass the size of the fist was found at the right fifth rib, projecting into the thorax, with processes running along the lymphatic vessels to the vertebræ. The thoracic, abdominal, and pelvic glands were enlarged, and a mass had apparently projected through the innominate bone, and presented under the gluteus. The second patient was a woman aged 40. She had been in perfectly good health until a year before admission; then a blister formed on the sole after a walk, and burst, discharging blood. The resulting sore never healed; a growth developed, and, when it had reached about the size of a shilling, was removed by Mr. Willett. Five months later, the growth had recurred *in situ*; there was a new tumour in the groin; the viscera were affected; and the patient was much emaciated. Before her death, over a hundred small nodules could be felt beneath the skin. *Post mortem*, both lungs were found studded beneath the pleura with numerous nodules. There were similar growths beneath the pericardium. The femoral, inguinal, abdominal, and thoracic glands, and all the abdominal organs except the spleen, were likewise affected; the intestines were thickly studded with nodules, and the omentum weighed 5 lbs. Sections through the margin of the tumour on the sole of the foot showed an alveolar stroma, with included epithelial cells; on passing deeper, the stroma became less and less, and the cells smaller, until in the deepest parts the structure was that of a typical round-celled sarcoma; the secondary growths were round-celled sarcomata. Mr. Cripps thought the alveolar structure of the margin of the primary growth especially interesting, suggesting, as it did, that our distinctions between the various forms of new growth were rather artificial than real. He drew a parallel between pyæmia, where we saw numerous foci of disease in which the small round-cells tended to degenerate, and cases of this class, where the small round-cells in the various foci tended to develope and not to degenerate. In his recent lectures, Mr. Butlin had maintained that the glands in sarcoma were not affected through the lymphatic vessels; but these cases appeared to be exceptions.—Mr. BUTLIN knew both of the cases: in the first, the pelvic glands were affected by the mass growing through the bone. That sarcoma did not, as a rule, infect the lymphatics, was not a new observation; what he had wished to point out was, that, while sarcoma in some situations—for example, the testicle—generally infected the lymphatics; in others—*e. g.*, subperiosteal growths—it rarely did so; and in others, again (growths from bone) never, except owing to what might be called accidental circumstances.

Scleroderma of Face and Scalp.—Mr. MORRANT BAKER showed a woman suffering from a condition of the face and scalp, to which after some hesitation he had applied the term scleroderma. The patient was forty-five years old; the disease had existed for about four and a half years, but had remained stationary for the last two. On the right cheek was a dense, tough, new growth, extending from the inner canthus to the malar bone, and measuring in its greatest diameter an inch and a half, with an irregular spurred margin. Below this were several hard nodules of a pinkish colour, varying in size from a shot to a large pea. In the middle line, beneath the chin, was a hard flat mass about one inch in diameter. There was some thickening also below the septum nasi. The left side was very slightly affected. Behind the left ear was a patch of smooth, thickened, tightly drawn, hairless skin, and in the middle line of the scalp was another area in a similiar condition.

The face was scarred in several places, as if by past ulceration, but this was said by the patient to be due to past cauterisations. The sensibility of the parts was unaffected. She had suffered a little from shooting and itching pains, but on the whole, the disease had caused little inconvenience, beyond the deformity it had produced. There was no history suggesting syphilis.—Mr. HUTCHINSON had never seen an entirely similar case. Scleroderma began by a well defined patch which had no tendency to spread, and did not ulcerate. Here the disease had begun in several patches, and these had grown at the edge in a serpiginous fashion; on the scalp he had noticed a little ulceration. He was inclined to consider the case as one of lupus; the patch behind the ear might, he thought, be called erythematous lupus. The condition of the face was unlike any ordinary lupus, but some varieties of that disease were very slow to ulcerate. He suggested that the case resembled the condition described by Hebra as rima scleroma. He had published a case in which a tough patch, spreading at the edges, had followed a wasp-sting; in this case cauterisation produced a scar, but did not check the spread of the disease.—Dr. PYE-SMITH showed a drawing made in March last year, of a case of extensive scleroderma. The patient had been shown by Mr. Hutchinson earlier in this session. The points of interest were that the patches at first were symmetrical on the two legs, and that subsequently they coalesced; that they did not follow the direction of nerves or blood-vessels, or occupy particular regions; and that at one point there were some painful superficial ulcers. The sensibility of the parts was generally lessened. In this case there was no question of diagnosis. He showed also a drawing of the disease in its early stage, a characteristic patch of morphœa or localised scleroderma.

Chloasma.—Dr. CAVAFY showed a patient suffering from extensive chloasma. Eight years ago, when one-and-twenty, he had had an attack of jaundice, which lasted eight weeks. The icteric tint gradually changed into the liver-colour now existing; the conjunctivæ recovered their natural colour; and on the chest, after nine months, the colour had gradually faded, but on the back, buttocks, and thighs, it had become distributed in patches and gyrate figures. These islands were not of abnormal whiteness, and some of the larger showed rings of pigment which had survived the clearing process. There had been much itching, but no desquamation. He thought that the colouration was to be accounted for by chemical changes occurring in the bile-pigment, but was inclined to attribute some importance to nervous processes.—Mr. HUTCHINSON, on a hasty examination, thought that the case looked very like leucoderma occurring in a skin modified by jaundice; he suggested that the case should be referred to a committee.—Mr. MORRANT BAKER thought the case very interesting. He questioned whether leucoderma might not be accompanied in an early stage by some pigmentation, perhaps only relative. He fully admitted that the diagnosis in his own case was doubtful, and, in bringing it forward, had hoped to elicit opinions on this point.—Messrs. Hutchinson and Baker, and Drs. Cavafy and Pye-Smith, were requested by the president to report on the two cases.

The Society then adjourned.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.

THURSDAY, DECEMBER 30TH, 1880.

ALEXANDER MORISON, M.D., in the Chair.

Knock-knee.—Mr. SAMUEL BENTON showed a patient whom he had cured of knock-knee by mechanical means. Before treatment, the boy could only walk a short distance, and after treatment, he could walk eight miles without feeling fatigued. The legs were nearly straight.

Pseudo-paralysis.—Dr. B. G. MORISON showed a patient who was suffering from pseudo-paralysis of the lower limbs. She was a woman of about forty years of age, and had been under Dr. Morison's care for some uterine disorder, and of late she experienced some defect in locomotion. The eyes were normal. The knee reflex was absent, and there was marked analgæsia of the lower limbs, but motion was not much interfered with. Dr. Morison thought that the condition was due rather to arrest of function in the cord than to any organic change.

Elephantiasis Treated by Galvanism.—Dr. DOWSE detailed notes of a case of elephantiasis of the leg cured by the application of the continuous galvanic current.

Pathological Specimens.—Dr. MORISON showed some microscopic sections of molluscum contagiosum, and he also showed a fibroid growth which he had removed from the uterus.

Musical Cardiac Murmurs.—Dr. MORISON then read a paper on musical cardiac murmurs and maintained that a careful examination before, and if possible after, death, of cases which exhibited a musical *bruit*, would render still more accurate the already marvellously accurate field of cardiac diagnosis. The clinical, pathological, and acoustic details of an illustrated case were given, which, besides revealing the cause of a well-marked musical murmur, demonstrated the reflection of sound from the aortic cusps to the heart's apex; on the principle of Pritet's and Saussure's experiment with conjugate mirrors.

Guy's Hospital.—A resolution was passed unanimously, expressing sympathy with Dr. Habershon and Mr. Cooper Forster, upon their resigning their respective posts at Guy's Hospital.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

THURSDAY, DECEMBER 16TH, 1880.

HECTOR CAMERON, M.D., President, in the Chair.

Estimation of Blood-pigment in Solution.—Dr. DAVID NEWMAN showed a simple spectroscopic method of estimating quantitatively blood and other pigments when in solution. The spectroscope was fixed to a tube in which there was a cell containing the fluid to be examined. The thickness of this cell might be increased or diminished by simply drawing out or shutting up the tube. A millimètre scale was attached; and, by noting the distance in millimètres through which the tube passed from the time of disappearance of the first hæmoglobin absorption band, to the disappearance of the second band, a standard might be established. Other pigments might be treated in the same way, but the results were only comparative.

Worm-like Body passed from the Bladder of a Woman.—Dr. FOULIS showed, for Drs. Constantine and Aikman of Guernsey, some curious vermiform bodies taken during life from the bladder of an unmarried woman, aged 40, who for more than a year had been passing, *per urethram*, white elastic tubes from two to three inches long, and about one-eighth of an inch in diameter. She suffered from dysuria and retention of urine, and there had been some uterine derangement; some of the vermiform objects had been taken by Dr. Constantine from the urethra, so that there was no doubt as to their having entered that part somehow or other. As many as twenty to thirty per week were said to be passed. They were tubes, and at each end there was a half-twisted thin part, which was broken or torn at the extremity. They corresponded exactly with the bodies described by Lawrence (*Medico-chirurgical Trans.*, vol. ii), and by Richard Owen (*Encyclopædia of Anatomy and Physiology*, art. Entozoa, vol. ii), and quoted by Küchenmeister (*Manual of Parasites*, vol. i, page 442). These authors were uncertain as to the exact nature of the tubes, but were inclined to call them worms, and this opinion appeared to be shared by Rayer and Bremser. Anton Schneider (Müller's *Archiv*, 1862, page 275) called them the filariæ of fish, but this they evidently were not, from their size, and besides, the filaria is not a hollow tube. On microscopic sections being made, Dr. Foulis had no difficulty in determining the structure to be that of *arteries*; and, with the internal mammary and radial arteries from men, he easily made similar worm-like bodies. Professor John Young confirmed this view. The case was interesting, chiefly in relation to Lawrence's case, in which many eminent observers had been involved. It would be well if sections were now made of the so-called worms from that case, so as to decide whether they also were arteries. If so, it would be instructive psychologically to note that the patient continued the deception for thirty years.

Ascites: Recovery.—Dr. MCCALL ANDERSON showed a man, aged 62, of intemperate habits, who had been admitted to hospital last June, suffering from ascites and œdema of the lower limbs. The liver was contracted and its left lobe indurated, while the spleen was greatly enlarged. The abdomen was much distended by fluid, and the patient's distress was increased by chronic bronchitis. The abdomen was tapped eight times, and 3,082 ounces of fluid removed. At the same time purgatives and tonics, with light diet, were given, and the symptoms gradually disappeared, so that now the patient was apparently quite well.

Athetosis.—Dr. MCCALL ANDERSON showed a patient whose case was reported in the *Glasgow Medical Journal* for October 1880, and reported for comparison a second case, in which the athetosis was a complication of hemiplegia. The latter patient was a boy, aged 14. Symptoms of paralysis set in a month before admission to hospital, affecting the right arm and leg and muscles of articulation; consciousness was never affected. About the same time, the characteristic twitching movements of athetosis began to affect the right hand and foot. Occasionally, also, the arm and right side of the body were similarly affected. There was also a well-marked apex systolic murmur, without much change in the size of the heart. After rest, regulation of bowels, and

friction, the patient was dismissed from hospital quite well; the entire duration of his illness being three months.

Cerebral Localisation.—Dr. ROBERTSON showed the brain of an idiot, aged 23, subject to epilepsy and congenital right hemiplegia and aphasia. He could walk, but dragged the right leg, while the right arm was much shrivelled and useless. The brain was very small; in the left hemisphere there was extreme wasting of the lower third of the ascending frontal and parietal convolutions, of the back parts of the second and third frontal and of the upper temporo-sphenoidal convolutions, and of the centre of the parietal lobe. The wasting of the right hemisphere was confined to the back part of the parietal and occipital lobes. The left halves of the pons and medulla were about a third smaller than the right. Lesion of motor convolutions thus existed on the left side only, and was associated with the right hemiplegia; and, as the lesion was situated at the base of the convolutions, there was greater implication of the arm than of the leg.

Syphilitic Thrombosis of Internal Carotid Artery.—Dr. ROBERTSON showed the brain of a stout man, aged 32, who had become hemiplegic several weeks after acquiring syphilis; the primary sore and a secondary rash being present at time of death. The necropsy did not reveal any morbid change in the chest or abdomen. The left internal carotid artery, at its bifurcation into middle and anterior cerebral, was obstructed by a thrombosis, and the wall of the vessel was thickened. The left anterior and middle lobes were much softened. Dr. Robertson considered the diseased condition of the vessel to be due to the syphilitic poison. It was rare to find such arterial change while the primary sore was still present, though it occurred occasionally with ordinary secondary symptoms.

OBSTETRICAL SOCIETY OF DUBLIN.

SATURDAY, JANUARY 8TH, 1881.

JOHN A. BYRNE, M.B., President, in the Chair.

To what extent are Utero-vaginal Injections advisable in Childbed?—Dr. W. J. SMYLY read a paper on this subject. Utero-vaginal injection in childbed was a practice of great antiquity, but had of late years been practised to an extent far exceeding that of former times. The cause of this he considered to be two-fold: first, the more general adoption of the *dictum* of Semmelweis, "that puerperal fever was, without any exception, a fever of absorption, arising from the absorption of decomposed animal organic matter", which led to a belief in the identity of that fever with ichorhæmia, septicæmia, and pyæmia; and, second, the wonderful power of so-called Listerism in preventing the diseases in the field of general surgery, which leads to a desire for the employment of similar antiseptic precautions in childbed. Dr. Smyly then proceeded to show that the use of the utero-vaginal douche in childbed, though apparently rational, and easy of accomplishment, was, nevertheless, one not unattended with considerable risk—either (1) from the irritation it might produce, owing to the high state of nervous excitability at the time of parturition, resulting in fits of hystero-epileptiform convulsions ending even in death, as in some cases quoted; or (2) from the displacement of uterine thrombi, causing hæmorrhage; or (3) from over-distension of the uterus giving rise to inflammation, or possibly to the escape of fluid into the abdominal cavity through the Fallopian tubes; or (4) by the entrance of air into the uterine sinuses, as suggested by the younger Legallois in 1829. Dr. McClintock had explained the mechanism by which the entrance of air into the veins in such cases took place. The veins of the gravid uterus were remarkable for their extraordinary size, their freedom of inosculation, their total freedom from valves, and their termination on the internal surface of the uterus, at the site of the placenta, by large open orifices. The same condition of the organ which caused flooding was exactly that which was indispensable for the ingress of air; so that the latter, when it did take place, was almost of necessity preceded or accompanied by hæmorrhage. That he considered a most important point, and one which had been observed in almost all cases where air or other fluid had entered the circulation. The usual symptoms of such an accident having occurred were: a gargling sound; escape of blood from the genitals; sudden sense of oppression and breathlessness, collapse, and asphyxia. The following case came under Dr. Smyly's observation, in the Rotunda Hospital, in 1879. M. M., aged 35, was delivered of her first child in the hospital; the labour was natural, with the exception of laceration of the perinæum, down to, but not through, the sphincter ani. All went well until the third day, when, the lochia being offensive and the perinæal wound unhealthy, she was ordered to have the vagina syringed with a solution of Condy's fluid, which was done by means of a Higginson's syringe, in the ordinary way. Suddenly the woman became collapsed, respiration ceased, the pulse at the wrist became indistinguishable, and the cardiac impulse, which could faintly be felt for some time, soon ceased. The surface presented a mottled marble-like appearance, from over-distension of the superficial veins; and, in spite of all the efforts to restore vitality, the woman died within twenty minutes of the accident. The *post mortem* examination showed a quantity of frothy blood in the right heart; and, when a knife was thrust into the distended iliac veins, air escaped with an audible whiff. The dangers following the injection of carbolic lotion into the womb were not mainly due to the poisonous nature of carbolic acid, but, as shown by Dr. Fritsch, were really to be ascribed to the action of a heterogeneous fluid upon the nervous centres; as the transfusion of lamb's blood, and the injection of salicylic acid lotion, were followed by a similar series of symptoms. There was yet another danger attending the use of the vaginal douche in childbed—viz., the possibility of communicating thereby the very disease it was intended to prevent, either by direct infection from septic instruments, or by the admission of air into the womb—a circumstance which must be looked upon as somewhat analogous to making a simple fracture into a compound one. He, therefore, deprecated the use of vaginal injections, as a routine practice to be employed in every case; but admitted that in a certain number of cases, especially those in which there was already gangrene, decomposition, or the formation of gas going on in the uterus, it was most desirable. When injections were resorted to, it was most advisable that the method employed should be simple, and, at the same time, such as to reduce the risks to a minimum; for which qualities he recommended the common irrigator, with metallic tube and stop-cock and condemned all pumping contrivances such as Higginson's syringe, as its gum-elastic tube soon became soft, and readily cracked—thus rendering the absorption of septic matters most probable. It was also very liable to pump in air along with the fluid, and the stream being sent in jets was more dangerous than the even flow from an irrigator. In conclusion, Dr. Smyly wished to ask the opinion of the Society on three questions: 1. Are injections advisable in all cases; and, if not, what are the indications for using them? 2. Should they be continuous or intermittent; and, if the latter, at what intervals should they be repeated? 3. What is the best method of carrying out the process?

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, JANUARY 15TH, 1881.

A. W. FOOT, M.D., President, in the Chair.

Caries of the Bones of the Foot.—Surgeon-Major JACKSON, C.B., exhibited a specimen of caries of the bones of the foot, removed by Syme's amputation from an artillery-driver aged 23, who had been invalided for a lumbar abscess, and for scrofulous disease of the bones of the right ankle. There were several sinuses, from which a profuse discharge of thick cheesy matter escaped. A probe could be passed right through, below and behind the malleoli. The disease was the result of a severe injury to the right ankle-joint received about two years previously; it apparently commenced in the middle cuneiform or base of the second metatarsal bone. The external cuneiform bone was also extensively diseased on its inner surface. The cuboid was more diseased on its superior and internal aspects than anteriorly. The scaphoid was extensively affected on its anterior, posterior, and superior surfaces. The astragalus was affected where it articulated with the scaphoid, and the os calcis was also extensively diseased.

Vesical Calculus.—Mr. W. I. WHEELER exhibited a small calculus removed by lithotrity from the bladder of a man aged 68. A history of stone extended over three years.

Abdominal Aneurysm.—Dr. C. J. NIXON presented a specimen of aneurysm engaging the abdominal division of the aorta and the cœliac axis. The specimen was taken from the body of a carpenter, who attributed his ailment to the quantity of fluids he habitually drank.

Disease of the Bladder.—Dr. J. K. BARTON showed an example of disease of the bladder attended with retention of urine. There was peculiar solidity of the hypogastric tumour. The specimen was referred to the Committee of Reference for a further report.

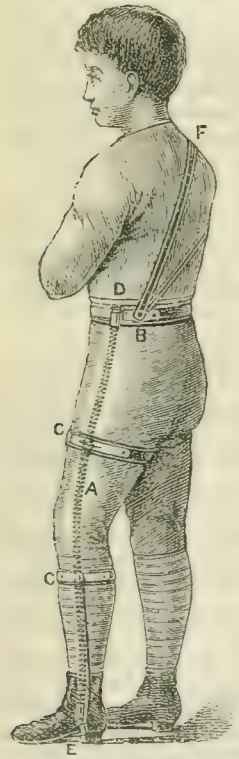
Pyelo-Nephritis from Chronic Obstruction in the Urethra.—The PRESIDENT exhibited the bladder, ureters, and kidneys of a boy aged 15, who died after eight days of uræmic symptoms. He had congenital phimosis to an extreme degree, and had had for three years a very tight stricture (cause unknown). The bladder was highly inflamed from ammoniacal decomposition of the retained urine. The left kidney (9½ oz.) was converted into a tough-walled sac, imperfectly partitioned by septa representing the original calyces, or the remains of the condensed interpyramidal processes of connective tissue. The right kidney (14 oz.) had its pelvis and other processes of mucous membrane in a state of acute suppurative catarrh (pyelitis), with vivid injection of the submucous layer. Streaky lines led from the mammillæ towards the

cortex into minute abscesses, setting up the parenchymatous nephritis to which the enlargement of this kidney was due. The ureters were not much dilated; but their lining membrane bore traces of the transmission from the bladder to the kidneys of the inflammatory action.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

DR. DOYLE'S SPIRAL SPRING ROTATOR.

THIS apparatus has been devised by Dr. Gregory Doyle, of Syracuse, N.Y., to remedy the persistent inversion of the foot which often remains after operations on club-foot, especially talipes equino-varus. The spiral spring rotator may also be used in educating pigeon-toed children to walk properly; and Dr. Doyle further believes that it will be found a valuable assistant in the treatment of hip-joint disease and fracture of the neck of the femur when it is necessary to maintain a certain amount of rotation. He has also applied the spiral spring power to a case of torticollis with satisfactory results.



A. Spiral Steel Spring. B. Belt around the hips. C. Loops to hold Spring in place. D. Set Screw by which tension is regulated. E. Plate by which the Spring is fastened to the Shoe.

The instrument is shown in the appended woodcut. A belt is fastened about the pelvis, between the iliac crests and the great trochanters, to which, on each side, is attached the upper end of a strong spiral spring extending down the external aspect of the thigh and leg. The lower end of the spiral spring is firmly fixed by a metal plate to the outer aspect of the boot, so as not to interfere with flexion and extension of the ankle-joint. A strap, adjustable in height, passing round the mid-thigh, and a second strap, just below the knee, keep spiral spring and the metal boot-plate in position. If the pelvic belt and the mid-thigh strap be first secured in place by their buckles, and the spiral spring rotated inward or outward by means of the boot, and then the boot put on, the stiff spiral spring, by its tendency to resume its former position, will exert an everting or inverting force on the foot in a direction opposite to that in which the boot has been rotated, the amount of force depending on the number of times the boot has been turned. The spiral spring is flexible in every direction; hence the wearer can walk, run, or sit down without disarranging the apparatus. The apparatus may be single or double. When single, the action of the single spiral spring on the pelvic belt causes the latter to slip round; but this is easily prevented by a suitable shoulder-strap. When double, the spiral springs balance one another, if both evert together or invert together; but, when one everts and the other inverts, the shoulder-strap is required. The apparatus is fitted between the drawers and trousers, where for the most part it is out of sight.

Mr. Gustav Ernst, of 80, Charlotte Street, Fitzroy Square, has made arrangements with Dr. Doyle for supplying the profession in England.

TESTS FOR URINE.

SIR,—Adverting to the letter of Dr. McCulloch, published in the BRITISH MEDICAL JOURNAL for January 22nd, will you permit us to state that we have for several months been making experiments with the view of providing for the safe keeping and ready transport of the several powerful and decomposable reagents used in the examination of urine; and, as early as November last, succeeded in enclosing, in fragile glass globes of distinctive colours, beads of caustic potash, and small quantities of concentrated nitric acid; each of these globules contains sufficient of the reagent to form a test, and as they are hermetically sealed, not only are the surgeon's person and clothing protected, but the contents are completely preserved from decomposition. The globe is easily crushed by a small pair of gum-coated pincers, provided for the purpose; and being perfectly neutral, is permitted to fall into the urine along with the test.

We enclose specimens of the globules for your inspection, together with a reprint of a notice which appeared in the December volume of Braithwaite's *Retrospect*. They are put up either separately or in cases combined with Dr. Pavey's cupric test; or, finally, in cases comprising every requisite for urinary examination, including a small, but powerful, microscope of novel construction.—We are, sir, your obedient servants, SALT AND SON.

21, Bull Street, Birmingham, Jan. 25th, 1881.

TREATMENT OF WEBBED FINGERS.

SIR,—Our attention having been directed to an article on the above subject in your JOURNAL of the 8th instant by Mr. Henry F. Baker, in which he claims the invention of a silver ring "with a point at one end and a hollowed portion at the other large enough to receive it", made according to his instructions by Messrs. Arnold and Sons, and used for the purpose of establishing a hole, analogous to that made by an ear-ring, we think it only just to ourselves and to the late Mr. Blaise, of Messrs. Savigny and Co., St. James's Street, with which firm we were connected many years, to state that silver rings precisely corresponding to the one represented by Mr. H. F. Baker were made by Mr. Blaise many years ago, and used by Mr. William Adams and other surgeons. Mr. Adams has now in his possession those which Mr. Blaise made for him eight or ten years ago.—We have the honour to remain, sir, yours obediently, C. WRIGHT AND CO.

108, New Bond Street, London, W., January 25th, 1881.

NOTES ON BOOKS.

MR. FURNEAUX JORDAN'S *Surgical Inquiries* (Churchill) has reached a second edition. The series of essays of which it is composed show marked originality, great clinical sagacity, and power of observation and thinking. To the second edition is prefixed Mr. Jordan's able essay on Shock.

AMONG new foreign publications we welcome the *Archives de Neurologie*, a quarterly periodical devoted to diseases of the nervous system, and published under the direction of Professor Charcot. Dr. Bonneville is editor, with an able staff of collaborators. This suffices to stamp it as a periodical of assured merit and solidity.

The Journal of Physiology, vol. iii, No. 2, includes in its contents papers, by S. H. Vines, on the Proteid Substances contained in the Seeds of Plants; by Dr. Sydney Ringer, concerning the Influence of Season and of Temperature on the Action and on the Antagonism of Drugs; by Dr. Charles Roy, on the Elastic Properties of the Arterial Wall; and by Dr. Isaac Ott, by Philadelphia, on Crossed Hyperæsthesia; and Notes on Inhibition. The first article is an interesting and suggestive contribution towards the study of the nitrogenous metabolism of plants by an investigation of the germination of seeds, a subject full of interest, as may be inferred from the fact that the reserve-proteids of plants are found to consist of substances which find near allies in the products of the digestion, more particularly the pancreatic, of proteids by animals. Dr. Sydney Ringer finds that the antagonism of the extract of pilocarpine to nausea, and of atropia and aconitia on the frog's heart, is much less marked in frogs during the winter than in the summer; and in frogs kept in a cold room than in a warm room. But why this should be thought "astonishing" or worthy of detailed record does not appear. A frog in the winter is an animal whose muscular tissue is in an atrophied and wasting state. It is altogether in a lower state of vitality; and a little more zoological information might possibly have removed some of the *raison d'être* of this somewhat commonplace piece of physiology. Dr. Roy's observations on the elastic properties of the arterial wall are carefully made and interesting. The temperature of all the tissues examined rises on their being stretched, and falls on their being again relaxed. They form exceptions to the general rule that heat causes expansion, and cold contraction, and must in this be classed with caoutchouc and bismuth. In examining the elastic properties of the arterial wall, Dr. Roy finds that in rabbits the aortic walls are most elastic at pressures corresponding more or less exactly to their normal blood-pressure. Many other conclusions of interest are deducible from this excellent research, which is of interest to the clinical physician as well as to the physiologist.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, FEBRUARY 12TH, 1881.

THE DENTISTS' ACT AND THE MEDICAL COUNCIL.

WITHOUT burdening our pages with the details of the proceedings taken this week by the General Medical Council in the matter of the Dentists' Act, we may briefly summarise and explain the position of affairs.

The Dentists' Act requires that "any person who is at the passing of this Act *bonâ fide* engaged in the practice of dentistry or dental surgery, either separately or in conjunction with the practice of medicine, surgery, or pharmacy, shall be entitled to be registered under this Act". The British Dental Association took counsel's opinion upon the following points: (1) Whether the *bonâ fide* practice applied equally to the practice of dentistry and pharmacy? and, if it did so apply, whether a person who had declared himself to be engaged in the *bonâ fide* practice of dentistry with pharmacy, but whose name did not appear in the *Chemists' and Druggists' Register*, and who could not, therefore, without legal offence, practise pharmacy, was entitled to remain on the *Dentists' Register?* (2) And whether a person practising dentistry in conjunction with some other calling than the three specified in the Act, was entitled to remain on the *Register?* The following answers were given by counsel.

(1) The *bona fides* applies equally and separately to the practice of pharmacy; and an assistant in a chemist's shop, not registered in the *Chemists' and Druggists' Register*, cannot be regarded as in the *bonâ fide* practice of pharmacy, within the meaning of the Act. A person who declared himself to be engaged in the practice of dentistry in conjunction with pharmacy, but whose name was not in the *Chemists' and Druggists' Register*, is liable to have his name erased from the *Register*.

(2) A person who, being at the passing of the Act engaged in the practice of dentistry, and also in some business not mentioned in the Act, declared himself to have been engaged in the practice of dentistry separately, is liable to have his name erased from the *Register*.

On the strength of this opinion, the British Dental Association brought before the Medical Council, in July last, the names of three hundred and seventy-six persons who obtained registration by declarations which, in the opinion cited, were, in respect to the practice of pharmacy, incorrect or fraudulent. The list was accompanied by a copy of Mr. Fitzgerald's opinion. It appeared from the Council's minutes, that the opinion of Mr. Charles Bowen had been taken, shortly before he was elevated to the bench, upon the reading of certain clauses of the Dentists' Act. The request preferred by the Association in November 1879, that Mr. Bowen's opinion, together with Mr. Fitzgerald's, should be published, was refused.

At the meeting of the General Council, July 15th, 1880, it was determined, by a vote other than unanimous, that the two opinions should be read with closed doors, and that they should not be entered on the minutes. A secret, in the knowledge of which a large body of men are deeply interested, will be guessed; and the belief that the two opinions were not in any material degree dissimilar would probably be confirmed by their publication.

The alleged cases of incorrect registration were referred to the Dental Committee for the determination of the facts; and the private reading by a public body of the opinion of an eminent counsel affecting public interests, has been followed by the production, on Thursday last, of "opinions" which completely traverse those upon which the British Dental Association acted. In Case 2, the joint opinion of the Solicitor-General and Mr. Mackenzie is "that the words '*bonâ fide* engage in the practice of dentistry or dental surgery, either separately or in conjunction with medicine, surgery, or pharmacy,' have no reference to any legal qualifications to practice medicine, surgery, or pharmacy. They are simply intended to indicate that, if the person seeking registration is qualified to be registered by being *bonâ fide* in practice as a dentist, he is to be none the less so entitled because that is not his exclusive occupation, but is only carried on by him in conjunction with the practice of medicine, surgery, or pharmacy." Again, in Case 1, the opinion given jointly by the Solicitor-General and Mr. F. Vaughan Hawkins is: "We think that the name of a person cannot be removed from the *Dentists' Register* solely on the ground that he carries on some other trades, though the fact of his doing so might be material in considering whether he was *bonâ fide* engaged in the practice of dentistry at the passing of the Act."

The Medical Council have withheld from their minutes the opinions of Mr. Charles Bowen and Mr. Fitzgerald, and have published and acted upon the opinion of Mr. Herschell and his colleagues Mr. Hawkins and Mr. Mackenzie. Counsel's opinions do not determine the law; and, in the present case, it is probable that a conclusive settlement of the question might require proceedings to be carried even as far as the House of Lords.

The evil which the Association sought to abate is, at worst, a temporary one, in no way affecting the principles of the Act; and the sound common sense, which has characterised their proceedings throughout, is shown in the ready acceptance, as a settlement of a doubtful question, the determination of which has been deemed conclusive by the Medical Council.

The registration clauses of the Association Bill, when it left the Commons, were clear enough. They required that "no name shall be entered in a register unless a registrar be satisfied by sufficient evidence that the person claiming is entitled to be registered". The more complex registration sections from the Government Medical Bill were, with the approval of the Medical Council, forced upon the dentists as a condition of the Bill passing; and they did well to accept the changes in what is called the machinery of the Bill when made conditional to its success. As the matter now stands, the name of a person will be removed from the *Register* only on the ground that he was not in *bonâ fide* practice at the passing of the Act, or of misconduct. The decision will doubtless be a disappointment, not only to the dentists, but also to their well wishers on the Council. To the dental licentiate, it is of small moment. The entry of his qualifications attests his professional competence; but to those educated and skilful practitioners who have neglected to take the registrable qualification lying within their easy reach for the last twenty years, and within their reach even now, the Solicitor-General's reading of the Dentists' Act will be a matter of regret. From these, sympathy cannot be altogether withheld; but, a the same time, they must be reminded that very many of their fellow-practitioners avoided the position by the acquisition of a professional qualification; and that the remedy for the evil of being registered, on the ground only of having been in practice before July 22nd, 1878, still admits of application. Wholesale erasure, on a secondary count, has unexpectedly failed; but there will be no difficulty in obtaining the removal of a name from the *Register* by the production of conclusive evidence that the person was not in practice at the passing of the Act.

Other questions respecting the administration of the Dentists' Act have been considered by the Solicitor-General, to the answers to which we may have occasion to refer. The opinion, for instance, states that chemists' apprentices cannot claim registration; and the Dental Committee points to their existence in a list of 115 names contained in their published report; but the Council—perhaps from an oversight—have taken no visible steps towards their removal from the *Register*, on the authority of an opinion upon which they have not on other points hesitated to act.

RECENT STUDIES IN THERAPEUTICS.

VIII.—THE ANTAGONISM BETWEEN OPIUM AND BELLADONNA.

DR. ROBERTS BARTHOLOW, in his Cartwright Lectures, delivered before the Alumni Association of the College of Physicians and Surgeons of New York, discusses, in detail, the question of the antagonism of opium and belladonna.

Before proceeding to the investigation of the nature of the antagonism as exhibited in man, it is necessary to consider briefly the effects of each drug when given in full, or in lethal doses. When a full dose of opium is taken, drowsiness, as a rule, ensues, although, in some subjects, persistent wakefulness is noticed; the pupils contract; the tongue and throat become dry; the appetite fails; constipation results, probably from diminution of secretion and impairment of muscular power in the walls of the intestines; the heart slackens; respiration becomes less frequent; the urine is scanty, and is passed with difficulty; and the skin is covered with a profuse perspiration. When a lethal dose is taken, all these effects are intensified. The patient passes into stupor, and gradually sinks into a state of coma, from which no kind of irritation can arouse him; the pupil contracts to a pin's point; the conjunctivæ become insensible; no reflex action can be set up by irritation of the cornea or fauces; the respirations become stertorous, and fall to six, four, or even one in the minute; the pulse is weak, and may be either slow, or rapid and irregular; the skin is covered with a clammy sweat; the countenance is sunken, and may be either pale or livid; the ears become purple, and the back of the neck presents a bluish-black colour from the ecchymoses which occur; the extremities grow cold; and death ensues from failure of respiration.

When a full dose of belladonna is taken, the mouth and lips become dry, and there is difficulty of deglutition; fulness of the head, vertigo and tinnitus aurium, flying pains through the head and elsewhere, ensue; and there is marked excitement, great volubility, and a busy delirium, in the hallucinations of which the individual often imagines that he is pursuing his ordinary avocations; the pupils are widely dilated; the heart's action is quickened; and, though there is at first increased arterial tension, this soon falls below the normal standard; the respirations are increased; the bowels are usually relaxed; there is muscular inco-ordination; the face is flushed, a scarlatinal rash appears on the skin, and the urine is passed with difficulty. When a lethal dose is taken, these symptoms appear in increased intensity: vertigo quickly ensues; the vision becomes dim and misty from the extreme dilatation of the pupils; there is acute and violent delirium, succeeded by coma; the pupils dilate until nothing of the iris can be seen; the mouth presents not a trace of moisture, and the tongue lies in it shrivelled and dry as a bone; the flush of the face is succeeded by a deadly pallor; the pulse and respiration are very rapid; the temperature rises; the increased arterial tension is followed by paresis of the vessels, rendering the pulse weak and irregular; and death takes place from failure of the heart and lungs.

In man, it is found that there is a distinct antagonism between opium and belladonna in their effects upon the brain, the pupils, the stomach, the lungs, the skin, and the heart. When they are combined in appropriate proportions, and in ordinary doses, the result is a calm and apparently natural slumber. When given together in large doses, they produce symptoms less severe than if either had been given alone. The case is recorded of a boy, eight years of age, who swallowed, by mistake, a liniment containing two grains of morphia and a grain and a half of atropia. When seen shortly afterwards, he was delirious, his face was flushed, and the pupils were fully dilated. A condition of sopor ensued; but, as the respiration was full and rhythmical, and the pulse regular and strong, it was determined not to interfere; and the sequel justified this view, for he perfectly recovered. Usually, if the effect of the belladonna preponderates, periods of excitement and delirium alternate with relatively shorter periods of sopor; while, the more opium preponderates, the less excitement and delirium will there be, and the longer and more profound the sopor.

Considerable interest attaches to the state of the pupil in cases where one agent is administered with the view of antagonising the other. Graves, as is well known, first proposed this antagonism as a guide to treatment. As a rule, opium contracts, and belladonna dilates, the pupil; but to this there are occasional exceptions. It is an undoubted fact that, in rare cases, the pupil is contracted by belladonna, and dilated by opium. Although such cases are quite exceptional, the possibility of their occurrence detracts considerably from the value of their condition as an indication for treatment.

The next subject for consideration is the antagonism of these agents on the heart. When given alone, opium undoubtedly has the effect of slackening the action of that organ, while belladonna quickens it. Observers are not agreed as to the influence of the two given simultaneously, although the most generally accepted opinion is that the quickening influence of atropia is appreciably diminished by morphia, and *vice versâ*. It may be concluded that opium and belladonna have a limited antagonistic action upon the heart, but that the effect of the latter predominates. Hence the result of the two combined is a rate of movement greater than the mean.

Undoubtedly the most important point in the antagonism between the two drugs is their opposed action on the respiratory function; and, in regard to this, there is less difference of opinion than upon any other. In general terms, it may be said that opium is a respiratory depressant, and belladonna a respiratory stimulant. When the system is brought more and more under the influence of opium, the quantity of oxygen admitted to the blood becomes less and less, and oxidation is, to a proportionate extent, interfered with; so that carbonic acid narcosis is superadded to that primarily produced by the opium. Belladonna, on the other hand, counteracts these effects by increasing the number and depth of the respiratory movements, by which an increased quantity of oxygen is supplied to the blood, while excretion is facilitated. This improvement is indicated by the flushed face, the warm and dry skin, and the greater activity of the circulation. Atropia proves fatal by exhausting the irritability of the heart and the vaso-motor system, as well as of the respiratory centres; whilst morphia opposes this, by diminishing the work thrown on the heart and lungs.

The antagonistic action of the two agents is further shown in the controlling action of atropia on the nausea, depression, and syncope induced by morphia. The explanation of the abolition of the depressing effects of the morphia thus accomplished, is found in the antagonistic effect of the two agents on the cerebrum. Although the depression may be thus prevented, this is not always the case with the nausea; for, unfortunately, in certain individuals, atropia also causes sickness.

The coldness of the surface, and the clammy perspiration, produced by morphia, are relieved by atropia; and this is often a matter of considerable importance. Atropia excites the vermicular contraction of the peripheral vessels, and causes more blood to be received from the heart; in consequence of which, the surface grows warm and dry, and tissue-metamorphosis is accelerated. The effect of this resumption of activity at the periphery is only second in importance to the renewal of oxygenation of the blood in the lungs.

Atropia excites, to some extent, the action of the kidneys, while morphia checks the flow of urine. They both, it is true, render the emission of urine more difficult; but this is due to entirely different causes in the two cases. Morphia impairs the sensibility of the mucous membrane, and weakens the action of the muscular coat of the bladder; while atropia stimulates the sphincter to abnormal contraction.

It is found practically that the quantity of poison which can actually be antagonised successfully is comparatively limited. The separation of the poison from the blood, and its excretion through the usual channels, is greatly promoted by the action of the antagonist in restoring and maintaining the functional activity of the organs depressed by the poison. The principal route of excretion is through the kidneys, and their free action should be maintained by the use of diluents. Another point of practical importance is to draw off the urine from the bladder

as fast as it accumulates; for it is possible that alkaloids contained in the urine may pass back into the blood from the bladder. The action of the skin and bowels should also receive attention.

No absolute rule can be laid down as to the dose of the antagonist to be used in any given case. The best guides are the condition of respiration and circulation. If the pulse be full and regular, and the respiration deep and rhythmical, the state of the pupil and the depth of the narcotism are of little importance. As a rule, the antagonist should be given in small doses, frequently repeated, until a sufficient quantity has been introduced into the system. From actual experience, Dr. Bartholow finds that one-twentieth of a grain of atropia is equivalent in toxic power to about a grain of morphia.

INFECTED DAIRIES AND HOSPITAL MILK-SUPPLY.

At a recent meeting of the Society of Medical Officers of Health, Dr. Thursfield raised a subject of so much interest to the profession at large, that we desire to call renewed attention to it here, more especially as it is only by united action that the desired alteration can be effected, and the solidarity of the profession vindicated. The paper, which, together with the discussion to which it gave rise, may be found in the *Sanitary Record*, pointed out a source of danger in our milk-supply. Since the passage of the Contagious Diseases (Animals) Act, the supervision of the sanitary condition of country dairies has ceased to be the duty of the medical officer of health, the carrying out of the provisions of this Act being entrusted to the police authorities. The police can obtain the assistance of a veterinary surgeon; and the local authorities are empowered under the Act to appoint special inspectors; but this latter power is, as a matter of experience, not exercised. The Act was designed to check the spread of epizootic diseases among cattle, and neglected to make any provision against contamination of milk owing to unsanitary conditions of the dairyman's domicile. Pumps and water-tanks may be subject to sewage-contamination, and the medical officer of health may report on their insanitary condition; but (and here's the rub), he has no authority to order them to be set right, or even to stop the sale of milk pending inquiry. His report is referred to the inspector under the Act, a police-officer, who, after making his own inspection, may, as in a case related by Dr. Thursfield, differ from the medical officer, and announce that, in his opinion, drains, and pumps, and tanks, are all that can be desired. This is bad enough; but, in such a case, we have to deal only with the potentialities of disease; and the fate of Cassandra must ever attend the prophet of evil. What is far worse, is to find that, even with infectious disease raging in the very house of the dairyman, the medical officer has no power to stop the distribution of milk stored in an atmosphere laden, perhaps, with desquamating scales from cases of scarlatina. A way out of the difficulty has, indeed, been found; the milk may be seized as unsound and unwholesome, and the dairyman prosecuted on this charge. This method of dealing with the question does not at all commend itself to us; it seems to be rather a stretch of authority, and to be attaining, by a roundabout method, an end which ought to be achieved by direct means. The management of all that relates to the purity of our milk-supply ought to be under the immediate supervisory control of the medical officers of health in each district; in dealing with infective foci, action must be prompt, and there can be no prompt action where there is divided authority. Milk is not only the staple diet of children, but is consumed in very large quantities in all our large hospitals, where it is the grand resource of the physician in dealing with pyrexial conditions, and in the treatment of those general atonic states of the system which present the very circumstances in which the organism is most open to the reception of the elements of infection. Much has been written about hospital miasm, and the danger inherent in old hospitals. More than one hospital committee is at the present moment troubled by the supposed propriety of rebuilding, with all its attendant inconvenience and expense; but we are not without many instances in which patient attention to apparently trivial details has sufficed to bring about results which more drastic measures might have failed to achieve. The milk supplied to the various hospitals and infirmaries in London is sent up from all parts of the country, for hundreds of miles around, by various small dealers, who have their regular customers in the large dairymen of London; and, with whatever good faith these latter may act, it is impossible for them to guard against contamination occurring in the country. It seems to us not improbable that some of the apparently inexplicable outbreaks of diphtheria in carefully managed hospitals may have their explanation in this way; and that scarlatina and typhoid fever may thus be imported. One of the speakers at the meeting of the Society above referred to, proposed that all milk should be boiled before use; but milk so treated is neither so palatable nor so nutritious as before; and the proposal seems to us somewhat crude. Still, as a provisional precaution, it may be useful. For the real remedy, we must look to the Legislature.

ENGLISH MEDICAL DEGREES.

We hear from Durham news, or rather rumours, of a serious character. Durham has tended more and more to occupy of late an honourable and promising position among medical universities of England, partly making up the shortcomings of other English Universities. Until a few years ago, all candidates for the medical degrees there were obliged, before going on to the degree examinations, to pass an examination equivalent to that for the B.A. at Durham. Recently, a more liberal regulation was introduced, by which candidates were permitted to take the Preliminary Fellowship of the Royal College of Surgeons of England, in place of the Durham examination. In consequence of the change so introduced, the medical department has taken on a new development, and the medical degrees have been rendered practicable of attainment by the profession generally. The sudden abolition of the Preliminary Fellowship by the College of Surgeons has created an unexpected complication. Failing the Preliminary Fellowship, there is no alternative examination open to intending candidates, unless they have entered at or graduated at a university, except the above-mentioned slightly modified B.A. examination at Durham. This examination, it is rumoured, the Senate of the University intend to uphold, or, at all events, to replace only by an examination of so high a standard as to be next to impracticable. The effect of such a resolution on the part of the Senate would be practically the closure of the only door to graduation open to the majority of those who, having intended at the commencement of their course of study to obtain simply a medical or a surgical qualification, find, later on, an university degree very desirable. Such a result would not only involve great loss to the University itself, and especially to the medical department, which is in a fair way to develop indefinitely, but be very regrettable as a loss to the country at large, at a time when university education and extension are being more and more sought after. As in these directions the Senate of the Durham University are bestirring themselves, it is to be hoped that they will formulate some liberal measure by which the present difficulty may be tided over. At Cambridge, the recent modification in the regulations, by which the previous examination is fixed as the only Arts examination required as a preliminary before admission to the medical course and degrees, is being followed by the most satisfactory results. Similar results would undoubtedly follow, if a similar change were made at Durham. It is of vital importance to the future extension and usefulness of the University, and of great importance to English students of medicine, that a liberal course should be taken in this matter.

Sir Richard Cross has been elected a Governor of Guy's Hospital.

The Hunterian Oration will be delivered in the Theatre of the Royal College of Surgeons on Monday, the 14th, at 3 P.M., by Mr. Luther Holden. Owing to the library being required in connection with the oration, it will be closed on Saturday (to-day), and on Monday and Tuesday, the 14th and 15th instant.

DR. FORDYCE BARKER has been unanimously re-elected president of the New York Academy of Medicine for the ensuing year.

THE QUEEN has been pleased to appoint Surgeon-Major Sir Samuel Rowe, K.C.M.G. (Governor of the West Africa Settlements), to be Governor and Commander-in-Chief of the Gold Coast Colony.

MR. TEN BRINK, brother of the well-known Dutch *littérateur*, and a surgeon in the Netherlands navy, will shortly recount his adventures in the Malayan Archipelago before the French Geographical Society.

WE hear, on good authority, that there is at present under consideration a scheme for the improvement of the pensions in the Indian Medical Department, which, if sanctioned, will date and take effect from January 1st, 1881.

DURING the past five weeks of the current quarter, the death-rate in the metropolis, notwithstanding the late severe frost, averaged only 25.8 per 1,000, against 27.0 and 31.2 in the corresponding periods of 1879 and 1880.

THE fourth International Congress of Hygiene will be held in Geneva in September 1882, and it is hoped that in 1884 it may be held in London. At the Congress in Turin, last summer, England was very slightly represented, either in the *personnel* or in the proceedings.

ATTENTION is drawn by the Registrar-General to the fact that the fatal cases of small-pox in London, which had been 27, 42, and 52 in the three preceding weeks, further rose to 54 last week, and exceeded the corrected weekly average in the past ten years by seven.

COLLECTIONS were made in the churches and chapels of Hastings and St. Leonard's last Sunday in aid of the infirmary and two dispensaries of the borough. About £550, it is expected, will be handed over to these institutions.

THE mortality in Sydney during the last three months has been very great, and has as nearly as possible equalled the birth-rate; the number being—births, 927; deaths, 872; of this latter number, no less than 526 were of children under five years of age.

WE recommend to the attention of hospital authorities Dr. Robert Neale's communication concerning his Chemical Lung, which he wishes to have tried in hospital wards. The principle of this appliance is very ingenious: and it appears to work well practically, and is well worth attention.

MR. CHILDERS, who distributed the prizes to the successful students of Netley Hospital, spoke of the great value of that institution, of the honour it did to its illustrious founders, and of its being one of the most glorious memories of the reign of her Majesty. He expressed a hope that the museum would be enlarged, and that thus Netley would become even more valuable than it had been.

DR. EDWARD BALLARD has been nominated by the Local Government Board as the inspector by whom the general inquiry into the causation of autumnal diarrhœa will be conducted. A better choice could not have been made; and it may be hoped that some definite results will spring from the painstaking and laborious exactitude for which Dr. Ballard is so famous, and which he is sure to bring to bear upon the subject he is now investigating.

THE nomination of the Select Committee on Medical Reform is, we believe, at present impeded only by the difficulty of finding a chairman. The experience of many leading members of the House of Commons who have successively shown interest in the question, and who have been invited to take the position, has been so unpromising of concord, that all have in turn declined it. It would be a great gain if the Right Hon. Lyon Playfair, who perhaps knows more of the subject and is better able to deal with it than any other man in either House, could be induced to accept the office.

FROM America we receive two new medical journals. The *Medical Abstract*, a monthly journal, follows the *London Medical Record*, but apparently confined to English periodicals, and consists of unclassified extracts, chiefly selected from clinical communications. Another is entitled the *Pathologist*, published at Brooklyn; but of this, also, little can be said except of hope for the future. Its contents are slight, and of four short papers only one is strictly pathological. The *Brooklyn Annals of Anatomy and Surgery*, which have from the first furnished highly satisfactory reading, both as to the solidity of the papers and the excellence of the typography, commences with the third volume an extended and enlarged series of monthly numbers.

AT the recent meeting of the General Medical Council on dental questions, occasion was taken to appoint a successor to the late Dr. Andrew Wood. The President paid a graceful compliment to the abilities and character of the late Chairman of the Business Committee. It was not found possible to induce any extra-metropolitan member of the Council, to whom the post could be offered, to accept its labours and responsibilities, which were undertaken by Dr. Pitman. A better choice could not be made. As Dean of St. George's Hospital School, as Registrar of the College of Physicians, and in other capacities, Dr. Pitman has shown great capacity for business. He is not only orderly, methodical, and clear-headed, but has shown in his various public offices a sense of fairness, and a balanced perception of the relative urgency of pending questions, which will make him as good a Chairman of the Business Committee of the Medical Council as could be desired.

HOSPITAL RESIGNATIONS.

WE regret to learn that five out of the six physicians of the Rugby Hospital have found themselves compelled to resign, owing to a refusal of their reasonable and just privileges in control of the patients. As usual, there is a sixth who remains, and who will do all the work. Hence, the drama, to which we are now accustomed at Guy's Hospital and the York Road Lying-in Hospital, is likely to be repeated. The facts, however, are to be brought before the Birmingham and Midland Counties Branch.

BRITISH DENTAL ASSOCIATION.

AT a meeting of the Representative Board of the Association, held on Monday last, it was determined to accept as conclusive the decision of the Medical Council respecting the retention of the names on the *Dentists' Register* of those who wrongly declared themselves to be in the practice of pharmacy, and to ask for the names of those persons who were reported by the Dental Committee to be apprentices of chemists and druggists, and who, according to the "opinion" of the Solicitor-General, have no claim to be upon the *Register*. A vote of thanks to the Medical Council was passed, for the steps taken for the elucidation of certain obscure points in the Dentists' Act.

CORONERS' INQUESTS.

LORD SELBORNE gave judgment last week, in a matter, which is, according to the *Observer*, almost without precedent. It seems that the coroner for West Surrey had given offence to certain of the county magistrates, and, more especially, to a superintendent of police of the name of Bungard. The Lord Chancellor has power to remove a coroner from his office upon proof of inability or misconduct, and it was alleged against Mr. Hull, the coroner in question, that on one or two occasions, he had refused to hold inquests, and further, that he had given cheques for fees which had been dishonoured. Lord Selborne has, in effect, admonished Mr. Hull, but has held the charges against him not to be sufficiently established. As regards the holding of inquests, it is clear that the discretion must rest somewhere, and the coroner is obviously the person with whom it ought to rest. If a coroner is to hold an inquest simply because a sergeant of police thinks he ought to do so, there is an end of the coroner's discretion. It is to the interest of the coroner to hold as many inquests as possible, inasmuch as he is paid by a salary

computed on the average of his inquests, and the fact that he considers an inquest unnecessary must show that he is exercising his discretion to his own disadvantage. The police, on the other hand, are anxious to hold as many inquests as possible, enjoying the bustle and disturbance, and the importance with which the proceedings invest them. With respect to the cheques, it is remarked, that the coroner is the one judicial officer who is bound by law to pay the working expenses of his court out of his own pocket, and to wait for reimbursement until the magistrates have passed his accounts. This being so, it is intelligible, although not satisfactory, that he should occasionally be pressed for money. No one expects the Lord Chief Justice of England to meet the daily expenses of the Queen's Bench from his own pocket, and it is hard to see why so onerous a liability should be imposed upon a coroner.

THE WEATHER AND THE MORTALITY BILL.

In referring to this subject in our last issue, we expressed the opinion that the Registrar-General's returns, for several weeks to come, would be swollen by the mortality directly due to the then severity of the weather. The result, as regards last week, has amply fulfilled our predictions. During that period, the death-rate of London rose to 29.8 per 1000, exceeding the rate ot any week since the middle of February 1880. The deaths from diseases of the respiratory organs, which had been 371 and 671 in the two preceding weeks, further rose last week, under the influence of the continued low temperature, to 702, and exceeded the corrected average number in the corresponding week of the last ten years by 249. Of these 702 deaths, 481 were attributed to bronchitis, and 120 to pneumonia. During the week, the mean reading of the barometer was 29.45 inches, and the mean temperature 32.5°, or 7.4° below the average. The coldest day was Wednesday, when the mean was only 23.5°, or 16.4° below the average. On Saturday, the mean rose to 45.3°, or an excess of 5.1°. The lowest night temperature was 13.2° on Wednesday, and the highest day temperature 48.1° on Saturday. The extreme range of the week was, therefore, 34.9°. Fortunately, the weather has now taken a much more favourable turn; but there are indications that we have by no means seen the last of the mischief which the abnormal temperatures of the recent fortnight of Arctic weather have occasioned.

MEETING OF THE INTERNATIONAL SANITARY CONFERENCE.

The International Sanitary Conference is now holding private sessions at the State Department, Washington; its progress is slow and diplomatic, and its proceedings will probably not be given to the public for some time to come, the questions brought before it being of a nature to require further instructions on the part of some of the delegates from their home governments. Its members comprise the following: the English and German consuls-general at New York; the French, Spanish, Russian, Turkish, Japanese, Swedish, and Norwegian, Portuguese, Chilian, and Netherlands, ministers resident; Belgium, Italy, and Denmark, are represented by their *chargés d'affaires;* China by the assistant minister; Mexico by Don Manuel M. de Zamacona; Austria by Count Bethel; Spain and Portugal have each sent a specialist in addition to their diplomatic representative; Canada is represented by Dr. Tache, deputy minister of agriculture; and the United States by Drs. Cabell and Turner, as president and secretary of the National Board of Health; Assistant-Secretary of State Hay being the diplomatic representative of the United States.

SPURIOUS SAUSAGES.

At this season of the year, tons of trash under the name of pork-sausages are thrown upon the market, and find a very ready sale; but, instead of being made wholly of pork, they are interspersed with the remnants of "block-ornaments"—no matter whether of beef, mutton, or veal—these latter being consigned to the sausage-mill when their appearance is no longer tempting enough to secure a purchaser. Any taint or unpleasant flavour is roughly disguised by the amount of seasoning used. In the raw state, they are not easily detected; but, on being cooked, they are readily distinguishable by their red and under-done appearance, as compared with that of the genuine pork-sausage, which presents, when cooked, an uniformly white colour throughout. Mouldy bread, tainted livers, and other equally dubious material, are common ingredients of cheap sausages. This, doubtless, accounts for some of the fatality from diarrhœa during the winter months. It is time that sausage and "polony" manufactories were under more rigid and systematic inspection; and that attaching to this food of the poor there should be a better guarantee of its wholesomeness.

THE GENERAL MEDICAL COUNCIL AND THE DENTISTS.

Little less than £1,000 will, we believe, cover the expenditure of the General Medical Council in deciding that none of the five hundred names of dentists alleged to be entered incorrectly on the *Register* could be struck off. It was, for some reason not apparent to ordinary minds, thought necessary to have each case separately reported on, although of one class. It does not appear why a test case should not have answered the purpose. The lawyer's bill alone for these reports will probably amount to over £500. The funds are, however, furnished by the dental fees; and dentists are believed to be uncomplaining folk, rather anxious just now to be patronised by the Council, and not likely to make complaint on such minor subjects.

EPIDEMIC ON THE AFRICAN COAST.

Information has been received in Liverpool of a serious outbreak of small-pox at Bathurst, British Gambia, and also that quarantine restrictions are again in force at Goree, Senegal. It is supposed that yellow fever has made its appearance again at the latter place.

THE DIGNITY OF MEDICINE.

We have had many communications warmly supporting the view which we expressed last week on the subject of the insufficiency of the knighthood which has been bestowed on the President of the College of Physicians. The same opinion prevails outside the profession, we believe, as within it on this subject. An evening contemporary gave their expression to it last Thursday in the following words. "By the favour of the Crown, Dr. Bennett is to become a knight. If the President of the Royal College of Physicians thinks that knighthood can add to his dignity, a knight no doubt he will be; but the announcement serves to show that now, as in the past, the least prized honour is held to be good enough for a leading member of the noblest of professions." Abroad, these things are managed better. We noted, a week or two ago, that Dr. Baccelli, a practising physician of eminence in Rome, had been appointed Minister of Public Instruction. This week, Dr. Alvarenga of Madrid has been summoned to the Privy Council, with the dignities of a Royal Counsellor. M. Broca had just been nominated a Senator before his death; a dignity conferred also on Larrey, Nélaton, and Bert. The French Senate has never been without its medical members; while, in the French Chamber, the medical deputies form a distinct party, and have considerable power.

SCARLATINA AT HALIFAX.

There seems to be much difference of opinion amongst the medica practitioners of Halifax as to the causation of the recent serious outbreak of scarlatina in that town. The Medical Officer of Health ascribes it, with considerable *primâ facie* reason, to infected milk; but this conclusion is disputed by other inquirers into the circumstances. Considering that many more than 300 cases of scarlatinal or other throat illness have already occurred, fully a tenth of which have proved fatal, it is of great importance that the cause of so widely spread and sudden a manifestation of disease should, if possible, be thoroughly cleared up. We understand that applications have been made to the Local Government Board for an investigation of the epidemic by one of their medical staff; and it may be hoped that the interest and importance of the outbreak will induce the Board to comply with the requests made to them.

THE BIRMINGHAM MEDICAL INSTITUTE.

THIS new institution is now in good working order, and promises to grow steadily in professional favour. Friendly negotiations between the governing bodies of the several societies and the Committee of the Institute having been satisfactorily concluded, the chief medical societies of Birmingham—the prosperous local Branch of the Association and its popular Pathological and Clinical Section, the Medical Benevolent Society, and the Midland Medical Society—have begun to hold their meetings in the recently opened buildings. The committee-rooms for the smaller meetings are well appointed. The larger gatherings take place in the noble library of the Institute; this fine room, which can comfortably seat a hundred and fifty persons, is well warmed, well lighted, and luxuriously furnished; and its long rows of shelves, which have been designed to bear upwards of twenty thousand volumes, already contain a goodly array of about seven thousand medical books. The reading-room is supplied with a large and carefully chosen selection from current medical literature, British and foreign. Although the Institute, thanks to the energy and prudence of the Committee, and the benevolence of a few liberal benefactors, has been opened practically free from debt, the annual expenses for maintenance must necessarily be considerable. Money is urgently needed for the purchase of new books. We trust those of our brethren in the Midlands who have not yet joined the Institute will send their names to one of the secretaries, Mr. Priestley Smith and Mr. W. G. Archer.

THE BIRMINGHAM MEDICAL BENEVOLENT SOCIETY.

OUR brethren in the Midlands, whether benevolently or providentially disposed, or both, ought not to lose sight of the claims of the Medical Benevolent Society established in Birmingham sixty years ago, and which ever since has been quietly doing good work in supplying regular grants of money to disabled members, and to the widows and children of deceased members. By prudent management, the directors have accumulated upwards of ten thousand pounds, which is placed in the charge of trustees. This considerable sum, according to the laws, must never on any account be diminished; the interest arising from its investment, together with all donations, and a fixed portion of the annual subscriptions, may, at the discretion of the directors, be given to suitable applicants. Any registered practitioner, "regularly practising his profession", and residing within fifty miles of Birmingham, is eligible for membership; members do not sacrifice their privileges by subsequent removal beyond the area prescribed for their admission. The annual subscription is one guinea, and this payment ceases when twenty-one subscriptions have been completed. The last annual report contains several striking instances of the benefits conferred by the Society. We extract the following: "Surgeon's widow: payments, £14 14s.; received, £1,125. Surgeon's widow: payments, £16 16s.; received, £762 10s. Present member invalided: payments, £22 1s.; received, £650. Present member invalided: payments, £15 15s.; received, £686." Although the operations of the Society extend over a district containing about 2,500 practitioners, not more than a tenth of these are members. It is hoped the roll of the Society may soon be increased. Dr. Sawyer of Birmingham is the honorary secretary; he will gladly afford information to applicants for membership or relief, and gratefully receive and acknowledge donations to the Society's funds.

NERVE-STRETCHING IN LOCOMOTOR ATAXY.

WE have recently drawn the attention of our readers to the interesting and remarkable results which have been obtained in locomotor ataxy by the operation of nerve-stretching applied to one or other of the large nervous trunks, particularly with respect to the relief afforded to the principal symptoms, pain, inco-ordination, etc. On Saturday last, at University College Hospital, Mr. Marshall stretched the great sciatic nerve on the right side in a man suffering from locomotor ataxy. The operation was performed at the request of Dr. Bastian, the patient being under his care. Mr. Marshall cleared the nerve sufficiently to be able to grasp it between the finger and thumb, and then made traction, first upon the lower, then upon the upper end; by operating in this way, the amount of force exerted can be more accurately gauged, than when traction is made by a director passed under the nerve; further, the sharp edge of the director may seriously damage the individual nerve-tubules. The result of the operation will, no doubt, be laid before the profession when the case is complete. In the *Progrès Médical*, a case is reported from the service of M. J. Voisin, in which M. Gillette has performed this operation for the relief of congenital epilepsy; the nerves operated on being the median and musculo-cutaneous trunks in the upper third of the arm. The operation was performed on December 31st, 1880; and the attacks, which formerly numbered about ninety a month, have fallen to eighteen since January 1st; while they have not only diminished in number, but also in duration and intensity, at the present time, most of them being merely vertigo, or loss of consciousness, lasting a few minutes. Besides, the aura, which formerly manifested itself by pains in the upper extremities, and by a sense of oppression, has completely disappeared, and the patient suffers less from hebetude after the attack. The results of the operation itself were quite inoffensive; the wound healed by first intention; for about eight days there was some numbness in the area of the musculo-cutaneous nerve, but this latter phenomenon speedily disappeared. We learn from a short leader in the *Progrès Médical* for last week, that M. Debove has submitted two more patients suffering from locomotor ataxy to this operation, but the result is not yet announced. Dr. Brown-Séquard has found, in his experiments on guinea-pigs rendered hemianæsthetic by partial section of the cord, that stretching the sciatic was followed by the production of a hyperæsthetic condition of the previously anæsthetic limb, and that this hyperæsthesia was by no means necessarily confined to the area supplied by the nerve operated on, but might affect all the limbs in the body. At the Société de Biologie, on the 22nd ultimo, he even said that the result of nerve-stretching in locomotor ataxy might have been foreseen from his experiments.

VACCINATION IN WORKHOUSES.

THERE can be no doubt whatever, that a considerable proportion of the large number of children who annually escape vaccination in London and large towns, are those who are born in workhouses, and are removed thence by their mothers before they can be vaccinated. Women who go to workhouses and lying-in institutions, customarily discharge themselves a fortnight or three weeks after their confinement, and as a rule, leave no addresses by which they can be traced. It is precisely the nomadic workhouse-born children of such parents that offer favourable material for small-pox to seize upon in each recurring epidemic. The Local Government Board have now come to recognise the evils of so many unprotected children being allowed to go at large; and they have accordingly written to the various Metropolitan Boards of Guardians, urging them to pass a resolution requiring the medical officer, subject to the exercise of his judgment as to making exception in particular cases, to secure the vaccination of all children born in the workhouse as soon as possible after birth. The Board remark that it has been found practicable, as a rule, to vaccinate the children when six days old, and to inspect the results on the thirteenth day, thus securing the assurance of the success of the operation before the mothers leave the workhouse. Six days is certainly a very tender age for vaccination; and unless there were good reasons for its immediate performance, it would certainly be preferable to wait till the child was a month or six weeks old. But if infants born in the workhouse are not vaccinated before they are removed, in all probability they will escape protection altogether, and it becomes therefore important to lose no time over their vaccination. For the safety of vaccinating very young children, we have the high assurance of the late Dr. Seaton, who in his *Handbook of Vaccination*, says that repeatedly, infants dwelling in houses where small-pox exists, have been vaccinated immediately after birth, and have been saved thereby from the disease. Vaccination at this early age is, he says, "certainly as safe, and appears to be also generally as successful, as in older infants." There need be therefore no feeling of

doubt in the minds of workhouse medical officers as to the propriety of vaccinating infants when six days old, as suggested by the Local Government Board. Probably the general performance of this duty would be facilitated if the medical officer were paid a fee for every vaccination or re-vaccination performed by him, instead of his being supposed to undertake the work as part of his ordinary functions at the workhouse; and we commend this suggestion to the attention of the Boards of Guardians concerned.

CALF-LYMPH FOR VACCINATION.

OUR notice last week of the calf-lymph supply maintained by Dr. J. W. Cook, of Manningtree, Essex, has been interpreted by many correspondents to mean that he not only goes through the labour, risk, and expense of maintaining such a supply, but supplies it to all comers free of expense. Dr. Cook is very liberal in his proceedings, and has been most generous to his friends in this matter; but it can hardly be expected that he should fulfil the function of gratuitous purveyor of fresh lymph from the calf, at his own costs and charges to the profession and the public at large. His charges are, for glasses, 2s. 6d. each; large points, 1s.; and small points, 6d.; and at these figures he is not likely to do more than cover his expenses, if he succeeds in doing that, as we hope he may.

EXCISION OF A PORTION OF THE STOMACH AND DUODENUM.

IN the *Wiener Medizinische Wochenschrift* of February 5th, the following case is reported by Professor Billroth. The previous week, a woman was brought to him having unmistakable symptoms of pyloric cancer. The patient, who was forty-three years of age and mother of eight children still living, was attacked, apparently somewhat suddenly, with vomiting in October 1880. All the symptoms of pyloric cancer soon developed themselves; and Dr. Billroth determined, with her consent, to operate, as she felt herself sinking under the increasing exhaustion and inability to retain food. The tumour lay on the upper side of the stomach and somewhat to the right; it seemed to be about as large as a moderate-sized apple. A transverse incision, about eight centimètres (three inches and one-fifth) in length, was made over it through the wall of the abdomen. The tumour was difficult to disengage, on account of its size; it presented itself as a partly knotty, partly infiltrated cancer, covering the pylorus and rather more than a third of the under part of the stomach. Dr. Billroth loosened the adhesions to the omentum and the transverse colon, separated carefully the great and lesser omentum, and tied all the blood-vessels before cutting them through; the loss of blood was very slight. He then made an incision through the stomach one centimètre beyond the infiltrated part, at first in a backward direction only, and afterwards through the duodenum. Six sutures were then passed through the lips of the wound, the threads being left untied and only used to keep the lips of the wound in position. He then made a further oblique incision into the stomach from within and above in an outward and downward direction, keeping always one centimètre from the infiltrated part of the wall of the stomach, and then closed this oblique wound, from below upwards, until an aperture was left just of a sufficient size to fix the opening of the duodenum. The separation of the tumour from the duodenum was completed by means of an incision parallel to that in the stomach, and always at a distance of a centimètre from the infiltrated part. The duodenum was then introduced into the opening of the stomach which had been left. Altogether about 50 sutures were made with Czerny's carbolised silk. The wound was washed with dilute carbolic acid, and a few additional sutures inserted at weak points, the whole replaced in the abdominal cavity, and the abdominal wound closed and bandaged. The operation lasted an hour and a half. No weakness, vomiting, or pain followed the operation. During the succeeding twenty-four hours the patient took only ice by mouth, and nutritive injection with wine; on the following day, a table-spoonful of sour milk every half hour. The patient, a very intelligent woman, felt very well, and slept most of the night by help of a small injection of morphia. The piece excised was 14 centimètres (about 5½ inches) in length along the greater curvature of the stomach. Only a quill could, with difficulty, be passed through the pylorus. The shape of the stomach is not much altered by the operation, but somewhat reduced in size. Sir H. Thompson, to whom we are indebted for the above, has received a note from Dr. Billroth, dated 5th February, the seventh day after the operation, in which he writes, "The sutures have been removed; the wound is healing without any reaction; the general condition of the patient good; she takes broth and egg, coffee, tea, and cocoa."

VACCINATION IN NEW YORK.

FORTY-FIVE thousand persons were vaccinated last year by the officers of the Vaccinating Bureau, under the direction of Dr. J. B. Taylor. The vaccine is obtained from calves at Clifton, New Jersey, where, from four to six calves are vaccinated every week. The receipts from sales at the Vaccinating Bureau during the month of December amount to more than six hundred dollars (£150). The virus is sent to every state in the Union and abroad. The points and crusts are wrapped in paper and sheet-rubber, and are transmitted by post and express. There is always enough virus at the Vaccination Bureau to vaccinate from five thousand to ten thousand persons, and an order for ten thousand "points" could be filled very quickly. The price charged for "points" is one dollar for eight. Crusts are worth more. A discount is made when officers of health departments or institutions give an order. It is not possible to estimate the number of vaccinations performed last year by private physicians and individuals. In the Vaccinating Bureau the percentage of successful vaccinations is ninety-five.

NOTIFICATION OF INFECTIOUS DISEASE.

THE *New York Medical Record* notes that, in the very elaborate code of sanitary ordinances recently put in force at New Brighton, the following order is found. "Every householder, or head of a family in a house where any case of infectious disease may arise, shall report the same to the Board of Health within twelve hours from the time of his or her first knowledge of the nature of such disease, under a penalty of ten dollars for omission so to do." By this order, the responsibility of notifying the authorities is put upon the householder, not the physician, as in New York.

SANITARY STATISTICS OF MADRAS.

THE report of the Sanitary Commissioner of the Madras Presidency for 1879, lacks the interest of the report for the previous year. This is doubtless to be accounted for by the change of sanitary commissioners, Dr. Furnell having assumed that office in succession to Mr. Cornish after the end of the year. The report is valuable as showing the rapidity with which the country has recovered from the effects of the late devastating famine. The registered births were at the rate of 16.4 per 1,000; a rate that is evidently much below the truth, but is 4.5 per 1,000 above the registered birth-rate of 1878. Moreover the deaths were smaller in number than in any year since 1874, showing that the people on the whole, had recovered from the depressing influences of famine and pestilence, which, in the three former years had caused a great excess of mortality. The general death-rate was 18.9 per 1,000, against 53.2 and 27.8 per 1,000 respectively, in 1877-8 or against 18.1 per 1,000, the average of five years before the famine. In the course of some interesting observations on the periods of greatest mortality, Dr. Furnell observes that the minimum death-period in Madras is the hottest and driest period of the year. Mortality subsides with the increasing temperature of March and April, and reaches its lowest in May and June. It rises again rather suddenly in July, and continues high through the rainy period of the south-west monsoon; and it declines a little in October and November, but reaches its highest in the cold months of December, January and February. With regard to causes of death, while malarious fevers were very generally prevalent in 1879, the people generally enjoyed a great immunity from epidemics of cholera and small-pox. There was, throughout the year, a complete freedom of large areas of the Presidency from all traces of cholera.

There was, however, a persistence of the epidemic in the northern districts, and a seasonal revival of it, in the third quarter. In December, only four deaths from cholera were entered for the whole Presidency, so that the year closed with complete freedom of the large population of Southern India from the disease. Similar intervals of prolonged immunity have been known in 1868, and again in 1873 and 1874. These periods of repose are quite as characteristic of cholera as its times of epidemic fury, and it will be very important in the future to see whether sanitary improvements may not in the course of years have the effect of postponing or retarding the appearance of periodical epidemics of the disease. It is unfortunately but too true, that the methods of living adopted by the Indian population do not help them to set cholera at defiance. The impurities of their habitations and water-supply, and the careless disposal of excremental and other refuse, must always be a disadvantage; and it will take several more generations of sanitary reformers to eradicate from Indian life the habits of filth by which it has for many centuries been accompanied.

THE LEGALITY OF POST MORTEM EXAMINATIONS.

THE *Cincinnati Gazette* publishes the following American decision on this question.

Anne Farley *v.* William Carson, M.D. Error to the Superior Court. The petition recited that James Farley died in the Cincinnati Hospital, January 11th, 1879, and that his body was wrongfully withheld from the plaintiff, his widow, and desecrated and mutilated. In the court below, the case was taken from the jury, and the petition dismissed, upon the ground that it did not contain a cause of action. This action was claimed to be erroneous, and formed the basis of the petition in error. Judge Avery announced the opinion of the court. He said it was established as the common law, that a corpse is the property of no one, although there is a property in monuments and escutcheons of the ancestor vesting in the heirs. To steal a shroud from a corpse is larceny: the property in the shroud being held in the executors of the deceased or the person who buried the body. It was not larceny to steal the body itself; but, at the same time, it was indictable as a misdemeanour. The right in the proper person to the body of a deceased for the purposes of burial—a right correlative to the duty of burial—is recognised by our statutes, Section 3,763. The court are not prepared to say, therefore, that the petition did not state facts sufficient to constitute a cause of action. The allegation that the body was desecrated and mutilated might, perhaps, have been made more definite; but, standing as it did, it was sufficiently comprehensive. To include such an injury to the right of decent burial as that would be a reflection upon a court of justice if it were not able to afford redress; but the evidence offered did not make out the allegations of the petition. The only evidence of mutilation was a cut over the liver, the deceased having abscess of the liver; and there was nothing in the evidence to show whether it was made before or after death, although he had been operated upon the night before he died, and had been tapped before he went to the hospital. The petition alleged mutilation after death. No case could exist unless there was such a mutilation as would be an injury to a right; and, as the right was simply the right of a decent interment, there could be no recovery unless in some way there was an infringement upon that right. Judgment affirmed.

VACCINATION AND REVACCINATION.

THE Local Government Board have issued a circular, dated the 26th January, to the metropolitan boards of guardians, directing attention to the necessity, in view of the present prevalence of small-pox, of special measures being taken for the promotion of vaccination and revaccination. The board recommend that special inquiries, if necessary from house to house, should be made by vaccination officers, in order to detect all children who are illegally unvaccinated, and that means should be taken to make known the advantages of revaccination. It is stated that generally speaking, the best time of life for revaccination is when growth is completing itself, or between the age of fifteen and eighteen; but the board advises that when small-pox becomes epidemic, not only should all persons above fifteen years of age who have hitherto neglected to have themselves revaccinated, be careful to neglect it no longer, but in cases where there is likelihood of infection, even the age of fifteen should not be waited for, especially by those whose marks of original vaccination are unsatisfactory. It is further stated that revaccination, once properly and successfully performed, does not appear ever to require repetition. The nurses and other servants of the London Small-Pox Hospital, when they enter the service, unless it be certain that they have already had small-pox, are invariably submitted to vaccination, which in their case generally is revaccination, and is never afterwards repeated; and so perfect is the protection, that though the nurses live in the closest and most constant attendance on small-pox patients, and though, also, the other servants are in various ways exposed to special chances of infection, the resident surgeon of the hospital, during his forty-one years of office there, has never known small-pox to affect any one of these nurses or servants. To this experience is added that of the Metropolitan Asylums Board, which shows that of the numerous nurses employed by the managers in their large hospitals, although such nurses inevitably come in contact with cases of small-pox of the most malignant type, not one has ever died from that disease, and in the three or four instances in which they have contracted it, it has shown itself in a very modified form. It has been the practice to revaccinate these nurses on their entering upon their duties, but not to repeat the operation; and thus, so far as this very extensive experience goes, it shows that revaccination, properly performed, affords almost absolute protection from small-pox, and entire immunity from fatal attacks of that disease. The board further point out that revaccination is now performed by all public vaccinators at their respective vaccinating stations; and so far as is not inconsistent with the more imperative claims for primary vaccination, any persons coming within the terms of the regulations may, on applying to the public station of the district in which he resides, obtain revaccination free of personal cost. A second circular, dated the 27th January, has been issued in reference to the children born in workhouses and poor-law infirmaries, most of whom have hitherto escaped vaccination in consequence of the difficulty of tracing them after the discharge of their mothers. It is recommended that in these cases the operation should be performed within a week after the birth of the child.

THE RELATIONS OF GOITRE TO PREGNANCY.

IN an elaborate article read by Dr. Edward W. Jenks, of Chicago, before the Tri-State Medical Society, mentioned in the *New York Medical Record* the view was maintained that goitre had a close relation with the diseases of the female generative organs. It was shown that goitre occurred much less frequently in men than in women, the proportion given by one writer being 26 to 474. Goitre first appears, generally, at the time of puberty; and the thyroid gland, whether diseased or not, often enlarges at the time of menstruation. The author then cited a large number of facts and cases to show that goitre is due to some derangement of the female generative system, the derangement being oftener functional than structural.

LOCALISATION OF STRYCHNIA.

HUSEMANN, Dragendorff, and other chemists have advised, in cases of poisoning, that chemists in looking for strychnia should especially direct their researches to the liver. Dragendorff alleges that he has never been able to isolate the alkaloid from the brain, even when the whole organ has been used for the chemical examination. He further states that Gay has isolated strychnia from some special parts of the nervous system, as for example, the medulla, oblongata, and the pons Varolii, and that he has himself succeeded in extracting it from the medulla oblongata in cases of poisoning. Lajoux and Grandral have published their results from analysis of the brain of a person who died from the effects of 2.35 grammes of tincture of nux vomica, corresponding to only 0.0036 grammes (.0525 grains) of strychnia. Three-fourths of this were employed subcutaneously, and the rest was administered by the mouth. Although the quantity was very small, yet strychnia was found throughout the brain, and gave it characteristic reaction. If this observation be correct, chemists will do well to examine the brain in cases of suspected strychnia poisoning, as well as the other organs.

PHYSIOLOGICAL CHANGES IN MUSCLE.

AT a meeting of the Cambridge Philosophical Society held on the 22nd of November last, Professor Latham read a communication "On the Death-Struggle of a Muscular Fibre, and Chemical and Physical Changes which accompany it; together with an Explanation of the Phenomena of Shivering and *Rigor Mortis*"; of which a condensed abstract, which appeared in the *Cambridge University Reporter*, has reached us. Starting with the assumption, which appears a little too sweeping, that salicylic acid will cure acute rheumatism, and will greatly diminish the elimination of sugar in diabetes, Dr. Latham proceeds to ask, "Have these diseases a common origin? Is that in the muscular tissue? If so, what are the changes in the tissue which will produce them?" Muscle during life has an alkaline reaction; but after death it becomes acid, owing to the development of lactic acid. This substance, Dr. Latham points out, may be derived from the glycogen of the muscular tissue, or from alanine, a substance metameric with sarcosine; and he suggests that it may be set free by the removal of the controlling nervous power. In muscular tissue, he holds that there must always exist the elements of (1) urethane; (2) cyanic ether + water; (3) urea. When the nerve-force is cut off by death, the decomposition of (1) and (2) would produce sarcosine, which might be sufficient to account for *rigor mortis*; or it may be that this rigidity is increased by the combination of cyanic ether with urea, producing a crystalline compound. Professor Latham thinks that the action of salicylic acid may be explained by its entering into combination with the elements of muscular tissue in the process of disintegration, and so preventing the formation of lactic acid. The reasoning contained in this communication is ingenious and interesting; but we question whether, even should the action of salicylic acid on the muscular tissue be as Dr. Latham supposes, the valuable effects of that substance in modifying acute rheumatism could be ascribed to any such reaction. The whole aspect of rheumatic fever seems to indicate that that disease has a much less simple cause than the mere presence of lactic acid in the blood. Many physicians are inclined to regard it as of parasitic origin; and to them it may appear that the action which Dr. Latham ascribes to salicylic acid is not sufficient to account for the undoubted therapeutic success which so frequently follows its administration.

SINGING AS A CAUSE OF UTERINE DISEASE.

DR. CLIFTON E. WING reports, in the *Boston Medical and Surgical Journal*, some suggestive cases relating to this subject. He had several lady patients, who came to him for uterine trouble, and all voluntarily asserted their belief that the complaints were due to the "abdominal method" of singing which they had been trying to learn. This consists in the cultivation of diaphragmatic respiration at the expense of thoracic. It naturally causes great pressure to be put upon the abdominal organs. One Boston teacher boasts that by "proper practice" such power may be acquired, that if a person be placed back against the wall, and a full-sized piano be moved up against the retracted abdomen, the latter, by the "abdominal method" can be so forcibly expanded that the piano will be pushed rapidly away. The new method adds greatly to the power of the voice. Dr. Wing found in the cases examined, that it had caused a retroflexion or retroversion, with various coincident ills. He believes that in the "abdominal method", as now practised, we have a fruitful source of uterine displacement.

REFLEX PARALYSIS FROM STRICTURE AND CALCULUS.

AN interesting case of paraplegia following irritation of the urethra by calculus, has recently been brought before the Society of Surgery, Paris (*L'Union Médicale*, January 29th, 1881). It was related by Dr. Dieu of Sétif. A soldier, aged 23, suffered from gonorrhœa for six weeks, when a very tight stricture was discovered, complicated by severe prostatitis; temporary paraplegia followed, and was traced to the presence of a calculus. M. Le Dentu mentioned an analogous case of true reflex paresis in a man, "as nervous as a woman", who had a slight stricture of the urethra, and very mild symptoms of cystitis, without any loss of power in the bladder. Although no lesion of the cord could be detected, this patient had severe paraplegia, involving great muscular weakness of the lower extremities, with tracts of cutaneous anæsthesia and atrophy of the muscles of the left thigh. The stricture being split and cured by operation, the paraplegia and muscular atrophy also disappeared. The second patient observed by M. Le Dentu had a calculus in the left kidney, weighing 32 grammes. After its extraction, he was attacked with hemianæsthesia of the left side. M. Le Dentu thought that this accident must have been due to the influence of the operation on the medulla.

A NEW CENTRALBLATT.

PROFESSOR ROSENTHAL of Erlangen having withdrawn from the additional staff of the *Medicinische Centralblatt*, in which he is succeeded by Dr. H. Kronecker, proposes to establish a biological *Centralblatt*. Of these *Centralblatts*, or weekly abstract newspapers, represented in England by the *London Medical Record*, there are about a dozen in Germany, all of which find an unlimited circle of readers, anxious to inform themselves of the progress of medicine and medical science among the wide circle of European nations.

SCOTLAND.

WE are pleased to be able to announce that a very liberal response has been made to the appeal of the directors for assistance to utilise the new wards in the Glasgow Western Infirmary, eighteen of the two hundred new beds having already been provided for.

ABERDEEN PHILOSOPHICAL SOCIETY.

THE Aberdeen Philosophical Society met in Watson's Rooms, Union Terrace, on February 1st—the president, Professor Struthers, occupying the chair. An exhaustive communication on "The recent increase in Pauper Lunacy" was read by Dr. William Fraser, showing from statistics the rapid increase in recent years of pauper lunacy, and the corresponding cost of maintenance. A lengthy discussion followed, in which Dr. Beveridge, Dr. Alexander Ogston, and Dr. Alexander Bain took part.

PROFESSOR STRUTHERS' LECTURES ON THE HUMAN BODY.

THE third lecture of this course was delivered by Professor Struthers on Saturday evening. The professor compared the structure and functions of the pyloric and ileo-cæcal valves. The appendix vermiformis was next described. This he said, was a rudimentary structure for which they were unable to account. Although functionless, as rudimentary organs were, it yet possessed a very complex and beautiful structure. With reference to this structure, Dr. Struthers remarked that there were those who questioned the idea of its being functionless, from the fact that it would not be there if such were the case. But he could show them yet another structure, the uselessness of which no one doubted—diverticulum. After fully demonstrating this structure, the lecturer went on to consider the pancreas and liver, explaining their position and functions. During the last few years he had been devoting his attention to the discovering of reasons why the right hand of human beings was used in preference to the left. He had come to the conclusion that it was partly owing to the fact that the right side of the body was heavier than the left side, which would be seen from a calculation he had made as to the weight of the viscera in the body. The average weight of the viscera on the right side he estimated at 50¼ oz., whilst that of the left side only amounted to 28 oz.; showing the visceral preponderance on the right side to be 22¼ oz. From this he deducted 7¾ oz. to represent the weight of the food, thus leaving the total preponderance of the right side at 15 oz. In some human bodies he said, a total transformation of the viscera had been discovered—the heart being placed at the right side, and the liver and spleen at the left. The discovery had been a cause of much concern to some people, and he himself had been asked by an Insurance Company whether it would

be safe to insure the life of a man thus constituted at the ordinary rates of insurance. Such a transposition was perfectly compatible with sound health, as it was a matter of small concern which side the heart and liver occupied, provided they performed their functions regularly and correctly. The structure of the liver was next described. The lecturer concluded by giving a description of the mode of absorption of the food from the small intestines.

ABERDEEN: THE PROPOSED MEDICAL OFFICER OF HEALTH.

A JOINT meeting of the Watching and Public Health Committee of the Town Council was held on February 1st, for the purpose of considering the vacancy in the office of police surgeon and medical officer of the Local Authority. The committee, while acknowledging the necessity which exists for having a ready means of preventing the spread of contagious diseases, and impressed with the desirability of having one responsible officer, were unable to come to any definite resolution on the subject, and adjourned to meet again before the next meeting of the Town Council on the 21st inst., and give the matter more mature consideration.

ROYAL EDINBURGH DISPENSARY.

THE annual meeting of the subscribers to the Edinburgh Royal Dispensary was held last week, and was presided over by the Lord Provost. This dispensary is considerably over one hundred years in its age of usefulness, and we regret to observe that it is not so liberally supported as its requirements necessitate. During the year, it has afforded treatment to 9,119 patients, of whom 1,397 were attended at their homes. The vaccination returns show that 755 infants were vaccinated, and eight adults revaccinated. Two hundred and twenty-three women were attended during their confinement. The total contributions for the year amounted to £132, the total income to £380, and the expenditure to £353; showing a balance of £27, which compares favourably with a deficit of £35 the previous year. The Lord Provost strongly recommended the objects of the dispensary to the liberality of the public, and mentioned that, as guarantee of efficiency, the medical officers were Fellows of one or other college. This latter also applies to other dispensaries in Edinburgh.

PERTH INFIRMARY.

IT is satisfactory to observe that the Perth Infirmary thrives in every respect; nearly all branches of its revenue show an increase during the past year. The ordinary income amounted to £2,164, and the expenditure to £2,145; a legacy of £3,603 has been bequeathed to it by the late Dr. Scott. The directors' report, submitted at the annual meeting of the supporters of the institution held on Monday, shows that in the hospital 448 were treated, in the dispensary department 357, and in the district department 457; a total of 1,262 patients for the year.

EDINBURGH ASSOCIATION FOR INCURABLES.

THIS institution continues to make satisfactory progress, and if this continue till other £400 be subscribed, the directors will be able to make almost complete use of their commodious new buildings. The subscriptions from the public during the year have increased from £693 in 1879 to £1,188 in 1880; and this, with the munificent donation of the Longmore trustees, has enabled the managers to extend greatly their operations towards the incurable sick. The annual meeting of the subscribers to the institution was held last week, when a satisfactory report was submitted, and renewed exertions promised on behalf of the charity.

MISTS AND FOGS.

AT a meeting of the Glasgow Philosophical Society, held on the 2nd instant, Mr. John Aitken, F.R.S.E., read a paper, prepared at the request of the Council, giving his views regarding the formation of mists and fogs. After pointing out the importance of the presence in the air of microscopic dust-particles in preventing the moisture of the air from becoming deposited on everything around us, and keeping it constantly humid and moist, he said that it was important to have a clear knowledge of the conditions which were necessary to produce a fog. Fogs, he considered, were caused by an over-abundance of condensation-nuclei in the air when it was full of moisture; and, as we have little control over this last, we should principally direct our attention to diminishing the number of these condensation-nuclei. In connection with this point, it must be borne in mind that all forms of combustion had been shown to be producers of fine dust, and, consequently, gave rise to fog-producing atmospheres; for, when the air was nearly saturated with vapour, the smoke-particles, which were good radiators, soon became cool, and formed nuclei, on which the moisture condensed. In the course of his remarks, Mr. Aitken stated that sulphur in coal formed a most active fog-producer; and, as all our coals contained sulphur, it was worth considering whether some restriction should not be put on the use in towns of coals, containing an undue proportion of sulphur. The lecture, which was illustrated with numerous interesting experiments, was very well received.

IMPORTANT DECISION AS TO MEDICAL CERTIFICATES.

A CASE of some importance to medical men in reference to the question of certificates of illness has just been decided in the Sheriffs' Court at Glasgow. A servant in the employment of the Tramway Company there put in a medical certificate to account for his absence from work. This certificate the Company refused to accept, because it was not signed by the doctor "on soul and conscience", in accordance with their regulations. In an action for wages brought by the servant against the company, the point was raised by the latter as to whether or not they were entitled to receive the same evidence as would be required in a court of law—in other words, whether the medical certificates should not all be certified on "soul and conscience". In giving his decision in the case, the Sheriff stated that he considered the request of the company a reasonable one; and that he saw no reason why a medical man should have any hesitation in complying with it. The company had as much reason to demand this as a judge in a court of justice.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending January 29th, it appears that the death-rate in the eight principal towns during the week was 34.7 per 1000 of estimated population. This rate is 9.5 above that for the corresponding week of last year, and 3.6 above that for the previous week of the present year. The lowest mortality was recorded in Aberdeen—viz., 22.7 per 1000; and the highest in Perth—viz., 48.7 per 1000. The mortality from the seven most familiar zymotic diseases was at the rate of 4.9 per 1000, being 0.7 above the rate for the previous week. Acute diseases of the chest caused 348 deaths, being an increase of 41 on the number for last week. The increase was almost wholly accounted for in Glasgow. The mean temperature was 28.3°, being 6.6° above that for the week immediately preceding, and 4.0° below that for the corresponding week of last year.

EDINBURGH STUDENTS' "SOCIAL".

A DESCRIPTION of an Edinburgh student's "social" appeared in the JOURNAL a year ago. On Friday last, the Students' Club, composed most largely of medical students, again entertained their friends and well-wishers to a "social", at the Waterloo Rooms. There was a large and appreciative audience. The entertainment consisted of concerted music, solos, orchestral music, and some recitations, rendered by students.

MORTALITY OF EDINBURGH.

THE death-rate of Edinburgh, which in the week before last reached 31 per 1,000, with a total of 134 deaths, fell last week to 18 per 1,000, with a total of 76 deaths. In the previous week, there were 14 deaths due to zymotic diseases; last week, there were only 5 due to that class of diseases. Last week, phthisis and other pulmonary diseases caused 34 deaths; in the previous week, the same class of diseases caused 52 deaths; and, while last week only two people over eighty years of age died, in the previous week six persons over eighty died.

MEDICAL OFFICER OF HEALTH FOR ABERDEEN.

THE question of appointing a medical officer of health for the city of Aberdeen came up on Tuesday, February 8th, at a joint meeting of the Public Health and Watching Committees of the Town Council, when it was unanimously resolved to recommend that the offices of medical officer, police-surgeon, medical attendant at the gas-works, analyst of the quality of the gas, and inspector of byres, under the conditions of the Contagious Diseases (Animals) Act, should be conjoined, and one person appointed to perform the whole of the duties at present devolving upon the various officials named. It was resolved to recommend that, in the meantime, at any rate, the office of public analyst should not be interfered with. The Committee further recommended that a salary of £300 *per annum* should be attached to the appointment, the person appointed to give his whole time to the discharge of the duties of his office. The proposed salary is about £80 in excess of the total sum at present paid in connection with all the offices. There can be no doubt that this is a most important post, and it ought to be filled by a really good man; and we hope that it may be the good fortune of the citizens of Aberdeen to secure a man who has a good knowledge of public health. The salary is not large; but the post may be a stepping-stone to other appointments.

IRELAND.

DR. JAMES LITTLE has been appointed consulting physician to the Rotunda Lying-in, and to St. Mark's Ophthalmic Hospital, *vice* the late Dr. Hudson.

MR. HAMILTON LABATT, F.R.C.S.I., died last week at an advanced age. Mr. Labatt was one of the medical officers of the Dublin South City Dispensary.

MRS. LYONS of London has given a cheque for one hundred guineas to the Belfast Royal Hospital, as a token of her gratitude for the kindness shown to her son who died in the hospital last August.

BELFAST HOSPITAL FOR SICK CHILDREN.

THE annual meeting in connection with this charitable institution was held on the 28th ultimo, in the Clarence Place Hall, Belfast. The chair was taken by the Hon. R. O'Neill, who congratulated those present on the success of the hospital, which, though only a few years in operation, had by degrees become enlarged, until they were enabled to erect a suitable building in Queen Street, which was one of the finest of its kind in Belfast. During the past year, 294 patients were admitted to the hospital, being an increase of 20 as compared with the previous year. Although several of these were of a very complicated and serious character, some of which required amputation or excision, it is satisfactory to learn that no deaths took place in the surgical ward. The committee feel gratified in stating that the whole of the debt on the building fund, amounting to £5,500 has now been paid off. The medical report stated that, of the 294 sick children admitted to the wards, 182 were medical and 112 surgical, with a mortality of 3, all medical cases; while 14 capital, and a large number of minor, operations were performed during the year. Last session, 27 students attended the hospital *clinique*, while, during the present session of 1880-81, 34 are regularly attending the practice of the hospital. A vote of thanks was passed to the medical staff, and the proceedings shortly afterwards terminated. We learn that His Excellency the Lord-Lieutenant has consented to become the patron of the hospital.

ZYMOTIC DISEASES IN IRISH PROVINCIAL TOWN DISTRICTS.

DURING the December quarter of last year, measles caused 42 deaths in Waterford, and 39 in Cork; scarlatina, 44 in Limerick, 39 in Waterford, 30 in Cork, 17 in Wexford, and 16 in Belfast. In Belfast, where whooping-cough has been prevalent since the close of the year 1878, there were 68 deaths registered from this disease, against 46 in the previous quarter; while 16 deaths were recorded in Cork, and 6 in Drogheda. Fever caused 46 deaths in Belfast, 38 in Cork, 14 in Londonderry, and 5 in Waterford; while, to diarrhœa, 45 were due in Waterford, 59 in Belfast, 25 in Cork, and 12 in Limerick. There were no deaths from small-pox registered in any of the fifteen districts during the quarter.

PRACTICAL INSTRUCTION *v.* LECTURES.

THE following resolutions have lately been adopted by the Board of Trinity College, Dublin, and are now in force in its School of Physic. *Dissections and Demonstrations.*—1. That, in future, a day's dissection shall count for the student of practical anatomy as equivalent to a day's attendance on the demonstrations of the University anatomist. 2. That in estimating attendance, both demonstrations and dissections shall be taken into account. *Comparative Anatomy.*—3. That, in future, the Professor of Comparative Anatomy shall deliver only fifteen prelections instead of forty prelections, and that the remainder of his course shall consist of dissections and demonstrations upon animals supplied from the Zoological Gardens. *Chemistry.*—4. That, in future, the Professor of Chemistry shall substitute laboratory practice for one-third of his prelections. *Botany.*—5. That, in future, the Professor of Botany shall deliver only ten prelections, instead of forty prelections, and that the remainder of his course shall consist of demonstrations in the Herbarium and in the College Botanical Gardens.

BARRINGTON'S HOSPITAL, LIMERICK.

THE Corporation of Limerick, at a special meeting held last week, had under consideration an application from the governors of Barrington's Hospital for a presentment of £300 in aid of the funds for the support of that institution. Mr. Bernal spoke in favour of the amount applied for being granted, as he believed there was hardly a person in Limerick but knew that the city had no institution as philanthropic, humane, and useful as Barrington's Hospital. Mr. Boyd seconded the motion; and said that, in order to show the advantages of the hospital, he would quote a few figures. In 1877, the number of patients treated in the wards were 283; and, in 1880, the number rose to 414; which entailed an expenditure of £1,117, of which £714 was made up by private subscriptions, leaving a debt of over £400. After some discussion, a vote of £200 was sanctioned by the Town Council.

PROPOSED CONSUMPTION HOSPITAL FOR BELFAST.

A NECESSITY has long existed in Belfast for a special hospital for consumption and other diseases of the chest, somewhat similar to the Brompton Hospital; and it is probable that before long this want may be supplied. For the last year a dispensary has been in existence in the Donegal Pass, devoted entirely to this class of diseases, which will shortly be removed to larger premises in Joy Street; while steps are being taken to purchase or lease a suitable villa at Ballynafeigh, which, it is thought, might be converted into a small hospital after the model of that at Brompton. It has also been suggested that a special hospital for consumptive cases might be affiliated with the Belfast Royal Hospital, or an extension made of the convalescent home attached to the same institution.

ROTUNDA HOSPITAL.

THE election of a consulting physician to this hospital, which took place on Friday last, was marked by circumstances of a peculiar nature. The consulting surgeon and physician are not in this hospital selected from the retired medical officers of the institution; but the custom for many years has been for the Master to recommend a distinguished physician or surgeon to the Board for election as consulting physician or surgeon, as the case was; and the Board has invariably unanimously elected the gentleman so recommended by the Master. This custom has worked satisfactorily, as is proved by the fact that such men as Sir Henry Marsh, Dr. Croker, and Dr. Hudson, as physicians, and Sir Philip Crampton, Mr. Cusack, and Mr. Colles, as surgeons, have in succession been recommended by the Master for the time being, and

elected. On the present occasion, a vacancy for consulting physician having occurred, in consequence of the death of Dr. Hudson, a section of the Board determined to oppose the gentleman recommended by the Master, and this not on the ground of any unfitness on his part; and two of the ex-Masters of the hospital supported this movement. Dr. James Little, Professor of the Practice of Medicine in the Royal College of Surgeons, was proposed by Dr. Atthill, Master of the hospital, and seconded by Dr. McClintock. Dr. Henry Kennedy was proposed by an ex-Master of the hospital, and seconded by a lay governor; and Dr. McDowel was proposed and seconded by two lay governors. A ballot having been taken, Dr. Little was declared elected; the majority of the governors thus affirming their approval of the custom of accepting the recommendation of the Master when the candidate proposed was in all respects a fit and proper person; and there can be no doubt but that the gentleman now elected is such. It is a matter of satisfaction that the Board arrived at this decision. The office is purely honorary; the consultant has no rights whatever in the hospital, except when requested by the Master to meet him in consultation; and it is an office which should not be canvassed for, but conferred as a recognition of merit.

NOTIFICATION OF INFECTIOUS DISEASES.

THE following resolutions were passed at a special meeting of the Irish Medical Association on the 25th ultimo.

1. That this Association, while reaffirming the resolutions of the Council adopted on July 27th, 1880, as to the advantages of early notification of infectious disease, is of opinion that the proposal to compel the physician to make a formal written notification, either to the sanitary authority or to the custodian of the patient, would, if carried into effect, be of doubtful advantage to the public, and be oppressive upon the medical profession.

2. That this Association does not admit the principle that a physician should be required to apply to public uses the information obtained by him in his capacity of a private practitioner; and the Association, furthermore, apprehends that, if it be declared that the visit of a physician to a patient who may possibly be suffering from an infective disease shall be, of necessity, followed by the putting in motion of the sanitary law with regard to the infected house, a great inducement will thereby be afforded to defer calling for the physician until the disease has acquired such intensity that it can no longer be concealed, and must be treated under great disadvantages.

3. That the Association cannot assent to the sacrifice of professional principles and medical interests which the Bill now before Parliament involves, until the custodian of the patient has been made fully responsible, under penalties, both to ascertain from a medical practitioner the nature of the disease and to report the same to the sanitary authority; and until, after an effort made to enforce such responsibility with vigilance and firmness, it has been found to be impracticable to do so.

4. That, irrespective of the objectionable principles of the Bill already referred to, the proposals to pay to the physician one shilling for thirty days' notification of cases occurring in an infected house—to pay no fee whatever for such services in a public institution—to compel the physician to attend in court, without fee, to prove his certificate if necessary, and to impose a penalty of £5 upon him for such omission to notify, are altogether unacceptable to the profession.

5. That therefore the Committee of this Association be instructed to take all necessary steps to cause the Bill to be modified in its passage through Parliament, or to oppose its passage, if necessary.

PRESENTATIONS.—Mr. Edwin James Worth, M.R.C.S.Eng., of Anderton, near Millbrook, Cornwall, has been presented with two salvers, a tankard, and two beakers, all of silver, and a list of the subscribers, upwards of 300, on vellum, as a mark of strong personal regard and appreciation of his skill and attention, during a quarter of a century. The larger salver bears an inscription to this effect, and the other pieces of plate, Mr. Worth's initials and the date of presentation.—Mr. A. Willis, F.R.C.S., of Swansea, has been presented with a silver cup, inscribed, "Presented to A. Willis, Esq., F.R.C.S., by the workmen in the melting department of the Landore (Siemens') Steel Company's Old Works, as a token of respect and esteem. January 29th, 1881."

DR. DUKE has been appointed honorary medical officer to the Folkestone Infirmary and Dispensary.

GENERAL COUNCIL
OF
MEDICAL EDUCATION AND REGISTRATION.

SESSION, 1881.

Thursday, February 3rd, 1881.

DR. ACLAND, President, took the chair at 2 P.M.

There were present: Dr. Pitman, Sir James Paget, Mr. Bradford, Dr. Humphry, Dr. Pyle, Dr. Storrar, Dr. Haldane, Dr. Scott Orr, Mr. Turner, Dr. Pettigrew, Dr. Aquilla Smith, Mr. Macnamara, Dr. Banks, Dr. Quain, Sir William Gull, Mr. Simon, Mr. Teale, Dr. Fergus.

President's Address.—The PRESIDENT delivered the following address.

I cannot but regret that it has become my duty to summon the Council at this inclement season, for the special purpose of business connected with the Dentists' Act, 1878. It is to be noted that this is the first occasion on which the Council has been called together solely for this new duty imposed upon it by Parliament. The reason for your meeting depends on the fact that a question has been raised as to the accuracy of the *Dentists' Register* in over 500 cases. It seemed improper to delay to a later period of the year, when the Council might meet for ordinary business, the publication of the *Dentists' Register* for 1881 in a corrected form.

On July 15th, 1880, a memorial from the Association of Surgeons practising Dental Surgery, one from the British Dental Association, and a letter from the honorary secretary of the British Dental Association, stating the grounds on which it was alleged that a large number of persons should have their names erased from the *Dentists' Register*, were referred to the Dental Committee by the General Medical Council, in order that they might ascertain the facts of these several cases named in such memorials and letter. At meetings of the Dental Committee held since that period, after prolonged deliberations with the solicitor to the Council, reports have been drawn up, which will now be presented to you.

It is hardly necessary to remark that, in the preparation of these reports, every care has been taken to ascertain the facts, and that opinions of counsel were obtained on such points as appeared to be open to question. The Council is now called upon to decide whether, upon the facts stated in these reports (which facts, under Clause 15 of the Act, are conclusive for the purpose of the exercise by the Council of its powers under the Act), all or any of the persons, whose cases are reported upon, should or should not be erased from the *Dentists' Register*. One person, on whose case the General Medical Council has to decide, is summoned to appear this day at four o'clock.

It is not my intention to bring before the Council any business other than that for which it was my duty to summon it; and under the standing orders, other business can be brought before it only by resolution of the Council.

There is one subject, however, connected with the business itself which I must, in conclusion, name, and that is, the loss which the Council has sustained by the death of Dr. Andrew Wood, made more grievous because sudden and unexpected. I am well aware that it is generally inexpedient to make observations even of high regard on those who have been taken from among us, in whatever way. But it would shock the feelings of the whole Council were I to attempt to conceal the sense we all entertain of the loss of so faithful a public servant and so warm and trusty a private friend. The goodness of his heart is thoroughly known to you all. As a member of the Council acquainted with all the details of its work, and as chairman of its Business Committee, it is just to say that he had no equal. Acute and assiduous from the moment when the Council first met in 1858, he had known every member that has ever sat at its table, studied impartially every interest connected with the Council, had served on committees of the most various description, and exercised the great influence which quickness, knowledge, and goodness are sure to exert on complicated public affairs. The latest and not the least of the subjects in which he had taken the deepest interest was the visitation of the examinations. He lived to see the final arrangements for their renewal completed in the way he desired.

You have to appoint a successor to fill the place of Dr. Andrew Wood, as chairman of the business on which we are now to enter, and as representative of Scotland on the Executive Committee. Of other changes in the Council, I may speak on another occasion.

It was moved by Mr. TURNER, seconded by Dr. STORRAR, and resolved, that the President's Address be entered on the Minutes.

The Late Dr. Andrew Wood.—On the motion of Sir WILLIAM GULL, seconded by Sir JAMES PAGET, it was resolved: "That this Council express its sincere condolence with Mrs. Wood and her family, on the sudden and painful loss of her husband, Dr. Andrew Wood."

Business Committee.—The Business Committee be appointed, to consist of the following members: Dr. Pitman (*Chairman*), Dr. Aquilla Smith, and Dr. Haldane.

Executive Committee.—The Council balloted for the Executive Committee, whereupon the following members were found to be duly elected: Dr. Pitman; Sir James Paget; Dr. Humphry; Dr. Haldane; Dr. Aquilla Smith; Dr. Quain.

The Dentists' Register.—A detailed report of the Dental Committee, in reference to the question of erasing certain names from the *Dentists' Register*, was read; also the opinions of the Solicitor-General and Mr. Vaughan Hawkins regarding the interpretation of the Dental Act. Remarks by Mr. Ouvry, the Solicitor to the Councils, on the reports of the Dental Committee and the opinions of counsel, were also read, and ordered to be entered on the Minutes.

It was moved by Dr. HUMPHRY, seconded by Dr. FERGUS, and agreed to: "That all statements with reference to the practice of medicine, surgery, and pharmacy, now appearing in the *Dentists' Register*, be erased therefrom."

Erasure of a Name from the Register.—The name of John Hamilton, of 404, Oxford Street, was ordered to be erased, on the ground of his having been guilty of disgraceful conduct in a professional respect.

Question of Removal of Names.—The following resolutions were passed, among others.

Moved by Dr. PITMAN, seconded by Dr. QUAIN, and agreed to: "That, the report of the Dental Committee not having put the Council in possession of evidence to show that any of the registered dentists named in the 'corrected list of persons' submitted by the Honorary Secretary of the British Dental Association, or of the registered dentists named in the letter of Dr. Jacob, were not, at the times of their registration, *bonâ fide* engaged in the practice of dentistry, the Council is, therefore, not prepared to order the removal of any such persons from the *Dentists' Register*."

Moved by Dr. HUMPHRY, seconded by Dr. QUAIN, and agreed to: "That the persons mentioned in Clause (5) of the Dental Committee's Report, as having been actually removed from the *Register* at their own request, be, on their application, restored to the *Register* without fee, subject to the discretion of the Executive Committee as to the grounds on which their names were so removed, and the grounds on which registration is claimed."

Returns from Licensing Bodies were read, and ordered to be entered on the Minutes. They showed that, during 1880, the total number of candidates who passed was 104, and of those who were rejected 25.

ROYAL FREE HOSPITAL.

The annual meeting of the governors of the Royal Free Hospital was held a few days ago; Mr. J. Hopgood, chairman of the general committee, presiding. The fifty-third annual report of the committee, read by the secretary, stated that during the past year the receipts from all sources amounted to £15,610. From the Metropolitan Hospital Sunday Fund, £758 6s. 8d. had been received for 1880. At the end of the year, the hospital was practically free from debt. The total ordinary expenditure of the year amounted to £9,367. Structural repairs and other improvements had been effected at a cost of £6,705. The number of in-patients admitted to the hospital during the year was 1,360. There were at present 155 under treatment. In the twelve months, 1,242 patients were discharged recovered; there had been 88 deaths; seven cases had been brought in dead. The daily average number of patients in the wards was 88. Advice and medicine had been given to 23,812 out-patients. Dr. William Allen Sturge, assistant-physician to the hospital, had been elected to fill the vacancy caused by the death of Dr. O'Connor, the senior-physician; and Dr. Samuel West, of St. Bartholomew's Hospital, had been appointed assistant-physician. The wood-paving laid down in front of the hospital by St. Pancras Vestry, free of any expense to the charity, had caused an almost entire cessation of the noise of traffic. The fittings of the new museum, which would contain the valuable collection of anatomical models and specimens belonging to the hospital, were nearly completed. The association of the hospital with the London School of Medicine for Women continued to work most harmoniously. A festival dinner in aid of the funds will take place in the course of the ensuing spring.

SURGEON D. H. CULLIMORE, M.D., formerly Presidency Surgeon, Mandalay, has retired from the service, receiving the half-pay pension of his rank and length of service.

JENNER'S INSTRUCTIONS FOR VACCINE INOCULATION.

THE following authentic unpublished letter by Edward Jenner was read by Dr. William Squire at a meeting of the Epidemiological Society held on February 2nd.

"Let the vaccine fluid be taken, for the purpose of inoculation, from a pustule that is making its progress regularly, and which possesses the true vaccine character, on any day from the fifth to the eighth, or even a day or two later, provided the efflorescence be not then formed around it. When the efflorescence is formed, it is always most prudent to desist from taking any more of the virus from that pustule.

"To obtain the virus, let the edges of the pustule be gently punctured with a lancet in several points. It will gradually ooze out, and should be inserted upon the arm about midway between the shoulder and elbow, either by means of a slight scratch, not exceeding the eighth part of an inch, or a very small oblique puncture.

"A little red spot will appear on the punctured part on the third day if the operation succeed, which on the fourth or fifth becomes perceptibly vesicated. It goes on increasing till the tenth day, when it is generally surrounded by a rose-coloured efflorescence, which remains nearly stationary for a day or two. The efflorescence then fades away, and the pustule is gradually converted into a hard glossy scab of a dark mahogany colour. These progressive stages of the pustule are commonly completed in sixteen or seventeen days.

"A single pustule is sufficient to secure the constitution from the small-pox; but, as we are not always certain the puncture may take effect, it will be prudent to inoculate in both arms, or to make two punctures in the same arm, about an inch and a half asunder, except in very early infancy, when there is great susceptibility of local irritation.

"If the efflorescence surrounding the pustule should be extensive, and occasion much local heat upon the arm, it may be cooled by the repeated application of pieces of folded linen dipped in cold water, or still more expeditiously by a strong solution of the aqua lythargyri acetati in water: an ounce, for example, of the former, in five or six of the latter.

"If the scab should at any time be prematurely rubbed off, the part may be occasionally touched with the undiluted aqua lythargyri acetati.

"Vaccine virus taken from a pustule, and inserted immediately in its fluid state, is preferable to that which has been previously dried; but, as it is not always practicable to obtain it in this state, we are compelled to seek for some method of preserving it. Various means have been suggested; but, from the test of long experience, it may be asserted that preserving it between two plates of glass is the most eligible. Let a piece of common window-glass be cut into squares of about an inch each, so that they shall lie smooth when placed upon each other. Let the collected vaccine fluid be confined to a small spot (about the size of a split pea) upon the centre of one of these glasses, which should be suffered to dry in the common heat of the atmosphere, without exposure to the heat of fire or the sun. When dry, it should be immediately secured by placing over it the other piece of glass. Nothing more is necessary for its preservation than wrapping it in clean writing-paper.

"The virus, thus preserved, when wanted for the purpose of inoculation, may easily be restored to its fluid state by dissolving it in a small portion of cold water taken up on the point of a lancet. It may then be used in the same manner as when just taken from a pustule.

"The vaccine fluid is liable, from causes apparently trifling, to undergo a decomposition. In this state, it sometimes produces what has been denominated the spurious pustule; that is, a pustule, or an appearance on the arm, not possessing the characteristic marks of the genuine pustule. Anomalies, assuming different forms, may be excited, according to the quantities of the virus applied or the state of the person inoculated; but by far the most frequent variety or deviation from the perfect pustule is that which arrives at maturity and finishes its progress much within the time limited by the true. Its commencement is marked by a troublesome itching; and it throws out a premature efflorescence, sometimes extensive, but seldom circumscribed, or of so vivid a tint as that which surrounds the pustule completely organised; and (which is more characteristic of its degeneracy than the other symptoms) it appears more like a common festering produced by a thorn or any other small extraneous body sticking in the skin, than a pustule excited by the vaccine virus. It is generally of a straw-colour; and, when punctured, instead of that colourless transparent fluid of the perfect pustule, its contents are found to be opaque. That deviation from the common character of the pustule arising from vaccine virus which has been previously exposed to a degree of heat capable of decomposing it, is very different. In this instance, it begins with a creeping scab of a pale brown or amber colour, making a long and slow pro-

gress, and sometimes going through its course without any perceptible efflorescence. Its edges are commonly elevated, and afford, on being punctured, a limpid fluid.

"A little practice in vaccine inoculation, attentively conducted, impresses on the mind the perfect character of the vaccine pustule; therefore, when a deviation arises, of whatever kind it may be, common prudence points out the necessity of reinoculation—first, with vaccine virus of the most active kind; and, secondly, should this be ineffectual, with the variolous virus. But, if the constitution shows an insusceptibility of one, it commonly does of the other.

"When any constitutional symptoms occur in inoculated cow-pox, they are commonly first perceptible (especially in children) on the fourth or fifth day. They appear again, and sometimes in adults, not unlike a mild attack from inoculated small-pox on the eighth, ninth, or tenth day. The former arise from the general effects of the virus on the habit; the latter from the irritation of the pustule.

"If the effluvia of the small-pox have been received into the habit previously to the inoculation of the vaccine virus, the vaccine inoculation will not always be found to stop its progress, although the pustule may make its advances without interruption.

"The lancet used for inoculation should always be perfectly clean. After each puncture, it is proper to dip it into water and wipe it dry.

"The preservation of vaccine virus upon a lancet beyond the period of a few days should never be attempted, as it is apt to produce rust, which will decompose it.—(Signed) EDWARD JENNER."

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH.—A general meeting of this Branch will be held at the rooms of the Medical Society of London, 11, Chandos Street, Cavendish Square, on Wednesday, February 23rd, at 8 P.M., when Mr. Timothy Holmes will introduce a discussion on "Hospital Management".—Mr. Nelson Hardy has given notice that he will propose the following addition to Law 19 of the Branch. "Provided always, that nothing contained in this Law shall prevent the discussion at the Annual Meeting of motions of praise or disprise affecting any of the officers of the Branch, of which ten days' notice in writing has been previously given.—ALEXANDER HENRY, M.D., W. CHAPMAN GRIGG, M.D., Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.—The next meeting of this district will be held at Dr. Hilliard's, Fairmead House, Upper Holloway Road, on Wednesday, February 23rd, at 8.30 P.M., when the following papers, etc., will be discussed. Dr. Potter: On the question of a Home Hospital for North London.: Mr. Pearce Gould will exhibit a Patient upon whom he has operated for Varicocele, and explain his mode of operating: Dr. Thorowgood: On the Use of the Hypophosphite Salts in the Treatment of Phthisis.—THOMAS STRETCH DOWSE, Honorary Secretary.—14, Welbeck Street, February 5th, 1881.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting of the above District will be held on Thursday evening, February 17th, 1881, at 8.30, at the New Town Hall, Hackney; Dr. De Berdt Hovell, F.R.C.S., in the chair. The following papers will be read. Jonathan Hutchinson, F.R.C.S.: "On Diseases of the Tongue". M. Greenwood, L.R.C.P.L.: "Some Remarks on the Symptoms and Diagnosis of Typhoid Fever".—FREDERICK WALLACE, Honorary Secretary, 243, Hackney Road, February 7th, 1881.

STAFFORDSHIRE BRANCH.—The second ordinary meeting of the session will be held at the Infirmary, Stafford, on Thursday, February 24th, at 3.30 P.M.—VINCENT JACKSON, J. G. C. WEST, Honorary Secretaries.—Wolverhampton, January 30th, 1881.

BATH AND BRISTOL BRANCH.—The fourth meeting of the session will be held at the Grand Pump Room Hotel, Bath, on Thursday evening, March 3rd, at 7.15 P.M.; Alex. Waugh, Esq., President.—R. S. FOWLER, E. MARKHAM SKERRITT, Honorary Secretaries.—6, Belmont, Bath, February 1881.

NORTH OF IRELAND BRANCH.—A meeting of this Branch will be held in the Belfast Royal Hospital, on Tuesday, March 4th, at 12 o'clock noon. Members intending to read papers or show communications will kindly intimate their intention to JOHN MOORE, M.D., Honorary Secretary, 2, Carlisle Terrace, Belfast, February 7th, 1881.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE third ordinary meeting of the session was held at the Bristol Museum and Library, on Thursday evening, January 20th; ALEXANDER WAUGH, Esq., President, in the chair. There were also present twenty-four members.

New Members.—The following gentlemen were elected members of the Association and of the Branch: Hope Gosse, Esq., Midsomer Norton; and W. E. Shorland, Esq., Bristol.

Communications.—Dr. J. G. Davey read a paper on Transference of Senses. In the discussion which ensued, the following gentlemen took part: Dr. Long Fox, Dr. Markham Skerritt, Dr. Bonville Fox, Mr. Collins, Dr. Birder, Dr. Shingleton Smith, and Mr. S. H. Swayne.

Dr. Roxburgh exhibited a new Freezing Microtome, and demonstrated its mode of use.

SPECIAL CORRESPONDENCE.

PARIS.

Anthropological Society of Paris.—Professor Broca.—M. Roger's Address in the Academy of Medicine.—Medical Fees.—Treatment of Patients in Hospitals or in their Homes.—Enfants Assistés.—Mortuaries in Cemeteries.—Isolation of Infectious Cases.

THE bureau of the Anthropological Society of Paris for the year 1881 is constituted as follows: *President*, Professor Parrot; *Vice-Presidents*, Dr. Thulié, Dr. Proust; *General Secretary*, Dr. Topinard; *Assistant General Secretary*, Dr. Magitot; *Ordinary Secretaries*, Dr. Pozzi and Dr. Chervin; *Treasurer*, M. Leguay; *Librarian*, M. Dureau; *Conservator of Collections*, Dr. Collineau. At the reopening of the meetings of the Anthropological Society for the year, M. Ploix, the outgoing President, and Professor Parrot, the newly elected President, both delivered most able addresses, and paid a graceful tribute to the memory of Professor Broca, who had been the general Secretary of the society from its foundation to the day of his death, extending over a period of twenty years. The death of Paul Broca was an irreparable loss, particularly to the Society of which he was the principal founder, the heart and soul. M. Parrot's address was most interesting, displaying remarkable talent, great erudition, and a philosophic turn of mind. In pointing out the great advantages of a knowledge of anthropology, he said that the tendency of the latter was to democratise science, and thus democratise the whole family of the human race.

M. Roger, the outgoing President of the Academy of Medicine, after having referred to the great loss sustained by the Academy by the death of Broca, Delpech, Piesse, and Personne, gave an account of his New Year's visit to the Minister of Public Instruction as head of all the educational and learned bodies in the country, at which he reminded the Minister of the promise made by his predecessors to provide the Academy with a more suitable building than that at present occupied by it; but, as M. Roger facetiously remarked, ministers pass away, their promises go with them, and the members of the Academy continue to hold their meetings in the sepulchral building in the Rue des Saints-Pères, much to the disgrace of a nation that pretends to be in the van of civilisation. M. Ricord, with his usual wit, suggested that, as many of the religious bodies were being turned out of their domiciles, an application might be made for a convent or monastery for the use of the Academy.

The subject of medical fees has been for some time the topic of discussion in the professional and lay papers of Paris; and Dr. Decaisne, a well-known popular writer, lately published a humorous article, entitled "Beasts of Burden and Medical Men", in which he pointed out that the former were, as far as remuneration was concerned, better treated than the doctors, as shown by the following statement. For a visit of ten kilometres, or six English miles, a medical man in the provinces is paid at the rate of two shillings; for three kilometres, a mule is paid five shillings and ten pence; for more than four kilomètres, seven shillings and six pence; for more than twenty kilomètres, sixteen shillings and eight pence. In Paris, the doctors are not much better paid; and, when their services are called into requisition, in case of accidents, etc., in the streets, they receive six francs (five shillings); and, to draw this paltry sum, they are subjected to so many annoyances, through the formalities of red-tapeism which are required of them, that they frequently prefer foregoing the fee to losing their time in going from one office to another. Thus it will be seen that a medical man is paid at a far more inferior rate to a mule. The above state of things is not to be wondered at, when we consider that the profession is much too overcrowded, and particularly in the larger cities; and lately there was a very interesting article in the *New York Medical Record* on the subject. The writer of the article made out that the profession was more overcrowded in the United States than in any other part of the world. For instance, the number of physicians there for the year 1878 amounted to 57,000; whereas, in Russia, the number of physicians for the same year was 13,475, the population of the United States being about half that of Russia. According to a report that was lately submitted to the Prefect of Police for the year 1879, there were, in Paris alone, 1,333 medical men. Besides these, there were 159 *officiers de santé*, and 945 *sages-femmes*. It may be here remarked that, while the number of *officiers de santé* is gradually diminishing, that of the *sages-femmes* is increasing. The number of *pharmaciens* for the same period amounted to 815: that is, 704 for Paris, and 111 for the suburbs. In a foot-note in *Galignani's Guide*, I find the following statement, which I quote for comparison. "It has been calculated that France had, in 1869, no fewer than 21,000 medical practitioners, and 6,765 apothecaries. Paris has 1,580

Doctors in Medicine, 510 chemists, and 241 *officiers de santé*. On an average, one medical man for 750 inhabitants in Paris, and one for every 1,000 in the departments."

The question as to the expediency of treating patients in the public hospitals, or in their own homes, has often been discussed in the Municipal Council of Paris, with the view of reducing the enormous expenditure incurred by the hospitals. According to a report that has been submitted to the Council, each hospital patient costs on an average from two to four shillings *per diem*, the minimum being applied to the Pitié Hospital, which contains the greatest number of beds; and the maximum to the Hôpital Cochin, which contains the smallest number: the general average may be put down to a little more than two shillings and six pence a day. This, of course, does not include house-rent, or the space occupied by the patient; and, when the number of hospitals in Paris and their inmates are taken into consideration, it is no wonder that the Municipal Council should seek to reduce this expenditure to a minimum, by having the patients treated in their own homes; but the difficulty is, how it is to be carried out; and here the matter rests, and the building of new hospitals still goes on.

Another expensive institution is that of the "Enfants Assistés". This institution replaces to a certain extent the old "Tour des Enfants Trouvés", where the children of indigents, or those abandoned by their parents, are, up to the age of sixteen or eighteen, admitted and maintained at the expense of the municipality. The number of children thus taken care of, amounts, in the department of the Seine alone, to 27,000, involving an expenditure of 4,000,000 francs, or £160,000 sterling. During last year, no fewer than 3,200 new-born infants, abandoned by their parents, were admitted into this institution.

The Municipal Council of Paris has adopted a project that was submitted to it for the creation of mortuaries or wake-houses in the cemeteries situated in the interior of the town, and intended for the reception of bodies for a certain time before their inhumation. The object of the proposition is to prevent the possibility of premature inhumation; secondly, to prevent the infection caused by the bodies in cases of contagious diseases; and lastly, to withdraw them from the families which have but a single room to live in, and where they are kept for forty-eight hours prior to inhumation. This would appear to be a very desirable measure, when the steady increase of the population is considered; but it is a question whether it would be practicable, or accepted by the many; for, although these mortuaries would render immense service to the people, particularly among the poorer classes, yet there are certain prejudices which cannot be overcome, and the compulsory deposit of bodies in them during an epidemic may constitute a very serious objection.

The medical authorities of Paris are at last becoming alive to the importance of isolating patients suffering from infectious diseases; and it is owing to the energetic influence of Dr. Bourneville, a Member of the Municipal Council of Paris, that many and great reforms have been effected in the hospitals. A project by Dr. Bourneville, for the creation, at the Hôpital des Enfants, in the Rue de Sèvres, of a new pavilion for the reception of diphtheritic patients, has been approved and adopted by the Council, the mortality from that affection having always been most terrific at that hospital, where, to this day, the patients lie promiscuously in the same wards.

BIRMINGHAM.

The Medical Institute.—The Skin and Lock Hospital.—The Children's Hospital.—Hockley Provident Dispensary.—The Queen's Hospital.—The Late Mr. G. B. Evans.

SINCE my last letter, the Medical Institute has been formally opened, and the President of the College of Physicians, Dr. Risdon Bennett, delivered a very able and suggestive address on Medical Culture, a report of which appeared at the time in your columns, and which has been published *in extenso* in the January number of the *Birmingham Medical Review*. In the evening, after the address, the members entertained Dr. Bennett at dinner at the Grand Hotel; there was a very good attendance, and the proceedings passed off in every way satisfactorily.

A new hospital has been recently founded for the treatment of lock and skin cases. It is at present on a very modest scale, having no accommodation for in-patients. The honorary medical officers are Messrs. John Taylor, F.R.C.S.Ed., and Gilbert Smith, F.R.C.S.Ed. There is a good deal of difference of opinion as to necessity for a desirability of establishing such an institution; in the opinion of many it would have been better to endeavour to induce one of the general hospitals to create special departments for the treatment of these cases, if there be any need for further means of medical relief. Some surprise has also been expressed at the mode in which the officers were elected, at a small meeting of subscribers, without any public advertisement for candidates.

The annual meeting of the governors of the Children's Hospital was held on the 24th ult. The balance-sheet shows a small balance of excess of expenditure over income, but the medical report represents the urgent need of the hospital for more in-patient accommodation, so that there seems little probability of any reduction in the annual outlay. It is worthy of notice that the registration and other payments from patients amounted to nearly £600, a considerable proportion of the total income, which is under £4,000.

The question of payments by patients is also of interest in connection with the annual report of the Hockley Provident Dispensary, which was presented at a meeting held on the same day. The income of the dispensary for 1879 was £497 5s. 5½d.; and that for the past year was £507 8s. The number of members on the books had increased from 2,801 at the end of 1879, to 4,013 at the end of 1880. The expenditure for the past year exceeded the income by £34, while for the previous fifteen months it had been £187. The amount distributed in medical fees was £221 13s. 11d. This is a very satisfactory report, showing that there is every prospect of the dispensary becoming self-supporting within a very short time.

I hear that the finances of the Queen's Hospital are not in a satisfactory state, in spite of the recent splendid exertions made by the town to relieve the committee of its embarrassments. If I am not misinformed, the present indebtedness of the hospital amounts to about £2,000, and I fear this sum represents the annual excess of expenditure over income.

The death of Mr. G. H. Evans, from typhoid fever, in Rome, whither he had gone to seek health, has excited the deepest sympathy of all who knew him. His death creates no vacancies, as Mr. Evans had resigned all his appointments some time before, owing to failing health.

CORRESPONDENCE.

MEDICAL EDUCATION.

SIR,—Will you allow me to call the attention of the Secretaries of the Branch Councils to the Report of the Committee of Council on Medical Education? It is now in the hands of the profession, and Branch Councils would do well to consider it, and to strengthen, as early as possible, the hands of the executive with regard to it.—I am, your obedient servant,

ALFRED CARPENTER, President of the Council.

Duppas House, Croydon, February 8th, 1881.

SIR,—The Subcommittee on Medical Education of the British Medical Association, in their report, at page 15, say: "To quote an instance, it is in the cognisance of one of the subcommittee, that a student, who was unable to pass the matriculation examination of the London University in June, and who failed to pass the preliminary examination of the Royal College of Surgeons in September, went up in October, and passed the preliminary examination of another body; he returned to London with a certificate in time to enter his name on the *Register* of the General Medical Council, and so to commence work as a student of medicine at one of our metropolitan schools. A condition of things such as this cannot be defended; and if the General Council of Medical Education has not the means, it seems to us absolutely necessary for them to apply to Government for powers, to enable them to prevent intending medical students from entering their names on the *Register* of the General Medical Council, until they have been proved to possess a sound knowledge of English, arithmetic, and in mathematics and Latin, up to a certain standard."

Most will read this quotation as I read it: that it implies that the knowledge of the medical student, or rather intending medical student, was not up to the standard laid down by the subcommittee.

Now, I put the plain facts of the case before the members of the British Medical Association, as they were by me told, about two years and four months ago, to the member of the subcommittee who publishes his cognisance of them; and ask whether a legitimate inference has been drawn? To me, it seems that a true mare's nest has been found, and the why and wherefore not considered.

My son went up for the June examination of London, a matriculation, in 1878, and was rejected in two subjects only: natural philosophy and chemistry; having passed in all other subjects—viz., Latin, Greek, French, English language, history, and modern geography and mathematics. In September 1878, after three months' tuition, he went up

for the fellowship preliminary examination of the Royal College of Surgeons; and passed in all the subjects, including the four extra subjects: Greek, French, natural philosophy, and chemistry; failing in geography only. I was specially anxious that he should commence work at once; and so wrote to the examiners in Edinburgh, detailing circumstances as above, and asked that the result of his examination might be communicated as early as possible, in order that he might save the *annus medicus*. I did not ask that any portion of the examination should be excused. When my son returned from Scotland, he told me that the examiners did not think it necessary that there should be any examination except as to English.

On these facts, the subcommittee wrote as I have quoted; and on this have thought fit to hang some very curious insinuations. I ask the opinion of members of the British Medical Association.—Yours truly,

February 9th, 1881. A MEMBER.

A POINT OF PRINCIPLE.

SIR,—While I willingly accept the decision of the College of Physicians in the recent Guy's affair, I do not agree with the advice given in the JOURNAL of January 29th, page 167, that the parties at variance should "Do as adversaries do in law—strive mightily, but eat and drink as friends"; for we are unlike lawyers, who, by their speeches—

"Ne'er cut themselves, but those between."

Our ungenerous words are taken to be the genuine expression of our feelings.

If one of our profession offend against another, and seek no occasion to confess his fault, or to make amends, it would be morally wrong (to both parties) for the injured one to act towards the offender as though he had done no harm. At the same time, with regard to their patients, should they meet, private matters must not be allowed to hinder mutual efforts for the well-being of the sick.

If more than forty years' experience gives a right to speak, I can claim that privilege.—I am, sir, yours truly, SENIOR.

February 7th, 1881.

INSURANCE OFFICES AND MEDICAL FEES.

SIR,—Referring to the letter of your correspondent on this subject in your impression of the 29th instant, I would remark that the best rule for any medical man referred to for his opinion on the life of a patient is to decline to reply to the questions asked without receiving a fee, or the assurance that the fee will be sent on receipt of his reply. The idea of extracting a gratuitous opinion from a professional man on the plea of his being a friend of the assurer is simply preposterous, and ought in no case to be yielded to. Let the offices arrange with the insurers about all necessary expenses, fees, etc.—with that we have nothing to do; but, the whole matter being simply a commercial transaction for the benefit of the parties engaged in it, friendship or gratuitous advice ought never to be named in the business.—I am, sir, your obedient servant, WILLIAM FULLER.

January 29th, 1881.

LISTERIAN OVARIOTOMY.

SIR,—I have read in the BRITISH MEDICAL JOURNAL with much interest, and some astonishment, the recent discussions and correspondence on ovariotomy. While one side attribute their success entirely to Listerian precautions, the other aver that their patients have been actually killed by the action of the carbolic spray; the difference of opinion is so wide, as to make it almost impossible to believe either side. As no one is a fair critic of his own success or failures, would it not be well to appoint an impartial committee to watch and report on the practice of different ovariotomists?

For myself, it has been my fortune to operate on nine cases; the first two were done some years ago, and were both fatal; they were done unantiseptically, and one of my colleagues remarked to me at the time, that such cases should be left to specialists. To this, I demurred at the time, and still do so, as I believe ovariotomy is as safe as other operations in the hands of a competent surgeon. I have attended several operations at the Samaritan Hospital, and seen Spencer Wells, Thornton, and Bantock operate; and, when the next case came under my care, I asked Mr. Thornton to come down and give me the advantage of his advice, which he very kindly did. I operated; the case did well, and made a rapid recovery; it was done strictly antiseptically. Since then, I have operated on six others antiseptically, making seven in all; six have made rapid recoveries; the only death was that of a child aged 13, with a dermoid cyst, who was so ill before operation, as to render the propriety of operating a matter of some question, and who would undoubtedly have died soon if not operated on.

My experience, then, goes entirely in favour of Listerian treatment; and I confess I should be very unwilling to operate under any other circumstances with my present experience; but, seeing the reported results of others, it seems to me highly desirable, as I stated before, that some committee, unprejudiced (if such can be found), should be appointed to watch the practice of various ovariotomists, and report on the value, the uselessness, or the objections to, Listerian precautions in ovariotomy.—Yours faithfully, OLIVER CALLEY MAURICE,

Surgeon, Royal Berkshire Hospital, Reading.

Reading, January 25th, 1881.

DR. C. D. F. PHILLIPS.

SIR,—Dr. C. D. F. Phillips, who is at present at Cannes for the benefit of his health, has requested me to write to you respecting a paragraph which appeared in the BRITISH MEDICAL JOURNAL of January 29th, implying that he had recovered from the effects of a railway accident for which he received large compensation. I regret to say that, so far from having recovered, Dr. Phillips has still complete incontinence of urine at night, and often in the day; that he is just able to swing his legs when on crutches, so as to get about a room, but is unable to stand alone; and that the left side of his chest does not expand. His general health has improved, and his mind is so active that he has been occupying himself with the subjects of his lectures on materia medica, and has expressed a hope that he may be able to give a lecture or two this summer, literally from his chair, at the Westminster Hospital. From this expectation, Dr. Ringer, Mr. Erichsen, and myself, who made a careful examination of Dr. Phillips last month, have strongly dissuaded him, and think it very undesirable that he should make any such effort in his present disabled condition.

Yours faithfully, CHRISTOPHER HEATH.

36, Cavendish Square, W., February 6th, 1881.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, February 3rd.

The Holborn Guardians and Vaccination.—Mr. P. A. TAYLOR asked the President of the Local Government Board whether he had sanctioned a resolution lately brought before the Holborn Board of Guardians under which relief would be refused to all paupers who had not been vaccinated.—Mr. DODSON: I have not given my sanction to any resolution by the Holborn Guardians under which relief would be refused to all paupers who had not been vaccinated. Nor do I believe that any such resolution has been passed by them. In view of the spread of small-pox, a recommendation was made to the guardians that the medical officer, when examining paupers on their admission to the workhouse, should ascertain whether they had been vaccinated, and, if not, that steps should be taken to induce their vaccination as early as practicable; but this is a very different thing from making vaccination a condition of relief, which would be altogether illegal.

Naval Medical Officers.—Dr. FARQUHARSON asked the Secretary for the Admiralty whether the report of the committee on the pay and position of naval medical officers would be circulated before the next examination of candidates for the medical service of the navy.—Mr. TREVELYAN: The report on the pay and position of naval medical officers will be presented to Parliament when the correspondence on some minor points in the scheme has been terminated with the Treasury. The scheme has, however, virtually been settled, and may shortly be described as follows: Ever since 1854 it has been understood that the pay and position of naval medical officers shall be seven per cent. better than the pay and position of army medical officers, in order to counterbalance the advantages of the two services. The position of army medical officers was improved by the late Government on such a scale that there is no difficulty now in obtaining suitable candidates. The scheme which I shall have the honour of laying before the committee, in moving the estimates, gives a proportional improvement to medical officers in the navy, placing them on a scale seven per cent. better than the improved scale in the army. The new scheme of pay, position, and retirement will come into force on the 1st of April next. It may be mentioned that successful candidates will receive full pay as surgeons from the moment of entering the service.

Defective Medical Measures.—Mr. BARRAN asked the President of the Board of Trade if he would sanction the use of glass measures of capacity made prior to the Act of 1879, which were defective to the extent of fifty minims or drops in twenty ounces, for veterinary purposes.—Mr. CHAMBERLAIN said the Board of Trade had no power to interfere with the verification by local authorities of glass measures;

but they were, by the assistance of the Pharmaceutical Society and the principal local authorities, preparing suggestions as to the scale of error which should be permitted. The Weights and Measures Act of 1878 provided that a measure duly stamped by an inspector under the Act should be a legal measure throughout the United Kingdom, unless found to be at fault and unjust. There had recently been a conviction in the case of a measure stamped by an inspector, but it had been quashed on appeal on the ground that the inspector was not aware that it was unjust.

Compounds resembling Butter.—Sir H. MAXWELL asked the President of the Board of Trade what steps, if any, were being taken or contemplated, in order to protect British producers from unfair competition caused by the importation from America of spurious compounds resembling and in many cases sold to and by retail dealers as butter; and whether, in view of the rapidly increasing exports of oleomargarine, suetine, soapstone, etc., from America to Holland, and the rapidly increasing exports of dairy produce by the latter country to this country, any safeguards were maintained against the importation of such spurious compounds from Holland.—Mr. CHAMBERLAIN said that that subject had been for some time past engaging the attention of the Board of Trade. A paper had been printed and circulated, which gave information as to the manufacture and the character of those compounds. It appeared from the statements of experts that, in the majority of instances, those manufactured butters were not unwholesome; and, under those circumstances, it was difficult to see how their importation could be prohibited. At the same time, it was very desirable that they should be imported under their right names. The honourable member referred in the question to cases in which those compounds were sold to and by retail dealers as butter. He could only say, if that were so, that he imagined the Adulteration Act would afford a remedy against such a practice.—Sir H. MAXWELL asked whether he was to understand that the right honourable gentleman regarded those compounds as wholesome.—Mr. CHAMBERLAIN said that he did not speak from personal experience, but merely from the reports which had been furnished to him, and printed and circulated.

OBITUARY.

GEORGE HENRY DABBS, F.R.C.S.

FLEET-SURGEON ROYAL NAVY.

MR. DABBS died at Buckland, Hants, aged 79, on Sunday, January 30th. He was in active service in the Royal Navy for over twenty years, serving in the West Indies, on the South American Station, and subsequently in the Carlist war. Afterwards, he went into the Convict Service, and served successively at Woolwich hulks and at Parkhurst, Isle of Wight. At the former convict station, he was assaulted by a convict, and deafened for life; and his deafness, on his final retirement, quite precluded him from private practice to any extent. He served at Parkhurst for fourteen years, and lived afterwards at Newport, Isle of Wight.

He was universally esteemed and beloved by rich and poor; and his personal influence over the boys in the Parkhurst Reformatory was well known at the time, and may be by some remembered even now.

GRAVESEND.—Dr. Gramshaw's report for 1879 is a very practical one, though the facts given with regard to the mortality statistics are not very minute. In the early part of the year, whooping-cough was very prevalent and fatal; but, notwithstanding this, the total number of deaths was only 382, as against an average of 449 in the last three years. This gives a death-rate of but little more than 15 per 1,000 on the estimated population. The mortality from chest-diseases (111 deaths) was unduly large; but that from diarrhœa was very small, only 5 deaths occurring during the whole year. Though progress is undoubtedly making in the town, there are a good many sanitary defects still existing there. Thus, many shallow wells are used for drinking which are sunk in a very chalky and porous soil, and are exposed to pollution of various kinds. There is no main drainage, excremental matters being left in cesspools in the chalk, which, "when dug down to a sufficient depth, are practically everlasting". It seems a favourite practice to turn old wells into receptacles for excrement—a vicious practice that must inevitably result in polluting the water-stratum. The immense quantity of London manure brought down, and landed on the canal-banks, is spoken of as a source of great annoyance and sickness. The town mortuary has been removed from an improper site near the market place; and a commodious infectious hospital has been erected on a suitable site. It is to be deplored that so few people have made use of the latter, owing to "some unfounded prejudice" against it.

HOSPITAL AND DISPENSARY MANAGEMENT.

TUNBRIDGE WELLS PROVIDENT DISPENSARY.

IN their annual report for 1880, just issued, the Committee of the Tunbridge Wells and Rusthall Provident Dispensary congratulate their fellow members, provident and honorary, on the progress of the institution which has completed its third year of increasing success and usefulness. The number of individuals for whom the benefits of the institution were available during the year was 2,051; of these there were remaining on the books 1,681. For the success of the institution the Committee acknowledge themselves indebted to those gentlemen who have attended, at stated times weekly, to receive the payments of the provident members; to the gentlemen of the medical staff, and very especially to the constant and skilful attention of the dispenser and resident secretary. The annual subscriptions have risen from £73 13s. 6d. to £101 6s., and the payments by provident members from £334 17s. 2d. to £365 19s. 1d. In consequence of this increase, the committee have been able to present to the medical staff the sum of £271 2s. 11d., as against £221 of last year.

A NEW PROVIDENT DISPENSARY.

THE *Charity Organisation Reporter* states that by the will of the late Mr. Wm. Sands Cox, of Leamington, who died on December 23, 1875, provision is made for the erection and endowment of a dispensary at Hockley, near Birmingham; and there is a special direction that "the said dispensary shall be conducted as nearly as may be in accordance with the rules relating to provident dispensaries drawn up by the Medical Committee of the Charity Organisation Society, and approved by the Council October 30th, 1871; subject to such modification as times and circumstances may render necessary." In the proposed scheme it is to be noted (1) that no limit of earnings for membership is fixed; (2) that no medical officer is allowed to be on the committee; (3) that men may be admitted *en masse* from any particular works at a reduced payment.

THE PORTSMOUTH HOSPITAL AND PROVIDENT DISPENSARIES.

FOR some time past the reports of the Portsmouth Hospital have shown a diminishing income, and an increasing demand upon the resources of the charity. After much hesitation, the committee decided to try to make the out-patient department self-supporting by turning it into a provident dispensary. To do this it was necessary to obtain the consent of the governors, and accordingly a meeting has been held to consider a report on the suggested alterations. At this meeting Dr. Cousins proposed, as an amendment to the resolution approving the adoption of the scheme drawn up by the committee, that the discussion should be adjourned for two months; and this amendment was eventually carried. We are glad that this is the case, because the committee's scheme requires modification to meet the wishes of the medical staff, and a wise solution will best be arrived at by a reference to the rules and reports of the Royal Albert Hospital, Devonport. If the committee and the staff will agree to consider a rearrangement of the present out-patient department on the plan adopted so successfully at Devonport, they will speedily come to a wise solution of a difficult question, and will secure that the out-patient Provident Dispensary at the Portsmouth Hospital is established on a sound and lasting basis. We congratulate the committee of the Portsmouth Hospital on the wisdom they have displayed in deciding to turn the out-patient department into a provident dispensary. There is reason to hope that before many years are over, the example thus set will be followed by hospital managers in provincial towns throughout the country.

HOSPITAL REFORM IN LONDON.

ACCORDING to the *Charity Organisation Reporter*, the West London Committee of the Hospital Saturday Fund have agreed to ask the Home Secretary to appoint a Royal Commission to inquire into:—1. The existing hospital accommodation of London. 2. Its revenues from all sources, and its expenditure. 3. What improvements experience may suggest as practicable in association with the present Poor-law administration or a new central authority. 4. The welding of the whole hospital accommodation of London into one great administrative system, adequate to the possible wants of a population as large again as that in our midst, so that the deficiencies of to-day and the necessary development may be adequately controlled and maintained in the future.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE CASE OF MR. EATON OF GRANTHAM.

We are pleased to note that our contemporary the *Grantham Journal*, in its issue of the 22nd ult., publishes an ably reasoned and argumentative letter on the case of Mr. Eaton, who having, as we stated in our issue of the 8th ult., acted as medical attendant on some scarlet fever cases at the instance of the urban sanitary authority, was meanly refused payment, advantage having been taken of a legal quibble to get his services at the price which this precious body chose to set upon them. As we then stated, Mr. Eaton was induced to try his chances in a court of law, and was defeated, not on the equity of the case, but by one of those legal hair-splittings for which our courts are so distinguished, and in which hair-splitting Mr. Justice Stephen, before whom the cause came on, is so admirable a proficient. In the letter we find instances given of tradesmen who were paid their charges for putting up the tents, etc., for the reception of the sick treated by Mr. Eaton; and yet no difficulty was made as to their payment, though the very same technical legal quibble could have been raised if the corporation had been minded to do so.

OUTBREAK OF SCARLET FEVER AT HALIFAX.

Dr. Ainley, the Medical Officer of Health for Halifax, has presented to his authority his report on the recent outbreak of scarlet fever in that town. It appears that on the first three days of January, upwards of fifty cases of scarlet fever or sore-throat commenced simultaneously in a certain part of the town; the entire number reported being 319, 58 of these being simply sore throat. The number of deaths registered is 33.

So many cases commencing together, in quite a small cluster of houses, pointed to one common cause. Dr. Ainley, therefore, directed his investigation to the probable influences in such a case; the air, the drains, the water, and the milk. He came to the conclusion that neither of the three first mentioned factors had anything to do with the outbreak, and he therefore turned his attention to the milk supply. He was informed that the son of the farmer who supplied the milk to many of the persons attacked with scarlet fever, was ill at his father's farm with what was stated to be quinsy. Further inquiries revealed that the farmer's man who milked the cows and brought the milk to the customers in Halifax during the illness of the usual distributor, the farmer's son, had four children ill with scarlet fever; milked all his master's cows night and morning, brought the milk to the town several evenings a week, and after the Saturday that the milkman was taken ill, brought all the milk to the town both night and morning. Having a wife and six children, one being a baby, the mother could not attend to all her household duties and nurse the sick beside, the probability is, that this man himself would do what nursing he could; and, not only so, he would also put his clothes on the bed at night for extra covering, which is an almost invariable rule in persons of his class. Straight from this fever house, person and clothing alike infected, he went to milk the cows, and to do what was required to prepare the milk for being sent to the town, he himself also frequently distributing it. As a great number of these cases commenced within three days, the time when this man's children were attacked, it has been alleged that the latter could not have caused the former. Dr. Ainley, however, says that this objection can have no weight to those who understand the disease. Sir Thomas Watson, in his *Principles and Practice of Physic*, fourth edition, page 907, says: "The contagion of scarlet fever is active, but uncertain; it is not so strong, nor so uniform in its operation, as that of small-pox; but it seems to be peculiarly subtle and tenacious. It lurks about an apartment, or clings to furniture and clothes, for a very long time, even after some care has been taken to purify them". But the activity of the poison seems to depend very much upon the medium which conveys it. Just as water is an unknown carrier, so milk is a common carrier of the poison; and because it is milk, increases the life and energy of its passenger. An example of this occurred at Fallowfield, near Manchester, in August of 1879, when a similar outbreak took place, and many of those attacked commenced within 24 hours of the time they had drunk the infected milk. He goes on to state that some of his own cases have commenced within six hours of having partaken of the milk. The poison germs having found a suitable element in which to develope, were maturing ere they entered the living organism to carry on and complete their deadly cycle. This idea is borne out by Dr. Lionel Beale, in his work, *The Microscope in Medicine*, last edition, page 319, where he says: "The contagious bioplast is a living particle of extreme minuteness, in most cases less than the one-hundred thousandth of an inch in diameter. It is invariably colourless, and often so clear and structureless that it is only with difficulty discovered in the fluid medium in which it is suspended. Such a particle may be easily transferred from an infected to an uninfected organism. It may be carried a long distance from its source of origin without losing its vitality, and even after having passed through different media, and after having been exposed to considerable changes of temperature, it may excite in the invaded organism a series of changes, resembling, even in very minute particulars, the phenomena which characterised its presence in the organism from which it was immediately derived. Nay, some contagious bioplasts will grow and multiply in certain animal fluids—milk, for example—and thus the particles may increase in number out of the body. This will suffice to show that while milk, when pure, is the most important aliment we have, yet it is the most dangerous when polluted."

Very comprehensive and stringent measures were taken to arrest the progress of the disease, with successful results. Dr. Ainley points out in conclusion, that there is no article of general consumption so dangerous to the health and lives of the people as milk. Even when sewage contamination in water has produced typhoid fever, it has often been through the milk. How essential and imperative, then, he remarks, is the thorough inspection of the production, distribution, or storage of milk. The Dairies, Cow-sheds, and Milk-shop orders of July, 1879 was issued to prevent as far as possible such a calamity as we are now deploring; but, practically, it is a dead letter. He strongly advises the prompt application of every clause of that order, under personal supervision.

SCHOOL-BOARDS AND ABSENCE OF CHILDREN THROUGH SICKNESS.

Sir,—In your remarks, in the Journal of January 22nd, on this subject, you very properly regret that there is no machinery at present in general operation to prevent false statements by negligent parents, or to protect them against fines in cases of real illness. I am glad to be able to inform you that, in this city at all events, two medical men have been appointed by the Liverpool School-Board, about two years ago, for their day industrial schools, to whom the superintendents apply for advice in the event of cases of sickness arising at the school, and who also investigate and report in cases where illness is pleaded as an excuse for the absence of children.—I am, yours truly,

A Member, British Medical Association.

Liverpool, January 23rd, 1881.

INFANTILE SUMMER DIARRHŒA.

Sir,—Having learned that the President of the Local Government Board has detached from his staff a medical officer to proceed to Leicester to, among other things, study the cause of infantile summer diarrhœa, the ravages of which in that town have of late excited general observation and regret, I beg permission to make a few observations on the object of that appointment, and on the results that are likely to flow from it. I am deeply interested in everything connected with infantile diarrhœa, the cause and origin of which I have had the opportunity of studying for more than forty years, under circumstances the most favourable for discovering them; and any step taken that can in any degree embarrass its true comprehension awakens in me, for the sake of my profession and of the helpless sufferers, much anxiety and regret.

That this appointment will cause such embarrassment, I have no doubt whatever; and thus will be thrown back for an indefinite period the true understanding of this malady. For the report which must follow, coming from so high and trusted an authority, will naturally attract attention, confidence, and adoption; yet it may safely be said that, for fully half a century, this disease has been studied by hundreds—nay, thousands—of the quickest and clearest, as well as the slowest and most reflective, intellects in these kingdoms, and entirely without success. No new discovery in pathology, therapeutics, or physics, has been made to apply to this investigation; and, therefore, any report must be made up of the single reliable fact that heat is perhaps a cause, hesitatingly adopted for the last four or five years in the Registrar-General's annual returns; and the rest of, probably, ingenious inferences drawn from our present unstable and untrustworthy theorising. That any new cause should be discovered applicable to all cities, all countries, and all classes of society by their assistance, is out of the question.

Permit me, therefore, to bring to your notice the only means by which we can satisfactorily and conclusively solve this problem. Summer infantile diarrhœa exists in every inhabited spot upon the earth; it is absolutely one and the same disease; but its cause and origin can be studied under circumstances so infinitely more favourable in one region—more correctly, latitude—than in another, that a comparison cannot be made between them. An example of the last is Great Britain. Of the first, let us take our Australian colonies. These (except Queensland) are situated in the warm half of the temperate zone, which possesses the quality of extraordinary salubrity; and is so remarkably free from infantile diseases in general, and diarrhœa in particular, that, with the exception of one short period, viz., from the middle of December to the middle of March, it might be roughly said that none existed. But this period is so fatal, that it, in 1857, induced the Registrar-General, Mr. Archer, who stated that 62 per cent. of the births perished, to call the attention of the medical profession to the fact. The vital statistics having been procured from the several colonies, the following were the numbers of deaths.* Of teething, 1 in winter, 21 in summer; debility, 17 in

* "On the Mortality of Children in Victoria", read before the Royal Medical Society, and published in the *Victorian Medical Journal* for April 1858.

winter, 20 in summer; diarrhœa, 1 in winter, 31 in summer; dysentery, 1 in winter, 26 in summer; hydrocephalus, 5 in winter, 6 in summer: convulsions, 6 in winter, 22 in summer; total, 31 in winter, 129 in summer. But these figures, striking as they are, display not the whole truth, as they only represent December and January 1857; while, if the following six weeks were added, the contrast would have been still more surprising. The conclusion, then, from these figures is irrefragable, viz., that heat alone is the cause of infantile diarrhœa and dysentery. For, if the four colonies show a death-rate of 2 in ten months of mild weather, and of 57 in the first two of the three hotter months of summer, the fact is conclusive. The science of geographical medicine, from which this is only a scintilla, is yet unknown in these countries and in Europe; and the sooner that those whose business it is to search for the origin of those great branches into which disease is divided, and which are so remarkably altered by climate, the sooner they will begin to understand the cause of their peculiar forms; and among these will be that of infantile summber diarrhœa.—I have the honour to be, sir, your obedient servant,

J. Wm. Mackenna, M.D.

31, Great Marlborough Street, W.

THE ADMINISTRATION OF FEVER HOSPITALS.

It is to be feared that the inquiry upon which Dr. Thorne Thorne is now engaged for the Local Government Board into the infectious hospitals of the kingdom will bring to light many instances of loose and imperfect administration. It is but a short time since bitter complaints were made of the fever hospital at Hull; and we now receive complaints of the state of the affairs existing at the Sunderland House of Recovery. On December 25th last (vol. ii, 1880, page 1024), we offered some criticisms upon the building itself; and it seems that its administration is as defective as its structure. A medical correspondent from Sunderland describes the management as a farce, and thinks that the woman who is kept there to do everything is a most improper person to have entire charge of a fever hospital. In support of this, he instances a case where he sent a mother and three children into the hospital on a particular Sunday. The eldest child, a boy of nearly four years of age, became very ill between Monday and Tuesday morning, when the nurse was ordered to see that he had beef-tea and brandy frequently. At 10 P.M., the child's mother came to say that her child had not had any beef-tea or brandy given to him. Directions were given her to request the nurse to get what had been ordered at once. The next morning the child was dead. When our informant saw the nurse, he expostulated with her for not giving the beef-tea and brandy as ordered, to which she replied: "Well, it wouldn't have made any difference, would it?" To the answer: "They were ordered with the hope of saving the child's life", she repeated what she said before in a very heartless sort of way. Our correspondent very properly expresses his surprise that, although he has reported this conduct of the nurse to several members of the sanitary committee, no inquiry has been made into the matter. It is difficult to understand the reasons for such neglect on the part of those charged with the sanitary welfare of the borough; and it is to be hoped that the town council will at once see fit to order an investigation of the circumstances described, and take measures for insuring the proper management of the hospital for which they are responsible.

SEWAGE-FARMS.

Sir,—I live in the neighbourhood of a sewage-farm. The sewer-filters are situated on the roadside, about two hundred yards distant from a village largely populated, covered over with loose planks. There is a man constantly employed in carrying away the refuse, and is there from early morning until night. I have to go that way daily, and sometimes the stench is so great, that really it is a hardship to pass them. This man has been employed in cleaning these filters for years, and is, and always has been, in perfect health. Can any of your numerous readers inform me how this man escapes from typhoid or other zymotic fevers, considering the fact that all text-books on medicine put down that the stench arising from sewage matter is the main cause of typhoid fever, and other forms of blood-poisoning? I may also add that this sewage-farm is periodically flooded. Would this not be very detrimental to public health? This neighbourhood is very healthy, and perfectly free from typhoid and other diseases said to arise from sewage contamination. I have been speaking to several medical men residing in the neighbourhood upon this subject. They all tell me that typhoid fever is the exception here, and not the rule.—I am, etc.,

I. H. J.

* I. H. J.'s letter is one of the many proofs which constantly come before us of the errors which are committed by local authorities, as well as individuals, in calling things by wrong names. A sewage-farm, properly so called, is one thing; that described by I. H. J. is another thing altogether. A sewage-farm should have the sewage delivered upon it in a fresh state, and fresh sewage does not stink. The stench described by our correspondent indicates either that the works are wrongly constructed, or else that the local authority neglects its duty, and allows of an accumulation which ought not to be. There are several points in I. H. J.'s letter which may be considered, independently of the local authority's neglect. It should be borne in mind that the foci of enthetic disease must in most instances be derived from preceding cases; that these foci will not operate upon other people unless these people are fitted to receive them; that the foci retain their infective power only so long as they are kept within certain physical states (we use the term foci so as to avoid the germ-theory controversy). These physical states are altogether destroyed by the agency of putrefaction. It has been shown very clearly by several observers that infective matters lose their specific form of infection as soon as putrefaction is fully established; that, although putrefying matters are injurious in their own way, they do not act as specific foci. They have actions peculiar to themselves, but are not excitants of typhus, or febrile, or typhoid fever, or small-pox. The inference which I. H. J. may draw, therefore, from the experience which his case affords is, that the physical condition to which his sewerman is exposed, are opposed to the continued production of enthetic disease. Putrefaction destroys the specific germ of each particular disease. It is probable that the infective power of excreta is not potent until change has commenced in its physical state. Here is the point which exists in and upon sewage farms. Fresh sewage, when at once applied to the land, is distributed to get into its first stage of decomposition, and, as a rule, the infective stage is not reached; but sewage, when properly applied to land, is carried on to its second stage of decomposition, but the changes induced are in the putrefactive direction; and, when putrefaction is established, the infective stage has passed away. The experience of I. H. J. as regards the absence of enthetic disease in [illegible] well-managed sewage farms, is now an acknowledged fact; but even so it is not likely to find many advocates until a class of men have been educated who know what sewage-farming is, and who can make it answer from an agricultural point of view. The present managers of sewage-farms are, in the majority of instances, ignorant of all those principles which are required for their proper care. The management of a sewage-farm requires scientific knowledge, agricultural education, and a good share of common sense. Most of the committees which now manage sewage-farms consist of men who excel in a belief of their own self-importance, but have none of the requisites for successfully carrying on a sewage-farm; hence the muddles which exist all over the country in regard to this very important use of sewage; and, until its principles are properly understood, it is not likely to be successful.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, February 3rd, 1881.

Dunlop, James Hay, Upper Norwood, S.E.
Gabe, John Bernard, Morriston, near Swansea.

The following gentleman also on the same day passed the Primary Professional Examination.

Cranstone, William Lefevre, University College.

The name of Charles Henry Wakeham was omitted from the list of candidates who passed the Arts Examination in the second class on the 21st and 22nd January last.

Royal Colleges of Physicians and Surgeons of Edinburgh: Double Qualification.—The following gentlemen passed their first professional examination during the February sittings of the examiners.

Hugh Tilsley Massey, Surrey; Alexander Moulsdale Eason, Lancashire; William Edgar Ryves, India; William Henry Clarke, Longsight; William Bird, Yorkshire; William Henry Fretz, Colombo, Ceylon; Frederick Herbert Perry, Waddington; John Philip Sullivan, Dublin; Denis Scully, Tipperary; William Bedford Silverwood, Shelley, near Huddersfield; William Flood, County Cavan; Gerald Barry Wilson, Dungvarney Rectory; William Pennefather Warren, Cork; Cornelius Joseph O'Brien, Cork; Henry Frederic Horne, India; William George Loveridge, County Louth; Joseph Hysanth Tynan, County Longford; Arthur Ernest Marsack, Bucks; Henry James Edwards, Windermere; Arthur Clarke Walker, Liverpool; William James Browne, County Derry; John Henry Whitham, Cambridgeshire; James Watson, Holywoods, Down; Campbell Tulloch Dewar, Jamaica; James Addington Caldwells, Bucks; Thomas Houghton Mitchell, Limerick; Frank Oldfield, London; George William O'Flaherty, County Galway; James Henry Ferguson, Bolton; Robert Dickie Bradford, Carnbeg; George Savage Martin Baxter, Brighton.

The foliowing gentlemen passed their final examination, and were admitted L.R.C.P.Edinburgh and L.R.C.S.Edinburgh.

William Patrick Connolly, Limerick; Arthur Crosbie Divey, London; William Edgar Ryves, India; William Lloyd Reade, Portarlingtan; Roland Philip Williams, Holyhead; William Oscar Prosser, Lunnenburg, Ont.; John Keay, Manchester; Herbert Linney Hawksley, Buxton; Hugh Tilsley Massey, Surrey; Alexander Moulsdale Eason, Liverpool; James Charles McKee, County Down; Thomas Wallace, County Limerick; Timothy Warren Irwin, County Cork.

Royal College of Surgeons of Edinburgh.—The following gentlemen passed their final examination, and were admitted Licentiates of the College on January 28th.

Edmund Alleyne Cook, London; Thomas Sayer, Kirkby Stephen; Adam Prentice Tudhope, Coatbridge; Simson Stuart, County Mayo; John Andrew Fehrsen, South Africa; Channing Neill, Belfast.

The following gentlemen passed their first professional examination for the Licence in Dental Surgery of the College.

Ernest Burt, Weymouth; Joseph Miller, London; William John Watson, Birmingham; Harry Thorn, London; Frank Harrison, Sheffield.

The following gentlemen passed their final examination, and were admitted Licentiates in Dental Surgery.

William Herbert Williamson, Leicester; William John Watson, Birmingham; Joseph Miller, London; Harry Thorn, London.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

The following vacancies are announced:—

BRIGHTON AND HOVE LYING-IN INSTITUTION.—A fourth Honorary Surgeon. Applications, with testimonials and copies of registration, to the Secretary, by the 1st of March.

CARLOW UNION.—Medical Officer for Baltinaslee and Newtown Dispensary District. Salary, £100 per annum, with £30 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 16th February.

CENTRAL LONDON SICK ASYLUM DISTRICT.—Assistant Medical Officer for Asylum at Highgate. Salary, £100 per annum, with board and residence. Applications, with not more than four recent testimonials, to William Appleton, Clerk to the Managers, not later than Monday, February 14th.

DURHAM UNION.—Medical Officer. Applications, with testimonials, diplomas, certificates, [illegible] and [illegible] instruments testifying to qualifications, to be sent on or before February 16th.

*ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, Ventnor, Isle of Wight.—Resident Medical Officer. Salary, £100 per annum, with board and residence. Applications, with testimonials, to the Secretary, 12, Pall Mall, London, S.W., on or before Monday, February 14th.

*ROYAL SOUTHERN HOSPITAL, Liverpool.—Junior House-Surgeon. Salary, 60 guineas per annum, with board and lodging at Hospital. Applications, with testimonials, to A. Garrett, Esq., Treasurer, at the Hospital, on or before the 16th February.

*ST. BARTHOLOMEW'S HOSPITAL—Assistant Surgeon. Candidates must attend a Committee of Governors on Thursday, February 24th. All applications to be left, on or before Tuesday, the 22nd inst., with William Henry Cross, Clerk.

MEDICAL APPOINTMENTS.

BEALE, E. C., M.A., M.B., M.R.C.P., appointed Physician to the Out-patients at the Great Northern Hospital, *vice* J. A. Ormerod, M.B., resigned.

CARTER, D'Arcy B., M.R.C.S.Eng., L.R.C.P.Ed., appointed House-Surgeon to the Clayton Hospital and Wakefield General Dispensary.

CROWE, J. W., M.D., appointed Assistant Physician to the Worcester Infirmary, and Certifying Surgeon to the Worcester Factories.

DAVIES-COLLEY, J. Neville C., M.A., M.B., M.C., appointed Surgeon to Guy's Hospital, *vice* J. Cooper Forster, M.B., F.R.C.S., resigned.

DOWDING, Alexander W. Woodman, M.B., M.S., L.R.C.P., appointed a Clinical Assistant at the London Hospital.

FAGGE, C. Hilton, M.D., F.R.C.P., appointed Physician to Guy's Hospital, *vice* S. O. HABERSHON, M.D., F.R.C.P., resigned.

GRAY, J. Allan, M.A., M.D., M.R.C.P.Ed., has been appointed a Visiting Medical Officer to the Leith Hospital, *vice* R. Macnair, M.D., resigned.

JAMES, Charles E., A.B., M.B., appointed second Surgeon to the Kilkenny County Infirmary, *vice* L. C. Kinchela, A.B., M.D., resigned.

POUND, F. J., M.R.C.S., appointed House-Surgeon to the Royal Hants County Hospital, *vice* Leedham Fuller, M.R.C.S.Eng., resigned.

ROUÉ, W. Barrett, M.B., M.S., appointed Physician to the Bristol Hospital for Sick Children and Women, *vice* Alexander Steven, M.D., resigned.

POOR-LAW MEDICAL APPOINTMENTS.

*ABBOTT, C. E., M.R.C.S.E., appointed Medical Officer of Health to the Braintree Union Rural Sanitary Authority, at £150 per annum for three years.

BLANDFORD, I. W., M.R.C.S.E., appointed Surgeon to Stockton Union, Norton District, *vice* J. R. Murray, resigned.

ILLINGWORTH, C. R., M.B., appointed Medical Officer to the Rishton District, Blackburn Union.

PHILLIPS, J. D., L.F.P.S.G., appointed Surgeon to the Hoxne Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

WOODS.—February 2nd, at Killarney Asylum, the wife of Oscar T. Woods, M.D., Medical Superintendent, of a daughter.

MARRIAGES.

HARINGTON—PHILSON.—On the 8th inst., at Christ Church, Cheltenham, by the Rev. C. C. Dolben, Rector of Ipsley, and Rural Dean, assisted by the Rev. C. May, Curate of Christ Church, Hastings Norman Victor Harington, I.M.S., son of the late Rev. H. H. Harington, H.E.I.C.S., to Anna Mary (Minnie), youngest daughter of W. Philson, M.D., of Sherborne Lodge, Cheltenham.

NEALE—CARSTENS.—On December 29th, 1880, at St. Andrew's, Port Nolloth, Namaqualand, by the Rev. C. E. Jones, John Edward Neale, Surgeon, eldest son of Dr. Richard Neale, of South Hampstead, London, N.W., to Ellen Marie, second daughter of Captain R. Carstens, of Port Nolloth. No cards.—Foreign papers please copy.

SANDWELL—LLOYD.—On Feb. 9th, at the Parish Church, Thurles, co. Tipperary, by the Rev. Canon Harley, M.A., assisted by the Rev. C. S. Cooke, Rector, Edward Sandwell, L.R.C.P., M.R.C.S.Eng., of Charles Street, Soho Square, W., to Eliza, second daughter of C. H. Lloyd, Esq., J.P., of Lisheen Castle, Templemore, co. Tipperary, Ireland. No cards.

DEATHS.

AITCHISON.—On the 3rd inst., at 8, George Square, Edinburgh, George Aitchison, M.A., M.D., F.R.C.P.E.

CAHILL.—On the 6th inst., at 26, Albert Gate, Hyde Park, after a protracted illness, Thomas Cahill, M.D. R. I. P.

SUPERANNUATIONS. — Mr. James Edward Mitchell Williams, M.R.C.S.Eng., late Medical Officer for the Whitstable District of the Blean Union, has obtained a superannuation allowance of £50 *per annum;* and Mr. Edward Bates, Ext.L.R.C.P.Lond., late Medical Officer for the Bonvilstone District of the Cardiff Union, one of £30 *per annum.*

PRESENTATION.—A deputation from the Munster Lodge of Oddfellows Society waited on Dr. Cremen of Cork last week, at his residence, and presented him with an address of congratulation on his recovery from a recent illness, and thanking him for the services he had rendered to the members of the Society in his professional capacity as medical attendant of some of the Lodges. His wife was also presented with a handsome walnut cabinet case, a richly chased set of silver dessert knives and forks, and fruit spoons, and a patent biscuitaire.

PUBLIC HEALTH.—The annual rate of mortality last week in twenty of the largest English towns averaged 28.0 per 1,000 of their aggregate population. The rates of mortality in the several towns, ranged in order from the lowest, were as follow: Newcastle-on-Tyne 20, Leicester 21, Sheffield 22, Bradford 23, Portsmouth 24, Birmingham 25, London 27, Nottingham 27, Hull 27, Salford 27, Plymouth 28, Wolverhampton 28, Leeds 28, Brighton 30, Sunderland 30, Bristol 30, Norwich 30, Oldham 33, Liverpool 36, and Manchester 37. Scarlet fever showed the largest proportional fatality in Norwich, Sunderland, and Oldham; and whooping-cough in Leeds and Liverpool. Of the 20 deaths referred to diphtheria in the twenty towns, 12 occurred in London, 3 in Bradford, 2 in Liverpool, and 2 in Birmingham. The death-rate from fever (principally enteric) was highest in Nottingham and Sunderland. Small-pox caused 58 more deaths in London and its suburban districts, but not one in any of the nineteen large provincial towns. In London, 1,926 deaths were registered, which exceeded the average by 43, and gave an annual death-rate of 27.1. The 1,926 deaths included 54 from small-pox, 39 from measles, 38 from scarlet fever, 12 from diphtheria, 39 from whooping-cough, 8 from enteric fever, one from an ill-defined form of continued fever, 16 from diarrhœa, one from dysentery; thus, 208 deaths were referred to these diseases, being 47 below the average. The deaths referred to diseases of the respiratory organs, which had been 371, 617, and 702 in the three preceding weeks, declined last week, under the influence of mild weather, to 606, but exceeded the average by 52; 417 were attributed to bronchitis, and 120 to pneumonia. Different forms of violence caused 79 deaths; 68 were the result of negligence or accident, including 21 from fractures and contusions, 14 from burns and scalds, 4 from drowning, and 17 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 42.8°, and 2.3° above the average. The general direction of the wind was S.W., and the horizontal movement of the air averaged 13.0 miles per hour, which was 1.1 below the average. Rain fell on each day of the week, to the aggregate amount of 0.22 of an inch. The duration of registered bright sunshine in the week was equal to 10 per cent. of its possible duration. The recorded amount of ozone showed a considerable excess throughout the week, except on Tuesday.

LONDON INTERNATIONAL MEDICAL AND SANITARY EXHIBITION.—The regulations for this exhibition, which is to be held by the Parkes Museum of Hygiene, at South Kensington, from July 16th to August 13th this year, were finally decided upon at a meeting of the committee on February 9th; and the full prospectus, with forms of application for space, will be ready for issue this week. The charge for floor space is to be one pound per foot frontage, with an average depth of six feet; wall space, from 5s. to 10s. per square yard. All applications for space must include a description in writing of the articles proposed to be exhibited, and the space allotted is to be strictly for the exhibition of articles specified. For machinery in motion, exhibitors will have to provide gas engines. Certificates of merit will be awarded, and the list of awards will be published in the annual report of the Parkes Museum of Hygiene. New inventions will be protected, as the privileges of the Protection of Inventions Act of 1870, will be extended to the exhibition. The work of organisation will be carried on at the Parkes Museum, and for this purpose the Library of the Museum will be open daily from 10 to 4; Saturdays, 10 to 2.

A FOREIGN BODY DISLODGED AFTER EIGHT YEARS.—In 1876, Dr. Singletary, of Arlington, Kentucky (*Louisville Medical News* and *New York Medical Record*), was called to see a girl, aged seven, and found her suffering from broncho-pneumonia. About four years previously, while playing with a nickel cent, she swallowed it, and since that time had been a sufferer. Previously healthy and robust, after the accident she became delicate, had constant dyspnœa, and passed through several attacks of pneumonia. She ate very slowly and with great care, for she could not swallow any solid food. It was always necessary for her to have some fluid when she ate, that her food might be washed down. During the first year her throat was sore, and she vomited often, but with great difficulty. In April 1880 she vomited about "half a gallon of pus," intermixed with "blood and corruption." This was just eight years, two months, and one day from the time of the accident. Twelve days later she passed the cent *per anum*. It was quite black and corroded, but still presented all the features plainly. It weighed eight grains less than an ordinary nickel cent., and as it was probably new when swallowed, it may have lost even more than eight grains. The girl is now well, hearty, robust, and playful; talking, eating, running, etc., just as other children. Dr. Singletary was unable to find a parallel case in the published records at his command.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th. 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. Gilbert Smith will exhibit a specimen of Stricture of the Œsophagus due to Malignant Disease. Mr. Rivers Bell will show a Case of Atrophy of Testicle following a Blow. Mr. J. C. Wordsworth. Defects of sight said to be due to Railway Accidents. Dr. J. Milner Fothergill: The Prospects of Cases of Valvular Disease of the Heart.

TUESDAY.—Pathological Society of London, 8.30 P.M. Mr. Croft: Series of Specimens of Tubercular Disease of Joints. Mr. Mahon: Specimens of Synovial Tuberculosis. Dr. Andrew Clark: Abscess of the Liver. Mr. Barwell: Congenital Luxation of Forearm; Unilateral Hypertrophy of Head and Face. Dr. Whitehead: Tumour of Spinal Cord. Mr. C. Moulton: Degeneration of the Breast. Mr. Mortimer: Sacral Tumour containing Fœtal Structures. Mr. Shattock: Congenital Sacral Tumour (Cases). Dr. Pye-Smith: Cystic Disease of Kidneys and Liver.

WEDNESDAY.—Association of Surgeons practising Dental Surgery, 7.45 P.M.; Council, 8.30 P.M.: Brief Address from Mr. T. Pridgin Teale (President); and casual communications.—Meteorological Society, 7 P.M. Mr. C. Greaves, Relative Humidity; Mr. W. Marriott, The Frost of January 1881 over the British Isles.

THURSDAY. Harveian Society of London, 8.30 P.M. Dr. Woakes, Cases of Laryngeal Disease; Dr. Cheadle, The Treatment of Empyema.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE SURGICAL AID SOCIETY.

SIR,—You have fallen into a very pardonable error with regard to Mr. Simpson's communication to the Charity Organisation Society, to which you refer in an editorial note, page 91 of the number of the JOURNAL for November 27th. The committee to which Mr. Simpson referred is one formed quite outside the Managing Committee of the Surgical Aid Society; and the object it has in view is that of bringing about a reform of the abuses that hang around the system of relief to which the committee tenaciously clings, and which is in the highest degree prejudicial, morally as well as physically, to the afflicted poor, for whose benefit the Society was established and now exists. The Reform Committee have, on several occasions, approached the Surgical Aid Committee for the purpose of pointing out that the system adopted by them, of compelling maimed patients to knock at the doors of strangers (subscribers), and solicit tickets, is in every way detrimental to the self-respect of those who are merely sufferers, and not mendicants.

In extenuation, the committee merely reply that they are afraid to make a change, lest the funds of the Society should suffer. It is, however, an obvious fallacy to suppose that such a mode of administering relief, in the case of those patients suffering the severest forms of injury or illness, can ultimately be for the pecuniary interests of any institution; and, for one whom it attracts, it must repel a dozen or more; and those who are repelled are the most generous givers, who love charity for its own sake; whilst those who are attracted are the selfish, who contribute only what is necessary for their own power and self-importance. There may be some persons of such degraded tastes as to regard their subscriptions to charities in the light of valuable patronage, but I cannot believe it applies to the majority.

It is the practice of the Surgical Aid Society to sell a list of their subscribers to the poor applicant for an appliance. This is accompanied by a suggestion to make a round of London to beg for tickets, but no information is afforded as to whose letters are still available; the consequence is, that an annoying and indiscriminate canvass of all the subscribers is the result. The first letter obtained merely places the patient in communication with the surgeon of the Society, who certifies that a certain instrument is required. The secretary then writes across the letter, that so many letters—necessarily varying according to the cost of the appliance—are needed; and, at the same time, intimates to the patient that, should the requisite number not have been obtained within a certain date, application may be made to him. In a number of cases, which have fallen under my own observation, the patients, after having expended days in a most fatiguing canvass, have failed to obtain the ten, fifteen, or twenty letters, and have consequently lost all hope of the much needed appliance; or the relief has come, alas! too late. The necessity for a wasting and fatiguing canvass, painful and degrading even to a person in fair bodily health (and the opposite of all that is most required for a surgical patient), is, therefore, entailed by the ordinary practice of the Surgical Aid Committee. Now, all that a large body of the subscribers ask of the managers is, to assimilate the practice of the Society, in dealing with applicants for relief, to that of hospitals generally; and, in particular, to that of the branch of the Hospital Sunday Fund, where, as soon as the committee is satisfied as to the patient's necessity, relief is at once prompt and immediate.

I much regret to say that the Reform Committee have, after months and years of perseverance, not succeeded in convincing the Managing Committee of the wrong their system is inflicting on the poor and suffering recipients of the charity. The appeals made have been rejected as traitorous, and even assailed as at the annual meeting on Friday last, with the coarsest invectives, and no one have been assigned which I should not like to repeat. I enclose the last appeal sent forth by the Reform Committee, that you may judge of the mild argumentative nature of its contents. You will observe that it concludes with a modified form of alternative scheme for improving the system of relief.

In a former appeal to the President and Committee of the Surgical Aid Society, it was suggested that every subscriber's letter of recommendation should entitle the patient, when certified by the surgeon of the institution approved by a competent committee to the appliance sent, to a free grant of relief in his case. If it was argued, every letter were to represent ten instead of six, as at present, then each subscriber of half a guinea would receive five letters in place of two; and, inasmuch as, according to the report for 1879, 4,553 appliances were granted in the course of the year, at a cost of £3,000 for the average price of each, and taking into account the payments made on part of which [illegible] in the year to £3,[illegible]; and that the [illegible] would [illegible] some of whom, at least, would not require letters of recommendation, it seems clear that the present income of the Society is sufficient to supply the appliance at once, and without inflicting a cruel injustice, on the unrestricted of a single letter of recommendation.

I may add that the above scheme of the Reform Committee has already received the cordial approval of [illegible] subscribers of the Society, amongst whom may be enumerated the Duke of Rutland and the Earl of Shaftesbury, Sir Sidney Waterlow, Mr. Mowatt, Mr. Medley, Dr. A. Carpenter, Lady Pembroke, Lady Charteris, and a host of influential ladies and gentlemen; and it is proposed to ask for a special meeting of the subscribers, to consider and settle the vexed question, at an early date. I remain, your most obedient servant,

JAMES HOGG.

1, Bedford Square, December 6th, 1880.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

FOWL-CHOLERA.

SIR,—I have been much interested in the remarks published in the BRITISH MEDICAL JOURNAL of September 4th, 1880, on Fowl-Cholera, having, as I believe, had practical experience during the past year of its ravages in the poultry-yard. I was particularly interested in the account of M. Toussaint's discoveries, as it was the first I had met with which gave what could be called a scientific description of the disease. I should feel very much obliged if any of your readers who understand the subject could give me some further information.

In the first place, Am I right in supposing, as I do from the descriptions, that *cholera des poules*, or "fowl-cholera", is the "roup" of all poultry books? I have never seen the name *cholera des poules*, or its English equivalent, except once in a newspaper account of M. Pasteur's experiments in your JOURNAL. The symptoms of roup are given as, "Appearance of severe cold; obstruction of respiratory organs; a clogging slimy fluid hanging about mouth and throat, causing a gurgling and wheezing noise; fœtid discharge from, or clogging and stopping of, nostrils; discharge from and swelling of eyelids and head; feathers staring and standing ruffled at lower part of back"; with more or less purple comb; it is infectious. I do not find any other disease of fowls which is either spoken of as infectious, or seems to have any resemblance to fowl-cholera.

Has any cure or curative treatment been found for fowl-cholera? Is sulphate of iron, which forms part of several reputed remedies for "roup", likely to have any really curative or beneficial power over the disease, supposing it to be identical with fowl-cholera? Can the disease, under any circumstances, be communicated to human beings? I suppose there is no doubt that a fowl suffering from it would not be a wholesome article of food; and also that eggs laid during the illness had better be thrown away. (This I should like to be assured of.) But is there any possibility of harm to persons attending to or going near the birds? And in the case of a fowl recovering, would it be possible that any injurious effects upon it should remain so as to render it or its eggs still unfit for food? Further, how should one judge whether it had really recovered? If there were no appearance of any swelling about the head or discharge from the nostrils; if the comb were red and healthy, and the breath sweet, with no rattles in the throat; would it be safe then to conclude that all danger was over? These questions are important, as they very greatly affect the practical one, how far any attempt at cure is safe and justifiable, or worth making. I have never seen it hinted that "roup" could be "given" to human beings; but M. Pasteur's discovery that the bacterium of fowl-cholera could be cultivated in other media besides chicken-broth, makes this a matter which should, I think, be fully inquired into as soon as possible. It is a curious fact that has come under my own observation, that pigeons can mix and feed with the diseased fowls with apparent impunity; but a peacock, under similar circumstances, took the disease violently, and died. Does it only affect true gallinaceous birds?

Are fowls subject to common colds distinct from roup, or fowl-cholera, or whatever it should be called? Some writers speak of roup as a neglected cold; but this seems inconsistent with M. Toussaint's theory, if he be speaking of the same disease. If roup be distinct to the same extent that measles is distinct from an ordinary cold, though with many of the same symptoms; and if it be thus possible that in the poultry-yard, of two fowls that seem ill, one may be sickening with roup, while the other is merely suffering from a chill, how is the difference to be known, and the vexing accident avoided of shutting up the latter in company with a deadly disease?

As to the infection of roup or fowl-cholera, any secretion from the fowl itself is likely to be poisonous, but I have never seen it clearly stated how far the air it breathes is affected, or whether its feathers retain the infection. What means should be taken to disinfect the bird, in case of recovery, before it is restored to its fellows? Also, is it known at all certainly how long the disease takes to develop in the system before showing itself? Professor Lister says that no diarrhœa accompanies fowl-cholera; but in several cases—indeed, in most—which I have taken to be "roup", there was more or less diarrhæa.—I am, etc.,

L. A. M.

A CARRIAGE FOR THE MEDICAL PRACTITIONER.

SIR,—I see, in your issue of 8th ult., "M.R.C.S." again broaches the interesting and important subject of the carriage question—"the best for the medical man's use". The true solution of this question affects considerably the comfort and the health of every practitioner; and as I have paid special attention to it, he shall have the knowledge gratuitously which has cost me much thought, the expenditure of much time and money.

A carriage should be as light as possible, consistent with strength, durability, and goodness of material; it should have some kind of covering, easily removed, or detached altogether, according to the requirements of the owner or the state of the weather, easily taken off, and as easily put on again; it should have a medicine chest or box (removable), which, fitted up with drugs and ointments, will contain all the active things likely to be required in an emergency, and forms a travelling surgery at the practitioner's finger-ends if he should be away from home ten or twenty miles. It should be graduated in size to meet the different sizes of horses, cobs, and ponies, from sixteen hands down to eleven. It should afford the comfort and shelter of the brougham, at about one quarter the weight and the expense (if necessary), by adapting the leather removable hood to the size of a carriage to suit a pony of eleven hands, or upwards, and thus afford the same shelter to the occupant at an expense of a few shillings a-week that is only generally secured to the wealthy possessor of the brougham at an expense of £100 or £150 *per annum*. It should drive from the inside, to shelter the groom, if one attends the medical man on his daily rounds. It should be proof against all rain and all storms. It should have a leather apron to button up closely, and a storm apron in front; and should be low upon the ground for easy entrance and exit, and also to ensure safety in case of a fall.

A carriage exactly corresponding to these requirements has been for some time built, at my suggestion, by Mr. W. Beddoes Moore, Oldswinford, Stourbridge; and one has been placed in the hands of many practitioners in different parts of the kingdom, all of whom, I believe, have been delighted with it. It is a boon and the greatest comfort to anyone who is fortunate enough to possess it. The cost is £40, with leather hood; or £32, with a waterproof hood, not leather. It will soon repay its cost in preventing illness.—I am, sir, your obedient servant,

Ωμεγα.

INQUIRER should not furnish any information gratuitously to an insurance company. Either the company or the insurer should pay the fee.

MR. TENNYSON AND THE DOCTORS.

SIR,—In contrast with the verses of the Poet-Laureate, recently commented upon in the columns of the JOURNAL, allow me to offer to the members of a noble and arduous profession, in the ranks of which I have myself toiled for many years, the solace which the perusal of the following lines, dictated by a loving and grateful heart, may afford. I venture to affirm that the sentiments therein expressed will meet with an echo in many a breast which would recoil from the lines of Mr. Tennyson.—I am, sir, yours faithfully,

HENRY ROOME, M.D.

Lota, Co. Cork, February 7th, 1881.

"TO A PHYSICIAN.

"Oh! watched for, longed for, through the heavy hours
Of pain and weakness. What a gift is thine!
What a proud science, God-like and benign!
To pour on withering life sweet mercy's showers,
And on the drooping mind's exhausted powers
Like a revivifying sunbeam shine;
For thy next smile what sleepless eyelids pine!
What sinking hearts, to which the summer flowers
Can breathe no joy! How many a day
I heard thy footsteps come and die away.
And clung unto that sound as if the earth,
With all its tones of melody and mirth,
To me had naught of interest—nothing worth
The brief bright moments of thy kindly stay.—E. M. H."

EXPLOSION OF KITCHEN BOILERS.

SIR,—Our attention has just been called to an article in your issue headed "Fatal Explosions of Kitchen Boilers". Being the inventors and original manufacturers of the Kitchener—or, as you term it, the Modern Cooking Range—which your article appears to reflect upon, we venture, in justice to our far-famed range, to offer a few facts with which the compiler of your remarks evidently was not acquainted, and which we ask you to kindly insert in your columns.

The circulating system from the kitchen range boiler is as simple as it is possible to be, and is in principle similar to the boiling of a tea-kettle. The high pressure boiler is connected, by what are known as the flow and return pipes, to a hot water circulating tank fixed in any convenient place between the boiler and the cold water supply, and which usually holds about one day's supply for the household. So long as the fire is kept in the range, a constant circulation of warm water goes on, and no danger can possibly arise, unless some obstruction of a serious kind take place in these pipes, which are generally protected from frost. Warning is invariably given of any obstruction. It is a wise precaution, during severe frost, to draw off as little water as possible from the boiler.

The laws of nature must be regarded; and because water will freeze when exposed to such Arctic temperature as we have had lately, we do not think any cooking range should be blamed when such laws are neglected, and an explosion is the result.

Your writer says, "In the old cooking-grate, the boiler had a lid which fitted loosely and acted as a safety valve, but the modern ranges have no such simple means for permitting the escape of steam". Our reply is, that it is obvious no such boiler could force hot water upstairs. As a matter of fact, all boilers in connection with our kitcheners sent out by us are fitted with a steam pipe or steam escape. Your writer likewise says the sudden admission of water to an over-heated boiler would generate large quantities of steam, and an explosion might result. That is certainly true, if the water were cold; but no one, we should say, would think of admitting anything but warm water into an over-heated, and perhaps empty, boiler.

It would be well if the responsible person of every household possessing a bath apparatus, etc., understood the arrangements of the pipes and cisterns, and, moreover, that personal attention should be given them, rather than they should be left to chance, or the tender mercies of servants without knowledge or advice. A small fire banked up at night is the best preventive; but if the water in the above-mentioned pipes be frozen, draw the fire as soon as possible. We cannot recommend, as you do, that water should be drawn off whenever it is heard to be boiling in the kitchen-boiler, but rather that the damper of the boiler-flue should be closed, and the water-supply seen to be free and ample.

There are safety-valves of various kinds, which may be fixed to the high pressure boiler; but they are very seldom used. Our contention is, that nothing can be simpler than the circulating system of hot water; and that, with ordinary care, no fatal explosion of kitchen boilers should be heard of.—We are, sir, your obedient servants,

SIDNEY FLAVEL AND CO.

Leamington, January 25th, 1881.

SIR.—Mr. Eassie, whose notes are always interesting, says the cylinder he recommends is perfectly safe, and can be applied to any grate. He says nothing about cost. It would, no doubt, interest many members to learn what would be the probable expense of such an improvement to a house as he advises. Will you put the question for

M. B. M. A.?

HAIRLESS MEN.

SIR,—I think we must accept Dr. J. Higham Hill's suggestion, that a tribe of hairless Australian aborigines exists in Queensland, with great caution; and the fact, that the two cases he mentions are members of the same family, would strongly support the idea that their condition is due to a mere "freak of nature". Hairless individuals are not, I believe, uncommon among other races. I have seen an instance in this country; and probably others exist. The person to whom I refer is a woman, the wife of an agricultural labourer in Surrey. She has no hair on her head, eyebrows, or eyelids. She is the mother of several children, all of whom have a proper supply of hair.—Your obedient servant,

CHARLES ROBERTS, F.R.C.S.

Bolton Row, W., February 1st.

INSTITUTIONS FOR EPILEPTICS.

SIR,—Could you kindly inform me if there is any establishment where they take epileptics (males)? The individual is a lad about sixteen; he can work; and could pay a trifle.—I remain, yours truly,

T. E. SCATCHARD.

Boston Spa, Tadcaster, Yorkshire.

INSURANCE OFFICES AND MEDICAL FEES.

SIR,—I had to examine an applicant for insurance the other day for the Star Life Assurance Society. The application was for £300, and the Society paid a fee of only 10s. 6d. I find they pay only that fee for all sums under £500. I have refused to examine any more for the Society at such a miserable rate of remuneration; and I think if medical men throughout the country were to stand out against such societies, they would soon be compelled to raise their scale of fees to that paid by all the good companies.—Yours faithfully,

JAMES ALEXANDER, M.D.

Bishop's Place, Paignton, Feb. 7th, 1881.

The Chemical Lung.

Sir,—Having now brought the chemical lung, in its punkah form, to a practical working, I should be glad to experiment with it in any hospital ward or other place where the atmosphere is markedly impure. The machine, or punkah, is six feet by three; and I will, with pleasure, fix it, at my own expense, in any place in London where it can be subjected to the most searching tests.—Obediently yours,

60, Boundary Road, South Hampstead, N.W. R. Noble, M.D.Lond.

The Treatment of Sunstroke with Warm Baths.

Sir,—In your issue of December 18th, Dr. Maclean draws attention to the treatment of sunstroke with hot baths, and invites those who have tried this method to give the results of their experience.

I landed in India an orthodox believer in the absolute necessity of rapidly attempting to reduce the body-temperature by cold baths; and in two forms of sunstroke I am still of opinion, mainly on theoretic grounds, that the treatment is the most effectual we possess. There is, however, a third form, and one that most frequently comes under the notice of the medical officer in India—at all events, while in civil employment—in which my experience has not only taught me to prefer the tepid and warm baths (from 95° to 98° Fahr.), but has led me to think that cold baths proved rather injurious than otherwise. This third form was probably the disease, complicated with malarial fever, from which the Marquis of Ripon has lately recovered. The varieties of sunstroke to which, in my opinion, the cold bath should be restricted are these.

The first is the sudden stroke from the direct effect of intense sun-heat combined with great fatigue, and predisposed to, perhaps, by the use of stimulants. This form is rapidly fatal; it most frequently occurs in young, vigorous, unacclimatised men, whose internal organs are probably sound; and is attended with loss of consciousness, pungent heat of skin, perhaps convulsions, and death from syncope, owing either to stunning of the brain, or to paralysis of the conducting nerves and their centres, brought about by a coagulation of the albuminous bodies in the nerves, muscles, etc. Here the immediate and repeated use of the cold bath, with the application of cold to the head, seems rational enough. I have seen but one case of this kind; and death was of too rapid occurrence to allow any treatment to be adopted with any chance of success. There were *post mortem* signs of cerebral congestion and effusion of blood. The lungs were considerably engorged. The patient had an epileptic history.

The second form, in which the immersion of the body in cold water will reduce the temperature so as to permit the renewal of the suspended functional activity of vital organs, is that kind of heat-asphyxia known to occur on board-ship in narrow tropical seas, or ashore in the crowded barrack-room.

The third variety, and that in which my experience has led me to discard the cold and adopt the tepid and warm bath, may be described as follows. It occurs most frequently among acclimatised district civilians—engineers, police, and medical officers—men whose duties necessarily expose them at times to great and prolonged heat, considerable fatigue, and a good deal of discomfort, while sojourning in tents or travellers' bungalows. They are probably tainted with malaria, and may have occasionally suffered from attacks of congestion of the liver and dysentery. While on a tour of this kind, the patient-elect begins to feel irritable, tired, and out of sorts; he tries to look bright and pull himself together. After a day or two, the heat of skin increases, and he ceases to perspire; there are headache and intolerance of light; and when considerably done up, he returns home, and after a sleepless night sends for the doctor. His face is now flushed; there is intolerance of light and sound; perhaps delirium and muscular twitchings; the skin is dry and burning; the temperature 106° or 107 Fahr., with exacerbations if complicated with fever. The pupils are often contracted; and there may be tenderness over the hepatic region, with a yellow conjunctiva. Patients suffering as described generally recover if treated promptly. The disease is liable to recur, and a sojourn in Europe is advisable, but not absolutely necessary.

The treatment which I have adopted in several cases of this affection, and to which, were I a patient myself, I should wish to be subjected, is as follows: A warm bath, to be repeated according to the judgment of the medical attendant; cold to the head, in the form of irrigation if the patient will bear it; and removal to a cool dark room, with a punkah. A thermantidote would be a great advantage; it is, however, necessarily restricted to public institutions, and I have never seen one in use in India. Aconite and belladonna, in from three to six minim doses, should be given every two hours. This combination is invariably followed by free perspiration, but a coincident reduction of the temperature does not always accompany it. Still it is the best means of attaining that end, at the same time controlling the meningeal disease. Bromide of potassium is an useful addition in some cases; chloride of ammonium in others; and quinia if there be a malarial complication. Quinia, unless in cases of ague, does not, I think, reduce the temperature of the body. Potash water is the best beverage.—I have the honour to be, sir, your obedient servant, D. H. Cullimore.

15A, Connaught Square, W., Jan. 25th, 1881.

Hot Fomentations.

Sir,—The method of steaming flannels suggested to Dr. Neale is by no means new; I have advised and seen it done for many years. Even in the absence of a steamer, the nurse need not "scald her fingers" by wringing hot flannels if she will act thus. Take them from the boiling water with a fork, drop them in a heap on a large towel spread on the floor, fold the towel round them, let a person hold each end of the folded towel and twist tightly in opposite directions. On taking out the flannels they will be found full of steam, yet dry enough to prevent undue wetting of the patient's dress, and as hot as can be borne.—I am, etc., J. Crocker.

Doctors and Princesses.

Dr. Wilm, who married a Princess of Wurtemberg last year, much to the annoyance of her relatives, it is said, according to a correspondent of the *Globe* to have made her extremely happy. Having an extensive practice at Breslau, where he is trying to obtain a professorship of medicine at the University, he is ably assisted by his accomplished wife in the care of his patients, many of whom, too poor to procure the best advice, are aided by the former Princess, ambitious of fulfilling her self-chosen duties. She has just been confined of a daughter, whose baptism was the occasion of quite an ovation on the part of the grateful people of Breslau. Madame Wilm is not the only German lady who relinquished her princely title for the sake of a doctor; for Madame Esmarch, the wife of the famous surgical professor at Kiel, was also born in the purple. She is aunt to the young Princess Victoria of Schleswig-Holstein, shortly to be united to Prince Wilhelm of Prussia, heir to the Imperial throne of Germany.

John Etiquette.—What is meant by "kidnapping" patients? and how does our correspondent propose to establish an exclusive right to practise in a district by establishing a "branch practice"?

A Coroner's Verdict.

Sir,—My attention has been called to your article in the Journal of January 15th, on the strange phenomenon of a "coroner's verdict" at Worcester. While agreeing with your remarks on this point, will you allow me to suggest, from long and painful experience, that there may be some mistake in the reporter's account of the inquest; for a coroner can have no more right *to* "direct" a jury in their verdict upon the facts than any other judge has. I have never done so for thirty-five years, and cannot imagine any coroner understanding his duty attempting such an encroachment on the province of his jury. But there can be no doubt that the police—acting under the orders of the coroner, who is *ex officio* a magistrate, and, as Blackstone says, a "principal conservator of the peace"—would be bound to take a prisoner, under such circumstances, before the justices; nor, I apprehend, would the coroner be liable in an action for false imprisonment in giving such an order for *bonâ fide* reasons; for there is no doubt, also, that the coroner can, in the face, even, of a verdict of not guilty, himself commit a prisoner for trial at the assizes; though, in that case, the grand jury would have to "find the bill". In the ordinary case, the coroner's inquisition serves as an indictment, without the intervention of the grand jury.

On one point I must strongly protest against your statement of the law. The coroner has to inquire, in every case of sudden or violent death, not into the cause *i.e.*, medical cause) of death, as you put it, but whether the person died by the act of God in a natural way, or by his own hand, or by external violence, and generally "if any culpable". You will see, therefore, that the inquiry before the coroner and a sworn jury is much wider and more solemn than the so-called examination of a prisoner before the justices. All the evidence adducible in the latter case must necessarily be brought out before the coroner, and this whether or not any person is accused before the jury or in custody of the police. The Road murder, and many other cases I could cite, are illustrations of the great value of the coroner's inquest in this respect, and of the harm done by attempting unlawfully to set aside or curtail any portion of the coroner's constitutional functions and authority.—I am, sir, yours faithfully, Edward Herford, H. M. Coroner, City of Manchester.

Institutions for Inebriates.

Sir,—I should be thankful if any of your readers could inform me if there are any institutions in London (or near) for the cure of inebriates, established under the Habitual Drunkards Act of 1879? Any rules, regulations, fees, etc., relating to the same would greatly oblige, yours truly, Surgeon.

Errata.—In Mr. Vacher's letter in last week's Journal, page 217, column 2, line 20, *for* "£28 10s." *read* "£1 8s. 10d."; and in the last line of the letter *for* "justibus" *read* "gustibus".

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. G. W. Steeves, Liverpool; Dr. G. Wilks, Monmouth; Probe; Mr. John Banks, London; Mr. J. Jervis, London; Pater Familias; Dr. C. E. Glascott, Manchester; Mr. F. H. Smith, Alcester; Dr. A. Collie, London; Mr. Edward Herford, Manchester; Dr. H. E. Crossby, Nice; Mr. H. E. Spencer, York; Mr. Robert Torrance, Newcastle-on-Tyne; Mr. Balmanno Squire, London; Mr. A. Judd, Birkenhead; Inquirer; Mr. T. D. Cook, London; John Etiquette, Devon; Mr. T. R. Atkinson, London; Dr. W. Cholmeley, London; Mr. T. J. R. Dudley, Stalybridge; Dr. E. Markham Skerritt, Bristol; Mr. T. Sympson, Lincoln; Mr. W. Barrett Rowe, Bristol; Dr. R. Neale, London; Mr. L. Hill, London; Dr. Murrell, London; Dr. Duffey, Dublin; Dr. P. Lewis, Eastbourne; Dr. A. W. W. Dowding, London; Dr. T. Redwood, Rhymney; Mr. G. Eastes, London; Our Edinburgh Correspondent; Our Dublin Correspondent; Dr. J. Rogers, London; Dr. Joseph Coats, Glasgow; Mr. John Haycraft, Edinburgh; Mr. Priestley Smith, Birmingham; Dr. G. W. Crowe, Worcester; Our Glasgow Correspondent; Mr. C. E. Richmond, Warrington; Mr. H. Knowles, Leeds; Mr. E. Scatchard, Tadcaster; Indoctus; Dr. D. H. Cullimore, London; Senior; Dr. J. Allan Gray, Leith; Dr. Heywood Smith, London; Mr. C. Heath, London; Mr. J. Smith Turner, London; Dr. James Alexander, Paignton; Dr. W. Macewen, Glasgow; Circumspiciens; Mr. J. Hamilton Craigie, London; Mr. F. Wallace, London; Mr. S. W. Hope, Petworth; Mr. B. Clarke, London; Dr. Saundby, Birmingham; etc.

BOOKS, etc., RECEIVED.

On the Construction, Organisation, and General Arrangements of Hospitals for the Insane. By Thomas S. Kirkbride, M.D., LL.D. Philadelphia and London: J. B. Lippincott.

A Manual of Dissections of the Human Body for the use of Students. By R. E. Carrington, M.D., M.R.C.P. London: G. Bell and Sons. 1881.

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CLINICAL LECTURES
ON
DISEASES OF THE NERVOUS SYSTEM.

By A. HUGHES BENNETT, M.D.,

Physician to the Hospital for Epilepsy and Paralysis, Regent's Park, and Assistant Physician to the Westminster Hospital.

Lecture IV.—Chronic Hemiplegia originating during the Puerperal State.

Diseases of the nervous system originating during the puerperal state, are a class of affections in general which have been comparatively little studied by either the physician or gynæcologist. Concerning organic lesions of the brain in particular, even at the present time we possess only few well-arranged facts or definite information. It is true that the ancients, since the days of Hippocrates, had recognised and recorded various forms of paralysis associated with lying-in women; but these were usually of a trifling or temporary character, were recovered from quickly after delivery, and were supposed to be either the result of direct pressure or of hysterical origin. Later, Mauriceau, in his *Maladies des Femmes*, 1740, not only recognised and supported the facts observed by older writers, but further admitted that there were some women who, after violent convulsions, fell into a mortal apoplexy, and others became paralysed in one half of their bodies, and remained so many years. This author believed these affections to be the result of eclampsia. Other observers during the last century admitted the existence of puerperal apoplexies, which they thought to be due to difficult labours, or to lacteal or lochial disturbances. Subsequently Portal, Frank, Richter, Burns, Menière, Vulpian, and others, confirmed and established the fact that certain forms of cerebral paralysis were associated with pregnancy; and finally Lever, Lassere, Simpson, and Churchill, maintained that the symptoms of palsy and disturbance of the brain-functions, in such cases, were not so much the result of the puerperal state, as of that condition being complicated by the presence of albumen in the urine as a result of disease of the kidney. The uræmic theory of the origin of eclampsia and paralysis in parturient women, is that which at the present time finds the most favour amongst pathologists; and there can be little doubt, that to a poisonous influence connected with albuminuria many of the affections of the nervous system are due. Whether, however, all are to be ascribed to this cause, and more especially the permanent organic cerebral lesions, is questionable; and this will constitute one of the chief points of the present discussion. Although certain observers have recognised the fact that permanent diseases of the brain may take their origin during the puerperal state, our knowledge of the whole question is still unsatisfactory. This is due to the comparative rarity of the affection, to the imperfectly recorded cases, the paucity of *post mortem* examinations, and chiefly, especially amongst the older writers, to the confused terminology and inexactitude of description: such as the constant use of the vague and comprehensive word apoplexy. The following cases of brain-lesion, as evidenced by their chief symptom, chronic hemiplegia, and associated with the puerperal state, have occurred in my hospital practice during the last three years. The notes are extremely brief, but, it is hoped, sufficiently precise to demonstrate the true nature of the disease.

Case I. *Hemiplegia of Three Years' Standing began suddenly at Third Month of Pregnancy; Aortic Valvular Disease; No Albuminuria.*—M. C., aged 36, married, had four children. The patient, when eleven years old, suffered from rheumatic fever, but with this exception believed herself to be in good health till three years ago. At this time, when three months pregnant with her last child, without apparent cause, she suddenly lost the power of movement in her left side. There was no loss of consciousness. The paralysis did not interfere with the natural process of labour, and it has since partially recovered. At present, the patient suffers from frequent pain in the head and slightly impaired intellectual powers. There are paresis of the lower portion of the left side of the face, almost total loss of voluntary movement in the left arm and hand, which are flexed, rigid, cyanosed, and all the muscles are in a state of well marked contracture. The patient can walk, but is lame, the left foot being dragged along the ground, and its muscles being stiff and rigid. There is no loss of sensation. There is well-marked evidence of aortic obstruction and regurgitation. No albuminuria.

Case II. *Hemiplegia of Eight Years' Standing, began suddenly at Eighth Month of Pregnancy: Heart apparently Normal: No Albuminuria.*—E. B., aged 29, married, has two children. The patient states that, as far as she knows, she was a perfectly healthy woman till eight years ago, when she was eight months pregnant with her last child. At various times during gestation she experienced peculiar sensations of sudden weakness in her right leg, which, however, passed off in a few hours. Six weeks before her confinement she went to bed one night in her usual health, and on waking next morning discovered that her right side was completely paralysed; the face was dragged to the left, the right eyelid was closed, and when opened there was diplopia, and the speech was mumbling and indistinct. These symptoms continued till a dead child was born after a natural labour. Two weeks afterwards the patient had "a fit", during which she lost her consciousness, and subsequently her speech. Since then, her symptoms have gradually improved. At present the general health is good, articulation is perfect, the mouth is drawn slightly to the left side, and the eyelids are normal. The movements of the right arm and hand are limited, and the muscles, especially the flexors, are stiff and rigid, but not to a high degree. The patient is lame and the right foot is dragged. Sensibility and intelligence are normal. There is no history of rheumatism, and the physical signs of the heart are normal. No albuminuria.

Case III. *Hemiplegia of Four Months' Standing, began suddenly during Labour: Heart apparently Normal: No Albuminuria.*—L. G., aged 26, married, has two children. The patient states that she was in good health till eight years ago, when she suffered from rheumatic fever, after which she remained quite well till her last confinement, four months ago. During labour she was suddenly seized with trembling; shortly after which the child was born. It was then found that her right side was paralysed, without loss of consciousness. This condition has since partially improved, but still a considerable amount of paresis remains. At present the right arm and leg are weak and the movements imperfect, and the right angle of the mouth is depressed. Sensibility and intelligence normal. The physical signs of the heart are normal. No albuminuria.

Case IV. *Hemiplegia of Ten Weeks' Standing, began suddenly Three Days after Labour: Heart apparently Normal: No Albuminuria.*—E. B., aged 26, married, two children. The patient stated she was in good health till ten weeks ago, when, after a natural labour, she was delivered of a healthy child. Three days afterwards, while lying in bed, and without obvious cause, she suddenly lost her speech, and power in the right side, but without her consciousness being affected. The motor power has since partially returned. At present, the patient is a robust, healthy-looking person. She cannot say a word, owing to paralysis of the tongue and of the apparatus of articulation; but there is no true aphasia, as she knows what she wishes to say, and remembers and understands words and writing perfectly. The movements of the right hand and arm are very limited, and there is slight rigidity of the flexors of the wrist and fingers. The patient can walk fairly well, but is lame, and drags the right foot. Sensibility is not affected. The intelligence appeared fairly good; but the husband said his wife is not as she was before the attack. There is no history of rheumatism; and the physical signs of the heart are normal. No albuminuria.

Case V. *Hemiplegia of Eighteen Months' Standing, began suddenly Two Weeks after Labour: Heart apparently Normal: No Albuminuria.*—E. W., aged 22, married, has two children. The patient stated that she was in good health till her last confinement, eighteen months ago. After a natural labour, she was delivered of a healthy child. Her convalescence progressed favourably till the fourteenth day, when she for the first time got out of bed. Whilst in the act of dressing herself, she suddenly fell down insensible, with stiffness of the right side, and distortion of the face. She continued apparently unconscious for two or three days, after which time she recovered her senses; and it was found that the entire right side was paralysed, and she was completely speechless. This loss of speech continued for a long time, but ultimately slowly improved; and it was only after sixteen months that she considered that her powers of articulation had entirely recovered. The motor power has slowly and only partially been restored. At present, the patient is a healthy-looking woman. The lower part of the face is slightly drawn to the left side, and the articulation is perfect. The movements of the right arm are very limited, and there is complete paralysis of the hand and fingers. All the muscles are stiff, rigid, and in a state of intense contracture. The skin is purple, cold, and clammy. The right leg is in a similar condition, but not to the same extent, and the patient, with assistance, can walk a little. Sensibility is normal. There is no history of rheumatism, or evidence of cardiac disease. No albuminuria.

Case vi. *Hemiplegia of Eight Years' Standing, began suddenly Three Weeks after an Abortion: Heart apparently Normal: No Albuminuria.*—A. M., aged 36, married, has had one abortion; no children. The patient stated that she was in good health till eight years ago, when for the first time she became pregnant. She aborted at the third month. Three weeks afterwards, without apparent cause, she suddenly became unconscious, and remained so for two days. On recovering her senses, she was found to be completely paralysed on the left side, including the face. From this time, she was confined to bed for several weeks; but, ultimately, she slowly regained the partial use of her leg, so that she could walk about with the aid of a stick. The arm improved more slowly. At present, the patient is a healthy-looking woman, her intelligence is good, and she presents all the usual symptoms of chronic hemiplegia: depression of the left angle of the mouth, almost complete immobility of the left arm and hand, with stiffness, rigidity, and contracture of the muscles, and cyanosis and coldness of the skin. The same condition is observed in the leg, but not so far advanced, as the patient can walk a little with assistance. The sensibility is unaffected. There is no history of rheumatism. The heart is apparently normal. No albuminuria.

The symptoms in all these cases are evidently due to a destructive lesion on one side of the brain. It may be further conceded that the cerebral disturbance is closely related to, and almost certainly caused by, the puerperal state of the patients, as, prior to the particular confinement which originated the illness, they were in perfect health.

We have now to inquire in what way the puerperal state predisposes to organic lesions of the brain; but, before doing so, it will be necessary to briefly state certain facts connected with the physiological condition of parturient women. During gestation, the blood of the female is in much larger quantity than in her ordinary state; it is more watery, contains fewer red blood-corpuscles, and is loaded with certain new elements, more especially a great excess of fibrine. As pregnancy advances, owing to the state of the blood and to the increasing demand made upon it, the heart hypertrophies, and more especially its left ventricle. A combination of these causes induces a remarkable state of high tension in the circulation, as has been abundantly proved by the sphygmographic tracings of Fancourt Barnes, Mahomed, Marey, Macdonald, and others. For about ten days or so after delivery, these conditions are more or less retained; for, although one obstruction to the circulation is removed, another is instituted in the kidneys, owing to the blood becoming charged with effete matter, due to the absorption by the uterus, etc. The whole vascular system becomes changed in pregnant women, owing to those physiological conditions which may be seen in the tendency to dilatation and varicosities of the veins. Finally, as Dr. R. Barnes has pointed out, there is a peculiar condition of the nervous system during pregnancy, which must not be lost sight of in discussing the nervous diseases of that condition. These states may be said to be physiological; but very slight disturbing causes, of most of which we are ignorant, may render them pathological. A woman during her pregnancy may be compared to an engine under high pressure. If its machinery be sound, and its material good, it withstands the strain made upon it, and meets satisfactorily the increased demand for work; but if there be a flaw, which may not be detected or soon suspected, it breaks down, and may explode at any of its weak points. In the present inquiry, the weak point is the brain, and we must now consider in what way the lesion of that organ has been brought about in the six cases under notice.

The puerperal state may have induced the cerebral disease in one of three ways, viz., by (1) hæmorrhage, (2) embolus, (3) albuminuria.

1. *Hæmorrhage.*—In a perfectly healthy young woman, cerebral hæmorrhage is a very rare disease. Of 383 cases occurring in the practice of Dr. Hammond, no fewer than 361 took place above the age of thirty. This represents the statistics of both sexes, and the number of women attacked is much less than that of men. Of the special liability to hæmorrhage in the pregnant state, we have very little knowledge. Many writers have indicated that "apoplexy" is sometimes associated with pregnancy; but this expression is vague, and does not prove the existence of rupture of the cerebral vessels. A few rare cases have been recorded, notably by Dubois and Menière, in which cerebral hæmorrhage was proved to exist by *post mortem* examination; but even here it remains uncertain whether or not this may not have been due to other causes, such as Bright's disease, degeneration of the vessels, etc. At the same time, it must be admitted that, theoretically, it is quite possible to conceive the puerperal state as being a direct cause of cerebral hæmorrhage. The vascular system of the pregnant woman we know to be profoundly modified. The altered condition of the blood, by influencing the nutrition of the arteries, may cause their degeneration in the brain; this, with the hypertrophied heart, and high state of tension in the circulation, may, under certain circumstances, be the means of actually inducing rupture of the blood-vessels. Carefully recorded facts are wanted to decide this point.

2. *Embolus.*—The puerperal state is eminently fertile in the formation of emboli; and plugging of the arteries and veins by blood-clots, in various parts of the body, is not unfrequent during pregnancy, or after delivery. Sir James Simpson, in his *Obstetric Memoirs*, cites several examples, in which women in this condition were attacked with gangrene, and other serious lesions, as a result of arrest of the circulation in different arterial or venous trunks. The same takes place in the lungs, liver, and other internal organs; and these emboli can actually be demonstrated during life when they occur in the eye. It is therefore not remarkable that the vessels of the brain should be obstructed in a similar manner, and give rise to symptoms referable to a loss of function of the parts supplied by the artery affected. The anatomical construction of the circulatory apparatus explains the frequency with which the clot becomes lodged in the left middle cerebral artery. Owing to the angle at which the common carotid leaves the aorta, a foreign body can more readily enter it than pass into the innominate. In the same way, the middle cerebral is not only the largest branch of the internal carotid, but it maintains the original direction of the trunk more nearly than the others. This vessel supplies chiefly the great motor ganglia of the brain. The puerperal state may lead to the formation of emboli in several ways, the chief of which is its tendency to the production of endocarditis and arteritis. The blood—as in rheumatism, albuminuria, and zymotic diseases—is in an abnormal condition; it is loaded with fibrine and other secretory excrementitious matters; its irritating qualities predispose to inflammatory affections of the lining membrane of the vascular system. The various forms of endocarditis thus induced, as is well known, lead to the formation of emboli, either by the clots coagulating on the rough membrane becoming detached, or by vegetations from the valves being swept into the circulation, and lodged in a peripheral vessel. Emboli may originate from the lining membrane of the arteries themselves, the heart being normal, as occurred in a case recorded by Dr. James Duncan, in which a patient, who died of gangrene of the legs shortly after delivery, was found to have disease and vegetations on the aorta as a cause of the embolus, while the lining membrane of the heart was healthy. The peculiar state of the blood in pregnancy is another direct source of embolus. It is loaded with fibrine, and is highly and readily coagulable: hence there is an inherent tendency, at the slightest provocation, for it to be deposited in a solid form. If endocarditis or arteritis be present, this is further encouraged by their offering rough or prominent points upon which the blood may coagulate. A particle is readily detached by any exertion on the part of the patient, or by increased activity of the circulation; and thus the thrombus is converted into an embolus. If chronic heart-disease have existed prior to the pregnancy, the chance of embolus is much increased; for, in addition to the damage from the cardiac affection itself, there is superadded the condition above discussed.

3. *Albuminuria.*—All forms of Bright's disease may lead to œdema and anæmia of the brain, which may induce delirium or coma, convulsions or paralysis, according to their degree and the portion of the organ affected. The impoverished state of the blood, the obstruction in the kidneys, and the high tension in the circulation, cause the ready exudation of serum into the brain, as well as other tissues; and the symptoms thus induced, although usually temporary and removable with the cause, may, if destruction have in consequence taken place, be permanent. The poison in the blood also probably acts as an irritant to the vaso-motor nerves—thus contracting the cerebral capillaries, and thereby causing anæmia of this organ, with its corresponding nervous symptoms. Albuminuria also predisposes to rupture of the blood-vessels. Small capillary extravasations have been demonstrated in the brain by Kiwisch, Braun, Spiegelberg, and others; and most writers on Bright's disease admit that a considerable percentage of its mortality is due to sanguineous apoplexy. Now, the puerperal state is specially liable to be complicated with albuminuria; and it can be readily believed that, when these two conditions are combined, the danger to the tissues of the body generally, and the brain in particular, is very great; so much so, that it is now generally recognised that a large proportion of the serious nervous affections arising during pregnancy are associated with albumen in the urine.

Having discussed the different modes in which organic disease of the brain may arise during the puerperal state, we must now turn to a consideration of the patients under notice. These six cases, although they vary in severity, in the side affected, and in matters of detail, are all essentially of the same character. They all present the features of chronic hemiplegia, as the result of a destructive lesion in the motor ganglia on one side of the brain, subsequently followed by secondary sclerosis of the spinal cord. That the disease was a destructive one, is shown by the permanent loss of function and general nature of the

symptoms. That the motor centres or conducting tracts were chiefly affected, is indicated by movement above being impaired, as intelligence and sensibility were, to all practical purposes, intact. The train of symptoms points to a lesion of the corpus striatum and its neighbourhood, or to that portion of the brain supplied by the middle cerebral artery. As frequently occurs in such cases, in all our patients the secondary descending degeneration of the lateral columns of the spinal cord was well marked, which was demonstrated chiefly by the gradual increase of muscular rigidity and contracture: a further evidence of the chronic nature of the cerebral lesion, and of its destructive character. Assuming, then, such a local disease, what is its exciting cause? Is it the result of hæmorrhage, of embolus, or of albuminuria? With regard to the last, it may be said that, at the time of observation, there was no trace of any albumen in the urine of any of the patients, nor had there at any time been any symptoms of disease of the kidney. All, previously to their paralytic seizure, had been in singularly good general health; and, with the exception of this symptom, have remained so to the present time. The suddenness of the attack, the absence of convulsions and other eclamptic symptoms, and the chronic nature of palsy, seem to indicate that albuminuria alone was not the cause of the brain-lesion. At the same time, we cannot be certain that a temporary affection of the kidneys did not exist during the puerperal condition: all that can be said is, that neither the history nor the present condition of the patient gives any evidence of it. Is the cerebral lesion due to hæmorrhage or to embolus? From the nervous symptoms alone, it is impossible to diagnose between these two causes, as in both instances the same portions of the brain may be destroyed, and thus induce the same results. Two points, however, are in favour of embolus; namely, the youth of the patients, the average age of whom was twenty-five years; and the fact that, in four out of the six cases, the hemiplegia was on the right side. In the first case, and in it only, there was valvular disease of the heart, which seems to show that in this also the disease was of embolic origin, as a result of the blood-change in the puerperal state. Further, in support of this theory are the want of premonitory head-symptoms, the limitation of the disease to the motor tracts, the absence of mental derangement, and the arrest in improvement of the paralysis. As all these patients are still alive, there has been no opportunity of verifying these views; and, although the various circumstances of the case point to embolism as being the cause of the cerebral softening, as has been already pointed out, we cannot be perfectly certain that it may not be due to hæmorrhage. *Post mortem* examinations of women who die suddenly after childbirth, or who are known to suffer from paralysis acquired during the puerperal state, would settle this question. Assuming the cases to be embolic, it may be fairly admitted that these originated in the puerperal condition. It is true that, in two instances, there was a history of rheumatic fever; but this occurred in early life, and apparently left no traces, and the patients remained in perfect health till pregnant many years afterwards. In one of these, there was valvular aortic disease; but when this originated we do not know. If it started at the time when she had rheumatic fever, twenty-five years before, it is remarkable that there should have been no evidence of it during that time, as well as during three previous labours. In five cases, there was no evidence of any affection of the heart; but this is no proof that endocarditis was absent: indeed, in acute ulcerative inflammation of the cardiac lining membranes, which is demonstrated after death, it is common to have had no physical signs of its existence; and it is rarely diagnosed during life.

To sum up, it may be concluded that: 1. These six cases of chronic hemiplegia are due to a destructive lesion in that portion of the brain supplied by the middle cerebral artery; 2. The disease began suddenly during the puerperal state, which was the predisposing cause of it; 3. The exciting cause was probably an embolus; 4. This embolus was the result of acute endocarditis, or due to the hyperinotic state of the blood, or possibly to both of these conditions combined.

WEARDALE RURAL DISTRICT.—For the Stanhope and Newlandside division of this sanitary district, Mr. C. Arnison records a death-rate of 16 per 1,000 in 1880, against a rate of 22 in 1879. The figures are, however, too small to admit of any just deduction being drawn from these rates alone. Typhoid fever seems to have been unduly prevalent in the district; but the circumstances of its manifestations are not told with the minuteness that is desirable. This disease caused 3 deaths, and appeared in ten families, in three distinct villages. Measles was also very prevalent, appearing in forty families, though only fatal in two cases. The total number of births was 74, and of deaths 47.

ABSTRACT OF A CLINICAL LECTURE
ON
SORE-THROAT.

Delivered in University College Hospital.

BY CHRISTOPHER HEATH, F.R.C.S.,
Holme Professor of Clinical Surgery.

TONSILLITIS, or acute inflammation of the tonsils, commonly results from exposure to cold, in the case of delicate young people who have susceptible throats. Towards evening, the throat feels swollen and painful, and both speech and deglutition become difficult, the voice having a peculiar thick tone, which is very characteristic. On inspection, the fauces will be seen deeply injected, and the tonsils swollen and bulging, both towards the median line and behind the anterior pillars of the fauces. There is great tenderness in the submaxillary region and behind the jaw, and occasionally acute pain in the ear from extension of inflammation along the Eustachian tube. There is considerable general fever, the temperature rising two or three degrees, and the tongue being coated with a white fur; but the pulse, though rapid, has little force, and is very compressible. In from twelve to twenty-four hours, and either with or without a rigor, matter forms in one or, seldom, both tonsils; and, if not relieved, gives rise to great distress from the embarrassment caused to the breathing, the patient sitting up in bed, and constantly hawking up viscid mucus, until at last, in some straining effort, the abscess bursts, and immediate relief with rapid convalescence follows.

In the premonitory or early stage, a mustard emetic often acts as a charm, and produces immediate resolution; but, failing this, recourse may be had to warm inhalations, the application of hot poultices below the ears, and the administration of belladonna internally in small and frequent doses, coupled with plenty of liquid food. An early puncture of an inflamed tonsil is much to be recommended, if the surgeon will use a bistoury, covered except for a quarter of an inch from the point, and thrust it boldly through the soft palate, where it is made prominent by the tonsil. The hæmorrhage should be encouraged by gargling with hot milk and water, and will give much greater relief than the application of leeches externally. The same method should be adopted in opening an abscess in the tonsil, and thus all risk of doing damage to important structures will be avoided.

A more chronic form of tonsillitis is familiar to residents in hospitals under the name of "hospital sore-throat", and is met with among persons exposed to bad air, particularly if tainted with sewer-gas. It consists in a subacute inflammation of the tonsils with injection of the fauces, sometimes going on to abscess, but more frequently subsiding, if the patient be put upon a stimulant and tonic plan of treatment, and removed from the depressing influences to which he has been exposed. The occurrence of frequent sore-throats in a household should direct immediate attention to the condition of the drainage, and the probable escape of sewer-gases into the house.

Acute inflammation of the pharynx may occur in conjunction with tonsillitis or alone, and the great symptom is the difficulty in swallowing. The disease ends ordinarily in resolution, but may occasionally lead to suppuration in the cellular tissue behind the gullet, thus causing a post-pharyngeal abscess. The bulging forward of the posterior wall of the pharynx by an elastic swelling, which impedes deglutition and may interfere with respiration, clearly marks the case, and a puncture in the median line will readily evacuate the pus. It should not be forgotten that post-pharyngeal abscess is often connected with caries of the cervical vertebræ.

Erysipelas occasionally attacks the fauces and pharynx, and appears to lead to complete temporary paralysis of the muscles, so that not only is deglutition impossible, but it is equally impossible to excite reflex action in them by irritating the throat mechanically. The affection is a very serious one, and likely to prove rapidly fatal from depression of the vital powers, both by the poison and the want of food, unless ample nourishment be administered by the rectum until the power of swallowing is restored.

A much more chronic form of paralysis of the throat is that following diphtheria, but here it is the palate which is principally affected, the voice being thick for weeks.

Hypertrophy of the tonsils is common in children and young persons of a strumous diathesis, and, in rachitic patients, is apt to lead to the

deformity known as "pigeon-breast", from interference with the full expansion of the lungs. The thick speech, open mouth, and stertorous breathing, which in sleep develops into sonorous snoring, are sufficiently marked in extreme cases; whilst, in milder cases, the constant tendency to sore-throat, and the general failure of health and strength without obvious cause, should direct attention to the tonsils. On inspection, the tonsils will be seen as large, white, glistening masses, often meeting in the middle line, and presenting yellow spots due to inspissated mucous secretion. Hypertrophied tonsils may project into and down the pharynx, but can never reach up to and obstruct the Eustachian tubes; the deafness so commonly found in these cases being due to the generally congested condition of the mucous membrane, which is relieved by the removal of the glands.

The application of local styptics in the form of a solution of nitrate of silver (gr. 10 to ℥j), or the glycerine of tannin; the use of catechu or krameria lozenges, or the employment of a spray of sulphate of zinc (gr. 10 to ℥j), are all useful in slight cases, by keeping the disease in check while the patient's health is improved by sea-air and tonics. In severe cases, removal is the best remedy, and is much less painful and infinitely more satisfactory than drilling the tonsil with a sharp stick of nitrate of silver or caustic potash, as has been recommended.

The simplest form of guillotine, used with a pair of vulsellum-forceps, by which the tonsils can be drawn thoroughly into the ring with the opposite hand, is preferable to the complicated guillotines fitted with a fork, which are apt to get out of order, and require considerable practice for their successful employment. The patient being seated in a good light, with the head thrown back, and the hands held by assistants, the guillotine can be slipped into the mouth, which it immediately gags; the forceps then grasping the tonsil through the ring of the guillotine, draws it well forward, and a sharp movement of the thumb drives home the blade of the guillotine, and cuts it off. Without withdrawing the guillotine, it is turned round, and the other tonsil similarly treated by changing hands, before the little patient has really time to cry. It is quite sufficient to remove a large portion of a tonsil, and any attempt to remove the whole is likely to be followed by sharp bleeding. Ordinarily, the sucking of ice for a few minutes staunches all bleeding; but if not, the bleeding surface, and that only, should be painted with liquor ferri pernitratis.

After removal of the tonsils, ice may be sucked for a few hours, and a warm poultice under the jaw gives great comfort. Care should be taken to give food cool enough to be easily swallowed, and for a few days anything hard, such as crust, should be avoided.

Hypertrophy of the uvula may be met with in the same class of patients as the hypertrophied tonsil, the whole uvula being swollen from over-development of the adenoid tissue contained in it. This must not be confounded with the œdematous uvula, due to inflammation, and commonly found in any acute inflammation of the throat. A more common form is the elongated uvula found in persons of relaxed habit, who suffer from irritable throat and constant cough, the result of the irritation of the fauces by the uvula. Astringent gargles may be usefully employed in such cases, but, if obstinate, they should be treated like the chronic hypertrophy—by abscission. This little operation may be performed with the tonsil-guillotine, or more simply with scissors, which must be very sharp at the edge, but blunt at the points. The uvula should be caught with a pair of hooked forceps, to prevent its being swallowed, and will be found thicker on section than might have been anticipated.

Ulceration of the tonsils of a superficial character is common in inflammatory affections of the throat, and the ulcers are often covered with aphthous patches in patients whose vitality is low. The deep excavated ulcer of the tonsils, nearly circular in shape, and covered with a thin grey slough, is symptomatic of secondary syphilis, and will only yield to constitutional treatment.

Irregular excavated ulcers presenting a yellow slough, seen upon the uvula and soft palate, or on the posterior wall of the pharynx, are almost always due to tertiary or inherited syphilis, and will heal rapidly under the administration of iodide of potassium in full doses.

As the result of this form of ulceration, adhesions of the soft palate to the pharynx, with narrowing of the pharynx and nasal intonation, owing to the shutting off of the nose, are occasionally met with. Any interference with the cicatrices is to be avoided, as no good result is likely to follow the division of the adhesions between the palate and pharynx; but, where the cicatrisation leads to narrowing of the pharynx, division and subsequent dilatation with bougies may be advantageously undertaken.

Follicular disease of the pharynx is commonly met with as an accompaniment of chronic glandular laryngitis, or *dyspepsia clericorum*. The pharynx and fauces are seen to be injected and roughened, owing to hypertrophy of the glandular structures of the mucous membrane. The patient complains of dryness of the throat, and is constantly clearing it, and hawking up small quantities of viscid mucus. The hoarseness of the voice after use for a short time is a marked feature of the disease, and depends upon a similarly congested condition of the laryngeal mucous membrane. In slight cases, much good may be done by proper elocutional instruction, and particularly by teaching the patient to use his lips and tongue rather than his throat in vocalising. The use of soft astringent lozenges (catechu or rhatany), which are to be slowly sucked at intervals, and the use of a spray with a solution of sulphate of zinc (gr. 10 to ℥j), night and morning, will effect much good. In more confirmed cases, the application of a strong solution of nitrate of silver (gr. 30 to ℥j) with a brush, or painting with the tincture of iodine or liquor ferri perchloridi, will be necessary, combined with attention to the general health; but the improvement is always slow, and the remedies must be varied to suit individual cases.

ABSTRACT OF LETTSOMIAN LECTURES
ON
PATHOLOGY AND MORBID ANATOMY OF DYSENTERY.

Delivered before the Medical Society of London.

By SIR JOSEPH FAYRER,
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Lecture III.

In my last lecture, I discussed the subject of acute dysentery and its treatment, the chief element of which is the use of ipecacuanha in large doses. I said little about any other remedy—except opium, which, even in the acute stages, is often urgently needed; for really none other are, as a rule, necessary. But, in the conditions of which I have now to speak, other remedies may be required, according to the state or stage of disease, and it is to these conditions I now ask your attention.

First let me speak of the subacute form, in which dysentery frequently occurs, and into which the acute form is liable to pass by recurrence of dysenteric action in the bowel, from any cause, after the first acute symptoms have passed away; or, as may happen, when it assumes this state from the outset; or, as it may be, after complete subsidence of the acute catarrhal condition, when there is supervention of ulceration in the glandular structures and in the mucous membrane of the bowel. By subacute, I mean that variety where the symptoms indicate that some activity in the dysenteric process is present. There are pain, tormina, and tenesmus, though less than in the acute; and, when the disease has lasted some time, it is probable that ulceration, though not necessarily extensive, has taken place. In such cases, ipecacuanha must again be resorted to; and probably the combination of bismuth, carbonate of soda, and quinine. The latter, if there be any malarial taint, is especially desirable.

When there is much pain on pressure on the abdomen, and the thickened gut can be felt on palpation, counter-irritation over the part most affected is likely to be of service. When there is much tenesmus, indicating rectal complication more than usually severe, opiate injections and large enemata of warm water are indicated, Dover's powder at night, and injections of two-grains solution of nitrate of silver to the ounce of water.

As the subacute symptoms abate, and give place to those of a more chronic character, indicated by still frequent evacuations, with more or less straining and tenesmus, the discharges being mucous and occasionally tinged with blood, the internal use of twenty-drop doses of oil of turpentine, guarded by small doses (say ten minims) of tincture of opium, every third or fourth hour, will be of service. Indeed, this is a remedy to which I attach much importance. In the stage of ulceration, I repeat, I have found it exceedingly useful. Its power of stimulating vascular action, and of expediting the reparative processes, is shown by its power of causing granulation in an indolent chronic ulcer, say, on the leg. When it is given in doses of from fifteen to twenty minims, the effect is most remarkable: the surface becomes florid instead of dusky, red granulations form, and cicatrisation rapidly results. I have no doubt it acts in a similar way in the ulceration of the bowel; and I have often been gratified with the rapid improvement that has attended its use.

Whilst any sign of activity in the dysenteric process continues, it is imperatively necessary that the strictest attention should be paid to diet; and that all solid or irritating articles of food should be carefully avoided. The use of alcoholic stimulants must be most carefully regulated; and, as a general rule, when there is no special reason arising out of former habits, or great depression of the nervous system, it is better to avoid them entirely.

The greatest attention must be paid to clothing: flannel should be worn next the person; chills and sudden alterations of temperature most carefully avoided. All irregularities of living must be sedulously shunned.

Chronic dysentery is of more than one kind. There is that which follows, or rather is left by, an acute attack, when it has not yielded entirely to treatment, and the bowel has become structurally diseased—*i.e.*, ulcerated, thickened, congested—after the first urgent symptoms have passed away.

There is another variety, which never was acute from the beginning, or scarcely even subacute. It begins insidiously, and goes on so. It is truly chronic, may last for years, and then the two forms are somewhat alike, though in their origin they essentially differ. The chronic form which follows the acute is apt, indeed, to be more severe, and to prove more frequently fatal than the other, which is more enduring, occasionally intermits, and, though in the end perhaps fatal, is more slowly so. I have only recently seen a lady who suffers from this form of chronic dysentery, who first came under my care in India fourteen or sixteen years ago. Even then it was not the first attack. Though frequently ill and debilitated, this lady could not be said at any time to suffer from more than chronic dysentery; and, to say the least of it, her health is as good now as it was ten or twelve years ago. I know others who have suffered for years, and even go backwards and forwards to India. But what a precarious life! Such cases, no doubt, are familiar to many of you; for it seems to me that they are not very uncommon; and that a considerable share of the trouble to which old tropical or Indian residents are liable is due to this disease. They are very apt to be troubled with hæmorrhoids, either internal or external; and it may be difficult to say how much of the symptoms is due to the hæmorrhoidal affection, or how much to chronic ulceration of the bowel higher up, or how far they may be attributed to contraction and stricture of the gut; such stenosis of the rectum being liable to induce attacks of tenesmus and the passage of mucous stools tinged with blood. The admixture of the mucous or sanguineous discharge with fæculence points to rectal dysentery; whilst the blood and mucus following the discharge of fæcal matter indicates the hæmorrhoidal condition. In many cases it is exceedingly difficult to differentiate one from the other, nor, indeed, is that possible where the two conditions coexist. Such cases are liable to frequent intermittent attacks of acute or subacute mischief, and cause great suffering; others, though not liable to recur with such violence, are brought on after the least exposure to chill. The disordered digestion, and the functional derangement of the liver and portal congestion accompanying that state, render the subjects of them more or less chronic invalids. So long as the thickened and ulcerated state of the bowel continues, so long is the person liable to suffer from symptoms of chronic dysentery.

TROPICAL DIARRHŒA.—I pass on to the subject of diarrhœa, especially that form of it seen in old residents of India and tropical climates in this country. It is to this I wish specially to ask your attention; for time will not permit me to dwell at length on other forms and phases of the disease.

Definition.—The definition that may be given of diarrhœa is: a discharge of fluid or semi-fluid excreta, serum, mucus, secretions, and the natural contents of the bowels. Though unattended, as a general rule, with tenesmus or much griping, there are increased peristaltic action and secretion, and hurrying on of fluid naturally secreted but not reabsorbed. The causes are: irritation of various kinds—certain articles of food, drink, drugs, poisons, acrid secretions; mental emotions; sudden exposure to extreme heat or cold; morbid conditions of the mucous and follicular structures of the intestines, consequent on the continued operation of the above named or other causes; diseases, such as typhoid, dysentery, cholera, hepatic disease, and others; miasmata of decomposing organic matter, alcohol, malarial poisoning, cachexia, or a state of general debility and tissue-degeneration of a fatty or lardaceous character, involving the intestinal tube with other tissues in general atrophy.

Etiology.—In considering the causes of tropical diarrhœa, we must refer to those already mentioned as giving rise to dysentery; for it is difficult to draw any line of distinction between the diseases; and, where official returns are obscure in this respect, it may, no doubt, be ascribed to the uncertainty of diagnosis. So much is this the case, that, in the General Civil Returns, dysentery and diarrhœa are not separated.

Diarrhœa is a symptom of disease rather than a disease itself. It may depend on several causes:

1. On an effort to rid the intestine of offending ingesta, whether of food, drink, drugs, poisons, entozoa, acrid secretions, or the like.

2. On hepatic, splenic disease, or derangement of these functions, and portal congestion; on structural or functional disturbance in the abdominal viscera; changes in the mucous membrane and follicles of the intestines.

3. On a condition of general disease (when it is eliminative of morbific matter in the blood), as in septicæmia, renal disease, gout, fevers, dysentery, typhoid, cholera, tuberculosis, cancer, scurvy, anæmia.

4. On the reabsorption into the blood of excretions and secretions, the suppression of natural discharges (when it is vicarious).

5. On exposure to malarial and climatic influences, miasmata of various kinds, especially of decomposing fœtid organic matters, alcoholic intemperance, foul air and gases, sudden alternations of heat and cold, of dry or moist air.

6. On mental emotions, such as fear, anxiety, anticipation (when it is reflex).

7. And it may be the result of degeneration and atrophy of the tissues generally, but of the bowel in particular, as a consequence of starvation or of malarial cachexia (when it is wasting and chronic).

Symptomatology.—One of the most troublesome, tedious, and often dangerous forms of diarrhœa, often intractable and obstinate in character as it is exhausting in its effects. Though generally seen in those who have spent many years in hot climates, it occasionally occurs in others who have been there but a short time. It is known as "diarrhœa alba", or white flux—so called from the grey, whitish, light or clay-coloured evacuations, which are frequent, copious, fluid, or semi-fluid, often frothy, and occasionally lienteric, especially after any indiscretion in diet: or mixed with mucous tinged with blood, when any fresh source of enteric irritation or congestion may have been induced.

The appearance of persons suffering from this disease is characteristic. They are pale and emaciated, with loose, dry, flaccid, flabby skin, which in later stages becomes discoloured, as in chloasma or Addison's disease. The fat disappears; the eyes are pearly; the lips and conjunctivæ are blanched; the tongue is dry and smooth, and, in advanced stages, it appears contracted and shrunk—its papillæ are obliterated, the surface is red, glazed, and dry; at times its edges are excoriated, and the buccal mucous membrane becomes the seat of aphthous spots or epithelial proliferation, and so tender and sensitive as to be intolerant of wine or any substance or fluid in the least pungent or stimulating.

The earlier phases are often characterised by some evidence of malarious poisoning, such as fever, neuralgia, or myalgia. Distension of the abdomen, especially after food; dyspepsia; irritability of the bowels, which are provoked by anything taken into the stomach to expel their contents; general languor and debility, mental and physical—all increase, until all exertion is difficult and distasteful. As the diarrhœa gradually increases, these symptoms may to a certain extent be mitigated, and the patient think himself better; but, as it insidiously progresses, the strength fails, and sooner or later he feels himself compelled to give up work, and seek recovery in change of climate. There is at last extreme anæmia; dropsical effusions take place in the areolar tissue of the lower extremities.

Pathology and Morbid Anatomy.—It has long been known that the disease is associated with chronic disease of the liver. Annesley, Twining, and others, have described it. Martin, Grant, Goodeve, and others, have pointed out its connection with visceral disease and wasting of the tissues, with general anæmia; whilst *post mortem* examinations have demonstrated the attenuated, blanched, and atrophied state of the mucous membrane and follicles of the intestines. E. Goodeve has given an account of the state of the mucous membrane and glands, showing that in some cases they were in a state of amyloid degeneration; as I also pointed out in a paper written three or four years ago. He says that, "in children dying of the inflammatory form of diarrhœa, there may be some swelling of the follicles and Peyer's patches; but in the chronic forms there may not be much surface-change, except in the inflammatory varieties. There may be traces of redness in patches, ulceration of the glandular structures in various states of repair, greyness of portions of the mucous membrane, black or dark margins to the ulcerated tissues or healed ulcers, and puckering and contraction. In some chronic diarrhœas, especially those with the white flux, in spite of the long duration of the disease, little or no change of the mucous surface is to be found. There is great thinning of all the coats of the small intestines, so that they are quite translucent; and there is doubtless atrophy of the glandular tissues." "When these patients have had dysenteric symptoms towards the close of life, ulceration or sloughing of portions of the colon may be found.

The mesenteric glands are generally enlarged and hardened in all chronic diarrhœas, but especially in the white flux. The liver is not necessarily altered, even in the white diarrhœa; but it has been found flaccid, anæmic, and small or of natural size, but without any decided morbid appearance. It occasionally presents patches of fatty degeneration; but this is not peculiar to diarrhœa." (Article "Diarrhœa", in Reynolds's *System of Medicine*, vol. i, pp. 96, 97.)

Treatment.—The commencement of chronic diarrhœa is often insidious, and the disease gains ground before radical measures are resorted to for its removal. In the cases that come under notice at home, the most essential step towards recovery has been taken by returning to Europe; but there remains much to be done to further the improvement, which may probably have advanced considerably during the sea-voyage.

The successful treatment of chronic diarrhœa depends very much on the patient's resolution and perseverance in carrying out the instructions he receives. Diet is the most important element in it, and this must be strictly regulated. All irritating or indigestible and solid food must be at first entirely prohibited, and only that which is most easily assimilated allowed. Milk, alone, or (better) diluted with about one-fourth or one-third part of lime-water, given in small quantities and at frequent intervals—say a wineglassful or small tumblerful every second or third hour, in some cases more frequently—will generally be found to answer, and may be continued for a long time, to the exclusion of all other food, with great advantage. Milk undiluted will not always agree, as may be seen by its causing irritation, frequent purgation, and the passage of undigested caseine. But it is quite sufficient for all purposes of nutrition; and by the time the patient finds that he is taking three or four quarts a day, he will have realised that he obtains from it all that is needed to support health and strength. At first he may lose weight, but soon regains and increases it. Beef-tea, raw beef-juice, or other plain animal broth, free from extraneous matters; a raw egg beaten up with milk, to which a teaspoonful of brandy may be added, will sometimes be tolerated. Arrowroot, tapioca, or other plain farinaceous food, will sometimes, but not always, answer—certainly not at first. Tea and coffee, as a general rule, disagree, and should be avoided. Stimulants, especially for those who have long been habituated to their use, may be needed. The best are a little whiskey or brandy diluted with Vals or Vichy or potash water; but these should be laid aside if they increase the action of the bowels. A little good port wine may be tried; but, as a general rule, I find all wines unsuitable. Regularity in the times of administration and in the quantity of nourishment given is most essential. The greatest care should be taken not to give too much of anything at a time, and at once to discontinue whatever appears to disagree.

In concluding, I must express the great obligation that I am under to Professor Aitken, F.R.S., of Netley, for the valuable preparations he has allowed me to place before you from the Netley Museum, as well as for much valuable information derived from his writings. I am also especially indebted to Dr. McConnell of Calcutta for the interesting recent specimens and cases with which I have been able to make these lectures, I hope, of some practical value; to Drs. K. McLeod, Cayley, and Chumdra, of the Medical College, for their valuable clinical contributions; and also to Dr. Jones of the Calcutta General Hospital, Dr. Coull Mackenzie and Khan Bahadoor Tameez Khan for most valuable reports; as also to Mr. Buckland of the Civil Service, for valuable information regarding the shipping population of Calcutta; to my old friend and colleague Dr. Chevers, for his valuable communication on the exuviæ of dysentery; to Surgeon-Major Dr. A. Clarke, A.M.D., and Fleet-Surgeon Dr. Lilburn, R.N., for valuable statistical information; and, lastly, to the sanitary officers, who are doing such important work in India; and to the many authors, ancient and modern, from whom I have derived information.

It only remains for me to thank you, Sir, and the members of the Society, for the indulgent patience with which you and they have listened to me.

ST. MARY'S HOSPITAL.—A *conversazione* was given on Wednesday evening last in the Board-room, by the St. Mary's Hospital Medical Society, of which Mr. Herbert Page is President. The company was numerous, and included the medical officers of the hospital, many old pupils, practitioners of the neighbourhood, and present students. The objects exhibited comprised scientific instruments of various kinds, pictures, china, and numerous microscopical and other preparations. Several performances on a grand piano were given in the course of the evening by Messrs. E. F. Clarke and C. Graham Hamell, who thereby contributed much to the pleasure of the guests.

ON THE CURABILITY OF ATTACKS OF ACUTE PHTHISIS.*

By McCALL ANDERSON, M.D.,
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UNDER the term "acute phthisis", we do not class ordinary cases of consumption accompanied by fever; for the disease never runs its course without more or less elevation of temperature, at some period or another, especially when new portions of lung-tissue are being invaded. But, from a clinical point of view, we apply it to acute pulmonary affections, accompanied by high and continuous fever, which run a rapid course, and lead to more or less destruction of lung-tissue, if the patient survive long enough—cases which, in their symptoms, at first sight, bear some resemblance to typhus, or to severe attacks of typhoid fever.

There are probably three varieties of this disease:

1. "Acute pulmonary tuberculosis", when the lungs are more or less abundantly studded with grey, semitransparent, miliary tubercles:
2. "Acute pneumonic phthisis", when the disease commences with pneumonia—generally acute catarrhal pneumonia—the exudation in connection with which undergoes caseous metamorphosis, followed by rapid and extensive destruction of the pulmonary tissue:
3. "Acute pneumonic phthisis", as above, which becomes secondarily complicated with the development of grey miliary tubercles.

As far as my experience goes, it is impossible, during life, to distinguish the second from the third variety; but the first may be at least suspected, when the disease sets in suddenly with high fever, great prostration, profuse perspiration, lividity, and great acceleration of breathing, with perversion of the pulse-respiration ratio—symptoms which, at first at all events, are out of all proportion to the results obtained from a physical examination of the chest.

It has been said of the cases which I formerly published, that they were not illustrations of true tubercular, but of pneumonic phthisis. Now, I do not think that this is true of all of them; but I am not much concerned in defending the position, as I would not be surprised if it turns out that acute pneumonic phthisis is the more necessarily fatal of the two, seeing that it leads to fearfully rapid and extensive destruction of lung-tissue, while in acute tubercular phthisis this is comparatively trifling; and that tubercle is not in itself necessarily fatal is well known, as is illustrated by an interesting case reported by Spencer Wells, in his work on *Diseases of the Ovaries*. This was the case of a young lady, aged 22, who had an enlargement of the abdomen, which, it was supposed, might be due to "a thin non-adherent unilocular ovarian cyst". Accordingly, a small incision was made below the umbilicus, and the peritoneum opened. "A large quantity of opalescent fluid escaped, and then the whole of the peritoneum was seen to be studded with myriads of tubercles. Some coils of small intestine were floating; but the great mass was bound down with the colon and omentum, all nodulated by tubercle, towards the back and upper part of the abdomen. The uterus and ovaries were felt to be of normal size, but their peritoneal coat was very rough." This patient made a good recovery, and has since married.

The general opinion of the profession, with regard to the fatality of acute phthisis, may be gathered from the following extracts.

Walshe observes that "the treatment of acute phthisis is far from being well understood; the rarity with which the disease is diagnosticated explains this. Leudet, as a matter of experience, lauds the expectant method: better trust to the efforts of nature than run the risk of doing harm by purely tentative interference. Perhaps he is right. Still it is painful to look on, a mere spectator". (*Practical Treatise on Diseases of the Lungs*. Fourth edition. London: James Walton. 1871.)

Sir Thomas Watson, speaking of acute pneumonic phthisis, says: "Over cases of this acute nature, medicine can have very little effective control;" and, with reference to acute tubercular phthisis: "I can offer you no counsel as to the treatment of these sad cases; they baffle our art, and they are always, so far as I know, fatal. All that can be attempted is to assuage the severity of the most distressing symptoms." (*Principles and Practice of Physic*. Vol. ii. Fifth edition. London: Longmans, Green and Co. 1871.)

Trousseau's opinion is as follows: "In galloping phthisis, the prognosis is death. Death, sooner or later, is invariably the termination. Hitherto, art has unfortunately proved unable to contend against this redoubtable malady; it is still more distressing to know that we have

* Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Cambridge, August 1880.

not the power even to alleviate the condition of sufferers by whom we may be consulted." (*Clinical Medicine.* Vol. iii. The New Sydenham Society. London: 1870.)

Finally, Sir Robert Christison, in a letter to me, dated June 1877, remarks as follows: "Sceptics will say there is no satisfactory evidence of the presence of the peculiar forms of those diseases with which your treatise is concerned, except their presence on dissection. But I can say, in regard to your cases of consumption.....that your histories exactly correspond with those of all the cases of 'galloping' consumption which I have seen, and whose nature was demonstrated by examination after death. I used to see such cases not unfrequently, when I was hospital physician here; and was struck—paralysed, in short—by the utter hopelessness of accomplishing even any material palliation by any sort of treatment. Your success is, therefore, most remarkable."

The cases to which reference has just been made tend to show, that, if the disease is grappled with early and energetically, and with an expectation of success, the prognosis is much more favourable than is generally admitted; and I have only to add, that, since my first cases were published in the *Lancet*, more mature experience has still further corroborated the view which I then ventured to express.

The following is a short outline of the kind of treatment from which good results may sometimes be expected.

1. The services of a thoroughly trained and capable nurse are indispensable; for, without admirable nursing, there can be little hope of benefit from treatment. The patient should be fed constantly (every hour, or even sometimes every half-hour) with milk or soup; the latter, however, being avoided if there be any diarrhœa; and, in every case, stimulants (varying from about four to ten ounces daily) are required, but should be given in small quantities, frequently repeated.

2. Each night, at bedtime, a subcutaneous injection of sulphate of atropia (gr. 1-100th to 1-60th) is given. This not only acts as a sedative to the system, and tends to check perspiration, but likewise, I think, diminishes the secretion from the lungs, and helps to reduce the fever.

3. Remedies are given specially with the view of lowering the temperature; and this is a point of the utmost consequence, as the majority of the patients die consumed by the fever. With this object in view, one or more of the following three methods of treatment are employed:

(a) The application of iced cloths to the abdomen, in the manner and with the precautions fully detailed in a former communication. (*Lectures on Clinical Medicine, delivered in the Royal and Western Infirmaries of Glasgow*, page 165. London: Macmillan and Co. 1877.)

(b) The administration daily, particularly shortly before the temperature tends to be highest, of from ten to thirty grains of quinine—given, as suggested by Liebermeister, either in a single dose, or within an hour.

(c) Niemeyer's antipyretic pill, composed of one grain of quinine, half a grain of digitalis, and a fourth of a grain of opium. The effect of the digitalis must be carefully watched; and it must be omitted, for a time at least, if the pulse become preternaturally slow and irregular, and the secretion of urine very scanty; and it may be necessary to increase the dose of the opium even to three-fourths of a grain, with the view of checking diarrhœa or abundant secretion from the lungs.

Such is an outline, in a general way, of the kind of treatment by which, in my opinion, the progress of the disease may sometimes be arrested; but, of course, no two cases can be treated exactly alike; and the surroundings of each must be carefully studied, and special treatment adapted to special symptoms and complications.

I have now had the opportunity of treating, or of assisting throughout in the treatment of eight cases of acute phthisis, on the above plan; and of these, three have proved fatal. In two of them, the disease was so far advanced, and the amount of lung-tissue destroyed so great, when treatment was commenced, that there was hardly any hope of improvement from the first. In one of these only was a *post mortem* examination obtained, the results of which were published in the communication already alluded to. The third case proved fatal, owing to perforation of the left lung, which was found to be studded with grey miliary tubercles. Of the remaining five cases, one is at present under treatment, and the result is therefore doubtful—although, meantime, there is decided improvement, especially as regards the fever, which is now almost in abeyance. The four remaining cases have terminated in recovery. One of these has not yet been published; and is inserted, therefore, in the JOURNAL as an appendix, along with the case which proved fatal by perforation.

APPENDIX.

Case of Acute Phthisis illustrating the question of Diagnosis; Fatal from Perforation.—Jane D., aged 19, mill-girl, was admitted into the Western Infirmary of Glasgow on March 1st, 1880, having been seen by me on the previous day, in consultation with Dr. William Young of Parkhead. The history of her illness, as obtained from her mother, was that, in the beginning of winter—it might be November—she caught cold, but not on account of any unusual exposure; and since then, she had a trifling cough.

Two months ago, while at work, she had an attack of hæmoptysis, and also during the same evening after going home; but, although the quantity of blood was said to have been considerable, no more precise estimate could be obtained. The blood at first was said to have been bright in colour, rather thickish, and not frothy. It continued to be expectorated during the next three days at frequent intervals, and, for some days following, she continued to have blood-tinged sputa. Previously to this, the cough was unaccompanied by expectoration, but a pain was occasionally complained of under the left nipple, and also at times under the left clavicle, during the act of coughing. About four weeks before admission, her appetite began to fail; and, ten days ago, she returned from her work complaining of shivering and general *malaise*, followed by burning heat of skin, and perspiration. At this time, too, the cough became more frequent, and she began to suffer from some shortness of breath. For the last few days, her bowels, which were generally costive, had become rather loose.

She seemed to have enjoyed good health until her present illness began; indeed, her mother said she was exceptionally healthy, and very stout. Menstruation began about fifteen, and had been very irregular, the last flow having been about four months ago. Her father and mother were alive and well. She was one of a family of eleven, three of whom died at the ages of ten, eighteen, and twenty, respectively, of consumption; the first said to have been of galloping consumption, after nine weeks' illness.

Examination on Morning of Admission.—There were great prostration and slight emaciation. Sweating was profuse and pretty constant. Decubitus was dorsal with the head elevated. She had great shortness of breath; slight lividity of the cheeks; the tongue was dry and cracked: great thirst; complete anorexia; bowels loose (three or four motions in twenty-four hours). Cough was frequent and soft, but there was no expectoration. The pulse was so rapid and feeble, that it could not be counted; but the cardiac pulsations were 160 per minute; respirations 60. The abdomen was natural; no distension; no tenderness anywhere, even on the firmest pressure; and no eruption. *Right Lung:* There was no dulness anywhere, but bronchitic *râles* all over; moist and pretty abundant at the base, musical above. *Left Lung:* Breathing was feeble over the whole lung, with distinct dulness and resistance on percussion in the left infraclavicular region, from the second rib downwards for a couple of inches, and to a less extent in the corresponding region behind. In the last situation, there was indistinct subcrepitant *râle*, which, however, was more decided at the base. The urine was acid, scanty, with a copious deposit of urates; specific gravity 1028. The chlorides were normal; no albumen. For the temperature, pulse, and respiration, see the accompanying table.

		T.	P.	R.			T.	P.	R.
March 1,	9 A.M.	101.6	160 (a)	60	March 3,	P.M.	[illegible]	[illegible]	—
,,	12 ,,	100.4	—	—	,,	6 ,,	[illegible]	—	
,,	3 P.M.	100.4	—	—	,,	9 ,,	[illegible]	152	44
,,	6 ,,	102.9	—	—	,,	12 ,,	[illegible]	—	—
,,	9 ,,	104.0	150	72	,, 4,	3 A.M.	[illegible]	—	—
,,	12 ,,	102.2	—	—	,,	6 ,,	[illegible]	—	—
,, 2,	3 A.M.	101.8	—	—	,,	9 ,,	[illegible]	140	60
,,	6 ,,	101.2	—	—	,,	12 ,,	[illegible]	—	—
,,	9 ,,	101.4	150	60	,,	3 P.M.	[illegible]	—	—
,,	12 ,,	101.4	—	—	,,	6 ,,	[illegible]	—	—
,,	3 P.M.	102.4	—	—	,,	9 ,,	100.4	[illegible]	[illegible]
,,	6 ,,	103.4	—	—	,,	12 ,,	[illegible]	—	—
,,	9 ,,	104.4	140	52	,, 5,	3 A.M.	[illegible]	—	—
,,	12 ,,	101.6	—	—	,,	6 ,,	[illegible]	—	—
,, 3,	6 A.M.	100.2	—	—	,,	9 ,,	[illegible]	—	—
,,	9 ,,	100.4	140	52	,,	12 ,,	[illegible]	—	—
,,	12 ,,	101.0	—	—	,,	3 P.M.	[illegible]	—	—

a, cardiac; *b*, irregular.

The opinion formed with regard to the case was, that it was one of acute phthisis, very probably tubercular; but, as some doubt had been thrown on the accuracy of my diagnosis in former cases, I determined to get the opinion of two of my colleagues, who, however, could not satisfy themselves as to the nature of the case.

The patient died on March 5th, five days after admission. The *post mortem* examination was made by Dr. Foulis, with the following result. The body was not emaciated. On opening the chest, the left lung was found collapsed; and the left pleura, which was covered with a thin grey layer of very recent soft lymph, was filled partly by air and partly by slightly turbid serum. There were a few old adhesions near the left apex. The left lung was quite compressed, and flattened against the spine. An attempt was made to detect a possible rupture in the lung-tissue, by filling the chest with water and inflating from the trachea,

but without success. On laying the lung open, it was seen to be studded with numerous miliary tubercles, in groups and single. At the lower and anterior part of the lung was a small pus-filled cavity, about the size of a plum; and, near it, several minute cavities. In the vicinity of these cavities, the tubercles were softer than elsewhere. In the right lung, the tissue was bright red, crepitant, and free from tubercles, except at one or two spots. On the posterior wall of the larynx was a slightly eroded patch, with an apparent infiltration of the mucous glands near it. No tubercles were seen in any other organ.

In this case, the fatal issue was evidently due to the complication of perforation of the lung.

Case of Acute Phthisis, terminating in Recovery.—Adam B., aged 25, carter, was admitted May 20th, 1879. His father and mother seemed to have died of heart-disease; and, of a family of five, two died in infancy, while a brother and sister, both older than himself, were alive and well. He had been very intemperate in his habits, but never had an hour's sickness until the onset of the present illness, four weeks before admission. It set in on a Sunday morning with a feeling of sickness, which caused him to return to bed. In the evening, he began to cough, and expectorated blood, at first black and clotted, he said; afterwards, bright red. The hæmorrhage continued for four days, but in greatly diminished quantity, and consisted more of a blood-stained spit than of unmixed blood. The cough continued severe all this time, but disappeared in great measure with the hæmoptysis, about the fourth or fifth day. The day after the onset of the hæmorrhage, he experienced severe pain in the right side of the chest, referred to the mammary and suprascapular regions, aggravated by coughing, and by lying on the right side. A week after he lay down, the bowels began to be troublesome, moving frequently as often as five times in twenty-four hours; the stools being thin, and yellowish in colour, but not very copious. They had continued in this state ever since. He had never passed any blood. At first, the urine was passed very frequently, as often as every five minutes, though not much at a time, but there was no trouble of that kind now.

Examination on Admission.—The patient was much emaciated, and very weak and exhausted. The skin was dry and hot, with perspirations at night, and temperature 103°; pulse 110, feeble; respirations 40, shallow and noisy; pulse-respiration ratio 2¾ : 1. He had occasional slight cough, with scanty clear mucous expectoration. Decubitus was dorsal. He had a slight flush on each cheek, and slight lividity of lips. The alæ nasi dilated on inspiration. The tongue was slightly coated, and moist. He had anorexia. The bowels were loose. There was no distension of the abdomen; no gurgling or tenderness in either iliac region; no eruption. The urine was 32 ounces, high-coloured, acid, of specific gravity 1025; it contained a trace of bile, but no albumen. At the base of the right lung were signs of very moderate pleuritic effusion, viz., slight bulging with defective movements, marked dulness, feeble breathing, diminished fremitus and resonance. At the left apex (especially in the supraclavicular and infraclavicular regions) were defective movements, slight flattening, moderate dulness. Moist (subcrepitant), mixed now and then with dry, *râles* were heard, and there was increased fremitus and resonance. At the base of the same lung posteriorly, there was marked dulness, with very coarse crackling *râle*, and increased fremitus and resonance; over the rest of the lung, there was a general want of resonance, with a mixture of dry and moist (subcrepitant) *râles*. There was no evidence of disease in any other organ. For temperature, pulse, and respirations, see accompanying table.

			T.	P.	R.
May	23,	11 A.M.	102.4	—	—
,,	,,	2 P.M.	[illegible]	—	—
,,	,,	5 ,, ...	[illegible]	—	—
,,	,,	8 ,, ...	[illegible]	—	—
,,	,,	11 ,, ...	—	—	—
,,	24,	2 A.M.	[illegible]	—	
,,	,,	5 ,, ...	—		
,,	,,	8 ,, ...	[illegible]		
,,	,,	11 ,, ...	[illegible]	—	
,,	,,	2 P.M.	[illegible]	—	
,,	,,	5 ,, ...	[illegible]	—	
,,	,,	8 ,, ...	[illegible]	—	
,,	,,	11 ,, ...	[illegible]	—	
,,	25,	2 A.M.	[illegible]	—	
,,	,,	5 ,, ...	[illegible]	—	
,,	,,	8 ,, ...	[illegible]	—	
,,	,,	11 ,, ...	[illegible]	—	
,,	,,	2 P.M.	[illegible]	—	
,,	,,	5 ,, ...	[illegible]	—	
,,	,,	8 ,, ...	[illegible]	—	
,,	,,	11 ,, ...	[illegible]	—	
,,	26,	2 A.M.	[illegible]	—	
,,	,,	5 ,, ...	[illegible]	—	
,,	,,	8 ,, ...	[illegible]	—	
,,	,,	11 ,, ...	[illegible]	—	
,,	,,	2 P.M.(a) .	101.0	—	32
,,	,,	5 ,, (c) ..	101.4	108	36
,,	,,	8 ,, ...	102.0	112	32
,,	,,	11 ,, ...	99.0	90	36
,,	27,	2 A.M.	101.0	110	27
,,	,,	5 ,, ...	103.0	114	36
,,	,,	8 ,, ...	101.0	96	26
,,	,,	11 ,, (e) ..	101.0	96	24
,,	28,	2 A.M.	101.2	99	26
,,	,,	5 ,, ...	102.0	96	24
,,	,,	8 ,, ...	102.2	102	24
,,	,,	11 ,, ...	101.0	92	26
,,	,,	2 P.M. (c)..	100.0	—	28
,,	,,	5 ,, ...	103.4	108	28
,,	,,	8 ,, (e) ..	102.0	—	24
,,	,,	11 ,, ...	101.0	92	22
June	1,	2 A.M.	99.8	92	21
,,	,,	5 ,, ...	99.6	88	24
,,	,,	8 ,, ...	99.8	—	28
,,	,,	11 ,, ...	99.3	96	24
,,	,,	2 P.M.(c) ..	99.8	81	23
,,	,,	5 ,, ...	101.4	96	22
,,	,,	8 ,, ...	100.4	96	22
,,	,,	11 ,, (e) ..	99.8	92	20
,,	2,	2 A.M.	99.6	90	26
,,	,,	5 ,, ...	—	86	24
,,	,,	8 ,, ...	101.2	92	20
,,	,,	11 ,, ...	100.0	88	28
,,	,,	2 P.M.	99.3	88	28
,,	,,	5 ,, (.) ..		88	28
,,	,,	8 ,, ...	102.4	106	35
,,	,,	11 ,, (f) ..	100.0	90	21
,,	3,	2 A.M.	99.0	82	18
,,	,,	5 ,, ...	—	—	22
,,	,,	8 ,, ...	101.0	92	24
,,	,,	11 ,, ...	101.6	—	26
,,	,,	2 P.M.	101.4	—	20
,,	,,	5 ,, ...	101.6	—	22
,,	,,	8 ,, (e) ..	101.4	88	28
,,	,,	11 ,, (g) ..	102.6	92	22
,,	4,	2 A.M.	101.4	—	19
,,	,,	5 ,, ...	102.6	76	19
,,	,,	8 ,, ...	100.8	92	—
,,	,,	11 ,, ...	101.2	92	26
,,	,,	2 P.M.	100.8	84	28
,,	,,	5 ,, (e) ..	101.4	88	25
,,	,,	8 ,, ...	101.2	92	27
,,	,,	11 ,, (h) ..	100.6	86	22
,,	5,	2 A.M.	101.0	86	19
,,	,,	5 ,, ...	—	78	18
,,	,,	8 ,, ...	98.6	80	24
,,	,,	11 ,, ...	99.0	80	24
,,	,,	2 P.M.	100.0	—	24
,,	,,	5 ,, (e) ..	—	—	—
,,	,,	8 ,, ...	101.6	92	26
,,	,,	11 ,, (i) ..	100.2	86	22
,,	6,	2 A.M.	99.8	86	24
,,	,,	5 ,, ...	100.6	78	22
,,	,,	8 ,, ...	—	84	26
,,	,,	11 ,, ...	98.8	84	26
,,	,,	2 P.M.	98.8	80	26
,,	,,	5 ,, (k) .	—	84	30
,,	,,	8 ,, ...	101.4	84	28
,,	,,	11 ,, (l) ..	—	94	24
,,	7,	2 A.M.	—	84	22
,,	,,	5 ,, ...	98.6	82	22
,,	,,	8 ,, ...	99.8	92	26
,,	,,	11 ,, ...	100.0	85	24
,,	,,	2 P.M.	—	88	24
,,	,,	5 ,, ...	99.6	—	28
,,	,,	8 ,, (i) ..	—	88	—
,,	,,	11 ,, ...	100.4	94	28
,,	8,	2 A.M.(m)..	—	90	22
,,	,,	5 ,, ...	99.2	82	19
,,	,,	8 ,, ...	99.8	92	24
,,	,,	11 ,, ...	98.4	90	24
,,	,,	2 P.M.	99.4	80	20
,,	,,	5 ,, ...	100.4	85	—
,,	,,	8 ,, ...	—	90	26
,,	,,	11 ,, (l) ..	99.8	—	20
June	9,	2 A.M.	100.0	—	20
,,	,,	5 ,, ...	99.8	78	—
,,	,,	8 ,, ...	98.6	—	18
,,	,,	11 ,, ...	99.0	78	—
,,	,,	2 P.M.	—	88	28
,,	,,	5 ,, ...	100.4	82	24
,,	,,	8 ,, ...	99.4	88	24
,,	,,	11 ,, (l) ..	99.8	80	22
,,	10,	2 A.M.	99.8	86	19
,,	,,	5 ,, ...	99.4	82	24
,,	,,	8 ,, ...	99.6	80	24
,,	,,	11 ,, ...	99.1	—	26
,,	,,	2 P.M.	99.6	82	26
,,	,,	5 ,, ...	99.2	88	24
,,	,,	8 ,, ...	99.0	82	24
,,	,,	11 ,, (n) ..	99.6	—	18
,,	11,	2 A.M.	99.8	72	20
,,	,,	5 ,, ...	99.2	—	—
,,	,,	8 ,, ...	99.0	82	24
,,	,,	11 ,, ...	98.0	78	21
,,	,,	2 P.M.	—	88	24
,,	,,	5 ,, ...	99.4	88	24
,,	,,	8 ,, ...	99.2	84	22
,,	,,	11 ,, ...	100.2	82	—
,,	12,	2 A.M.	99.2	82	22
,,	,,	5 ,, ...	99.8	88	20
,,	,,	8 ,, ...	99.2	84	24
,,	,,	11 ,, ...	98.4	84	20
,,	,,	2 P.M.	99.6	—	24
,,	,,	5 ,, ...	100.2	88	—
,,	,,	8 ,, ...	100.0	90	30
,,	,,	11 ,, ...	99.2	84	24
,,	13,	2 A.M.	99.4	82	20
,,	,,	5 ,, ...	99.3	80	26
,,	,,	8 ,, ...	98.6	78	26
,,	,,	11 ,, ...	99.2	88	24
,,	,,	2 P.M.	—	88	24
,,	,,	5 ,, ...	99.6	85	24
,,	,,	8 ,, ...	99.0	84	24
,,	,,	11 ,, (n) ..	99.8	80	18
,,	14,	2 P.M.	98.6	78	—
,,	,,	5 ,, ...	99.0	82	—
,,	,,	8 ,, ...	—	—	—
,,	,,	11 ,, ...	—	80	24
,,	,,	2 P.M.	99.0	84	24
,,	,,	5 ,, ...	99.2	84	26
,,	,,	8 ,, ...	98.6	78	26
,,	,,	11 ,, ...	99.2	88	24
,,	,,	2 P.M.	—	88	24
,,	,,	5 ,, ...	99.6	85	24
,,	,,	8 ,, ...	99.0	88	24
,,	,,	11 ,, (n) ..	99.8	80	18
,,	15,	2 A.M.	99.2	78	18
,,	,,	5 ,, ...	99.2	86	22
,,	,,	8 ,, ...	99.8	88	24
,,	,,	11 ,, ...	—	80	24
,,	,,	2 P.M.	98.6	—	24
,,	,,	5 ,, ...	98.8	80	24
,,	,,	8 ,, ...	98.2	88	26
,,	,,	11 ,, ...	98.4	—	22
,,	,,	2 P.M.	98.4	—	22
,,	,,	5 ,, ...	98.4	80	24
,,	,,	8 ,, ...	98.4	—	—
,,	,,	11 ,, ...	—	78	18
,,	17,	2 A.M.	98.4	—	—
,,	,,	5 ,, ...	99.0	—	26
,,	,,	8 ,, ...	99.0	84	—
,,	,,	11 ,, ...	99.4	84	—
,,	,,	2 P.M.	98.4	88	22
,,	,,	5 ,, ...	98.8	80	24
,,	,,	8 ,, ...	99.0	82	24
,,	,,	11 ,, ...	98.2	80	18
,,	18,	2 A.M.	98.8	80	—
,,	,,	5 ,, ...	98.8	82	—
,,	,,	8 ,, ...	98.6	80	24
,,	,,	11 ,, ...	98.6	80	24
,,	,,	2 P.M.	98.6	80	24
,,	,,	5 ,, ...	99.2	80	20
,,	,,	8 ,, ...	98.6	80	20
,,	,,	11 ,, ...	98.6	80	20

(a) First pill of quinine, digitalis, and opium. (*b*) Ninth pill.
(c) Ten grains of quinine. (*d*) Pills resumed; ice cloths begun.
(e) 1-100th grain of atropia. (*f*) 1-80th grain of atropia.
(g) 1-95th grain of atropia. (*h*) 1-90th grain of atropia.
(i) 1-75th grain of atropia. (*k*) No quinine. (*l*) 1-70th grain of atropia.
(m) Fifteen grains of chloral. (*n*) Atropia.

Treatment.—May 26th. He had milk or soup every hour, the latter being avoided so long as there was looseness; also quinine one grain, digitalis half a grain, opium half a grain, every four hours. The opium in the pills was increased on the 30th to three-fourths of a grain, on account of the looseness; but, on June 10th, as the patient was sweating a good deal, as the other symptoms were moderating, and as there had been no motion for four days, the pills were diminished to three daily.

On May 28th, iced cloths were applied to the abdomen for half an hour every two hours (it was afterwards ascertained that they had not been thoroughly used until the evening of June 4th, after which the

temperature fell more decidedly). In the latter stages, they were omitted whenever the temperature was below 100°. At the same date (May 28), two drachms of brandy every three hours were prescribed.

May 30th. Subcutaneous injections of atropia each night were commenced—$\frac{1}{100}$ of a grain, gradually increased to $\frac{1}{75}$. Half a dozen times during the course of the illness, a dose of ten grains of quinine was given when the temperature tended to be high, which was generally in the afternoon or evening; and occasionally the body was sponged with iced vinegar and water.

June 10th. The patient looked and felt very well, though weak and thin. The tongue was moist, and only slightly coated with a white fur. The appetite was much improved. There had been no movement of the bowels for four days. The perspirations were still considerable, but only in the mornings. Pulse 80, of fair strength; respirations 24; pulse-respiration ratio 3½ : 1. The temperature during the last twenty-four hours never rose to 100°, the highest being 99.8°; and, during the previous twenty-four hours, it only reached 100° on three occasions, and twice was normal. The cough was less troublesome than on admission; expectoration was very scanty, and consisted of clear mucus. The physical signs were improved to this extent, that the very coarse *râles* at the left base had disappeared, being replaced by *râles* which were partly musical and partly moist. The effect of the digitalis on the secretion of urine was well marked; for, on the four days preceding the administration of the pills, the amount discharged was 32, 30, 26, and 23 ounces; and, on the following four days, 60, 72, 90, and 73 ounces.

It is unnecessary to give the whole of the reports, which were taken from time to time, but the following are sufficient to illustrate the progress towards recovery.

June 17th. There was decided improvement in the physical signs, the *râles* having almost disappeared from the chest, except at the left base, where, however, they were much less distinct than formerly. The temperature for the last few days had been normal, or nearly so, and there had been very little perspiration. The digestion was fair, and the bowels regular, though the motions were still inclined to be pale and loose. Three moderate meals daily were now allowed, and the atropia was stopped. On the 22nd, the pills were likewise omitted; but, on the 25th, as the perspirations had slightly returned, the atropia injections were resumed.

July 2nd. There was still slight expectoration, which was yellower than formerly; respirations 22; pulse-respiration ratio normal, the pulse being 86, and of good strength. All *râles* had disappeared from the left side of the chest, with the exception of occasional musical rhonchi posteriorly. The signs of effusion at the right base were diminishing. The temperature was normal, and the digestion natural; but the motions were still occasionally inclined to looseness. He was having good diet, including beef-steaks, etc.; and on the 1st. cod-liver oil in small doses was commenced, but was omitted on July 3rd on account of looseness, which recurred when the oil was resumed on the 8th. For this, a mixture of morphia and bismuth was given.

August 1st. He was going on favourably in every respect, and was rapidly gaining flesh and strength. The diarrhœa and perspirations had completely disappeared. Pulse 84, regular, of good strength; respirations 18. The expectoration was almost gone. The *râles* had disappeared from the chest altogether, and the dulness on percussion was much less pronounced than formerly, though there were still signs of moderate effusion at the right base. He was now taking six drachms of cod-liver oil daily, which was gradually to be increased to an ounce and a half. The morphia and bismuth mixture, from which he had derived much benefit, was continued, as also two ounces of brandy; and the atropia injections were ordered to be given every second night, or when necessary. He now walked out in the grounds occasionally.

August 14th. There was steady improvement. All the symptoms mentioned in the last report were less pronounced; in particular, there was distinct diminution in the dulness all over the chest. He was much fatter, and there was now a good deal of colour in his cheeks.

August 29th. He was now practically convalescent. There were no general symptoms whatever. His colour was excellent, and he had gained three-quarters of a pound within the last week. He had neither cough nor expectoration. Respirations 16 per minute. There was no trace of *râle* in any part of the chest, and the signs of pleuritic effusion at the right base were steadily diminishing. At the left base, the respiratory murmur was still somewhat feeble; and at the infraclavicular region there remained flattening, defective resonance, and harsh breathing. There was also dulness in the suprascapular region.

October 10th. As the patient was continuing to improve steadily, and as Dr. McVail, who was acting for me, was able to corroborate the statements in the last report, he was sent to Lenzie Convalescent Home.

This patient was readmitted at my request for a few days on November 27th, and was examined, with the following result, on the 30th. At the left apex, there was slight flattening with defective expansion, and slight dulness on percussion; the breathing was a little jerky, and the heart-sounds very loud. The heart had been drawn up, the apex being nearly at the nipple. At the left base, there was still some dulness remaining, but the breathing was almost natural; and, at the right base, where the effusion had been, there was also some dulness, and the breathing was slightly feeble. There were no chest symptoms, and he felt in perfect health.

The following note shows his progressive increase in weight:

	St.	Lbs.
August 18th	9	1
,, 25th	9	1¼
September 1st	9	4½
,, 10th	9	5
,, 15th	9	7¼
,, 29th	9	9
October 6th	9	9½
December 11th	9	11¼

Those who are specially interested in the subject will find the reports of the three other cases in the volume previously referred to.

ETHER *v.* CHLOROFORM.

By J. C. S. JENNINGS, F.R.C.S.Eng.

A DISCUSSION having been carried on in the pages of the BRITISH MEDICAL JOURNAL, during the month of November, upon the very important topic of "Ether *v.* Chloroform", by many who are competent to judge of, and endorse the very clear, and, to my mind, convincing statements and arguments of Mr. Jonathan Hutchinson, published on November 6th, I have thought it well to make a few remarks upon the subject; because it has been my practice, for many years, with very few exceptions, to use ether, instead of chloroform, in all cases where there are no pulmonary or bronchial affections, which appear to render it inadmissible—more especially in dislocations of the important joints, or in severe fractures, whether simple, compound, or comminuted. And it certainly is the duty, as it is to the comfort, of every surgeon engaged in provincial practice, who is liable to be called on at any moment, alone and unassisted, to have at his command an agent, safe and trustworthy, which does not require the help of any skilled assistant; and which, besides being reliable, is available in most cases of sudden emergency, also in many of the minor operations—such as those simply involving sections of the skin, removal of subcutaneous tumours, or dentistry. The question frequently is forced on my mind, whether recourse is not recklessly had to both the above named anæsthetics when local anæsthesia can be readily produced either by freezing mixtures, or by Richardson's ether spray.

A few years since, a paper was read at one of our meetings of the Bath and Bristol Branch, recording a death, after the administration of chloroform in a case of herniotomy. I took part in the discussion; and was then urged, by some of the members of the Branch, to give the results of my practice, with regard to herniotomy, without the administration of chloroform, and under circumstances generally considered adverse to its probable success. I read a paper at a meeting of that Branch of the Association, to show that it was frequently administered without any actual or urgent necessity for its use; and I endeavoured to prove the correctness of the views I held by reference to the eight subjoined cases of strangulated hernia, in which I had easily performed herniotomy without the aid of that or any other anæsthetic; and in all cases, excepting one in which gangrene of the bowel had commenced, with satisfactory results and speedy recovery.

CASE I. *Strangulated Femoral Hernia.*—On July 24th, 1851, I was hastily called on, at 10 P.M., to visit, at a distance of six miles, Maria K., aged 45. She had had diseased hip-joint since a girl, which had retarded the growth of the lower extremity. The thigh was flexed on the abdomen, and the knee crossed over the other thigh, so that she was not aware of the existence of the hernia in the deep sulcus thus formed in the femoral region. For some days she had bilious, followed by fæcal, vomiting. After having in vain tried the taxis, I operated by the flickering light of a dip-candle, held by an old woman. I found great difficulty in introducing the finger-nail beneath the tense ligament, owing to the rigid and flexed condition of the thigh, and almost required a hernia-knife with double the usual curve. After dividing the falciform process and fibres of the fascia propria, the bowel was returned without opening the sac. A dose of liquor opii was then given, and vomiting did not return. On August 19th, I found her quite well.

CASE II.—On August 31st, 1853, I was met on my rounds, and requested to see immediately Elizabeth H., aged 80. I found she had been ill four days, and was vomiting fæcal matter. Being nine miles from home, I resolved not to return, but, having my pocket-case, to operate immediately. The hernia was large, and very tightly constricted, but, after division of the ligament, was returned without opening the sac. She made a rapid recovery; and, seven years afterwards, became deranged in intellect, and shortly died.

CASE III.—James S., aged 48, had a large inguinal hernia, and had fæcal vomiting. On June 9th, 1856, I performed herniotomy, and returned the intestine and omentum without opening the sac. On June 17th, he was convalescent.

CASE IV.—William S., aged 80, on October 10th, 1860, had had constipation of the bowels for six days, from a large inguinal hernia; he had fæcal vomiting for two days; then constant hiccough. Herniotomy was performed without opening the sac. He had an opiate; and, next day, beef-tea and wine. The vomiting ceased, and he made a good recovery.

CASE V.—Catherine L., aged 45, had a large omental femoral hernia. On opening the sac on November 30th, 1860, I found the omentum gangrenous. A large handful was cut away, followed by deep venous hæmorrhage. The wound was closed with interrupted sutures, and an opiate given. On December 2nd, the bowels had not been relieved for six days, but were relieved after two enemata. The wound was dressed every other day till the 15th, when recovery was complete.

CASE VI.—Joseph J., on June 9th, 1866, had strangulated inguinal hernia; he had had fæcal vomiting for three days, with great prostration, wavy pulse; he was cold and clammy. Herniotomy was performed; the sac was opened; the bowel was gangrenous. On the 13th, he died.

CASE VII.—Mrs. W., aged 70, who had a femoral hernia of some years' standing, on October 27th, 1864, was unable to reduce it. On going to her, I was able to do so, with steady perseverance with the taxis, in a few minutes; and she had no further inconvenience till February 21st, 1866, when, after repeated attempts during the day without avail, she sent for me in the night, and I was again able to return it without much difficulty. On January 30th, 1867, after failing for two days to return it, I was again called to her at 3 A.M. I found her in great pain, with all the symptoms of strangulation. There was a severe frost, and the road was covered with ice. As plenty of ice could be obtained, I applied a freezing mixture of that, with salt; but, after patient attempts, found it impossible to return the bowel, which was distended with flatus, and rolling under pressure. Local anæsthesia having been fully produced, I at once performed herniotomy, by the light of a candle held by her son. On the 22nd, the bowels not having been relieved for four days, an enema was administered, and her recovery was rapid. The wound healed by the first intention; and, on the 26th, she was convalescent.

CASE VIII.—Jane F., aged 55, had strangulated femoral hernia and bronchitis. Frequent attempts to reduce it had been made. From October 8th to 13th, she had frequent distressing vomiting. I performed herniotomy, and returned the bowel without opening the sac. The bowels were relieved on the 15th. The wound healed by adhesive process. On the 20th, she was convalescent; her cough was troublesome.

Since the record of the foregoing cases, chloroform has been more generally resorted to in this class, especially when there has been a fair prospect that resistance of the tissues involved would be overcome by its use; that the hernia would be more readily returned under the taxis: and I know that many assert that, if it were always carried in the pocket, and used in all such cases, herniotomy would become a rare operation. Although my experience does not bear out this assertion, nevertheless the employment of ether or chloroform, or both combined, possesses great advantage in the early stage of such cases, although it does also frequently fail; but, with this view, I had recourse to its administration in three of the four following cases.

CASE IX.—J. G., an hotel-keeper, aged 45, had been subject for some years to reducible hernia; but, on January 10th, 1871, when lifting the carcase of a heavy fat pig, he felt a violent pain in the inguinal region. Shortly afterwards, he found himself unable to return the hernia, which had descended. A neighbouring surgeon, who happened to call at his house, was also unable to reduce it, but was sent for during the following night; and, after using the usual means, failed. About noon, the next day, I went to him; and, there being plenty of snow and ice at hand, applied a freezing mixture, but without avail. Then, hoping that the muscular tension would be overcome by chloroform, about three drachms were administered, thirty drops at intervals; but, after anæsthesia had been induced, the taxis failed to produce reduction. I therefore at once performed herniotomy, without administering more chloroform. The sac was not opened, the bowel readily returned, and the man made a rapid recovery.

CASE X.—Blucher B., aged 65, an epileptic, and subject to frequent bronchial attacks, had an old irreducible hernia of great size. After vainly attempting to reduce it for two days, violent symptoms of strangulation commenced. He sought the assistance of my partner, Dr. E. A. White, who was passing his house, and who employed the taxis without avail. Upon going to him shortly afterwards, I found he had had an epileptic attack early in the morning; but, with the assistance of Mr. Ernest White and my son, we decided to administer chloroform cautiously; and, should we then fail to return it, to perform herniotomy immediately. The tumour was very painful on manipulation. The pain was referred to the umbilicus. There were tympanites, a dry brown tongue, a frequent irritable pulse, great distress of countenance, and a febrile condition generally. There was as yet no actual vomiting; but the bowels had not been relieved for many hours. A small quantity of chloroform was administered; and, on taxis again proving unsuccessful, herniotomy was at once performed in the usual way, the point of resistance being at the internal abdominal ring. The sac was not opened, but the bowel and a large mass of omentum was returned. The wound was afterwards closed with interrupted sutures, and carbolic dressings applied. The patient made a rapid recovery.

CASE XI.—J. C., aged 60, a builder, about three years since, when rearing a long heavy plank of timber, was nearly overbalanced, and, during the necessary and sudden exertion, felt something give way in the left groin. Some time afterwards, he noticed a small swelling; and, about two years since, had symptoms of strangulation. On being sent for, I detected a small femoral hernia, but was able to reduce it in a few minutes. It afterwards gave him little inconvenience till the evening of November 29th, when he had great pain, and found himself unable to return it. After frequent attempts, and the employment of hot fomentations and poultices, a neighbouring surgeon was called in the following day, who applied ice and had recourse to the usual means without avail; and there was great tenderness on the least touch. In the evening of December 1st, after producing local anæsthesia by the application of ice and salt in a bladder, I performed herniotomy. After dividing the falciform process, the bowel could not be returned; for the stricture was caused, as indeed it usually is, by a few tense fibres of the fascia propria passing across the neck of the sac, producing great tension thereof, the bowel being distended with flatus. These being carefully divided with the hernia-knife, the bowel was easily returned without opening the sac. The wound was closed with interrupted sutures, and carbolic dressings applied. Thirty drops of nepenthe were given, but only an hour's sleep was obtained during the night, from intense pain at the pit of the stomach. The urine also was scanty, acid, and of a brick-dust appearance; but, after the bowels had been relieved, there were no untoward symptoms. The wound rapidly healed by the first intention, the adhesive action not being interfered with by the formation of pus. Chloroform was not administered: first, because the freezing system produced complete anæsthesia of the skin; and, secondly, because the patient suffered from feeble action of the heart.

CASE XII.—Thomas B., aged 58, had for some years an omental inguinal hernia, which, after sudden exertion and neglect to return it, had been strangulated thirty-eight hours, with intense pain and vomiting. I put him under chloroform, in the hope of being then able to reduce it; but, failing to do so, at once performed herniotomy. He rapidly recovered, without an untoward symptom, and at the end of a week was able to walk about as usual; shortly after to resume work; and is now in good health.

NERVE-STRETCHING IN ANÆSTHETIC LEPROSY.—Dr. James R. Wallace reports (*Indian Medical Gazette*, No. 1) two cases of advanced anæsthetic leprosy, both greatly benefited by this operation. The first case was of the arm, and a well marked case: the recovery of sensation was perfect, and the patches of discoloured anæsthetic skin recovered their colour and sensation, pain and numbness, etc., disappeared, and, at the end of two months, the improvement seemed confirmed and complete. Dr. Wallace observes that—"The application of Nussbaum's principle in the treatment of anæsthetic leprosy was first advocated by Professor McLeod of Calcutta, as a means of freeing the axis-cylinders of the nerves from the compression and constriction they undergo by a thickening of their connective tissue elements, or by a deposit within their sheaths, stated by Dr. Vandyke Carter to occur in anæsthetic leprosy. The success of this excellent mode of treating so distressing a condition has not yet had a sufficiently extended trial, the only recorded cases being those of Professors McLeod of Calcutta and Lawrie of Lahore. The perfect freedom of the operation from any dangerous complications when effected under antiseptic precautions, and the very salutary results that attend its application, ought to render its adoption more extensive in the relief of so prevalent a disorder."

SURGICAL MEMORANDA.

MULTIPLE LIPOMATA.

ABOUT fifteen years ago, when I was one of the acting surgeons of the British Royal Infirmary, a patient of mine, admitted, I believe, for fractured leg, drew my attention to a number of small nodules about his limbs, which had existed a long time, and which were productive of no inconvenience to him. I persuaded my patient to let me remove one. He agreed at once, and it was easily done, as they were all movable in the subcutaneous cellular tissue, with little or no adhesion to the skin. It proved to be a hard nodule of compressed fat, of the shape of a bean, with a thin case of tissue round it; and its section showed, under the microscope, the ordinary appearance of fat-cells and areolar tissue.

In my original case, which I still have under notice, there were about ten little tumours—firm, movable, and painless; they were arranged with almost perfect symmetry—viz., one just below the insertion of each deltoid, one just above the inner condyle of the humerus, one on either side of each forearm, and one on the upper part of the anterior aspect of each thigh. I know that they have existed *more than twenty-five years* without very much change. After an illness, an abscess formed round one of those on the thighs, and it sloughed out and never reappeared; the others have diminished lately, and one or two can scarcely be discovered; and this change is coincident, in point of time, with absorption of fat in other parts of the body.

I think this narrative will illustrate the case reported by Mr. Smith of Gosport in the JOURNAL of February 5th.

AUGUSTIN PRICHARD, Clifton, Bristol.

THERAPEUTIC MEMORANDA.

GELSEMINUM IN FACIAL NEURALGIA.

IN the interest of a very reliable drug, I must give an illustration of the effects of gelseminum. Premising that I employ the tincture as prepared by the Apothecaries' Company, and my usual dose is fifteen minims in a tablespoonful of water every half-hour to every four hours until relief is obtained, as a rule, I find it produces no ill symptoms; but I have had, during the frequent use of it for the last five years, some exceptional cases where effects similar to those described by Dr. De Wolfe, in the JOURNAL of the 5th February, followed. Notably, so far as my experience goes, men are more susceptible to its deleterious effects than women; and I call to mind one particular instance—a city man of good position, and a frequent guest at civic banquets—who, while praising my drops, for the certain relief they always gave him in his neuralgic seizures, yet added—"they always make me feel half drunk". My illustration of the prompt relief afforded by gelseminum is the case of a fair-skinned, auburn-haired granddaughter, only six and a half years old. I was called to her at two o'clock in the morning, and informed she had been suffering most intensely all night, and was then crying and moaning bitterly from acute neuralgia, which seemed to arise from a decayed primary molar tooth. Fifteen minims of the tincture of gelseminum were given, and within half-an-hour all pain had left her, and she was in a sound and refreshing sleep; and now, three months having elapsed, the child assures me she has not had the slightest recurrence of the pain. Such has been my experience in many other instances, although I freely admit it has failed with some. My suggestion to Dr. De Wolfe and others who may be induced to try the remedy, or have found the distressing symptoms follow as detailed by him, advise the patient to lie down immediately after taking the drug, and maintain the recumbent position as long as he may be under its influence. I have taken it myself more than once, and never had Dr. De Wolfe's painful experience; but I was always in the recumbent position.

BENJAMIN CLARKE, F.R.C.S., etc.

A NUTRIENT SUPPOSITORY FOR ARTIFICIAL FEEDING.

AT my suggestion, Mr. F. Slinger, F.C.S., of the firm of Slinger and Son of this city, has manufactured a "nutrient suppository" which will, I think, in certain cases, be found a convenient substitute for nutrient enemata. The suppository consists of nearly pure peptone, made by digesting lean meat in the ordinary way with the mucous membrane of a pig's stomach. By means of these suppositories, it is possible to keep a patient alive for some time without much inconvenience or trouble. Every one who has had much experience of the class of cases where rectal feeding is necessary must have noticed what a very small amount of nourishment will "keep body and soul together". Some time ago, I narrated a case at the York Medical Society, where every particle of food and drink was vomited for over four months, even a teaspoonful of water being invariably rejected. In this case, which I diagnosed as an instance of gastric ulcer, I adopted the plan of inserting suppositories of Liebig's extract, with a little morphia to relieve pain. My friend Dr. Anderson has narrated a similar case. The "nutrient suppository", which Mr. Slinger has made, would of course be a great improvement on the impromptu method used in this case, and it would be comparatively easy to give a patient two ounces of proteid matter daily by means of this contrivance. I need not enumerate the many circumstances under which the use of this plan of feeding would be indicated.

H. E. SPENCER, L.R.C.P.Ed., York.

CLINICAL MEMORANDA.

BACKACHE.

IN a communication on this subject in the JOURNAL of February 12th, Mr. William Square advises, for cases not dependent upon any more clearly defined cause than general weakness, a small pillow "placed" in the small of the back; and he attributes these frequent cases of "backache" to the sinking of the bed and the consequent "pulling out of the posterior muscles of the spine to their utmost stretch".

Whilst convinced that the remedy thus recommended will often be found a most effective one (provided the pillow, if small, be *fastened* to the small of the back, as I presume it must be, in accordance with Mr. Square's view), I think it better—in order that the remedy may be more generally and effectively used—to suggest a more probable explanation both of the cause of these frequent cases of backache, and of the *modus operandi* of Mr. Square's small pillow. That the explanation given is not a probable one will, I think, strike any one who is aware of the very slight curvature caused by the weight of even a heavy adult in any ordinary English bedstead, and of the impossibility of such a slight curvature "pulling out" the extensor muscles of the back to the extreme degree which Mr. Square says his theory (or the theory of Mr. Lafayette Taylor of New York) requires. American bedsteads may bend much more than English ones, but even then the sufferer must be compelled, for some extraordinary reason, to lie always spine downwards for the extensor muscles to be kept so fearfully stretched; and how terribly they must be "pulled out" in the backs of our poor sailors, as they lie in their hammocks, if any kind of bedstead act in this way! If Mr. Square had tested his theory by one single observation, he would have found that in the usual attitude assumed by young people whilst asleep in bed at night—viz., more or less curled up, and on their side—the back is far more curved, even on the flattest bed, than it can possibly be in the case of any individual who lies supine on a bent one.

Thinking the matter of at least as much general importance as Mr. Square does, I will venture to give a much more homely reason why our modern beds so frequently cause pain in the small of the back in the morning.

Let any one, on an ordinarily cool night, *when warm* in a bed in which he has not been tucked up after getting in, place his hand (still under the bed-clothes) at that part of the edge of the bed which is on a level with the small of his back. He will assuredly feel a very cold current of air rushing in to supply the place of that which is being expelled more gently upwards (relatively to the head) by the warmth of his body. Children and young people frequently lie two in a bed; and, as they almost invariably lie on their sides, and generally with their faces towards each other, for antesomnial conversational purposes, the back is often near enough to the edge of the bed for the cold air-current to chill the lumbar muscles, and so to produce in them that temporary rheumatic stiffness and pain in the morning to which Dr. George Johnson refers, in the valuable lecture reported in the JOURNAL of February 12th, as caused by "over-fatigue" of those muscles.

That the modern system of bed-making (and the disuse of such contrivances as the old-fashioned sliding-boards with which our grandmothers pressed down the edges of the bed-clothes) is a very frequent cause, if not, as I believe, by far the most frequent, cause of "backache", can be proved by the certainty with which protection of the back from cold during the night prevents the recurrence of any trace of the pain. Such protection is best afforded, I think, by a pillow or bolster laid longitudinally at a little distance from the sleeper, between him and the edge of the bed. A "protector" of washleather lined with several layers of flannel, or a small pillow, as Mr. Square suggests, and many other kinds of devices, will no doubt be equally effective in guarding the back from the cold air. All that is necessary—and, as I consider, extremely important—is the diffusion of a knowledge of the fact that, in the usual way in which English people are now in the habit of lying in their beds at night, a current of cool air flows with more or

less velocity between the edges of their beds and that part of the covering-clothes which they have "untucked" in the act of getting in.

It seems to me to be highly probable that this current of cold air may be responsible, not only for the slight rheumatic pains now more particularly referred to, but also for many cases of severe lumbago, and even for some forms of acute and chronic nephritis leading to the gravest results. In any case, it must be clear that, though a regular replacement of the air round any person in bed is of course essentially necessary for health, that replacement should not be kept up by a current which impinges upon any one part of the body, especially so important a part as the lumbar region; further, that this air-current should be particularly guarded against in the case of persons who are weakly, and on that account both more liable to chill, and more likely to "sleep warm", thereby increasing the velocity of the cold draught. Coldness of the feet, and its results, insomnia and cephalalgia, are also frequently dependent on the clothes not being properly turned under at the foot of the bed. JAMES TURLE, M.D., Medical Officer of Health to the Finchley Sanitary District.

ONE of the divers forms of backache is often a leading symptom in the complaints of our patients. Besides those enumerated by Dr. Johnson and Mr. Square in the JOURNAL for February 12th, I have long ventured to distinguish another variety. Patients sometimes complain of a dull, heavy, aching pain "right across the back"; and, when asked to point out its exact position, they usually carry a hand behind the trunk and draw the thumb straight across the back, in a transverse line, about halfway between the inferior angles of the scapulæ and the renal region. This pain, I think, I have correctly traced to a loaded colon. I have found it disappear after the administration of an efficient cathartic.
JAMES SAWYER, M.D.Lond., M.R.C.P., Birmingham.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

KING'S COLLEGE HOSPITAL.

THREE CASES OF HÆMORRHAGE INTO THE PONS VAROLII: WITH CLINICAL REMARKS.

(Under the care of Dr. JOHNSON.)

[Reported by F. WILLCOCKS, M.D.Lond., late Medical Registrar.]

CASE I. *Small Granular Kidneys: Arterial Degeneration: Large Hæmorrhage into Right Side of Pons Varolii: Minute Hæmorrhage into Left Side: Palsy of Right Portio Dura and Right Sixth Nerve: Spasm of Left Portio Dura: Palsy (Motor and Sensory) of Left Arm and Leg.*—Ann Q., a charwoman, aged 44, was admitted into Twining Ward, under Dr. Johnson, on December 12th, 1880. She was married, and had had seven children born alive, four still-born children, and five miscarriages. There was no definite history of syphilis, and she had always been fairly temperate, and enjoyed good health, with the exception of occasional attacks of gout. Since the previous September, she had been out of health, her feet and legs having become swollen; and, for the last two months, she had been under treatment for chronic renal disease.

On December 11th (the day previous to admission), she had severe headache all day, and in the evening became suddenly giddy, faint, and sick, but consciousness was not entirely abolished. Gradual loss of power supervened in the left arm and leg, together with loss of speech, and dimness of vision. There were no convulsions, but both hands are said to have twitched slightly. The urine and fæces were retained, and considerable drowsiness followed the attack.

On admission, she presented the appearance of a sallow-looking but fairly nourished woman, was quite rational, and breathing normally. The right side of the face was expressionless and completely paralysed, the natural furrows being obliterated. The angle of the mouth was drawn to the left side, which was markedly "puckered up". The left eye was spasmodically closed, and the upper eyelid raised with some difficulty. The spasm of the left orbicularis palpebrarum was well marked; the skin on the left side of the forehead and around the left eye being thrown into numerous small folds. The pupils were normal, and acted equally to light, and no ophthalmoscopic changes could be detected in either fundus. The tongue was protruded to the left side, but the sense of taste was normal. Smell was not affected. The speech was thick, and articulation faulty; comprehension somewhat dull, but there was no deafness. There was no loss of sensation on either side of the face. There was distinct loss of power in the left arm and leg, especially in the extensor muscles. The tendon and cutaneous reflexes of the two sides were equal. Tactile sensation in the left arm and leg was retarded, and some analgesia was observed in the same limbs, together with a tendency to refer the prick of a pin to the joint above the point of contact. The urine was of specific gravity 1010, and light coloured, containing one-half of albumen, and the sediment showed numerous granular casts under the microscope.

The above-mentioned symptoms became gradually more prominent up to the time of her death, on December 29th (eighteen days from the primary attack). The face deviated more markedly to the left, the tears flowing over the left cheek, and the left eye becoming very sensitive to light. Difficulty in rotating the right eye outwards was also noticed. Dysphagia came on, and the drowsiness gradually deepened into coma, being preceded by delirium and stertor. The bladder became paralysed and distended on December 20th, and the catheter was subsequently used. Distinct twitching of the right hand and arm was first noticed on December 23rd, and remained a constant symptom until she died comatose, on December 29th.

The temperature in the axilla, from December 17th to December 24th, was fairly normal, but on the left side averaged about 0.6° Fahr. higher than on the right; the difference being the same when the temperature was taken in the popliteal spaces.

Necropsy, twenty-one hours after death. On removing the brain, slight hæmorrhagic effusion into the meshes of the pia mater was seen in patches over both frontal lobes, more especially around the ascending ramus of the fissure of Sylvius on the left side. The arteries at the base of the brain were atheromatous. On making transverse sections of the pons, a fusiform hæmorrhage was found, extending along almost the whole length of the right side. As seen from the anterior aspect, it commenced one centimètre above the anterior pyramid, extending from thence two centimètres along the right side, and at its widest portion was situated at a depth of one centimètre and a half from the anterior surface. This hæmorrhage did not cross the median line; but, opposite to its posterior extremity, a minute punctiform hæmorrhage, of the size of a hemp-seed, was found in the left side of the pons, at a depth of one centimètre from its anterior aspect. On examining the posterior or ventricular surface of the pons, a roundish clot was visible, situated under the right limb of the valve of Vieussens, and projecting slightly into the ventricle. It was of a brownish-red colour, soft in consistence, and one centimètre in diameter. The anterior margin of the clot was 0.5 centimètre behind the testis on the right side, and its posterior margin was one centimètre in advance of the right auditory striæ. It projected about one millimètre across the middle line. On cutting through this clot, it was seen to be continuous with, and to correspond to, the widest portion of the clot seen anteriorly. The medulla and pons elsewhere were normal. A punctiform hæmorrhage, similar to the one in the left side of the pons, was found in the right corpus striatum: in the lenticular nucleus, close to the external capsule. The remainder of the brain was normal. The kidneys were small and granular, their capsules adherent, and cortices atrophied. The right weighed three ounces, and the left three ounces and a half. The left ventricle of the heart was much hypertrophied, and the whole organ weighed fourteen ounces. The lungs were œdematous.

CASE II. *Small Granular Kidneys: Hæmorrhage into both sides of Pons Varolii: Palsy of Right Arm and Leg: Twitchings: Coma: Contracted Pupils: Pyrexia: Rapid Death.*—John P., aged 42, was admitted into Craven Ward, under Dr. Johnson, on December 1st, 1880. He had scarlet fever when a child, and stated that he caught a severe cold in 1856, from which he never completely recovered. Two years ago, he had been laid up for nine months with "Bright's disease", but there was no evidence of any acute primary renal disease. He had drunk freely both of beer and spirits. For some years past, he had complained of cramp in the legs at night, and, during the last month, of twitchings and violent startings in the arms and legs. The cough and dyspnœa had also become more distressing.

On admission, he was pale and anxious-looking, with a pasty complexion, and had some slight œdema of the feet and legs. The breathing was very short, and loose *râles* were audible over the chest. The arteries were hard, and the pulse tense, and there was well-marked reduplication of the first sound at the base of the heart. He was somewhat drowsy, but no palsy, either motor or sensory, was present. He complained of occasional headache, and the twitchings continued, being most marked on the right side. The urine was clear, and contained one-half of albumen, the daily amount passed being about seventy ounces.

During the night of December 4th (the fourth day from admission), he was more drowsy, and complained of pain in the head.

On December 5th, at 7.40 A.M., he became suddenly semi-unconscious; and when seen, five minutes later, by the house-physician, Mr. Silk, was breathing stertorously; his cheeks, especially the left, being blown out on expiration. The face was congested; and, although he appeared to understand what was said to him, was unable to reply. He swallowed with difficulty, and was unable to lift the right hand or leg. The pupils were normal, and reacted to light, and there was no definite diminution in tactile sensation anywhere. The coma gradually increased; the muscles, especially those of the right leg and thigh, being violently twitched. The breathing was more laboured, and both pupils became contracted to a pin's point, and insensible to light. There were no convulsions, and he finally died at 9.40 A.M. (two hours after the onset of symptoms). The temperature immediately before death was 102.2° Fahr., but from December 1st to December 4th averaged 97.4° Fahr.

Necropsy, twenty-seven hours after death. The lungs were œdematous, and the pleuræ adherent on both sides. The left ventricle of the heart was enormously dilated and hypertrophied, forming nearly two-thirds of the entire organ. The left auricle was also hypertrophied, and all the cavities were full of dark fluid-blood. The abdominal organs were congested. The kidneys were of the small, granular variety; the cortex atrophied, and capsules adherent. There was considerable subarachnoid œdema; the convolutions were slightly flattened, and the lateral ventricles contained a slight excess of fluid. There was an extensive recent hæmorrhage into both sides of the pons, making its way into the right side of the floor of the fourth ventricle, and involving the medulla, but it had not burst into the cavity of the ventricle. In the right corpus striatum, immediately below the lenticular nucleus, a small round cavity, the size of a cherry-stone, was found, filled with a dark thick fluid, probably blood. The remainder of the brain was apparently normal.

CASE III. *Hæmorrhage into both sides of Pons, bursting into Fourth Ventricle: Coma: Contracted Pupils: no Convulsions: Rapid Death.*—Robert T., aged 43, was brought to the hospital by the police on the evening of December 29th, 1880. He was said to have been temperate of late years, but had previously drunk freely. No history of any previous illness could be obtained.

On the evening of December 29th, at about 8.45 P.M., while walking quietly down the street, he was suddenly seized with pain in the head and vertigo, and said he "felt as if he was going to have a fit". He managed to procure a chair, but rapidly became unconscious. There were no twitchings or convulsions, and he was only slightly sick on his way to the hospital. When seen at about 9 P.M. by the house-physician, Mr. Silk, the following note of his condition was made. He was in a state of profound coma; the breathing was harsh and laboured, but not markedly stertorous. The face was pale, but not drawn to either side; the eyelids were half-closed; the eyeballs prominent and fixed; the conjunctivæ injected and insensible; the pupils equally contracted to a pin's point, and insensible to light; and he was unable to swallow liquids. The limbs were flaccid, and insensible to touch; there were no twitching or convulsive movements; and the urine and fæces were retained. The pulse was full and tense, and the arteries somewhat hard. No thermometric observations were made. After an effort at coughing, the breathing, which had been previously regular, suddenly became markedly stertorous, and of the peculiar Cheyne-Stokes rhythm. One deep inspiration was followed by two or three gradually diminishing and shallow ones, and then followed a considerable interval of complete apnœa. The pulse maintained its full and bounding character during the deep inspirations, but gradually became more feeble, until, in the intervals of apnœa, it was hardly perceptible at the wrist. This condition continued until 10.35 P.M., when he died asphyxiated, after an interval of less than two hours from the primary seizure.

Necropsy, fifteen hours after death.—The lungs were much congested. The right cavities of the heart were dilated and filled with dark fluid blood, and the right ventricle was much hypertrophied. The left auricle also contained some dark blood, but the left ventricle was empty. A small atheromatous patch was found on the mitral valve, but there was none in the aorta. The abdominal organs were much congested, and there was a narrow white cicatricial patch on the anterior margin of the liver. The dura mater was congested, and there was much subarachnoid œdema, especially along the longitudinal fissure, and at the base. Slight hæmorrhagic effusion into the meshes of the pia mater was observed at the root of the right fissure of Sylvius. The anterior surface of the pons was much congested, and a small clot could be seen projecting superficially on the right side. On dividing the lobes of the cerebellum a large recent blood-clot was visible, protruding from beneath the right superior peduncle of the cerebellum, and lying free on the floor of the fourth ventricle, the whole of the right side of which was thus concealed from view. The pons itself was found to consist simply of a thin shell of nervous matter, enclosing a large blood-clot. This did not extend into either of the crura cerebri, but had broken through the pons posteriorly, and given rise to the clot in the fourth ventricle. The other parts of the brain were normal.

Clinical Remarks by Dr. Johnson.—These three cases, occurring in quick succession, afford good examples of the well-known tendency of a contracted granular kidney to terminate in cerebral hæmorrhage. The condition of the circulation, which so commonly results in sanguineous apoplexy, is sufficiently obvious. The circulation of morbid blood excites contraction of the muscular arterioles throughout the system, and this gradually results in hypertrophy of the left ventricle of the heart. There is high arterial tension, as shown by the state of the radial pulse. With this there is often more or less degeneration of the arterial walls, partly occasioned, perhaps, by blood contamination, and partly by the excessive strain to which the whole arterial system between the resisting arterioles and the strongly propelling left ventricle is subjected. It is, therefore, not surprising that the rupture of one or more vessels within the brain should be a common occurrence, and that as a result of such rupture the cerebral tissue exposed to the full force of the powerful left ventricle is more or less extensively torn and disorganised.

In case I, I at once came to the conclusion that the paralysis of the right side of the face and of the right abductor oculi was the result of a lesion, probably a clot, near the origin of the right portio dura and sixth nerve, the same lesion causing the crossed paralysis of the left arm and leg; but I requested my friend and colleague, Dr. Ferrier, who has so successfully investigated the localisation of cerebral disease to assist us to a more precise diagnosis of the seat of injury; and after a careful investigation of the symptoms, he formed and expressed the opinion that the lesion was on the right side of the pons, a diagnosis which was completely verified by the inspection after death. It is probable, as Dr. Ferrier suggested at the *post mortem*, that the hæmorrhage was progressive, the older portion of the clot being that which projected into the fourth ventricle, while that into the substance of the pons was more recent, and, by its effect on the medulla oblongata, caused the speedy death. It seemed probable during the patient's lifetime that the muscular spasm on the left side of the face and in the right arm and leg might be the result of a reflex influence of the lesion on the right side of the pons, but the discovery of a small clot in the left side of the pons suggested the possibility that the spasm in question may have been excited by the irritant action of that small clot conveyed through the crossed fibres of the motor tract.

Cases II and III afford good illustrations of the rapidly fatal effect of an extensive hæmorrhage into the pons, both cases having been carefully observed by the house-physician, Mr. Silk. In case II, there can be no doubt that the cerebral hæmorrhage commenced at 7.45 A.M., and death occurred exactly two hours after the seizure; in case III, the death was somewhat more rapid, and the attack commenced at 8.45 P.M., and death occurred at 10.35 P.M. The extreme contraction of the pupils, which is a frequent result of hæmorrhage into the pons, was well marked in both these cases; and in the third case, which I did not see during life, this symptom, with the history of the attack, led Mr. Silk to a confident diagnosis of hæmorrhage into the pons. The phenomenon of contracted pupils gives these cases a striking resemblance to poisoning by opium. The muscular spasms, which are often associated with hæmorrhage into the pons, and which were present in the first and second, but not in the third case, might, in the absence of a clear history, render the diagnosis more easy.

MONMOUTH RURAL DISTRICT.—The death-rate in this district for 1880 was abnormally low: 12.65 per 1,000, though zymotic diseases were unduly prevalent in various places. Scarlet fever repeatedly showed itself in different and distant parts of the district; some of the cases occurring amidst circumstances of almost incredible filthiness. Several cases of typhoid fever were reported, mostly due to pollution of water-supplies. Whooping-cough was epidemic throughout the whole district in January, and proved fatal in five cases. Measles also appeared at various places during the year—an epidemic of it occurring in one village. Many of the water-services of the schools of the district seem to be open to suspicion: a matter which deserves the attention of the education department, as well as of the local sanitary authority. Amongst the deaths registered was that of a centenarian. Dr. Willis also notes that 12 deaths were due to cancer—a disease to which part of the district seems peculiarly liable.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

ANNUAL MEETING, WEDNESDAY, FEBRUARY 2ND, 1881.

W. S. PLAYFAIR, M.D., President, in the Chair.

Depression in the Frontal Bone.—Dr. GODSON exhibited two children, each of which showed a deep depression in the left frontal bone, the result of pressure from the sacral promontory during delivery. Both had been delivered by forceps; the pelvis of the mother being in one case much deformed, and in the other rickety, the sacrum presenting a sharp angle. It appeared natural that the head, in the first position, endeavouring to rotate into the antero-posterior diameter, should receive the pressure on the left frontal bone, when the sacrum was unduly prominent.—Dr. WILTSHIRE had seen several cases of depression produced by the promontory of the sacrum in connection with rickety pelves. Generally the depression did not persist, and it could sometimes be removed by atmospheric exhaustion. He had seen convulsions produced by deep depressions.—Dr. J. WILLIAMS did not see how the depression could be produced by the promontory of the sacrum.—Dr. FANCOURT BARNES had lately seen a child born with a furrow like that in one of the children shown by Dr. Godson. The sacrum was projecting; the forceps had not been used.—Dr. CARTER mentioned a case in which the pelvis was contracted in the conjugate diameter: labour was protracted; but the forceps was not put on till the head was in the pelvic cavity. The left parietal bone of the child had a large depression. It had no symptoms of pressure; and, in about three weeks, the bone had almost recovered its normal contour.—The PRESIDENT thought that the depression in one of the children might have been produced by the blade of the forceps, the skin being somewhat abraded.—Dr. GODSON said that after the birth of the child he reapplied the forceps over the mark left by it. He was perfectly certain that the instrument was no factor in the causation of the depression.

Modification of Hodge's Pessary.—Dr. GERVIS exhibited a modification of Hodge's pessary in which the sacral end, instead of being rounded, presented a considerable central depression. The advantages claimed for this were, that the tendency of the fundus to roll to one side of the pessary was obviated, and a much steadier pressure on the fundus was maintained. The makers were Messrs. Walters of Palace Road.—The PRESIDENT remarked that one form of Thomas's retroflexion pessary had a similar concavity at the sacral end.—Dr. BARNES said that the pessaries sold as his were not of the form in which he used them. They were made of flexible metal, and he moulded them himself, according to the conditions of each patient. He thought the square shape of the lower end of Dr. Gervis's pessary objectionable.

Extra-uterine Pregnancy.—Dr. BURTON showed a specimen. The patient was thirty-one years old, mother of five children, the youngest of whom, seven months old, she was still suckling. The menses had been on from the 17th to the 22nd of January. On the 24th, at 5 P.M., while in an easy chair, she had coitus with her husband. Towards the end of the coitus, she slipped forward over the edge of the chair, and immediately felt a sharp pain at the lower part of the abdomen, became faint, vomited twice, and had several actions of the bowels. When she was seen, at 10.30 P.M., she had severe pain at a defined spot two inches from the mesial line. The pulse was scarcely perceptible, the extremities cold, and she was evidently sinking rapidly from internal hæmorrhage. She died nine hours after the injury. At the *post mortem* examination, a large clot of blood was found filling the pelvic cavity, and extending some distance upwards towards the umbilicus. The right Fallopian tube, about an inch from the uterus, was expanded into a cyst about the size of a Barcelona nut, on the upper surface of which was a small opening. The cyst contained a fœtus of about six weeks' gestation. The uterus was lined with a smooth decidua.—Dr. WILTSHIRE said that this case was an emphatic illustration of the importance of performing, where feasible, ligature and removal of the burst Fallopian tube.

Ulcerative Degeneration of the Endometrium.—Dr. MACCALLUM described this case. The patient, aged 51, was admitted into the Montreal General Hospital, October 4th, 1879, for metrorrhagia. Her mother died from melanotic cancer of the eye. After the menopause, which occurred at the age of forty-five, she suffered from leucorrhœa for several years. Metrorrhagia came on three years ago, and had recently become profuse. The uterus was less movable than usual; the sound passed three inches, and caused moderate bleeding. There was a greyish discharge from the vagina, which became offensive in November, and continued so until her death. She suffered severe periodic pains. She went out on January 8th, but was readmitted on May 13th, being now emaciated and cachectic. The uterus had increased in size. The cervix was dilated with a laminaria tent, and more full dilatation was effected by four tents. On June 9th, the whole surface of the endometrium was found to be covered with soft projecting granulations. These were scraped away with a curette, and fuming nitric acid was applied. On July 16th, dilatation was repeated. After removal of a second tent, symptoms of collapse came on, and she died on July 17th. The uterus was found dilated into a cavity large enough to contain a hen's egg. On the anterior wall was an ulcerated patch as large as a crown. The rest of the uterine wall was thickened, and covered internally with villosities. A teased-out specimen of a villosity showed two elements, (1) epithelial cells, the majority columnar; (2) a fibrous stroma, made up of irregular spindle-shaped cells. Considerable doubt existed as to whether the disease should be grouped with malignant affections.—Dr. GALABIN thought that the case was one of the so-called cylinder-epithelioma. He had met with several cases in which cylinder-epithelioma affected the whole internal surface of the body of the uterus uniformly.

President's Address.—The PRESIDENT delivered the annual address.—Dr. PRIESTLEY proposed a vote of thanks to the President; it was seconded by Dr. GERVIS, and carried by acclamation.

CLINICAL SOCIETY OF LONDON.

FRIDAY, FEBRUARY 11TH, 1881.

JOSEPH LISTER, D.C.L., LL.D., F.R.S., President, in the Chair.

A Case of Chronic Vomiting, in which no Food was taken, except Koumiss, for Sixteen Months.—Dr. H. SUTHERLAND read notes of this case. The patient, a girl aged 24, on admission, had been for five years under his care at St. George's (Hanover Square) Dispensary. One year and seven months ago, vomiting commenced; the attack came on at first only once a fortnight, but lately it occurred always once, and sometimes five or six times, a day. As far as could be ascertained, there was no organic disease of the stomach; no tenderness on pressure, cachexia, nor any other constitutional symptoms. Every known remedy was tried to allay the vomiting—bismuth, opium, hydrocyanic acid, creasote, carbolic acid, hyposulphites, etc.—without any satisfactory result. All attempts to cure the case by dieting had failed; and the patient could keep nothing on the stomach, as food, except koumiss, which she had taken for sixteen months. She was, however, able to retain a quinine and orange mixture, and also sherry in small quantities, for brandy made her sick immediately. The uterus was not displaced. The object in bringing the case before the Society was to ask if any member could suggest any remedies or mode of treatment in this distressing case.—The PRESIDENT remarked that it was interesting to know that koumiss could be retained by a stomach which refused all other food.—Dr. JAGIELSKI said that his experience of koumiss was favourable to it as a food, when other substances failed. He considered the special value of the material to lie in its permitting recovery of the digestive organs to take place during its use, and the subsequent resort to other diet when this had occurred. The literature of koumiss had much increased in the last fifteen years; but he considered Dr. Sutherland's an unique case, inasmuch as the patient seemed decidedly to have improved. He thought it would be interesting to arrive at an accurate diagnosis respecting it, as an aid to future treatment. In those cases where disinclination to food, and especially to milk, existed, koumiss was an admirable substitute. In its preparation, it underwent a double fermentation, the casein of the milk being broken up by the carbonic acid, and thus its digestion and assimilation in the stomach were more readily secured. In his own practice, the most typical case, as illustrating the value of koumiss, was that of a phthisical patient.—Dr. BROADBENT, believing the case to be hysterical in nature, would look for an explanation of the details in the nervous condition of the patient, rather than in the food taken. This opinion he considered supported by the facts adduced. The nervousness, irregular menstruation, morning and evening vomiting, etc., pointed to the conclusion that it was an example of hysteria. It was an extraordinary case, and might take rank with the accounts of fasting girls and similar cases.—Mr. LONGHURST inquired if any local treatment had been resorted to.—Dr. ROGERS suggested that the full significance of the case was not understood. His experience tended to convince him that there was an intricate association in such patients between the mental state and the physical condition.—Dr. B. O'CONNOR had found the application of nitrate of silver to the os uteri of service in persistent vomiting. Prepared milk, and Valentin's extract of beef, in teaspoonful doses, he generally found well borne. He considered the prolonged expiratory murmur a peculiar symptom.—Dr. WILBERFORCE SMITH

thought it important to know what diet had been employed before the koumiss was tried. He considered the patient's improvement due to the physiological rest to the organs. Milk would not secure this, the effort at digestion being too severe a strain; and, in order to obtain perfect rest, abstinence from nitrogenous food needed to be enforced. The vomiting might be nervous. Cream served as an admirable food, and fat boiled bacon with water-biscuits as an alternative died; beef-extract was devoid of nitrogen, and non-nutritious. Injections of nutritive enemata were advisable.—Dr. DOWSE desired to know how much koumiss had been given in the twenty-four hours. He considered this case to be similar in its details to others recorded, and recommended that solid instead of liquid food should be tried for a day or two.—The PRESIDENT inquired if the blistering of the epigastrium had been tried.—Dr. SUTHERLAND said that every other food tried on the patient had failed to be retained. She did no work. He did not believe her to be hysterical, though her voice somewhat resembled that of hysterical aphonia. She would not keep to her bed for any time. She was bad-tempered at home, and somewhat suicidally inclined. He had not applied silver nitrate to the os; the patient was over-sensitive to examination. Physiological rest she had had in plenty; alone, it did not avail. Injections were equally useless to her. He had not tried the effect of blistering the epigastrium.

A Case of Gangrene of the Arm from a Poisoned Wound: Amputation at the Shoulder, and Recovery.—Mr. CHRISTOPHER HEATH contributed notes of this case. The patient was a nurse, aged 34, who, in laying out the body of a lady who had died of puerperal septicæmia, pricked her thumb with a pin. Notes of the puerperal case were given by the physician who had attended her, and it appeared that she was a primipara in good health, and was the first patient attended by the accoucheur after his holiday, and that strict antiseptic precautions were employed. On the fourth day, a rigor occurred, and the temperature was 105°, pulse 120. Subsequently, the temperature went up to 107°, but was reduced to 102° by an ice-cap and water-bed. On the seventh day, however, the left pleura filled, and the patient sank. A nurse in attendance pricked her finger on the day of the rigor, and had a sharp attack of lymphangitis, but recovered. The second nurse carried out the attendance till the patient's death. This nurse applied nitrate of silver to the puncture on the evening of the day she received it, and the next day the hand was swollen and painful. She had no further advice until the fourth day, when she was admitted to University College Hospital, with the whole arm swollen and tense. Free incisions were made, but the next day the hand and forearm had become gangrenous. At first, the gangrene seemed limited to the forearm, and the swelling of the upper arm decreased for a few hours; but, a relapse taking place, Mr. Heath amputated at the shoulder-joint. The patient made a rapid recovery, and was discharged in a month. Mr. Heath remarked upon the virulence of the puerperal poison, and protested against the common practice of applying nitrate of silver to punctures received at *post mortem* examination. He believed the application of belladonna was most useful in cases of local inflammation, coupled with free incisions when necessary.—Mr. H. CRIPPS recounted the history of the patient in St. Bartholomew's Hospital, referred to by Mr. Heath. The man was scratched on the arm by a piece of iron gauze. When he was admitted, the hand was black, and the arm above it red. Free incisions were made into the back and palm; thick blood alone escaped. Inflammation spread to the upper arm and axilla, and Mr. Holden amputated the limb; the tissues at the point of amputation seemed diseased. The pain was at once reduced in intensity; the temperature fell from 103° to 99°, and the pulse to under 100. Rigid antiseptic precautions were observed, but, six days after the operation, gangrene reappeared, and spread rapidly. The patient died on the tenth day. The interest of these two cases lay in the differing terminations; he believed death to have been due, in Mr. Holden's case, to delay in amputating; and recovery, in Mr. Heath's, to early operative interference. It would be desirable to fix a definite rule for guiding procedure in cases demanding amputation.—The PRESIDENT said that these cases confirmed the rule that, in spreading gangrene, amputation should be done at once. Pathology taught that the gangrene was due to an organism, as in the case of the *Bacillus anthracis*. It had been shown that progressive necrosis in spreading gangrene was due to a special organism by which the blood was unaffected, and Mr. Heath's case was especially interesting in this relation.—Mr. HEATH remarked that, to the rule "amputate early", should be added "and high up".

Small Round-celled Sarcoma of the Dura Mater encroaching on the Left Temporo-sphenoidal Lobe of the Brain, and producing extensive Softening in its neighbourhood.—Dr. J. WHIPHAM read a paper on this case. A railway guard, aged 35, was admitted into St. George's Hospital on January 25th, 1880. He had served on board-ship in former years; and, when in foreign parts, had suffered from ague, dysentery, and acute rheumatism. At the end of December 1879, he caught cold, had rigors and pain in the chest, and dyspnœa, but continued his occupation as a railway guard. During the fortnight previous to his admission, he had been laid up with headache in the frontal region. About thirteen days before he came under observation, he felt unwell, and became languid; and on the day following, he shivered, and felt pain in the left frontal and temporal regions. The pain recurred in severe paroxysms, with intervals of entire cessation of pain. On admission, the patient was well nourished, but somewhat dull and stupid. His tongue was coated; pulse 72, small. He had severe headache, and said that he felt "stuffy in the head". The pain was referred to the left temporal region and to the left eye. There was a purulent discharge from the right ear, and Mr. Dalby reported a large perforation of the tympanic membrane. Shortly afterwards, the patient became restless, and, on the seventeenth day after his admission, had passed into a comatose state; but he still indicated, by gestures, that he was suffering pain on the left side of his head. Slight want of power in the right hand and leg was detected, but there was no real paralysis. The patient died on February 24th. He was a left-handed man. At the *post mortem* examination, a lobulated tumour was found attached firmly to the middle fossa of the skull, on the left side; and it extended into the substance of the left temporo-sphenoidal lobe of the brain, involving or causing softening of the anterior parts of the three temporo-sphenoidal convolutions and of the island of Reil. The softening extended to within one-twentieth of an inch of the level of the upper surface of the corpus striatum, but did not involve that ganglion. The important feature in the case was its bearing on the question of localisation of the functions of the brain. Although none of the motor centres were actually involved in the disease, it seemed more than probable that the pressure exerted by the growth must, to a certain extent, have interfered with the functions of those convolutions situated directly in the line of such pressure. Thus might be explained the partial loss of power which existed in the right arm and leg, seeing that the upward pressure of the tumour would more especially affect the posterior part of the left superior frontal convolution, the upper part of the ascending frontal, and probably part of the superior or posterior parietal lobule; those regions, that is to say, which Ferrier and others had shown to preside over the movements of the arm and leg. Further: the actual lesions which were demonstrated at the necropsy tended to show that the deafness in the right ear was the result rather of the injury to the brain than of the perforation of the tympanic membrane. Finally: the facts of the patient being a left-handed man, and the injury to the brain being on the left side, were interesting as bearing on the question of aphasia.—Dr. WILTSHIRE asked if an ophthalmoscopic examination had been made. He was reminded of a case, said to be puerperal mania, in which perforation of the tympanum occurred. It was not puerperal mania, however; and on inquiry, he found that the patient had been subject to discharge from the ear for many years.—Dr. ALTHAUS inquired if the special senses of taste and smell were examined.—Dr. DOWSE said it would be interesting to know if the pain had been localised or extended generally over the cerebral hemisphere, neck, and arms. He had seen cases of similar tumours in which the pain was thus distributed.—Dr. BROADBENT thought it interesting to notice the existence of a slowly growing tumour with acute symptoms, and also the effect on hearing. He attributed the effect produced to pressure set up by the tumour on the corona radiata, and not directly on the convolution. It was especially interesting, too, that the island of Reil was diseased, because of the localisation of speech in it by certain persons; the cutting off of the fibres passing between it and the proper centre of the faculty would bring about such a result. He was struck by the absence of vomiting with the patient.—Dr. SILVER inquired how deep the injury must be before speech would be affected. He had seen a case in which during life speech gradually grew slower, and in which *post mortem* examination showed that the island of Reil was diseased.—The PRESIDENT said he did not quite understand whether Broca's convolution was affected in Dr. Whipham's case.—Dr. WHIPHAM replied that no ophthalmological examination had been made. Pain was confined to the frontal and left temporal regions; there was no vomiting from beginning to end; no lesion of Broca's convolution, the island of Reil alone being complicated.

Stretching of the Facial Nerve for Neuralgia.—Mr. GODLEE showed a patient on whose case he and Dr. Sturge had read a paper, describing how the facial nerve had been stretched. Paralysis existed for thirteen weeks, and now the powers of motion were being slowly regained.

MR. BENJAMIN J. STORY, of St. Mark's Ophthalmic Hospital, has been re-appointed by the Board of Trinity College, Dublin, University Examiner in Ophthalmic Surgery.

MANCHESTER MEDICAL SOCIETY.

JANUARY 19TH, 1881.

EDWARD LUND, F.R.C.S., President, in the Chair.

Ovarian Tumour.—Dr. LLOYD ROBERTS showed a large ovarian cyst, removed from a woman aged 53, and which had been tapped sixteen times during the last ten years. The cyst was of large size and contained two or three smaller cystic cavities; it held five gallons of fluid. The secondary cysts were of the size of an adult head. There were a few parietal, but no visceral adhesions. On removing the large cyst it burst, and a considerable quantity of fluid escaped into the peritoneal cavity. There was much oozing from the pedicle, and ten ligatures had to be applied. The operation was performed with antiseptic precautions, and a drainage-tube was used. The patient is now convalescent; her temperature never rose one degree above the normal after the operation. Dr. Roberts made some remarks as to the use of a drainage-tube in these cases, and attributed the mortality after ovariotomy or abdominal section to septicæmia, induced by the collection of bloody serum in the abdomen.

Removal of Os Calcis and Astragalus.—Mr. FOX showed a child in whom he had removed the os calcis and astragalus for caries of those bones, with an excellent result, as regards power of locomotion and appearance of the foot.

Intussusception in a Child.—Dr. BURY showed a specimen of intussusception in a male infant, aged 7 months. It had suddenly become restless, screaming, straining, and passing blood. Two hours later, a sausage-shaped tumour could be felt in the left flank. A finger's length up the rectum, a soft mass, with a depression in its centre, could be detected. This mass was tense when the child strained. The abdomen was not distended. Oil and air were injected, after which the rectum appeared empty, and no swelling could be detected externally. The child gradually sank, its belly became swollen, the temperature rose, and death followed thirty-three hours after the onset of the first symptoms. At the necropsy no peritonitis was found. A slate-coloured mass, four inches and three-quarters long, and three inches and a half in girth, lay in the umbilical region. The ileum and mesentery dipped into its upper end; reduction was found to be impossible. It consisted of three layers, the middle greatly thickened. Between it and the inner layers were bands of recent lymph; the ilio-cæcal valve, and also the tip of the vermiform appendix, which would only admit a small bristle, formed the lower point.

Arrest of a Tooth-plate in the Œsophagus.—Spontaneous Expulsion per Anum.—Mr. HARDIE related a case of a patient who consulted him, having swallowed a small tooth-plate with two teeth, three weeks before, during sleep. The plate could be felt by a probang introduced ten inches down the gullet, and could easily be caught by a corn-extractor, but was immoveable; and two attempts to dislodge it proved failures. The alternative of opening into the œsophagus was offered to the patient, who declined operative interference, but returned for examination at the end of three weeks. At that date, July 7th, the plate was fixed in the œsophagus, at a distance of ten inches from the mouth; on the 10th, it had spontaneously moved to eleven inches and a half, and a day or two after to thirteen inches, at which distance it remained for twenty-one days. It then moved another inch, and fixed itself at fourteen inches for one month, then finally moved to fifteen and sixteen inches at intervals of one day, and finally was pushed into the stomach, after having given rise to some hours of severe pain. It ultimately passed per anum on October 8th, having sojourned in the gullet for five months.

Thoracic Aneurysm.—Dr. SIMPSON showed a case of aortic aneurysm, where galvano-puncture had been performed five times. The patient, C. J., was a woman, aged 46 at the time of her admission to the Manchester Royal Infirmary, in August 1877. An oval swelling extended transversely to the left of the sternum, about three inches by two inches, involving the second rib, which had been to a great extent absorbed. There was some heaving of the sternum with marked expansile pulsation over the swelling. For some time she was treated by rest, iodide of potassium, and diet regulated according to Mr. Tufnell's method, but without improvement. Galvano-puncture was performed on October 4th; it was repeated on the 23rd. The sac became firmer and the impulse less marked. On January 29th, 1878, it was again performed, and in a note of February 4th it is stated that she "feels less beating than before the operation", and that the "tumour feels firmer and smaller". Three times after this was the galvano-puncture adopted, with the result of strengthening the walls of the sac, lessening the risk of external rupture which at times seemed imminent. This woman has for the last two years or so been attending as an out-patient, and has taken iodide of potassium for the greater part of the time. She has done household work, and attended to a sick husband, living in circumstances unfavourable to a patient suffering from aneurysm. At times she suffered a good deal of pain, but the external swelling shows no signs of giving way, and it is beyond question that her life has been prolonged by treatment.

CAMBRIDGE MEDICAL SOCIETY.

FRIDAY, JANUARY 7TH, 1881.

G. E. PAGET, M.D., F.R.S., President, in the Chair.

Treatment of Large Hydatid Cyst of Liver.—Dr. GROVE (St. Ives) gave an account of the treatment by aspiration and by drainage of an unusually large hydatid cyst of the liver. The patient was an unmarried woman, aged 35, who had had symptoms for two years referable to the liver. At the first visit, on May 26th, 1880, there was acute pain and an increase in size in the right hypogastrium. The pain and tenderness becoming more severe, the patient was seen by Dr. Latham in consultation. At this date (June 12th), the liver was found to extend as low as the crest of the ilium; it was hard and resistant, except just at the margin of the thorax, about two-and-a-half inches from the median line, where there was a feeling of elasticity. On pressing at that point, and between the fourth and fifth intercostal spaces, there was a suspicion of fluctuation. There was dulness on percussion from the lower margin of the third rib down to the level of the crest of the ilium, except over an area about two inches in diameter (corresponding to the fourth, fifth, and sixth costal cartilages), which was distinctly tympanitic. The respiratory sounds were heard well only under the clavicle; a tympanitic note posteriorly at the lower angle of the scapula, and from that to the spine; normal resonance above that, and absolute dulness below. At this posterior tympanitic point, the respiratory sounds were feeble, and there was marked tremulous bronchophony. The patient, during the examination, felt much pain, especially at the tip of the right shoulder-blade; the whole right side being extremely sensitive. As she had occasionally profuse perspiration, this, with the other signs, made it not improbable that there was a suppurating hydatid cyst in the upper portion of the liver; but, as the sense of fluctuation was very slight, it was considered advisable to wait a few days before proceeding to operative interference. She was ordered to continue to take effervescing mixture and anodyne draughts. On June 21st, the general condition was worse, and the girth had increased four inches (to thirty-four inches). There was now an elastic distinctly fluctuating tumour to be felt below the margin of the ribs. In consultation with Dr. Latham, it was resolved to perform paracentesis. The puncture was made two inches to the right of the middle line and one inch below the costal cartilages; evacuation of nine-and-a-half pints (imperial) of offensive semi-purulent fluid, containing numerous empty cysts. The operation was performed with the aspirator, with a full-sized needle, and occupied upwards of an hour. In the course of the following days, there was some diarrhœa, the stools being of pale colour. On July 9th, evening rise of temperature was noted, with dry tongue and little appetite. The girth had again gone up to thirty-two inches, and was daily increasing, with pain and oppressed breathing. On July 14th, aspiration was again performed. Seven-and-a-half pints of bile-stained fluid were removed. Next day, potassa fusa was applied somewhat to the right of the puncture, to form an issue. The motions were devoid of bile. On the 18th, the cyst was tapped through the eschar with the trocar and cannula; the fluid removed being very biliary. The cavity was washed out with solution of chloride of zinc. An India-rubber drainage-tube, nine inches long, was introduced through the cannula; the latter was then withdrawn, and the tube retained. The cyst was washed out twice daily with two per cent. carbolic solution. The discharges were deeply stained with bile; entire absence of bile in the stools. For several days, from July 21st, the patient became weaker, emaciated, with sickness and diarrhœa. Bile began to reappear in the stools; and for two weeks, from August 1st, there was a great improvement; the chief trouble being constipation, which was relieved by enemata. On August 14th, Dr. Grove was called up, and found the patient suffering severe pain in the abdomen, with furred tongue and loss of appetite. There was a large flow of bile from the cyst. The cyst had contracted considerably, and on August 20th it contained only one syringeful. The stools became natural, and she continued to improve until the middle of September. The tube, which had been shortened from time to time to about three inches, was removed. Granulations had all but closed the orifice, and the wound was allowed to heal.—Dr. LATHAM, who had seen the case in consultation, remarked on the rapidity with which the cyst had enlarged both in the first instance and after the fluid had been once removed. There was tympanitic reso-

nance over the fifth, sixth, and seventh costal cartilages; and, on auscultation, distinct tremulous bronchophony. There was a certain amount of air in the cyst, and at the second puncturing there was a great rush of air. He had once before observed tremulous bronchophony, where the fluid was not in the pleural cavity. The largest size of aspirating-needle was used; but even that became immediately blocked by the cysts, and it had to be cleared many times in the course of the operation. The amount of fluid removed on the two occasions was 340 ounces—an unusually large, if not unprecedented, amount. After the drainage-tube was introduced, the discharge was almost pure bile; and it was probable that the destructive changes in the cyst had led to a communication with one of the larger bile-ducts.

Cases of Diabetes treated with Salicylic Acid.—Dr. LATHAM had been led to try salicylic acid in cases of diabetes, from theoretical considerations, arising out of a hypothesis as to the curative action of the same drug in acute rheumatism. He had contended that the substance cured acute rheumatism by entering into chemical combination with the antecedents of the *materies morbi*, which was probably lactic acid. The glucose of diabetes might have a common origin with the former, and the administration of salicylic acid might be equally serviceable in preventing its formation. He had tried it in six cases of diabetes with very varying success, but still with such results as seemed to warrant further trial and investigation. In one case, the sugar had entirely disappeared. The patient, a married woman, aged 53, had, in June last, great thirst and polyuria, passing seven to eight quarts in twenty-four hours. The specific gravity was 1042, and the amount of sugar was large. The symptoms had begun two months before. Under a regulated diet, she improved much; but on December 2nd, when the salicylic acid was tried, she was still passing three pints of urine during the night, of specific gravity 1025, and containing a quantity of sugar. Fifteen grains of salicylic acid were given three times a day, and distinct improvement immediately followed. The sugar gradually disappeared, till on December 22nd, the specific gravity being 1017, there was no trace of sugar, but under the microscope, crystals of oxalate of lime and of uric acid. On December 28th, she was suffering from rheumatic pains in the joints. She had experienced the same for the first time in her life a few months before the diabetes was discovered. In another case, the sugar disappeared from the urine after salicylic acid was administered; but the patient meanwhile had swelling and suppuration of the parotid gland and surrounding tissues, of which he died. In a third case, the results were ambiguous. Three other cases are at present in the hospital under treatment. Dr. Latham had not ventured in any of the cases to try the enormous doses of fourteen to sixteen grammes daily which had been given in Germany (in the Medical Clinique at Kiel; see *Berliner Klinische Wochenschrift*, 1877). In the above cases, even sixty grains a day had been sufficient to produce some of the physiological effects of the drug. He thought the remedy was of use in diabetes; but in what cases, or under what limitations, must be matter for further investigation.

Chemical Explanation of Death from Chloroform.—Dr. LATHAM had found, in the formulæ by which he had endeavoured to express the action of salicylic acid in acute rheumatism, that the living representative of sarcosin would be a compound equivalent to cyanide of ethyl + water. Pflüger (as quoted by Foster) had called attention to the great molecular energy of the cyanogen-compounds; and he had suggested that the functional metabolism of protoplasm, by which energy was set free, might be compared to the conversion of the energetic unstable cyanogen-compounds into the less energetic and more stable amides. In other words, ammonium cyanate was a type of living, and urea of dead, nitrogen; and the conversion of the former into the latter was an image of the essential changes which took place when a proteid died. He would put it generally, that the cyanates and cyanides were the types of living tissues; the isocyanides and isocyanates, of dead tissues. It was shown by Hofmann that the amides were converted into isocyanides by means of chloroform. Under certain circumstances, in which the four molecules composing living kreatinin were loosely held together, the chloroform would act on NH_2 and C_2H_5, transforming the ethylanine into dead ethyl-isocyanide. Under these circumstances, if blood passed from the lung charged with chloroform, one constituent of the heart-substance would be decomposed; and the transformed tissue would no longer respond to the nervous stimulus, but the right ventricle would be overdistended by the flow of blood into it from the veins.

Disease of the Skull in Congenital Syphilis.—Dr. LEES gave a demonstration of the collection of skulls made by Dr. Barlow and himself from cases of congenital syphilis.

MEDICAL MAGISTRATE.—Dr. James W. Thursfield has been appointed a justice of the peace for the borough of Leamington.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS IN IRELAND.

WEDNESDAY, JANUARY 5TH, 1881.

SAMUEL GORDON, M.D., in the Chair.

Secondary Mitral Incompetency in Aortic Patency.—Dr. C. J. NIXON reported at length the case of a gunner in the Royal Artillery, aged 45, which illustrated very well one of the most common results of aortic regurgitation, namely, the occurrence of secondary mitral incompetency This condition might be regarded, in most instances, as salutary, since it clearly obviates the tendency to sudden death from paralytic distension of the left ventricle—constituting what might, in the author's opinion, be termed a safety-valve function of the mitral valve. There were two classes of cases of aortic patency in which the prognosis might be regarded as favourable: *(a)* where the disease was developed in young people as a result of non-rheumatic aortic valvulitis, and where, with a limited amount of stenosis of the aortic orifice, a small quantity of blood regurgitated through the incompetent valves; *(b)* in old age, where patency was brought about, not by valvulitis, but by extension of disease from an atheromatous aorta. On the other hand, aortic patency might develop under two conditions where the prognosis was much less favourable: *(c)* where the lesion occurred in vigorous adults, and was caused by a sudden rupture of one of the aortic segments; and *(d)* where the disease was traceable to valvulitis from rheumatism, syphilis, or the overstrain attending aneurysmal dilatation of the arch of the neck, and where it was—in all these conditions—generally associated with habits of intemperance. Among the signs of lesion of the mitral valve in the present case, Dr. Nixon drew particular attention to the indistinctness of the first sound at the apex of the heart, and its occasional replacement by a systolic murmur. Under these circumstances, the author believed that the diagnosis of functional mitral incompetency might fairly be made. In the case reported, Cheyne-Stokes's respiration existed in a marked degree; and Dr. Nixon could not but think that, in the theories which had been advanced in explanation of this phenomenon, too much stress had been laid on peripheral causes which might be only accessory, and too little stress on an efficient cause—namely, a special condition of the respiratory centre itself. To enable the ganglionic cells of this centre to discharge respiratory impulses, they must receive a normal supply of healthy blood. Anything that caused arterial anæmia must necessarily produce a diminution or loss of the activity of these ganglionic cells.

Disease of the Aortic Valve, with Secondary Mitral Valvulitis: Direct Venous Pulse on Back of Hands.—Dr. W. G. SMITH read a paper, illustrative of a specimen exhibited to the Society. The patient from whom the specimen was taken was a strongly-built man, aged 37, who suffered twice from attacks of rheumatic fever—on the first occasion, nine years ago, while working in the mines near San Francisco. When admitted to hospital, a fortnight before his death, it was noted with interest that he was affected with herpes zoster frontalis on the left side. He had three cardiac murmurs: mitral regurgitant, aortic obstructive, and aortic regurgitant. The day after his admission, while engaged in examining him, Dr. Smith was struck with an appearance of pulsation in the veins on the back of the hand. Closer inspection quickly showed that the pulsation was not transmitted from any artery; for it was visible in all the principal veins on the back of each hand, and for about three or four inches up the forearm, when it was gradually lost to sight. The pulsation was rhythmical and regular. So marked was it that it could be seen at a distance of several feet by members of the class who were standing at the patient's bedside; and Dr. Smith, as well as several others, could readily appreciate the pulsation by touch. The tension, however, was so low that it appeared useless to attempt taking a sphygmographic tracing. The author carefully examined the finger-nails on several occasions, but was unable to perceive any traces of blushing or paling in the subungual capillaries. When pressure was applied over a pulsating vein, the result of the experiment invariably was to stop the pulsation between the spot compressed and the heart. Owing to the powerful arterial undulations in the carotids, venous pulsation in the neck could not be clearly made out. The venous pulse on the hands was visible and palpable for nine or ten days—in fact, until shortly before his death. In the course of an interesting *résumé* of the cases of venous pulsation which had been recorded, Dr. Smith observed that the conditions existing in his patient were such as are considered favourable for the transmission of the arterial pulsation into the venous system. The man was in a state of extreme exhaustion; he was affected with well-pronounced aortic regurgitation; and the left ventricle was powerfully built, and acted strongly.

A discussion took place on the two papers.

The CHAIRMAN observed that the important practical point in Dr.

Nixon's case had reference to the prognosis of disease of the aortic valve. With regard to venous pulsation, he himself had seen, many years ago, a very remarkable instance in a young woman afflicted with ascites depending on disease of the mitral valve.—Dr. HENRY KENNEDY had an idea that Cheyne-Stokes's respiration was probably due to a change in the nerves that went to supply the heart. His opinion as to the venous pulsation in Dr. Smith's case was, that the cause should be sought in some deranged state of the coats of the vessels.—Mr. MYERS (Coldstream Guards) said Dr. Nixon's case was typical of the heart-disease produced in soldiers by enforced labour, with compression caused by clothing. Syphilitic changes in the internal wall of the aorta rendered the vessel unable to bear the great strain produced on it by exertion under compression.—Dr. WILLIAM MOORE had analysed many cases of aneurysm; and had found that (excluding females) 35 per cent. had occurred either in soldiers or in those employed in some military capacity. He concurred with Dr. Smith as to the cause of the venous pulsation. There might, indeed, be some defect also in the veins themselves.—After a few remarks from Dr. DOYLE, Dr. FINNY expressed an opinion that Dr. Smith had proved his point as to the explanation and mechanism of venous pulsation. Cheyne-Stokes's respiration probably depended on functional disease of the heart; it was essentially a neurosis. He spoke with much hesitation of what Dr. Nixon had called the "safety-valve function" of mitral regurgitation in disease of the aortic valve. There was no evidence that this regurgitation secured the patient a better chance of life.—Dr. NIXON, in reply, said he agreed with Dr. Myers in all his observations. He reminded Dr. Finny that a patient might die with the left ventricle in a systole from degeneration of its wall, owing to interference with the circulation in the coronary arteries. If at such a moment a leakage occurred from the ventricle (through the mitral opening), the tendency to death might be obviated—so that such a condition of the mitral valve might well be described as a safety-valve function.—Dr. SMITH, replying, said the explanation of the comparative unfrequency of venous pulsation was, partly, the greater capacity of the venous system contrasted with that of the arterial, the former having three times the dimensions of the latter.

The Society then adjourned.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, JANUARY 22ND, 1881.

A. W. FOOT, M.D., President, in the Chair.

Perichondritis Laryngea as a Sequela of Enteric Fever.—Dr. G. F. DUFFEY showed the larynx of a man who fell a victim to an attack of laryngitis on the eightieth day of a protracted typhoid fever. The laryngeal symptoms showed themselves about the seventy-second day. A large abscess, of the size of a walnut, lay behind the cricoid cartilages. This abscess had opened on each side. The starting-point of the laryngitis had no doubt been in the perichondrium and the arytenoid cartilages. The intestines were thinned, and presented numerous cicatrices of small ulcerations.

The Pathology of "Dumb Madness" in the Dog.—The Rev. Dr. HAUGHTON exhibited the brain, spinal cord, and viscera of a pointer dog aged 4½ years, which had been attacked with so-called "dumb madness" on December 26th, 1880. The animal remained in his kennel all that day. On the 27th, a ropy slobber flowed from his mouth. On the 28th, he was "off his feed", and there was marked dropping of the lower jaw. On December 30th, his life was despaired of, and he was consequently shot. The lungs, heart, and liver were perfectly healthy. The stomach and duodenum were diseased. The œsophageal end of the stomach was congested, its mucous membrane being coated with a red glairy fluid. The duodenum was thickened; its glandular structure was highly developed. There was slight congestion of the upper portion of the spinal cord; but this might have been the result of the mode of death.

Rare Laceration of the Bladder.—Dr. E. H. BENNETT presented a remarkable specimen of lacerated bladder, the symptoms in which had been extremely marked, and the duration of life unusually prolonged. A sailor, twenty-seven years of age, was "pinched" in the abdomen in a street brawl on May 18th, 1880. Shortly after admission to hospital, he passed about a pint of blood-stained urine. A presumptive diagnosis of pelvic hæmatocele was made; but in the second week the urine became fœtid, so that it was necessary to wash out the bladder. The catheter was now found to pass into an extravesical pouch containing urine. Obstinate constipation characterised the case, until finally a colliquative diarrhœa speedily exhausted the patient several weeks after the injury. A rounded hole as large as a florin occupied the anterior wall of the bladder. It was further discovered that the colon had become adherent to the vesical wall, and that ultimately a fistulous opening had formed between the bladder and bowel; hence the fatal diarrhœa.

Purpuric Typhus.—Dr. G. F. DUFFEY laid on the table the thoracic and abdominal viscera of a man who had succumbed on the seventh day of what seemed to be petechial typhus of the worst form. The trunk and extremities were covered with a purpuric eruption. Temperature was high. The intestines were hyperæmic. The left lung was extensively splenified. There were hæmorrhagic infarctions in the lower lobe of the right lung; its middle lobe was emphysematous. The spleen was slightly enlarged and congested.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

THE PURE FOOD COMPANY'S PREPARATIONS.

THE above company has submitted to us several of their preparations, notably concentrated beef-tea in various forms, milk foods, and extracts of coffee.

The *solidified or concentrated beef-tea* is the product of extraction under pressure of meat without bones. It readily dissolves in hot water, and forms clear beef-tea of excellent flavour and quality, quite equal to home-made beef-tea.

Concentrated albuminous beef-tea consists of the above preparation, with the addition of a considerable quantity of the albumen of the meat-juice. It is quite free from fibrin or fat. It yields an agreeable, nourishing, and stimulating beverage.

Solidified beef-tea with arrowroot.—The basis of this article also consists of concentrated clear beef-tea; but it contains, in addition, a small proportion of arrowroot thoroughly cooked.

Essence of beef, or beef-juice.—This slightly gelatinous preparation is the juice which results when beef is stewed without the addition of water. It contains all the soluble salts of beef, without albumen. It consequently possesses valuable invigorating and appetising properties, and should prove of great service to invalids, or persons recovering from severe illness.

The three milk-foods of the Pure Food Company are—*milk-food for infants*, *milk food for children and invalids*, and *pulsella*. The first of these is especially made for infants, and is quite free from starch. It is well known that during the first few months of existence infants have not the power of dissolving starch, owing to the absence of the ptyaline from the pancreatic secretion, and that therefore starch, cooked or raw, will pass through their intestinal canal like sawdust, producing irritation and diarrhœa. Liebig, in introducing the excellent food which bears his name, attempted to convert the starch into soluble saccharine matters; but the important part of the process—viz., the conversion itself—was left to the mothers or servants preparing the food. In the Pure Food Company's milk-food for infants, the conversion is already effected. In addition, it contains an amount of milk-solids proportionate to the quantity of milk requisite to make up the food ready for use. It is therefore a combination of Liebig's food, ready made, and of the various milk-foods which have latterly come much into use, but which are said to contain much starch. This food, therefore, ought to be well adapted for infants, and it is very nourishing, palatable, and digestible.

The *milk-food for children and invalids* contains some of the starch in the unconverted state, in addition to saccharine matter produced from starch, and a considerable proportion of milk-solids.

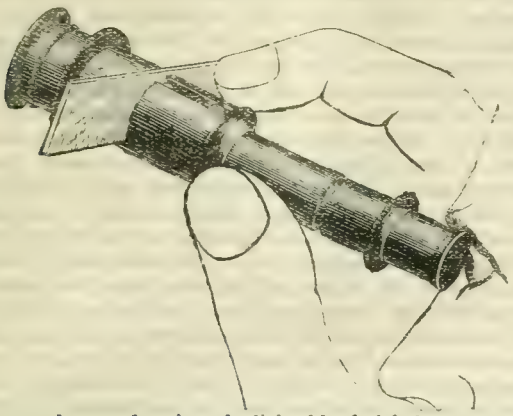
Pulsella is the name given to a similar malted milk-food prepared with Egyptian lentils. It is consequently highly nitrogenous and nourishing.

The two extracts submitted to us are *extract of coffee* and *extract of coffee with chicory*. The former is a preparation of really excellent quality, the flavour and aroma of the freshly roasted berry being retained in their entirety. It is particularly free from the chicoraceous and burnt flavour which characterises other extracts.

For persons who have a preference for coffee mixed with chicory, and for such as want to have a more economical beverage, the *extract of coffee with chicory* is prepared. We ourselves prefer pure coffee; yet we consider the extract alluded to to be possessed of great merit. The preparations are manufactured at the Pure Food Company's laboratory, at 4, Princes Street, Red Lion Square, London.

CLINICAL URINARY MICROSCOPE.

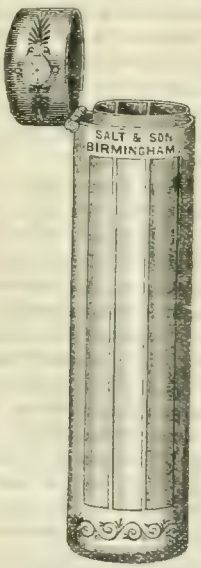
MESSRS. SALT AND SON of Birmingham have forwarded to us a small pocket microscope, which they are introducing for everyday use in hospital and in private practice, and of which a woodcut is appended. It



will show, when used against the light, blood globules, casts, or other urinary deposits. Its adjustment is simple, its use within the reach of every one; and it does not occupy more space than an ordinary urinometer. It will often require to be supplemented by a more searching microscopic investigation in the ordinary way, and for this purpose a further adjustment might be added; but, as it stands, it is handy, useful, and simple.

REGISTERING VACCINE CASES.

IT is, especially at present, most desirable in private practice to be able with the least trouble to keep a register showing the source of lymph from which each patient has been vaccinated. For this purpose, Messrs. Salt have introduced a little vaccinating case, holding a simple vaccinator and lymph-tubes, on the outside of which case are ivory slips. On



these are to be inscribed the name and date of vaccination and vaccinifer. These can subsequently be transferred to a register. Meantime, the source and sequence of current vaccine is noted, which may often be a great protection and satisfaction to vaccinator and vaccinated.

AT the last meeting of the French Academy of Medicine, the subject of the transmission of rabies, which has already been under discussion for several meetings, was again hotly contested by MM. Colin and Pasteur (see p. 200); and ultimately, the Academy which is not accustomed to nominate commissions to examine the researches of its own members, was induced on the representations of M. Pasteur to take the unusual course of appointing a committee consisting, of the President (M. Legouest), and MM. Bailly, Vulpian, Davaine, Alphonse Guerin, and Villemin, to enquire into the matter.

BRITISH MEDICAL ASSOCIATION:

SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, FEBRUARY 19TH, 1881.

MEDICAL REFORM.

THE General Medical Council was created by the Medical Act of 1858. Since that period it has, in round numbers, received from the pockets of medical practitioners something like £150,000. This sum has been expended in various ways. A sum of £2,000 was given to a committee for making the British *Pharmacopœia*, which would have been willingly undertaken by a medical publisher for less than half the cost; £2,204 was had for payment to the members of the General Medical Council for one session of thirten days, ending 21st May, 1877, and so in proportion for the other sessions of the Council; £2000 a year has been paid for house-rent and salaries.

The General Medical Council consists of twenty-four members, of whom 17 are the direct delegates of the Universities and Corporations they represent. Mr. Simon has awarded them this expressive designation. The remaining seven, of whom one is the president, are intimately connected with the governing body of one or other of the corporations. Hence it follows that when any measure of reform is promulgated which aims at combining the numerous licensing bodies in the formation of conjoint boards, "the battle of the shops," as Sir Dominic Corrigan graphically described it, at once begins, and the money drawn from the profession, not from the interested universities and corporations, is sacrificed in long drawn out debates, devoted not to the interests of the medical profession, but, on the one hand, to bolstering up the pecuniary prosperity of the corporations, and on the other, to the manifest injury of the public.

The General Medical Council has again met for one day's sitting at an expense of another £400, to avoid the difficulty incurred by their approval of the Bill for the registration of dentists. Hundreds of men have been registered as dentists under the sanction of the General Medical Council, and will consequently pass with the public as qualified dentists, though their title to do so rests on the fact of their having drawn an occasional tooth, while in reality earning their living as hairdressers, jewellers, or farmers.

The thirteenth section of the Dentists' Act enjoins: "The Council shall cause to be erased.....any entry.....incorrectly or fraudulently made." In a valuable leader of the *Medical Press and Circular* of this week, it is stated: "The necessary proofs on these points were supplied by the British Dental Association in several hundred cases," but the Council decided not to interfere. The President, Dr. Acland, said: "They were not discussing whether persons were guilty of fraud, because that was entirely beyond the province of the Council." Well might Professor Turner, while doubting the propriety of the proceedings, remark that, "their excellent Registrar would be only too delighted to have this burden (of investigation) removed from his shoulders." And so it is, that the hair-dressers *et id genus omne* are to remain on the *Dental Register* as certified dentists.

The General Medical Council evinced an equal desire to avoid responsibility when, in considering the proposed Medical Act (1858) Amendment Bill of the Duke of Richmond, it remarked, on Clause 14, which provided that the Medical Council shall make examination rules for regulating the examinations of persons desiring to obtain qualifications—

"That the duties of the Medical Council in relation to the various medical authorities (whether in separate or in joint action) should not be extended to the initiation of the examination rules under which qualifications are to be granted, but should in general remain restricted, as now, to duties of superintendence and control, with power of making representation to the Privy Council in cases of default."

These illustrations of the masterly inactivity of the General Medical Council, to which the medical profession has contributed £150,000, form a fitting introduction to some observations on a most misrepresenting leader in the *Times* of the 14th instant, which could never have obtained admission but for the exceptional and special nature of the question referred to. The universality of the subjects which the leading journal discusses, compels it to adopt the articles of experts in technical matters. Probably no more tangled web to unravel was ever submitted to any editor, than the inconceivable anomalies connected with medical education and the granting of degrees and licences, which have so long existed in this country. Nineteen separate bodies are entitled to grant one or more licences, each qualifying the possessor to be placed on the *Medical Register*, but granted on very varying conditions of study, examination, and fee—each of these bodies rising and waning in influence at different periods; some, once useful, now rapidly becoming effete. Even amongst medical men, the number of them who have mastered all the complex details is restricted; and so it is that the leaders of the leading journal, dealing with medical reform, have evidently been coloured by the source whence their inspiration has been derived. Thus it is that at one time the *Times* contained a powerful and urgent article on the necessity of changing the constitution of the General Medical Council by the introduction of direct representatives of the profession, who, having no corporate nor class interests to watch over, might balance the undue weight of the corporation delegates, and devote themselves exclusively to the elevation of the profession by improving the education of its members. Since the year 1833, when Dr. Barlow read his address on medical reform, the elevation of the profession by improvement of education has been the great object of the British Medical Association. This was the *primum mobile* of all their efforts from that date to the year 1858, when, through their instrumentality, the Medical Act was passed. By that Act, the General Medical Council was called into existence, and it was fondly anticipated that the General Medical Council would avail itself of the powers given by that Act to improve medical education. Section 20 of that Act empowered the Council to report defects in education and examination to the Privy Council, and Clause 21 provides that the Privy Council may suspend the right of registration of the diplomas issued by the body, whose curriculum or examinations the Medical Council has complained of. With these powers, what has the Medical Council done to advance education? The Council has been in existence twenty-two years, and has received, as has been already stated, £150,000 from the profession. In return, it has left the medical profession in this country, as regards general attainments, the worst educated and worst examined in Europe. The cause of this cannot well be mistaken; it can only be explained by the overwhelming numbers of the corporation delegates in the Council. "Hawks do not pick out hawks' eyes," was the reason given by Professor Haughton before the Select Committee for this mutual forbearance amongst members of the Council. The consequence has been the perpetuation of defective education, which all the efforts of men like Dr. Parkes have been powerless to improve. In the first years of the Council the views advocated by reformers exercised some influence. Some creditable resolutions to improve education were passed; but, even in respect to these, the masterly inactivity which has ever since marked the Council asserted itself.

Under these circumstances the conviction rapidly regained strength in the profession that the constitution of the Council was defective, inasmuch as it was mainly composed of delegates from the various bodies it was created to control, and that some neutralising element should be introduced. In various proposed Bills before 1858, direct representation of the profession in the General Medical Council was provided, and was only given up owing to the absence of any existing Register of the profession. The demand for it has again been made by the profession *en masse*, and on no subject whatever has the profession been so united. Sir Wm. Jenner, Dr. Andrew Clark, the late Professor Hughes Bennett, Dr. Sibson, and Dr. Murchison, have supported it. Lord Mount-Temple, who, as Mr. Cowper, carried the Bill of 1858 to a successful issue, the late Mr. Headlam, Dr. Lyon Playfair, Right Hon. Mr. Mundella, and a host of other statesmen have advocated it. The late Dr. Andrew Wood and Sir Dominic Corrigan, Professor Haughton, on behalf of Trinity College, testified in favour of it before the Select Committee. A demand so supported cannot be dismissed by the influence of writers, who, either wilfully or ignorantly, misrepresent the action of the representatives of the British Medical Association in regard to medical reform. The writer in the *Times* suggests the perusal of the evidence of Sir James Paget, Dr. Quain, and Mr. Simon, before the Select Committee. It might be well for him to read the Birmingham memorial, and other statements bearing on direct representation contained in the same report, before he again imputes unworthy motives to its advocates. He would then find that the improvement of medical education, and the establishment of conjoint boards of examination to secure it, were demanded by the British Medical Association more than twenty years before the General Medical Council was called into being—as they still remain demanded, after more than twenty years of its existence. The interests of the separate corporations blocked the way before 1858, as they continue to block it now; and, owing to the discordant elements in the Medical Council, that body is simply powerless to unite them—accepting, as it has done, a scheme or a Bill one year, only to oppose it subsequently. In 1870, the Bill of Lord Ripon was accepted by the General Medical Council; but it was afterwards strenuously opposed by Dr. Andrew Wood, acting for the Edinburgh College of Surgeons, in the House of Commons; by the Royal College of Physicians of Edinburgh; by the Faculty of Physicians and Surgeons of Glasgow; by the Scotch Universities; by the King and Queen's College of Physicians, Ireland—all of which corporations then petitioned the Legislature in favour of direct representation. In the face of these facts, to suppose that the Medical Bill of Lord Ripon could have passed in 1870, but for the opposition of the British Medical Association, is sheer absurdity.

It is true that the Government made an offer to the British Medical Association to induce the withdrawal of opposition on their part, and that the offer was declined; but the fate of the Bill was sealed, independently of any such offer, by the recalcitrant conduct of the Irish and Scotch corporations. As evidence of the power of the corporations in opposition, it is only necessary to recall the effect of the opposition of the Scotch representatives to the Bill of the Duke of Richmond in 1879. The British Medical Association, satisfied with the conjoint scheme provided in the modified Bill of the Duke of Richmond, supported the Government in referring the question of the constitution of the Council alone to the Select Committee; the Scotch authorities, however, were able to enforce the reference of all the points of medical reform to the Select Committee, and succeeded in doing so, the Scotch members of Parliament supporting them. Both the Government and the British Medical Association failed to limit the investigation.

The evidence before the Select Committee is supposed to have materially strengthened the cause of the advocates of direct representation. Hence, doubtless as a last hope, the writer in the *Times* advocates a Royal Commission, which is known to be the favoured device at the present moment of the medical opponents of reform of the Medical Council best acquainted with the back-stairs of Government offices, and active in their efforts to inspire Ministers by officious whispers. This was the vault in which the Scotch authorities in the last Parliament unsuccessfully attempted to inter medical reform. A more complete stultification of Parliamentary action could not well be devised, than a Royal Commission on a subject which has been sifted before three Select Committees of the House of Commons.

Let it, however, be no longer unblushingly stated that the British Medical Association is an impediment in the way of medical legislation, and that it holds selfish objects in view. The British Medical Association seeks to control the medical authorities by an efficient Council representing the universities (none of which will be unrepresented in Mr. Hardcastle's Bill, as stated in the leader in the *Times*), the corporations, the Crown, and the general body of the profession.

It seeks to put an end to the registration of half qualifications, and to secure complete examination in all branches of the profession on the part of those who are entered on the *Register*. It has endeavoured to effect this by the establishment of conjoint boards of examination. Failing to do this in 1858, before the existence of the General Medical Council, it endeavoured to make the double qualification essential to registration; but even in this was defeated by the corporations, who now, as then, stand in the road of reform.

It seeks to improve the general education of the medical student by taking the preliminary examination out of the hands of the licensing authorities, and entrusting it to the absolute control of the General Medical Council.

It does not vainly attempt to put down quacks, bone-setters, herbalists, unlicensed practitioners; it does not intend to bar the sale of quack medicines; it leaves the British public free to follow its own fancies in all these respects; but it does aim at effectually protecting the public and the profession from the false assumption of medical titles by unqualified men, whether in regard to practice or in signing certificates; and, in doing this, seeks to deserve well of the public.

THE MEMBERSHIP OF THE ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

We are given to understand that, at the last quarterly meeting of the Royal College of Physicians of Edinburgh, a measure was passed *nem. con.* which materially affects the conditions under which the membership of that College is in future to be granted, and which, it is hoped, will enhance the value of that distinction. The profession is aware that, up to the present time, the only test applied to candidates for the membership of the Edinburgh College has been the ballot, after the production of testimonials as to character satisfactory to the College. Matters will be entirely changed by the rules and regulations which are to come into force on March 1st, 1882. After that date, candidates will be required, in the first instance, to produce satisfactory certificates of character and of professional and social status: on the Council being satisfied in this respect, they will be admitted to examination. This examination, which is to be conducted by a special court of examiners, is in all instances (with the exceptions presently to be spoken of) to include the principles and practice of physic and therapeutics; but, in addition, each candidate will be required to take up one of the following departments of medicine: midwifery and diseases of women; medical jurisprudence and public health; pathology and morbid anatomy; psychiatric medicine. On the Court of Examiners reporting to the Council that it is satisfied with the proficiency of a candidate, he may be proposed and seconded by resident Fellows at a quarterly meeting of the College, as a fit and proper person to be admitted to the membership; and, at the next quarterly meeting, a ballot will be taken, a majority of three-fourths being necessary for admission.

The only exception made is in the case of practitioners of not less than forty years of age, and who have been registered for not less than ten years; in whose case, if they produce certificates that they are specially distinguished in the science and practice of medicine, the Council may, if it sees fit, modify the examination.

By this measure, we conceive the College has guarded itself very thoroughly, and has removed any obloquy which may have been held to attach to the conditions on which it has, till now, admitted members. It may be admitted that the examination-test is not so severe as regards the list of subjects as is insisted on by the London College; but it is quite open to question whether it is expedient to compel practitioners who have already passed an examination in anatomy, physiology, and chemistry, to work up the details of these subjects again, for the purpose of obtaining admittance to a corporation; it seems, on the whole, more reasonable that candidates for such honours should prove to a court of examiners that their practice is founded on the principles of the various sciences studied in earlier life. If to this be superadded demonstration of special knowledge of a special department of medicine, the profession and the public may rest assured that sufficient tests have been applied to warrant the admission of a candidate.

"The forty years' clause" will work very much in Edinburgh as it does in the other colleges where it is now in force; that is to say, men of acknowledged standing will obtain admission according to their "public form"—which is only right and proper.

By the rules of the Edinburgh College, regulations for all examinations have to be submitted to the Fellows at the August meeting. As it is only fair that six months' notice of such a radical change should be given, it is plain that the new rules could not be introduced sooner than is proposed; and, therefore, that no hint of "a year of grace" should be thrown out against a corporation which has, at probably a great monetary loss, adopted a principle for principle's sake.

THE ETIOLOGY OF DIPHTHERIA.

The need for some thorough and exhaustive inquiry into the causes and conditions which determine the origin and spread of diphtheria is, as we have repeatedly indicated, becoming daily more urgent. The urgency and importance of such an inquiry are, indeed, rendered all the more striking by the abortive results of investigations made for the Local Government Board by Dr. Hubert Airy in February of last year, into a number of strongly localised outbreaks of diphtheria occurring amongst small communities in the fourth quarter of 1879. Dr. Airy's report, which is only now published, is curiously disappointing in many respects; for it adds nothing to our existing knowledge—or want of knowledge—as to the disease. It gives, however, important corroborative evidence as to certain conditions which have come to be regarded as concerned with the disease; and, in this aspect, it deserves a little detailed attention.

In the majority of the eleven districts where inquiry was made (one of which was in Sussex, one in Essex, one in Suffolk, one in Devon, one in Northamptonshire, one in Lancashire, and five in Wales), the regions affected, and especially the points at which the disease first broke out, were high and exposed to the wind. In almost every case, the soil was more or less clayey and wet. The selection by sporadic diphtheria of high exposed sites has been already observed by Mr. Wynter Blyth; and the greater prevalence of diphtheria in clayey (as contrasted with sandy) regions has been noticed by several observers—recently by Dr. Kelly and Dr. Ashby, the latter of whom finds the disease chiefly prevalent on the lias clay. In the districts visited, though the disease was found in relation to general wetness, yet it did not appear to have any concern with the nature of the supply of drinking-water, being found equally in regions supplied by wells, by running streams, and by stagnant ditches and pools. In some of the most severe cases, the water, on analysis, was found to be unusually pure; in others, it was certainly polluted.

Dr. Airy brings out in strong relief a point already referred to in these columns, viz., the influence of season upon the prevalence of diphtheria. Of the eleven outbreaks inquired into, one began in August, two in September, four in October, and four in November. Examination of the Registrar-General's returns for the last ten years shows a very great excess of mortality from diphtheria in the fourth over the third quarter of the year. From this fact alone, it might be inferred with some probability, that epidemic diphtheria would be found to originate most frequently in the early part of the fourth quarter. As Dr. Airy observes, the point is worth investigating; for, if established, it would lend support to his theory (to be subsequently referred to) that the morbific agent is an organism with seasonal development, attaining its chief reproductive power in the autumn—the very season when the air is known to be especially charged with fungoid germs.

As regards local and personal conditions predisposing to diphtheria, the disease was not found to show any constant preference for spots characterised by any particular features of elevation, airiness, dampness, or otherwise; nor for foul, overcrowded, unventilated hovels, as compared with more wholesome dwellings. As to the age of those attacked, it was observed (as has often been observed before) that infants and adults, as a rule, escaped, or were only very slightly affected; while children from two to twelve years were especially liable to the disease. Dr. Airy makes the curious remark that the families affected were mostly fair-haired; but, unless the relative proportion of dark and fair complexions in the districts could be ascertained, the observation is of little value. It rarely happened that, in a family of several children, all equally exposed to infection, only one was affected. The usual experience was that, when diphtheria was once introduced into a family, all or most of the children were attacked; some, perhaps, simultaneously, or at intervals of one or two days or a week; the parents, at the same time, often suffering from more or less severe sore-throat. The variety of circumstances under which diphtheria spreads by personal communication, was illustrated in several of the outbreaks. First and most frequently was the circumstance of dwelling together under the same roof; and, next, sitting together in the same school. There were instances of infection from occasional visits to the bedroom or the dwelling of a diphtheria patient; and even from making purchases at a shop where the shopwoman was ill from diphtheritic sore-throat. There were two instances of the disease being conveyed from one locality to another, by a person who had contracted diphtheritic sore-throat at the one place afterwards visiting a susceptible family at the other. A striking case occurred of the conveyance of diphtheria to a new locality by a person who had been in contact with a diphtheritic patient, but had not herself contracted the disease. This fact gives proof of a most perilous facility, under some conditions, of transport and dissemination of the poison. Not only does it adhere to the person or clothes of the patient himself, but it can attach itself to the person or clothes of an occasional attendant in such force as to survive the dissipating and diluting and destroying action of the air during a journey of several miles, and display its infectious property in the community to which it is thus newly introduced. Seeing how greatly the chances of infection, and the difficulties of tracing it, are increased by this power of mediate communication, it may be that it explains the untraceable and apparently unaccountable origin of many outbreaks of diphtheria which at first seem to admit of no explanation but that of *de novo* or spontaneous origination. It is, indeed, remarkable in how great a majority of cases the origin of outbreaks of diphtheria fails to be discovered. Sometimes there is a suspicion of previous intercourse with an already infected district; sometimes attention is directed to foul water or foul air, sometimes to inclemency of weather, sometimes to a coincident malady in some lower animals; but, in the majority of the cases, the history of the origin of the disease is an utter blank. This would certainly not be the case if personal communication with previous diphtheria were a necessary or habitual condition of a new outbreak of the disease; so that, as was observed by Dr. Sanderson twenty years ago, "the conclusion is unavoidable that, unless it be supposed that the material cause of diphtheria is, from time to time, generated *de novo*, it is capable of existing and moving from place to place independently of its subjects". Dr. Airy's opinion on the question is that, in spite of all that can be urged as to the facility of indirect or mediate conveyance of the contagium of diphtheria from person to person, the great weight of evidence and probability is against the theory of personal communication, direct or indirect, as the cause of the autumnal outbreaks of the disease. He thinks that the evidence which has accumulated forbids the presumption that the material of diphtheria is a something peculiar to the diseased human body, and incapable of producing its effects except by transmission in some way from a diseased to a healthy human body. It would appear, on the other hand, that it must have some origin *de novo*, while afterwards possessing the faculty of communicating disease from man to man. He regards it as evident that there is some external agent at work, especially in clayey wastes, in autumn, that is capable of inducing diphtheria in susceptible persons. This agent cannot be a combination of merely physical influences, such as cold, and wet, and fog, and wind, and want of sunshine—for outbreaks of diphtheria exhibit no constant relation to the presence of such influences; and those influences have no such climax of intensity in October as is required to account for the excessive frequency of diphtheria at that season. To the acceptance of the suggestion that some non-specific product of vegetable or animal decay, most abundant in autumn and in wet localities, may, by some poisonous action, induce in susceptible persons a depravation of mucous secretion, which then, somehow, acquires the specific property of infectiousness, there is the great difficulty of understanding how a morbid process, supposed to be set up by an external non-specific agent, could afterwards be communicated with perfect similarity by means of a specific agent of a different kind. The original morbific matter should, Dr. Airy thinks, be something of a specific nature that is capable of multiplication in the human body; and nothing will satisfy this condition, except a specific living organism. Setting aside the question whether this specific organism is or is not capable of spontaneous generation, it is important to ask whether it is capable of multiplication outside as well as inside the human body—"now", as Mr. Simon has well said, "fructifying in soil or water of appropriate quality, and now the self-multiplying contagium of a bodily disease" (see vol. ii, 1879, p. 974).

Arguing upon this point, Dr. Airy arrives at the conclusion that the supposition that diphtheria, in the origin of an outbreak, is caused by an organism that haunts air or water, appears to conform most closely to the requirements of observed fact. It is quite reasonable to suppose that such an organism, having a subsistence dependent on seasonal conditions, should have its own special season of maximum growth and reproductive power; that it should be capable of infecting water or milk; and that it should affect preferentially a particular character of soil, such as clay, and avoid the smoky purlieus of a town. Such an organism might, Dr. Airy says, be expected finally to yield itself to microscopic identification in its (supposed) native haunts; and certainly the suggestions contained in his painstaking and ingenious report seem worthy of further study.

THE death of Dr. Canquoin, the inventor of the *pâte de Canquoin (pasta zinci chloridi)*, is announced. He died at Dijon in his eighty-sixth year.

M. CHALLEMEL-LACOUR, the French Ambassador, presided, on Saturday evening, at the annual dinner in aid of the French Hospital and Dispensary, given at Willis's Rooms. Subscriptions amounting to £2,000 were announced.

DURING the past six weeks of the current quarter, the death-rate in the metropolis has averaged only 25.4 per 1,000, against 26.9 and 31.9 in the corresponding periods of 1879 and 1880.

A GENTLEWOMAN, whose age was stated to be 103 years, died in Kensington on the 7th inst.; and the widow of a labourer died on the 2nd inst., in the Poplar Sick Asylum, at the reputed age of 100 years.

THE Hunterian Oration was delivered at the Royal College of Surgeons, Lincoln's Inn Fields, on Monday afternoon, by Mr. Luther Holden. After the oration, the Council dined together in the College with a few distinguished friends.

MEETINGS of residents in Kensington, Brompton, and Fulham, have been held during the week, at which it was resolved to hold a great public meeting, to petition the House of Commons against the action of the Metropolitan Asylums Board in enlarging the accommodation at Fulham Hospital for the reception of small-pox patients from other parts of the metropolis.

AT the Royal College of Surgeons, Professor W. H. Flower, LL.D., F.R.S., will give nine lectures on the Anatomy, Physiology, and Zoology of the Cetacea, on Mondays, Wednesdays, and Fridays, February 28th, March 2nd, 4th, 7th, 9th, 11th, 14th, 16th, and 18th.

ATTENTION is drawn by the Registrar-General to the fact that the fatal cases of small-pox in London, which had been 27, 42, and 52 in the three preceding weeks, further rose to 54 last week, and exceeded the corrected weekly average in the past ten years by seven.

DR. LOUIS JULLIEN, who has recently obtained the Château-Villard Prize of the Paris Faculty of Medicine, has also gained the Montyon Prize of the French Institute, of the value of 2,500 francs (£100 sterling), for his well-known *Traité des Maladies Vénériennes*.

ANIMAL vaccination has been introduced into the Madras Presidency. Dr. Laing, the Inspector of vaccination, reports that, after two unsuccessful attempts, animal vaccination proved successful at Ootacumund in February 1880, and that since then it has been successfully carried out.

A MEMORIAL to the late Surgeon Thomas Power, R.N., who died at the Royal Hospital Haslar, whilst on the staff there, has been erected in the Naval Cemetery, Haslar, Gosport, by subscription amongst his brother officers and shipmates. The memorial is a Latin cross, over six feet in height.

A MEETING was held at the Mansion House on Wednesday, under the presidency of the Lord Mayor, to advocate increased support for the St. John's Ambulance Association in its work of spreading information as to the preliminary treatment of the sick and wounded before the arrival of regular medical aid. Resolutions in favour of the work of the society were passed.

MR. ALLEN, of Bloemfontein, has received a telegram from Sir George Colley, asking that nurses may be sent to the military hospital at Newcastle, as they had gone before in the Zulu war to Ladysmith. A special fund has been opened, called the South African Special Nurses' Fund, at the Standard Bank, for defraying the expenses. The amount subscribed has, up to the present time, reached only £200; and four have been sent. No doubt, however, ample funds will be forthcoming for the purpose.

A COMMITTEE, with power to add to their number, has been formed for the purpose of raising a fund for the relief of the sick and wounded among the colonial forces (Europeans and natives) engaged in the suppression of the present disturbances in South Africa, and of affording assistance to the families of the killed and disabled. Among the committee are: the Duke of Sutherland; the Earl of Malmesbury; Lord Chelmsford, G.C.B.; Lord Elcho, M.P.; Sir Bartle Frere, G.C.B.; Mr. Henry S. King; the Earl of Shaftesbury; and Sir John Lubbock, M.P.

THE milk-supply to our colonial towns is evidently in as sore need of regulation as in the mother country. The health-officer of Hobart Town, Tasmania, states, in his report for November last, that he visited, in his public capacity, a filthy hut of two rooms, where a girl had died from diphtheritic croup. He found poultry shut up in the place, and the water for family consumption kept in an uncovered bucket on the floor, and so turbid and foul with organic matter as to be unfit for use. Yet this so-called dairy-farm sent the milk of nine cows for sale to the city. It would be a matter of no surprise if milk thus circumstanced were to cause an outbreak of diphtheria amongst its consumers.

TEMPERANCE IN THE NAVY.

A DEPUTATION from the National Temperance League waited on Lord Northbrook with regard to spirit-rations in the Navy. In replying to the representations of the deputation, his lordship stated that the Admiralty intended to stop the issue of the ration of rum altogether to the officers, but to give them some compensation, so as not to make money out of it. They would stop the ration of rum to the boys up to the age of twenty, and give further inducements to the men to give up their rum rations by giving them, besides the tea and sugar they were now allowed, a ration of soluble chocolate in the middle night watch. The increase in the money allowance would mean a charge to the country of from £10,000 to £20,000, the rum being issued to the Navy before payment of duty.

SURGICAL GOVERNORS.

THE new Governor of the Gold Coast, Surgeon-Major Sir Samuel Rowe, K.C.M.G., has left for Cape Coast Castle in the mail steamer sailing from Liverpool. Sir Samuel Rowe was accompanied by Surgeon-Major Frank Simpson, Assistant Colonial Secretary, an officer of twenty years' varied experience on the coast, who gave up his leave, and embarked in the same steamer, to place his services at the disposal of the local Government.

THE OUTBREAK OF SCARLATINA AT HALIFAX.

WE are glad to be in a position to state that the Local Government Board have acceded to the request made to them by a number of medical practitioners and other residents of Halifax, for an inquiry, by one of the Board's medical staff, into the circumstances of the recent epidemic of scarlatina in that town. Mr. Dolan, who has been largely instrumental in procuring the investigation, has received a communication from the Local Government Board, stating that, as early as practicable, one of their inspectors will visit the town to make the inquiry; and the inspector who has been nominated for this purpose is Dr. Ballard, whose calm judgment and painstaking accuracy will, no doubt, bring the inquiry to a successful and unassailable issue. A careful perusal of the report presented by the medical officer of health shows pretty conclusively that infected milk was, as a matter of fact, at the bottom of the outbreak, though many important details are wanting. It is true that Dr. Britton, in whose health-district the man lived who milked the cows, and is supposed to have spread the disease, denies that the man could have caused the mischief, and considers that he contracted the infection at Halifax, and brought it home to his family. Dr. Britton's arguments do not seem to be very cogent; but it is proper to record his opinion as that of one who has given attention to the subject. At the meeting of the Town Council called to discuss the epidemic, many members seem to have been well disposed towards a Government inquiry into the circumstances; but, in the end, the Council declined to endorse a proposition asking the Whitehall authorities to make such an inquiry. Looking, however, to the conflicting statements that are current on the subject, and to the fact that the cause assigned for the outbreak by the medical officer of health has been directly contradicted, it is certainly satisfactory to learn that the Local Government Board have decided to find out the actual facts for themselves. Meanwhile, it may be stated that, according to the last accounts published, a total of 244 cases of scarlatina, and 102 of sore-throat, have occurred during the epidemic.

THE ISOLATION OF SMALL-POX IN THE METROPOLIS.

THE circular which the Metropolitan Asylums Board issued on the 8th instant to vestries and boards of guardians in the metropolis, stating that, if the number of admissions to their hospitals increased at the same rapid rate as during the previous fortnight, the accommodation at the disposal of the managers would be exhausted by the end of the present month, raises a question of very serious moment. The managers are undoubtedly in a position of peculiar difficulty. Pending the long-deferred judgment of the Court of Appeal in the Hampstead case, they are unable to utilise any fresh sites for hospital purposes; and even the sites that they do possess are assailed in various quarters as foci for the spread of small-pox in the surrounding neighbourhoods. It is not easy to see a satisfactory way out of the perplexities of the managers; but the method they have chosen to adopt, and which they have asked the Local Government Board to endorse, viz., calling upon

the various sanitary authorities and boards of guardians to supplement their action by making provision for the accommodation of any additional cases of small-pox that may arise when the Managers' Hospitals are full, must certainly be regarded with suspicion. Metropolitan boards of guardians look upon their duties of finding accommodation for the isolation of paupers as completely fulfilled for them by the Metropolitan Asylums Board; and under the ill-advised provision in the Poor-law Act of 1879, which gave vestries and district boards power to contract with the managers for the reception of non-pauper cases, the metropolitan sanitary authorities have come to regard the Asylums Board as the hospital-providing authority of the metropolis for all classes. It seems to have been overlooked that the Board is essentially a Poor-law body, formed for Poor-law objects; and that, unless it had a distinct guarantee from the sanitary authorities of a sufficiency of cases and of fees (which as yet it has failed to obtain), it could not properly be extending its accommodation so as adequately to provide for the hospital wants of the non-pauper class. The fact is that in this, as in many other respects, the needs of the vast province of houses called London are looked at in a mere vestry and narrow spirit. We do not believe that any arrangements made by sanitary authorities with the Asylums Board, as at present constituted, can be satisfactory; and it seems to be necessary either to transfer to that Board the duties, now devolving upon the London sanitary authorities, of providing hospital accommodation for all persons who cannot be treated with safety at their own homes, or of establishing an altogether new hospital-providing authority for the whole metropolis. We do not suppose anyone will expect each of the thirty-nine sanitary authorities, who more or less misgovern London, to make separate provision of their own for the isolation of infectious cases, and apparently there is no resource except combination. But it must be combination on a reasonable basis and of a workable kind, which no one can regard the present arrangements as being.

HOSPITAL SATURDAY.

THE annual report of the Hospital Saturday Fund shows a considerable progress in the right direction. In the first place, the expenses of working are little more than one-third of those which occurred at the outset; next, we observe that the Fund is conducted entirely by working men, with the exception of Mr. Samuel Morley, the chairman, and Mr. Hamilton Hoard, the treasurer. The Saturday collection, which comes from the general public, goes mainly to pay the expenses of the movement. The main collection comes from 40,000 collecting-sheets, issued to workshops and other industrial centres, and is made from week to week and month to month during about six months or more. The action of the Fund has resulted in nine hospitals and eleven dispensaries being opened to the poorer classes for consultation after working hours. In the present anomalous and irregular state of the distribution of medical relief in London, the action of the Saturday Hospital Fund is wisely directed, and, in the hands of the working classes, is likely to be decidedly useful; and, in the genuine shape which it has now assumed, it will be very satisfactory if the influence on the administration of the hospitals exercised by the Fund should become real and considerable. We firmly believe that the working classes will be found in the end anxious to abolish the abuses connected with the out-patient department: they have already shown themselves, through their most influential bodies, favourable to the substitution of provident dispensaries for hospital out-patient departments; and there are other indications connected with this Fund which show that the tendency of the movement will be to bring the real working men into more direct sympathy and union with hospital administrators—a step which will undoubtedly prove of great public advantage, and assist in ridding our hospitals of many of their present defects.

THE SEAMEN'S HOSPITAL AND MR. BURDETT.

AT the annual meeting of the Dreadnought Seamen's Hospital Society, Lord Northbrook, First Lord of the Admiralty, presiding, in the presence of a distinguished company, a report was read, showing a very satisfactory state of affairs: 180 beds having been constantly occupied during the year, as compared with 161, the average during the previous six years; and the income steadily improving. Mr. H. C. Burdett, who has, during the last six years, administered the affairs of the hospital with conspicuous success, has now severed his connection with the hospital; a very valuable appointment in another sphere of usefulness having been offered to him. Lord Northbrook handed to Mr. Burdett a beautifully illuminated address, setting forth the sense which the committee entertained of the value of his services, and describing the advances made in the administration during his period of office; and he was elected a member of the Committee of Managers. Mr. Burdett's career has been one which reflects high credit on him, and it will be watched with interest by many of his old friends in the profession in Birmingham, in which town he achieved great reputation as a hospital administrator before coming to London. During his period of office at the Dreadnought Hospital, besides the great success which he has achieved in the hospital itself, he has found time to organise the Home Hospital movement. Not only is this due to his initiation, but the practical working of it has involved constant stress of work upon him. His study of the administration and construction of cottage hospitals has produced the best and now standard treatise on the subject, of the second edition of which we recently had to speak in terms of praise. As Special Commissioner of the *Sanitary Record*, his report on the unsanitary state of Dublin, and on the sanitary defects of public offices, have been largely instrumental in producing Government action in the direction of reform of the abuses which he pointed out. He has edited the records of the Sanitary Institute, and has contributed valuable papers to its *Transactions;* and, in addition to these multifarious labours, he has found time to carry on to completion the medical education necessary for a qualification in medicine. This is, perhaps, as remarkable a record of indefatigable work in the short period of six years, as any which may be mentioned. Although his work henceforth will be of a purely lay character, it may be assumed that the training and education of Mr. Burdett will be utilised, in the spare time which a man of so much energy will not fail to find, for the furtherance of medical and sanitary interests.

RIOTOUS ANTIVACCINATORS.

OUR Brighton correspondent writes to us: The fining of some obscure but noisy individuals for neglect of vaccination, and the selling of some furniture under a distraint warrant, has been made the excuse for rioting, and a somewhat serious assault on the vaccination officer, and on Dr. Harris Ross, a well-known and esteemed surgeon in extensive practice, who holds an appointment as public vaccinator. Not content with orations about murder and blood-poisoning, black flags, brass bands, the Dead March in *Saul*, groans, and similar cheerful confessions of the faith that is in them, a large crowd gathered about the vaccinating station in High Street last week, very roughly handled Dr. Ross as he left his carriage—hustled him, tried to throw him down, knocked his hat over his eyes, spat in his face, and, spite of two policemen, bruised him "till the breath almost left his body". It is needless to say that the sympathies of all respectable men are entirely with Dr. Ross in this gross and unprovoked outrage, and we are glad to learn that he suffered no permanent injury. Summonses against four of the crowd were heard on Monday at the Brighton Town Hall. Three of them were fined, and the worst offender was sent for trial at the Quarter Sessions.

EPIDEMIOLOGICAL INQUIRIES.

AT a meeting of the Epidemiological Society, held at University College on February 2nd, the President, Sir Joseph Fayrer, in the chair, it was resolved, on the recommendation of the Council, to utilise the constitution of the Society for the purpose of investigating the following points; and special committees were appointed for this object. 1. The evidence which the present state of medical knowledge supplies as to the conditions affecting the protection against small-pox afforded by vaccination; by a special committee consisting of Dr. Robert Cory, Dr.

John McCombie, and Mr. Shirley Murphy. 2. The circumstances under which enteric fever originates, and the means by which it is disseminated; by a special committee consisting of Dr. Alexander Collie, Dr. G. C. Henderson, and Dr. E. J. Russell. 3. The circumstances under which diphtheria originates, and the means by which it is disseminated; by a special committee consisting of Dr. Longstaff, Mr. A. H. Smee, and Dr. William Squire.

PROVINCIAL PHYSICIANS AND THE LONDON COLLEGE.

WE understand that Dr. Chadwick, formerly of Leeds, but since his retirement from practice residing in Tunbridge Wells, has been nominated to the Council of the Royal College of Physicians of London. No man could be mentioned in whom the College could have more fittingly recognised the claim of provincial physicians to a seat in the Council at any time during the last twenty years. In this case, however, the recognition comes tardily, and Dr. Chadwick has, we hear, from considerations of health, been compelled to decline the honour. How is it that the College delays so long its recognition of the claims of provincial physicians to a seat in the Council, and offers it so late in life? There are men in active practice in daily communion with their fellow-practitioners throughout the country, who might fittingly claim seats at the Council, and whose presence at the College would be a source both of strength and of dignity. Mentioning names quite at random (and without mentioning names the observation loses half its point), we would refer to such men as Paget and Latham of Cambridge, Acland of Oxford, Wade of Birmingham, Fox of Bristol, Waters of Liverpool, Roberts or Morgan of Manchester, Philipson of Newcastle-on-Tyne, Wilson of Cheltenham, who might fittingly from time to time be invited to become members of the Council. The College of Surgeons has shown an example in this matter which, no doubt, the College of Physicians will before long think it well to imitate.

CHARGE OF CRIMINAL ABORTION.

OUR Paris Correspondent writes, under date February 14th: The medical man to whom I referred in my letter of October 30th last, as having been arrested under the charge of criminal abortion, stood his trial at the Court of Assizes last week, and was, with his abettor to the crime, acquitted for want of positive proof. The moral and circumstantial evidence went much against them; but the deposition of the medical witnesses was so conflicting, and the defence was so ably conducted by Maitre Lachaud and another colleague, that the prosecution simply broke down, and the jury could return no other verdict than that of "Not guilty". The case was sadly interesting in more than one point of view. The medical man accused was a retired army surgeon, nearly seventy years old, and Commander of the Legion of Honour; and the victim was only eighteen. There was one novel feature in it that deserves notice. Professor Brouardel could not say for certain whether death was caused by the presence of the cyst in the liver, referred to in my letter, or by the peritonitis resulting from the mechanical means that had been employed for procuring abortion. Moreover, he suggested that the cyst in the liver might have been produced by these very attempts.

DANGEROUS GAS BATHS.

AN inquest was held on Saturday, at Anerley, on the body of Mr. C. F. Deacon, aged 30, a solicitor. He had gone into the bath-room to have a warm bath; and, as he did not return at the usual time, Mrs. Deacon became alarmed, and, there being no response to her knocks, the door was broken open, when Mr. Deacon was found in a sitting posture on the floor, quite dead. The boiler was heated by atmospheric burners. Mr. Turner stated that he had had several similar cases lately, and considered this kind of bath-apparatus very dangerous, as it threw off carbonic oxide, which killed not by suffocation, but by absolute and direct poisoning. Mr. Turner added that he attended, in the course of a fortnight, six persons who had been poisoned in a like manner, but not fatally. Two, however, had narrowly escaped with their lives. The jury at once returned a verdict of "Accidental death", as explained by the medical evidence. This is a matter on which Mr. Eassie, or other of our sanitary engineers, might report with advantage.

DWELLINGS OF THE POOR.

THE low mortality and greater social welfare of the poorest classes in industrial dwellings is a source of increasing congratulation. The sixteenth annual report of the trustees of the Peabody Fund has just been published. The net gain of the year, from rents and interest, has been £25,276 11s. 8d., and on land sold at Chelsea, £1,503 6s., making in the whole £26,779 17s. 8d. Up to the present time the trustees have provided for the artisan and labouring poor of London 5,170 rooms, exclusive of bath-rooms, laundries, and washhouses. These rooms comprise 2,855 separate dwellings, which are occupied by 9,899 individuals. The trustees hope that before the close of the present year they will have provided additional accommodation for 760 families, or upwards of 3,500 individuals. The average rent of each dwelling was about 4s. 4½d. per week. The mortality was only nineteen per 1,000.

DIFFUSION OF DISEASE BY MILK.

A FARMER of Buckland was fined £5 and costs at the Reigate County Court, on Saturday, for having allowed a cowman to go on milking the cows while his son was lying ill of diphtheria. The boy died of the disease. The farmer declared that he told the man to stop from work as soon as he learned that the disease was infectious; but the magistrate did not seem to think the excuse sufficient. The sanitary officers were also censured for not having sooner informed the police of a matter fraught with so serious danger to those supplied with the milk. It is satisfactory to see public attention turning in this direction.

REVACCINATION AT CHICAGO.

WE learn, from the *Boston Medical and Surgical Journal*, that small-pox exists in Chicago to a sufficient extent to turn attention to revaccination. A very wise step has been taken by the superintendent of schools for the city, who, on the recommendation of the health-commissioner, ordered that hereafter no pupil shall be admitted to the public schools without a physician's certificate that vaccination has been performed within seven years. Up to the present time, a pupil was admitted with a vaccination certificate at six or seven years of age, the vaccination having been made in infancy, perhaps; no further attention was paid to the matter, notwithstanding the testimony of experience that vaccination, to be protective, must be repeated every five to ten years. It seems that, in Chicago, nearly all the vaccinations now made are with bovine virus. It is stated that it would be impossible to name a Chicago physician who uses from choice the humanised virus. We learn that, while the bovine virus generally "works" more vigorously, and often produces enormously swollen arms and severe constitutional symptoms, there is no prejudice against it among the Chicago people. For these severe results, the profession is never blamed. Under the old practice, with the humanised virus, a bad arm was open to criticism, often to severe censure, of the operator, and not a little practice changed hands in consequence.

FEVER AMONGST THE MADRAS TROOPS.

IN his sanitary report for 1879 on the health of the troops in the Madras command, Sir Anthony Home gives the following interesting particulars as to the prevalence of various forms of fever amongst the soldiers. He reports that there was more sickness amongst the troops in the command than in the preceding year; and that the diseases from which the excess occurred were mainly those depending on meteorological conditions. The deficient rainfall of the famine years was followed at some stations—if not generally—by great rains; and in the year under report, paroxysmal fevers were unusually common at those stations. The number of admissions for this class of fevers was upwards of a third greater than in 1878; those for continued fevers were a little less than a third greater. In the last named group, enteric fever caused a larger number of illnesses than in 1878, but the notices in the reports respecting this disease are so

often incomplete and even contradictory, that they do not lead to the assurance that the recorded instances were those alone in which enteric fever occurred. The reports afford no new facts in contribution to the much vexed controversy respecting the originating cause of enteric fever in India. Accumulated proof is given of the already thoroughly accepted fact, that youth and recent arrival in a locality combine the conditions which render a person most likely to be attacked with this disease. The reports specify that latrine arrangements on the earth system were satisfactory; and in very few instances is there any qualification of this statement. Sir Anthony observes that it is difficult to connect the causation of the disease with excremental impurity in barracks, but on the other hand it is very far indeed from being disproved. The probability of contagion being received outside the barracks is not adverted to in the reports. It may be assumed that the water used for drinking in barracks is, with one doubtful exception, uncontaminated; and the practice is general of having the cows with supply of milk brought to the barracks to be milked in presence of some soldier deputed for the purpose. No facts are given, such as might justify suspicion that the contagion of enteric fever may be introduced into the body by any other than the at present recognised means of air, water and certain foods.

POVERTY, SICKNESS, INSANITY, AND CHARITY IN NEW YORK.

THE extent of the provision made for the maintenance of the poor, the sick, and the insane in the State of New York, may be to some extent appreciated from the following statement by the Governor. The property, real and personal, held for charitable purposes in the State may be set down in round numbers as follows:—by State institutions, 6,900,000 dollars; by cities and counties, 6,200,000 dollars; by incorporated associations, 21,900,000 dollars; total, 35,000,000 dollars. The total expenditure during the past year for the support of the several charitable institutions, public and private, reached about 8,000,000 dollars. The average number of beneficiaries was approximately as as follows: in state institutions, 4,800; in city and county institutions, 15,700; in incorporated and benevolent institutions, 24,200; total, 44,700. The total numbers of insane persons in the several state and and local asylums, poor houses, and private asylums, for the years stated, were as follows: October 1st, 1880, 9,543; October 1st, 1879, 9,015; October 1st, 1878, 8,771; October 1st, 1877, 7,921. The rapid increase of insanity is reported as truly alarming, both as to the individuals affected and the necessary provision to be made for their care. The average annual increase of insane for the last years has been four hundred persons. The Buffalo asylum, which has been so far completed as to accommodate three hundred patients, cost about a million and a quarter of dollars, or more than four thousand dollars for each inmate. Such extraordinary expenditures for the care and treatment of the insane seem to the governor like a profligate use of the public funds. Whatever future facilities may be required for this purpose, should, he thinks, be provided upon a much more economical scale.

COLOUR-BLIND RAILWAY OFFICIALS.

AN examination of railway *employés* in Brussels has disclosed the fact that five per cent. were colour-blind, more or less, and, in accordance with the rules, they have been removed from posts in which the ability to distinguish colours is of importance. This country is much behind others in the matter of such examination, and this may in some degree account for the frequency of railway accidents, and for errors in reading the signals and managing the points, otherwise unaccountable.

FUNERALS AND THE DISSEMINATION OF INFECTIOUS DISEASE.

THE Board of Health of New York has passed the following useful but somewhat stringent regulation: "There shall not be a public or church funeral of any person who has died of small-pox, diphtheria, scarlet fever, yellow fever, typhus fever, or Asiatic cholera; but the funeral of such persons shall be private. And it shall not be lawful to invite or permit at the funeral of any person who has died of any of the above diseases, or of any contagious or pestilential disease, or at any of the services connected therewith, any person whose attendance is not necessary, or to whom there is danger of contagion thereby." Violation of the ordinance will be a misdemeanour, punishable by a fine of 250 dollars. Our American cousins are certainly far in advance of us in their dealings with infectious disease. We have not yet arrived at the stage of prohibiting "wakes" in cases of death from undoubted infectious disease, with the disastrous results more than once chronicled in these columns. We doubt the possibility of passing or enforcing such a regulation as the one we have quoted in this country. It would be held to interfere too much with the liberty of the subject—to engender and disseminate disease.

SCOTLAND.

AT the last meeting of the Glasgow Pathological and Clinical Society, Dr. Joseph Coats read a paper on the "Pathology of Phthisis, and especially on its Relationship to Tuberculosis". The discussion was adjourned; and it will be resumed, by Dr. David Foulis, Dr. Hamilton of Edinburgh, Dr. Gairdner, and others, on Friday evening, February 25th, at 8 P.M., in the Faculty Hall. Specimens will be on view for half an hour before the meeting; and those interested in the discussion are invited to be present.

LEITH HOSPITAL.

AT the annual meeting of the subscribers to the Leith Hospital, held on Monday, the report submitted by the secretary for 1880 showed that, during the year 356 patients were treated in the hospital, 4,393 treated in the out-door department, 2,461 visited at their own homes, and also attended by the nurse. The mortality had increased from 1 in 10 in the previous year to 1 in 8 this last year. In place of Dr. Macnair who had resigned his appointment of medical officer, Dr. J. Allan Gray was unanimously appointed by the directors to the vacancy. Financially, the hospital is in good circumstances, the expenditure for the year having been £2,047, and the income £2,266, while the amount of funds is £20,793; a legacy of £1,000 from the late Mr. W. Muir was intimated. It was stated that another £700 would enable the directors to open all the wards.

HEALTH-LECTURES FOR THE PEOPLE AT EDINBURGH.

ON the 5th instant, the tenth and concluding lecture of the first series of "Health Lectures for the People," at Edinburgh, was delivered at the Free Church Assembly Hall, by Dr. Andrew Smart, on "Preventable Diseases and their Causes." After explaining, in the customary terms, the nature of these diseases, the injury they inflict, their origin, their distinctive characters, and the conditions under which they spread, Dr. Smart proceeded to consider the measures necessary for their control and prevention. They must, he said, aim at the promotion of cleanliness of every description by the employment of the legal powers contained in public health enactments; at placing all building operations, such as the construction of houses, selection of healthy sites, house and general drainage, under strict sanitary inspection and supervision; and at preventing overcrowding alike in dwellings or in districts. It would be found utterly impossible to prevent infectious diseases without a more stringent Act in regard to their registration. Nothing short of the compulsory registration of these diseases would effect this end. To prevent their spreading it was absolutely essential that the authorities should be early apprised of the existence of every case. Following from this, the authorities should be entrusted with a discretionary power of compulsory removal. Such powers implied, and indeed, necessitated, on the part of the authorities, the providing of ample accommodation for the reception of infectious diseases, such as would suffice to meet emergencies occurring during epidemics—the reception, for example, of actual cases, convalescent cases, suspected cases, and for the reception of patients who might voluntarily desire to be treated in hospital. There were many such, and the number was increasing, though comfortably circumstanced in their own homes. In this connection it might be interesting to know that the late Sir James Simpson expressed his

determination to be treated in hospital, in the event of his ever suffering from an infectious disease. One of the greatest difficulties was experienced in the removal of children suffering from those infectious diseases, from the unwillingness of mothers to be parted from them during their illness. In these circumstances, mothers should, under certain restrictions, be admitted to the hospital to nurse their own children. It was proposed to acquire the ground and buildings of the old Royal Infirmary as a hospital of this kind, under the entire control of the civic authorities. This he regarded as a step in the right direction. They had one of the most able and energetic medical officers in the country—but without such powers and provisions as had been indicated, the best efforts of the authorities and of their medical officer would fail of their object.

PROSECUTION FOR DRUG-ADULTERATION.

A CASE has just been tried at Glasgow where a grocer was charged with contravening one of the sections of the Sale of Food and Drugs Act, 1875, in that he had sold a bottle of the compound syrup of the phosphates, or chemical food for infants, which was represented to contain, in every teaspoonful, two grains and a half of phosphate of lime, and one grain of iron; but which, when analysed, was found to contain only about a third of a grain of phosphate of lime and a quarter of a grain of iron. In defence, it was urged that the bottles had been bought from a manufacturing wholesale chemist, and that the ingredients were not known; but it was pointed out that this was a substance that should only have been sold by a chemist, who could know about the ingredients; and, though the offence was not of a serious kind, it was a distinct infringement of the above Act. A conviction was obtained, and a modified penalty inflicted.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ended February 5th, it appears that the death-rate in the eight principal towns was 28.9 per 1000 of estimated population. This rate is 2.1 above that for the corresponding week of last year, but 5.8 below that for the previous week of the present year. The lowest mortality was recorded in Greenock—viz., 18.4 per 1000; and the highest in Perth —viz., 35.1 per 1000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.7 per 1000, being 1.2 less than the rate for last week. Acute diseases of the chest caused 261 deaths, being 87 less than the number for the previous week. The mean temperature was 38.2°, being 9.9° above that for the week immediately preceding, and 2.1° below that for the corresponding week of last year.

THE REGISTRATION OF INFECTIOUS DISEASES AT GREENOCK.

FROM the monthly reports on the health of Greenock with which Dr. Wallace is good enough to favour us, it would seem that the notification of infectious cases to the sanitary authority, which the Local Act of 1877 made compulsory on householders (see vol. i, 1879, p. 906), still leaves much to be desired in its working. By far too large a proportion of the cases are only discovered by the sanitary officers on their rounds, instead of being reported at once by the responsible persons. Thus, in October last, only 86 cases out of a total of 260 were reported by householders; in November, 260 out of a total of 588; and in December, 101 out of a total of 161. The improvement in the latter month is probably, to some extent, due to a number of prosecutions instituted by the authority for contravention of the local Act; and it is instructive to note that, of the 116 cases of measles reported in December, 78 were reported by the householders themselves, though nearly 31 per cent. of this number were without medical attendance. It was clearly necessary that these prosecutions should be instituted; for Dr. Wallace, speaking in his report for October of the prevalence of measles, says that "not a little of the dissemination of the disease is to be attributed to failure in reporting, which is the essential preliminary to the adoption of efficient measures in the way of prevention. Much of this failure was wilful, both among those who had medical attendants and those who were doing without them. Indeed, in several instances, the perverseness existed in spite of the recommendation of the medical attendants. In accordance with this disregard of the welfare of others, children from infected houses, there is too much reason for saying, were not only allowed to mix with the general public, but actually sent to school, with the effect of giving the disease to others, and the necessitating the withdrawal from schools of large numbers of children, whose absences cannot fail to tell unfavourably both on the progress of the pupils and on the grant for attendance." All this is very true; and the experience of Dr. Wallace may have interest for those who think it unnecessary to ask for compulsory notification to the sanitary authority of cases of measles. The effect of the policy which he condemns was to send the number of cases of measles from 118 up to 453 in a single month; and though, in December, the number had decreased again to 116, the "disastrous results" of the unchecked spread of the disease meanwhile must not, in the words of Dr. Wallace, "be reckoned simply from the immediate and ostensible mortality, but from those morbid changes of structure and function which may ultimately prove fatal, and which will probably be registered without any reference whatever to their origin."

HEALTH OF GLASGOW.

THE medical officer of health reports that, during the fortnight ended February 5th, there were 851 deaths registered, representing a death-rate of 37 per 1000. The death-rate in the first week of the fortnight was 39; in the second, 34. The number of deaths of persons below one year was 131, and of persons aged 60 years and upwards 186. There has been no such fatal fortnight for the aged since December 1874. The number of deaths from pulmonary diseases was 445, representing a death-rate of 19 per 1000, and constituting 52 per cent. of the total deaths. The number of deaths from fever was 8—viz., 6 from enteric, and 2 from typhus; while that from infectious diseases of children was 72. From the above, it will be seen that the mortality-returns of the fortnight are again stamped with all the characteristics of the influence of long-continued and excessive cold upon a city population—52 per cent. being contributed by acute diseases of the chest, and 22 per cent. from the population above sixty years, who constitute barely 5 per cent. of the whole population. At the same time, there is the pleasing feature in the returns that the fevers are at a minimum point, even the infectious diseases of children being but small factors in the death-rate. Whooping-cough is the only exception, being a disease much influenced by cold. The number of cases of fever registered in the fortnight was 39—viz., 29 of enteric, 8 of typhus, and 2 undefined. There are at present in the hospital, Belvidere, 101 cases of scarlet fever, 54 of enteric, 25 of typhus, 10 of measles, and 9 of whooping-cough—in all, 199 as compared with 249 this day fortnight; a decrease so marked as to allow of a diminution in the medical staff. Referring to the late disastrous "wake" held in the city, and already alluded to in the JOURNAL, the medical officer draws attention to the necessity of providing public mortuaries, and the advantage of furnishing stamped envelopes and printed forms for the use of medical men desiring to acquaint the sanitary department with the occurrence of cases of infectious disease.

ROYAL COLLEGE OF PHYSICIANS AND SURGEONS, EDINBURGH.

DURING the January sittings of the examiners for the double qualification granted by the Royal College of Physicians and Surgeons, Edinburgh, thirty-one candidates passed the first professional examination; while thirteen passed the final examination, and received their diplomas. Six candidates passed the final examination of the Royal College of Surgeons, and received the L.R.C.S.; while five passed the first professional examination in dental surgery, and four passed the final and received diplomas as qualified dental practitioners.

STAFF-SURGEON WILLIAM ALGEO (1871) has been promoted to the rank of Fleet-Surgeon in Her Majesty's Fleet with seniority of the 7th February.

IRELAND.

LAST week, the average annual death-rate in Limerick amounted to 74.0 per 1,000 inhabitants. The births registered amounted to 32, against 56 deaths. This high mortality was principally due to the severe weather, 20 deaths having arisen from diseases of the respiratory organs.

THE ROYAL UNIVERSITY OF IRELAND.

THE Committee of Organisation appointed by the Senate of this University have held several meetings during this and the preceding week. It is understood that the "scheme" is so far advanced that the Senate will shortly be enabled to submit it to Parliament. Hence, if the scheme be approved of by the Legislature, a matriculation examination may possibly be held by the New University this year. Last week, the Committee of Organisation had a conference with the medical members of the Senate who are not members of the Committee—viz., Drs. Banks, Redfern, Cruise, McKeown, and Hayden. Rumour states that it is proposed that the curriculum for the degree of M.D. should extend over at least four years, and be divided into periods of at least two years. Only twenty-four months' hospital attendance is mentioned as being required; and one course of lectures on each of the usual subjects of the medical curriculum, except anatomy, in which two courses are prescribed. It is proposed, also, we hear, that candidates for the degree of M.D., after passing the matriculation and the first University examination, shall be required to pass a first and a second University examination in medicine before going up for their degree examination. The fees for these three professional examinations are £1 each for the first two, and £3 for the final or degree examination; so that a man may get his M.D. degree for £5; while the honour and prize list is framed in such a lavish manner that industrious students may fairly expect to obtain sums of money varying from £40 to £70. The examination in the Faculty of Medicine of the Queen's University in Ireland will be held as usual this year in June and September.

THE KING AND QUEEN'S COLLEGE OF PHYSICIANS.

THE by-law adopted by this College, in May 1880, which came into force on January 1st last, that "every candidate for the licence in the College should be required to produce evidence that he has, for not less than three months, studied fever in a recognised clinical hospital, containing fever wards, and recorded, from daily personal observation, at least five cases of fever, to the satisfaction of the attending clinical physician, as attested by his signature", has been amended. It was found that, its retrospective action not being sufficiently limited, it affected the interests of many candidates for the licence. At a special meeting of the College held on the 11th inst., it was accordingly resolved that the above quoted by-law should not be compulsorily put in force in the case of students who commenced their necessary hospital attendance prior to October 1879.

SANITARY CONDITION OF MIDDLETOWN.

THE Local Government Board recently directed the attention of the Middletown Guardians to the defective sanitary condition of that town, especially as regarded its water-supply and sewerage; and, in reply, the guardians represented that, by erecting pumps in certain parts of the town, a sufficient supply of water would be procured for the use of the inhabitants; and that, by cleansing the present sewers and looking after the dwellings of the poor residents, the occurrence of epidemics might be averted. These proposals have, however, not satisfied the Local Government Board; and last week, in a communication sent to the guardians, they observe that, having regard to the reports received from their inspector, Dr. Brodie, on the sanitary state of Middletown, and from the medical officers of health as to the occurrence of cases of contagious disease in the town, they desire to state that they are unable to concur with the views of the sanitary authority on the subject, and call upon the guardians to take the necessary steps, without any further delay, for the improvement of the water-supply and sewerage of the town. The town of Middletown, as Dr. Brodie justly remarks, has a very deficient water-supply, a very defective system of sewerage, and a total want of any systematic or well organised plan for the inspection and removal of sewage. Of these, the first in importance is the water-supply; and, until that defect is remedied, no system of sewerage will suffice to place the town in the state which is required by the modern laws of sanitation. A special meeting of the Board will be held next week to consider the entire subject.

SANITARY IMPROVEMENT IN DUBLIN.

THE Local Government Board have sanctioned the following among other loans, which will have considerable effect in promoting much needed sanitary requirements: £15,000 for the Plunket Street area, to be cleared of its notorious fever-nests for the operations of the Artisans' Dwellings Company; £1,000 for urinals and street-latrines; £2,000 for sewer-ventilators; and £10,000 for a pumping station. Further sums have also been granted for making a new street, which will open up a very squalid locality, and for paving other streets. From Dr. Cameron's monthly report of the sanitary work performed in Dublin for the month ending December 25th, 1880, we learn that no fewer than 54 cases of typhus occurred in the Plunket Street above referred to. Dr. Cameron has inspected all the houses in this street, and certified that most of them are unfit for habitation.

HEALTH OF CORK.

FROM the monthly report of Dr. Wall, medical superintendent officer of health, for the four weeks ending January 29th last, we learn that the total number of deaths registered amounted to 216, of which 18 were due to infectious maladies, and 15 were of infants under one year. One hundred and fifty-six births were recorded during the same period. The annual death-rate per 1000 inhabitants showed a ratio of mortality of 35.7 from diseases of every description; 32.73 from general diseases; 2.97 from infectious diseases; an infant mortality of 2.4; and a birth-rate of 25.53. These figures indicate a somewhat increased urban death-rate, as compared with that of the preceding month; but there is good reason to believe that this unfavourable condition, which has been universal throughout the United Kingdom, will be of temporary duration, as it appears entirely due to the effect which the recent extreme inclemency of the weather had in producing diseases of the respiratory organs. During the four weeks, 25 cases of typhus fever were admitted into the Cork Workhouse Fever Hospital.

CORK DISTRICT LUNATIC ASYLUM.

FROM the report of Dr. Eames, resident medical superintendent, for the past year, it appears that the number of patients in the asylum on the 31st of last December amounted to 870 (450 males and 420 females), while the average daily number of patients during the year was 840. One hundred and forty-one patients were discharged, of whom 96 recovered, 33 were improved, and 7 unimproved; while 115 patients died—a number equal to 13.6 per cent. on the daily average number. Many of those admitted were, however, received in a hopeless and dying condition, and 12 succumbed within a month of their admission. In addition to this, the severity of the weather carried off numbers of the aged, and those suffering from chest-affections superadded to their cerebral disease. An epidemic of typhus fever occurred; but, fortunately, only one death took place from this disease. The percentage of recoveries on the total under treatment was 11.0; on the admissions, 86.5; against 5.5 and 21.3 respectively for the preceding year. This large increase is attributed, in a great measure, to the new airing-yards being occupied for the latter portion of the year, affording ample scope for exercise, and for enjoying fresh air; also to the new dormitories having been fully occupied, thus giving more cubic space at night to each patient—an important item in itself. Dr. Eames draws attention to the insufficient number of attendants for the due care and attention required for the number of patients in the asylum. The proportion of attendants at present to patients, exclusive of tradesmen, is 1 to 16.51; the relative proportion in Irish asylums being 1 to 12.16. The new

sewerage-works have been commenced; and will, it is expected, when completed, effect a great improvement in the general health of the inmates. The outdoor and indoor amusements of the patients have been carefully looked after; and, in addition to the band and dancing in the evenings, theatrical amusements, which have been found so useful in similar institutions, have been introduced. Several dramatic entertainments were given during the year by the staff of the hospital, and great credit is given to the assistant medical officer, Dr. Tanner, for the trouble and interest he took in making them a success. The total expenditure during the year amounted to £17,499 14s. 5d., which gives an average cost for each patient *per annum* on the entire outlay of £20 16s. 7d. Deducting from this the sum of £8,537 16s. received from the Government, £143 5s. 9d. for paying patients as rate in aid, also some small items, the cost of maintenance is left at £8,995 7s. 4d., or £10 9s. 3d. per head *per annum*, to be paid by the county and city of Cork.

ULSTER EYE, EAR, AND THROAT HOSPITAL: CATARACT.

DR. MCKEOWN, surgeon to this institution, in his report for 1879 (that for 1880 has not yet been published), refers to the operation for cataract, the most important and delicate in ophthalmic surgery. As a result of personal experience, he has changed his mode of operation two or three times within the last ten years; and has come to the conclusion that, on the whole, Von Gräfe's method of extraction gives the most satisfactory results; and that Critchett's, Liebreich's, the flap, and various other methods should only be used in exceptional cases. For years, he has not administered any anæsthetic for cataract operations. The pain is very trifling; and he thinks those operated upon make a better recovery. Of the last series of fifty operations performed in hospital prior to October 1st, 1880, there were three failures—viz., two by suppuration, and one by inflammation, which, out of a total of fifty, must be regarded as satisfactory; the percentage of total failures being only 6 per cent., while that of successes was 94 per cent. The great majority of the successes were first class, eighteen of those operated on being able to see No. 1½ test-type, and eight No. 2; whilst the remainder may be ranked as good. As contraindications to operation, Dr. McKeown recognises very few. A chronic conjunctivitis, or affection of the tear-passage, contraindicates, but either of these may be remedied in a short time. An arcus senilis, although it lessens the chances somewhat, is not now much regarded as of much importance. Patients with prominent eyes, or those suffering from bronchitis, or addicted to the excessive use of stimulants, or extreme old age, are usually regarded as unfavourable cases; but Dr. McKeown gives a list which includes several examples of these classes, and in which the results were satisfactory. Almost the only persons on whom he refused to operate, were those suffering from Bright's disease, advanced diabetes, consumption, or brain-disease.

THE LATE ELECTION AT THE ROTUNDA HOSPITAL, DUBLIN.

DR. HENRY KENNEDY writes to us concerning the view that the appointment of consulting physician should be in the hands of the Master *pro tem.*: "I cannot accept this view of the matter; nor do I see why the appointment should not be in the hands of the Governors, as it was on the late occasion, and as I have no doubt it will be in the future. Without wishing to say one word against the two gentlemen who were opposed to me, I believe I may say I had, on this occasion, the strongest claims to the appointment. I had performed the duties during the Masterships of Drs. Denham and Johnston, and during part of the time of the present Master. The late Dr. Hudson was aware of this, and often thanked me."

PRESENTATION.—Dr. B. J. Massiah has been presented with a handsome timepiece by the officials and patients of the Barnes Convalescent Hospital, Cheadle, near Manchester, on the occasion of his resigning the position of Resident Medical Officer in that institution, to become Visiting Physician to the Sick Children's Hospital, Pendlebury.

THE HUNTERIAN ORATION.

THE Hunterian oration at the Royal College of Surgeons was delivered on Monday last, February 14th, by Mr. LUTHER HOLDEN, Consulting Surgeon to St. Bartholomew's Hospital.

After some introductory remarks on the motives for always keeping in view these brilliant examples of successful genius, among whom such men as Nelson, Wellington, Shakespear, Harvey, and Hunter, are to be reckoned, the orator proceeded to criticise the generally received statements concerning the early life of Hunter. It had been said by his biographers, that John Hunter lost his father by death, when he was ten years old, and that after that time, up to the date of his coming to London, he led a completely idle life, only broken by a short apprenticeship to a cabinet-maker in Glasgow, who had married his sister. Mr. Holden said that, in reflecting on the life of Hunter, he had grave doubts as to these statements, and, therefore, took steps to test their accuracy. One result of his inquiries had been to ascertain that Hunter was not ten, but fourteen years of age, at the time of his father's death; and hence he regarded it as almost certain that he was educated at the same school as his brothers, and was thus brought under proper training during the most important years of a boy's life. As regards the cabinet-making, Mr. Holden could find no evidence that Hunter ever turned his hand to carpentry, beyond the chair in which he used to sit, and which he was said to, and may have, made. But, on tracing him to Glasgow, Mr. Holden found him, not in a cabinet-maker's shop, but at the university, where he matriculated in 1745, being then seventeen years of age. In proof of this, he read the following extract from the university records:

"November, 1745. Nomina discipulorum classis quintæ (Nat. Phil.) qui hoc anno academiam intrarunt. Joannes Hunter filius Johannis Hunter (natu secundus) mercatoris quondam Glasgoviensis."

Mr. Holden said that the expression "natu secundus" (John Hunter having been the tenth, not the second, son of his parents) might be interpreted in one of two ways, either that John was the second surviving son (as he was at that date); or that he had had an elder brother of the same name. The entry for the course of natural philosophy, he regarded as of particular importance. It was the custom for students in those days, whatever courses they might propose to attend, to enter their names for one course only. Thus the entry did not confine Hunter's curriculum of study: it simply declared his predilections in the very direction which would be anticipated.

Another point of interest alluded to was the fact that, at the time of John Hunter's matriculation, Dr. Cullen was lecturing on medicine at the University of Glasgow. A close intimacy had for years existed between Dr. Cullen and William Hunter; and Mr. Holden said that, considering this relationship, it seemed to him that Dr. Cullen's appointment at the University (in 1744) was a much more likely event to have determined John Hunter's residence in Glasgow in 1745, than any difficulties into which his brother-in-law might have fallen with cabinet-making. Mr. Holden considered it difficult to resist the conclusion that John Hunter went to Glasgow to prosecute his studies under the eye of Dr. Cullen—perhaps, even, at his invitation. He said that, in presenting a corrected outline of the early life of Hunter, he did not wish to assert that he even took kindly to the *literæ humaniores*: he only deprecated the exaggeration and misrepresentations which had taken the place of history, and which he ascribed to the carelessness and inaccuracy of his executor and biographer.

Turning to the period of Hunter's life which began with his settling in London, and which was the real and worthy object of consideration in the College, Mr. Holden said that, he was inclined to distinguish in John Hunter the human anatomist from the comparative anatomist, and to say that he afforded an excellent example of the method of the two studies, and of the manner in which they should both be pursued for the advancement of medical science. From the time of Aristotle to that of Vesalius and Fallopius and their contemporaries, comparative anatomy had been used to supplement the deficiencies of human anatomy, with the result of perpetuating many errors. When the *renaissance* took place, human anatomy began to be studied scientifically, accurately, and minutely, for itself and in itself. But England lagged much behind; and there was no school of anatomy in England worthy of the name until William Hunter—no doubt in emulation of his old master Monro—founded his school in London, with the object of making England independent of European schools. To this man his younger brother John came in September 1748, to learn human anatomy. No doubt, Mr. Holden said, he had some practical knowledge of it when he came; or he could scarcely be imagined capable of answering all the questions put to him by intelligent pupils.

Here Mr. Holden took occasion to protest against the practice of short appointments and frequent changes in the staffs of junior teachers in the Medical schools. The shortened period was, in his opinion, far too short to allow the demonstrator even to estimate the difficulty of his task, much more to obtain a mastery of his subject, and of the art of teaching it. The effect of this was seen in the number of rejections at the examinations, which he would hesitate to impute entirely to the severity of the examiners, or to the remissness of the students.

Hunter passed twelve years in teaching—in other words, in learning—human anatomy in his brother's school; and his "writings teem with examples showing what an impressive teacher he was, how supreme was his skill in turning all his knowledge to account, and in starting others on the road to gain knowledge for themselves". As examples, Mr. Holden referred especially to his account of the descent of the testis, and the description of the organs of mastication.

The motive which led Hunter to study comparative anatomy was not a wish to classify or to study the animal kingdom for its own sake, but his desire to found physiology on a sound basis, and to connect pathology with physiology. Putting aside the various, and often fantastic, theories of life and disease which prevailed in his day, he set about investigating Nature for himself. He dissected animals, as Professor Fischer of Hanover says, because "he found that only comparative anatomy could give any satisfactory solution of the many problems before him. And in his dissections of animals, he never lost sight of the proper application of his discoveries to human anatomy, and always sought after general laws". From animals he went to plants, and from plants to crystals—always with the same object. Besides Professor Fischer—who had, in Mr. Holden's opinion, given in his history a sketch of John Hunter which was not surpassed for truth and fidelity—such men as Billroth of Vienna, and Royer Collard, had recognised Hunter's claims to pre-eminence among surgeons. Professor Billroth, in a letter to Mr. Holden, wrote of him as "one of the greatest men the English nation has produced.....who, by his works on *Inflammation* and *Gunshot-wounds*, laid the corner-stone of modern English and German surgery".

"It was", said Mr. Holden, "a great mission of Hunter's to found 'pathology' on comparative physiology; to rescue disease from the grasp of quacks, fanatics, and system-mongers; and to restore it to the rank where Sydenham would have placed it—besides the beneficent regulations of nature which govern the body in health. And he must read history amiss who does not set a high value on such work."

After briefly commemorating the names of two eminent Fellows of the College who had died since the last anniversary—Mr. Hancock and Mr. Callender—Mr. Holden concluded with an expression of his opinion whether a preliminary knowledge of classical—*i.e.*, Greek and Latin—literature ought to be required of the student of medicine.

"I will ask you, sir, and all who have taken part of late years in our examinations, whether you have found as a matter of fact, that ignorance of the classics is compensated for by a knowledge of science, and that the best scholars are the worst anatomists? And this, I take it, would be the case, if the question were merely one of economy of time; if the hours, which are now said to be wasted in learning classics, were really better spent upon other subjects. But, since it is a matter of experience that those who come before us best prepared in professional subjects are just those who have had the most complete classical training, it is evident that any surrender of this training is designed as an indulgence to the less intelligent and industrious who seek admission within our ranks. The mind must undergo a long training before it is fit to grapple with science, and if we set aside classical education, we shall be ignoring the value of the best system of training which exists; and, upon this point, I need only refer you to the verdict which has lately been given in the report of Her Majesty's Endowed School Commission. And my own experience, as a teacher of forty years, fully corroborates their judgment. In students who have had a public school training, I have found a fuller development of the logical faculty—a more cultivated memory, a greater grasp and power of combination. I have found the task of teaching them so much easier, that I have no hesitation in saying that I can teach such pupils more in two months than others, who have not had a like education, in six. Bearing this in mind, let us strive to raise, rather than lower the standard, by requiring a proof of sound classical training from those who, if they have not had this, have probably had little or no mental training whatever. Above all, let us not further hamper our noble profession, which in nine cases out of ten is taken up as a means of gaining a livelihood, with the stigma of being illiterate; nor subject the youths who are to be the future representatives of English surgery to the danger of being looked upon as 'symbols' of an inferior education."

BRITISH MEDICAL BENEVOLENT FUND.

WE publish to-day what is probably the final list of subscriptions and donations to the Medical Benevolent Fund. The response to the appeal which we made has been most prompt and most liberal, the sum received amounting to upwards of £550. The leading members of the metropolitan profession have, with peculiar liberality, led the van, and approved their often-tested sympathy with the wants and calamities of less fortunate brethren. It is, indeed, a noticeable fact, that nearly ninety per cent. of the subscriptions have come from the metropolis, although the Fund is truly British in its extent and the range of its beneficial operations.

Such a subscription as this, is, however—as it was intended to be—rather a test of the confidence reposed in the character and usefulness of the Fund, and a special effort of generosity in supporting its operations, than an instance of the means which are to be relied on for bringing the Fund into closer connection with the British Medical Association, out of which it mainly sprang, and with which it has long maintained a nominal connection. The means of bringing about the more intimate alliance which we suggested, and which every one seems to desire, will require further elaboration and organisation. The Branch Secretaries of the British Medical Association who have already shown so much goodwill, will have it in their power to bring the subject before the Branches; and it is proposed that, in filling vacancies on the Council of the Fund, some of the leading members of the Committee of Council of the British Medical Association shall be invited personally to join the administration of the Fund.

Fourth List.	£	s.	d.
T. Spencer Wells, Esq.	10	10	0
Dr. F. G. Reed	10	10	0
Bristol Medical and Chirurgical Society ...	10	10	0
Dr. T. H. Tuke (Albemarle Street, W.—corrected amount)	5	5	0
Dr. H. E. Crossby	3	3	0
Dr. Samuel S. Dyer	2	2	0
Surgeon-General J. A. Woolfryes, M.D., C.B. ...	2	2	0
Dr. J. Home Hay (Alloa)	1	1	0
Surgeon-Major E. A. H. Roe (Lucknow) ...	1	1	0
J. Lawrence Hamilton, Esq.	1	1	0
Surgeon-Major J. R. Greenhill (Stoke, Devonport)	1	1	0
M. F. Berry, Esq.	1	0	0
W. L. Hunter, Esq. (Pudsey, Leeds)	0	10	6
Dr. F. M. Pierce (Manchester)	0	10	6
H. Skelding, Esq. (Shrewsbury)	0	10	6
W. G. Martin, Esq. (Walkden)	0	7	6
Surgeon-Major W. T. Martin, M.D. (Southampton)	0	5	0
Dr. W. A. Satchell (Tunbridge Wells)	0	5	0
T. L. Smith, Esq. (Alcester)	0	5	0
T. H. Smith, Esq. (Alcester)	0	5	0
Dr. James Hinds (Halstead)	0	5	0
Dr. H. F. Williams (Southsea)	0	5	0
C. R. Whiteley (Hunstanton)	0	5	0
W. K.	0	5	0

UNIVERSITY COLLEGE.

A BRILLIANT company assembled in the new wing of the University College on Wednesday evening, to celebrate the opening of the new north wing, one of a series of extensions which was devised two years ago, and which has just been completed, at a cost of £35,000, of which £21,000 has been already subscribed. The President of the College, the Earl of Kimberley, took the chair in the College Library, supported by Lord Sherbrooke, the Master of the Rolls, the Presidents of the Colleges of Surgeons and Physicians, and of almost all the learned societies in London. An assembly more highly representative of science and art has rarely been seen. The learned professions were represented by their most eminent members. It would occupy space which we can ill afford to attempt to do justice to the long and eloquent addresses which were delivered; and it will, perhaps, be more to the purpose, if we refer to the character of the additions made to the resources of the College by the erection of the new wing, and their probable influence upon the teaching at University College and the development of medical education in the metropolis. In this great work, University College has from the first taken a most honourable action and initiative part. Its scientific teaching, no less than its clinical teaching, has always been of the highest order; but it has been sadly cramped for want of adequate space and sufficient endowment. In one respect, at least, the scientific teaching of University College will now have no longer to complain. Physiology and zoology, repre-

sented in the College list of professors by Professor Burdon Sanderson, Professor Schäfer, and Professor Ray Lankester, have now a home worthy of the importance of the subjects, and adequate to the requirements of the student and to the daily zeal and untiring labours of the professors.

Till now, the physiological teaching of the College was cramped by want of space and convenient display of the apparatus, It will be so no longer. The whole upper floor of the new wing, consisting of eleven rooms, is occupied by the department of Physiology. The Lecture Theatre provides seats and writing tables for 170 students. The students' working-room, lighted by large windows looking northwards, contains separate work-space for 100 students, each provided with gas and water-supply, and convenient arrangements for microscopes and working instruments. All the seats face the north light, and are conveniently arranged for the access of demonstrators. The Jodrell laboratory of physiology, endowed by the munificence of Mr. T. P. Jodrell, includes a professor's and an assistant's working-room, and four rooms devoted to special branches of physiological work; a mercury room; a room containing instruments for facilitating investigation of the phenomena of muscle and nerve, and rooms especially adapted for investigation of respiration, circulation, and animal heat. In addition to these are two others, designed for the accommodation of advanced students pursuing research, and these also are suitably fitted. Thus, for the first time in London, is provided a series of apartments adequately fitted for the teaching and study of practical physiology. Even these are stated to be far inferior to the physiological institutes of Berlin, Leipsig, or even Bonn and Strasburg, but they are far in advance of any other institution of the kind in London; and, under the zealous and devoted superintendence of Dr. Sanderson and Mr. Schäfer, it may be hoped that the students of the University College will show themselves worthy of the teaching appliances and power now placed at their disposal. Professor Lankester, who has succeeded in organising the zoological teaching of the University College with great success, and with that singular power of real teaching and sound influence which has marked his career from the first, has now the means of instructing the large class which has gathered around him, with facility and completeness. The zoological department of this College is also henceforth unique in its extent and in the practical character of its arrangements. Professor Lankester is aided by demonstrators, and will be able here to teach a class of one hundred students (a number which he has, we believe, already attracted), in such a manner that the reproach which has hitherto attached to the ordinary teaching of zoology in our medical schools will be thoroughly removed. The chemical teaching of University College will not less be favoured by the new laboratories which have been placed at the disposal of the professors. The opening of this new department of the College is most promising for the future of scientific teaching in London; and, in connection with the medical schools, is of the most excellent augury for improvement in the soundness, completeness, and practical character of the preliminary scientific education of London students of medicine, who have hitherto greatly suffered for want of sufficient facilities, such as are here afforded. We may join with Lord Sherbrooke in the hope that the primary importance of sound scientific education will henceforth be more fully recognised; and it is certain that the supply of such means of instruction as are here afforded cannot fail to react favourably upon the at present imperfect and inadequate conception by examiners of the extent of curriculum and method of examination best calculated to promote a sound scientific instruction to the students of medicine.

THE PUBLIC HEALTH IN 1880.

FROM the last quarterly return of the Registrar-General, it appears that during the four quarters of 1880, 880,520 births and 528,056 deaths were registered in England and Wales. The natural increase of population during 1880, by excess of births over deaths, was 352,464, against 354,672 in 1879. The estimated increase of population during the year, based upon the rate of increase that prevailed during the ten years 1861-71, was 316,793, and 35,671 less than the excess of births over deaths; this difference may be assumed to represent the balance between emigration and immigration. According to returns issued by the Board of Trade, 224,485 British emigrants (including 112,013 English, 22,348 Scotch, and 90,124 Irish) left the various ports of the United Kingdom at which emigration officers are stationed during the year 1880; this number showed a further increase of 60,251 upon the numbers reported in the three preceding years. The increase of emigration during 1880, compared with 1879, was equal to 7.0 per cent. from England, 17·7 per cent. from Scotland, and 122.1 from Ireland. Of the British emigrants during last year 72 per cent. left for the United States, 9 per cent. for the Australian Colonies, 11 per cent. for British North America, and 8 per cent. for all other places. The proportional emigration to the United States during 1880 showed a marked further increase, whereas the proportion of emigrants to the Australian colonies had very considerably declined.

The birth-rate in 1880 was equal to 34.6, and the death-rate to 20.7 per 1,000 persons estimated to be living in the middle of the year. The birth-rate showed a further decline of 0.5 from the steadily decreasing rates in the four preceding years, and was lower than that recorded in any year since 1861, when the same rate prevailed. The death-rate in 1880 also showed a decline from the rates prevailing in the two previous years, and with the exception of the rate in 1877 (20.4) was lower than that which prevailed in any year since 1856, when it was 20.5.

The annual death-rate in England and Wales averaged 22.4, 22.2, and 22.5 per 1,000, respectively, during the three decades 1841-50, 1851-60, and 1861-70. Thus English mortality may be said to have remained stationary during the 30 years 1841-70, notwithstanding the rapid increase of urban populations, aggregated in town centres. Last year completed the fourth decade of civil registration, 1871-80, during which the average annual death-rate in England and Wales fell to 21.5 per 1,000; this decline in the average death-rate during the past ten years signifies that nearly 215,000 persons survived in England and Wales, whose deaths would have been recorded had the average rate in the preceding 30 years been maintained.

The 528,056 deaths in England and Wales during 1880 included 134,801 of infants under one year of age, and 130,466 of persons aged upwards of 60 years. The rate of infant mortality, measured by the proportion of deaths under one year to births registered, was equal to 153 per 1,000 against 136, 152, and 135 in the three preceding years. During the ten years of the past decade the proportion of infant mortality averaged 149 per 1,000, against 152 in the ten years 1841-50, and 154 in each of the following decades 1851-60, and 1861-70. The increase of infant mortality in 1880, compared with that which prevailed in the preceding year, was due to the greater fatality of summer diarrhœa.

The rate of mortality among persons aged upwards of sixty years, which had been equal to 68.7, 73.4, and 77.9, in the three preceding years, declined last year to 68.5, which was 9.4 per 1,000 below the exceptionally high rate in 1879.

The 528,056 deaths from all causes last year included 29,528 from diarrhœa, 17,102 from scarlet fever, 12,789 from whooping-cough, 11,692 from measles, 8,166 from fever, 2,612 from diphtheria, and 648 from small-pox; thus 82,537 deaths were referred to these principal zymotic diseases, equal to an annual rate of 3.24 per 1,000. The death-rates from these diseases in the three preceding years were 2.71, 3.40, and 2.39 per 1,000, respectively. During the past decade the death rate from these zymotic diseases averaged 3.36 per 1,000, against 4.11 and 4.14 in the two preceding decades 1851-60 and 1861-70. Compared with the numbers in 1879 the deaths referred to diarrhœa showed an increase of 18,622, and the fatal cases of measles an increase of 2,852; the numbers of deaths from the other zymotic diseases in the two years showed but slight variations. The decrease in the death-rate from fever, principally enteric, during the past ten years is very noticeable. The annual death-rate from "fever," which was equal to 0.91 and 0.88, respectively, in the two decades 1851-60 and 1861-70, fell to 0.49, in the ten years ending 1880.

The number of inquest cases registered in 1880 was 26,088, and equal to 4.9 per cent. of the total deaths; this proportion showed a slight decline from that which prevailed in 1879. The deaths referred to different forms of violence were 16,519, and showed a further decline of 305 from the decreasing numbers in recent years; they were equal to 3.1 per cent. of the deaths from all causes.

DR. KLEIN has communicated to the Royal Society a paper by Mr. John Haycraft, Senior Physiological Demonstrator of the University of Edinburgh, on the "Cause of the Striation of Voluntary Muscular Fibres". The author showed that all the cross striæ observed are due, not to any differences of structure along the fibre, but simply to the shape of the fibre itself. The fibre is not a smooth cylinder, but is ampulbated, alternate ridges and depressions occurring with beautiful regularity across its length. The striæ correspond with these in position, and are caused by their action on the transmitted light. He showed theoretically how this must be so, and illustrated it with a model of the same shape as the fibre, but of uniform structure, which exhibited, down to the minutest detail, the cross striæ of the fibre itself. He then showed the true explanation of the action of staining agents and of polarised light.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH.—A general meeting of this Branch will be held at the rooms of the Medical Society of London, 11, Chandos Street, Cavendish Square, on Wednesday, February 23rd, at 8 P.M., when Mr. Timothy Holmes will introduce a discussion on "Hospital Management".—Mr. Nelson Hardy has given notice that he will propose the following addition to Law 19 of the Branch. "Provided always, that nothing contained in this Law shall prevent the discussion at the Annual Meeting of motions of praise or dispraise affecting any of the officers of the Branch, of which ten days notice in writing has been previously given."—ALEXANDER HENRY, M.D., W. CHAPMAN GRIGG, M.D., Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.—The next meeting of this district will be held at Dr. Hilliard's, Fairmead House, Upper Holloway Road, on Tuesday, February 22nd (instead of Wednesday, as formerly announced), at 8.30 P.M., when the following papers, etc., will be discussed. Dr. Potter: On the question of a Home Hospital for North London; Mr. Pearce Gould will exhibit a Patient upon whom he has operated for Varicocele, and explain his mode of operating; Dr. Throwgood: On the Use of the Hypophosphite Salts in the Treatment of Phthisis.—THOMAS STRETCH DOWSE, Honorary Secretary.—14, Welbeck Street, February 5th, 1881.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting of this district will take place at Dover on Thursday, March 17th. Dr. Eastes will read a paper "On Embolism". Members intending to read papers on the same subject are requested to give immediate notice.—T. WHITEHEAD REID, Honorary Secretary.—Canterbury, February 14th, 1881.

STAFFORDSHIRE BRANCH.—The second ordinary meeting of the session will be held at the Infirmary, Stafford, on Thursday, February 24th, at 3.30 P.M.—VINCENT JACKSON, J. G. U. WEST, Honorary Secretaries.—Wolverhampton, January 30th, 1881.

BATH AND BRISTOL BRANCH.—The fourth meeting of the session will be held at the Grand Pump Room Hotel, Bath, on Thursday evening, March 3rd, at 7.15 P.M.; Alex. Waugh, Esq., President.—R. S. FOWLER, E. MARKHAM SKERRITT, Honorary Secretaries.—6, Belmont, Bath, February 1881.

NORTH OF IRELAND BRANCH.—A meeting of this Branch will be held in the Belfast Royal Hospital, on Friday, March 4th, at 12 o'clock noon. Members intending to read papers or send communications will kindly intimate their intention to JOHN MOORE, M.D., Honorary Secretary, 2, Carlisle Terrace, Belfast.—February 7th, 1881.

SOUTH-WESTERN BRANCH: ORDINARY MEETING.

A MEETING of the above Branch was held at the Athenæum, Plymouth, on Tuesday, January 11th, at 2 P.M.; Dr. HOGARTH CLAY, President, in the chair.

New Members.—The following new members of the Association and Branch were elected: Henry Davy, M.B., Exeter; Henry de Legh, L.R.C.P.Ed., Lostwithiel; Julius Wiles, Brigade-Surgeon A.M.D., M.R.C.S., Plymouth.

Communications.—The following were made.

1. Dr. F. L. Stephenson (Medical Officer of Health for Honiton) read a paper on Excrement-Disposal and Fryer's Patents. A discussion ensued, in which Mr. Bulteel, Chairman of the Stonehouse Local Board, Brigade-Surgeon Corbett, and others, spoke, and Dr. Stephenson replied.

2. Mr. Bulteel showed a patient for whom he had operated for Extensive Cicatrices of Burn of the Leg; also a cast of the leg before operation. The result was very satisfactory.

3. Mr. Bulteel showed a Dermoid Ovarian Cyst, removed by operation with a successful result.

4. Mr. Bulteel showed a Cyst of the Broad Ligament, removed by operation, with rapid recovery of health by the patient.

5. Mr. Paul Swain read notes and showed a specimen of a case of Acute Necrosis of the Tibia, in which the whole Shaft was removed.

6. Mr. Paul Swain showed a Calculus (containing a hair-pin which had perforated the wall of the bladder) successfully removed from the Bladder of a Young Woman.

7. Mr. Paul Swain read a paper on two cases of Strangulated Hernia treated by Operation. The paper was discussed by Mr. Adams, Mr. Russel-Rendle, and Mr. Bulteel; Mr. Swain replied.

8. Dr. Henderson read a paper on a successful case of Ovariotomy.

Guy's Hospital.—The following resolution was unanimously passed: "That this meeting desires to express to Dr. Habershon and Mr. Cooper Forster its sympathy in the painful circumstances which have led to their withdrawal from the staff of Guy's Hospital; and its appreciation of the manly spirit which has induced them to resign their respective appointments sooner than submit to a loss of professional dignity, or sanction changes which they believed to be detrimental to the interests of the patients entrusted to their care."

CORRESPONDENCE.

MEDICAL EDUCATION.

SIR,—With reference to a letter signed by "A Member", which appeared in your issue of the 12th inst., it seems, from this gentleman's narrative, that his son went up, but failed to pass the matriculation examination of the London University in June 1878; in the following September, he was rejected at the preliminary examination of the Royal College of Surgeons; about fifteen days after this event, he passed an examination, and got his name entered on the Register of the General Medical Council in Scotland, and was thus enabled to commence his studies as a medical student in London in October 1878. The members of the Committee of the British Medical Association on Medical Education would hardly be disposed to concern themselves regarding the sufficience of knowledge possessed by "A Member's" son; but it is probable many members of the profession will agree with them in thinking that a system "cannot be defended" which permits an intending medical student, who, for reasons such as those mentioned by his father, was in the months of June and September unable to gain the necessary certificates of competency from the examiners of two of our English medical authorities, to appeal with success, within fifteen days of having failed in London, to a medical authority in another part of the country, and pass an examination which not only enabled him to enter his name at once on the Register of the General Medical Council, but which also appears to entitle him to appear at the higher standards of examination of the Royal College of Surgeons.—Yours, etc.,

February 12th, 1881. C. MACNAMARA.

SIR,—Dr. Carpenter will require all the support for which he asks, if he cannot make out a better case than that narrated at page 15 of Report.

For years I prepared young men for these examinations; and I think it not only possible, but probable, that a student should pass even the *same* examiners a month after failure, when that failure occurs only in one or two subjects.

Take the Committee's case as explained by "Member". His son passed in all the subjects of the London University Matriculation Examination, except in Natural Philosophy and Chemistry. Among other subjects, he passed in Geography. Three months afterwards, he failed in Geography alone at the Examination of the Royal College of Surgeons. Summing up the results of these Examinations, both within three months of each other, this young man passed *twice* all the preliminary subjects *plus* four extra subjects, with the exception of Natural Philosophy, Chemistry, and Geography, all of which he passed *once*.

By what kind of logic, then, can the Committee infer that the Examination in which he finally passed must have been less severe than its predecessors? The fact is, the gentleman should never have been plucked in Geography after showing proficiency in so many subjects. All these Preliminary Arts Examinations should be conducted by the Universities, as I often find papers set by medical corporations to be more crotchety than testing. There are two reasons for this. If the examiner has a thorough knowledge of his subject, he generally has had no experience in teaching, and consequently knows not how much he should expect. If his knowledge is indifferent, which often is the case, he opens a book on the subject, and sets questions which only that same book could answer.

Our conclusion is, that the third examining body only avoided or amended the blunders of the second.—I am, etc.,

Glasgow, February 15th, 1881. A. CLERK, M B.

REJECTIONS AT THE ROYAL COLLEGE OF SURGEONS.

SIR,—In your report of the result of the late examinations at the Royal College of Surgeons, in the BRITISH MEDICAL JOURNAL of the 29th ultimo, one is struck by the extraordinary disproportion in the five examinations there recorded. Of these, on January 19th, only twelve men passed, and thirteen were rejected; on the 21st, only three men were referred; whereas, on the 25th, actually only seven men passed, and sixteen were rejected—sixteen men, of whom most were considered well prepared for the ordeal by their college tutors before being sent up.

Naturally, it is asked, Were the examiners the same men on each occasion? Could the examination be equally severe or equally impartially conducted? Were the cases given the students to diagnose more intricate on one occasion than on the other? Or were the pathological specimens as easily recognised and described? Something fallacious there must certainly be, in an examination that rejects more than two-

thirds of its candidates; and it would be very desirable to know where the fault lies.

It would also seem but fair to those men who very nearly pass, that they should be allowed to present themselves after a shorter period for re-examination than is accorded to men who fall very short of the required standard.

I hope your powerful influence will be brought to bear on this subject, and that something good may be the result of an inquiry into the matter.—I am, dear sir, yours very truly, PROBE.

*** The number of candidates rejected on the various days of the pass membership examination are, as our correspondent points out, undoubtedly very unequal. At the January examination, there are always a number of candidates who have been rejected in the previous July; and, on this occasion, there were several, we learn, who had been rejected twice, thrice, and four times previously. The examiners were the same; and, as far as we are aware, the examination was conducted in exactly the same manner on each evening. This examination may not be the most perfect of examinations; but we fear the results referred to are simply a manifestation of the miserably imperfect manner in which students are taught at our metropolitan hospital schools.

JENNER'S INSTRUCTIONS FOR VACCINE INOCULATION.

SIR,—In "Jenner's Instructions for Vaccine Inoculation", published in the last number of your JOURNAL, one word, "true", for "time", has to be corrected.

By the courtesy of Frederick Symonds, Esq., of Oxford, I was entrusted with the original letters of Dr. Jenner in his possession to place before the meeting of the Epidemiological Society. In the ninth paragraph of the "Instructions", describing the spurious vesicle, the most frequent variety is said to be "that which arrives at maturity, and finishes its progress much within the time limited by the true".

Does not the vaccinia with which we are now too often content sometimes depart from the type given by Jenner, and come within his definition of spurious vaccination, both in the earlier appearance of the areola, which he puts at the tenth day, and in a too early maturity and decline?—I am, sir, your obedient servant, W. SQUIRE.

6, Orchard Street, Portman Square, W., Feb. 14th, 1881.

HOSPITAL RESIGNATIONS.

SIR,—In the JOURNAL for this week, on page 241, speaking of hospital resignations, you state that five out of six physicians of the Rugby Hospital have resigned, and "as usual, there is a sixth who remains, and who will do all the work". This notice conveys such a slur and such a false impression, that, in justice to myself, I must request you to insert this note.

For ten years I have worked hard at our hospital through its infancy, and have made it a success; eighteen months ago, more help being required, five medical men—who said "all or none"—at their request were added; making six doctors to twelve beds. In December last, a difference occurring, these gentlemen, instead of attacking me openly, as men, thought it becoming to do so behind my back, and afterwards by an anonymous letter. Then, wishing for an alteration of existing rules, they asked, without letting me know, for such a change that it would have entirely altered the constitution of the hospital. This the council naturally declined to accede to, and the subscribers, at a public meeting, also refused every one, after being put to the vote; and so these gentlemen resigned. Was it likely that I, their senior colleague, should resign, when rules were asked which were not even referred to me, and which, if they had been, I could not have endorsed.—I am, sir, yours faithfully,

CLEMENT DUKES, M.D.Lond., B.S.Lond., M.R.C.P.Lond.

Sunnyside, Rugby, Feb. 12th, 1881.

*** Dr. Dukes is mistaken in supposing that the letter to which he refers was anonymous, although we preferred to reply to it under a *nom de plume*. The alteration in the rules asked for appear to us perfectly reasonable; and had Dr. Dukes sided with his colleagues from the first, we presume that the action of the governors might have been greatly modified.

WOOLSORTERS' DISEASE.

SIR,—Being specially engaged in conjunction with some of my professional brethren in investigating the nature, etc., of so-called "woolsorters' disease," certain portions of Dr. Greenfield's very interesting lectures have attracted my attention and aroused my curiosity.

Might I be permitted most respectfully to ask Professor Greenfield to state, through your columns, the precise data upon which the identity of so-called "woolsorters' disease" and anthrax has been conclusively established. It would also greatly facilitate our investigations in this neighbourhood, if Dr. Greenfield would tell us what are the diagnostic characters of the organisms he so frequently designates "typical bacilli", and of what they are typical. Might I also ask, what are the essential differences between the so-called bacillus anthracis, and the ordinary bacillus of putrefaction? If Dr. Greenfield will kindly answer the above queries, I feel sure that many gentlemen, including myself, will feel really grateful to him for the information.—I am, sir, yours obediently,

Bradford, Jan. 25th, 1881. EDWARD T. TIBBITS, M.D.Lond.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, February 10th.

Small-Pox in the Metropolis.—Mr. DODSON, in reply to Mr. TALBOT, said: There is a considerable prevalence of small-pox in the metropolis, especially in the eastern and southern districts; and at present there are no signs of its abatement. The actual number of beds for small-pox patients in hospitals under the control of the authorities is 700, of which 641 are occupied; but arrangements are being made by the managers, to whom great praise is due for their efforts to mitigate the epidemic, by which, in course of a fortnight, nearly 250 additional beds will be placed at their disposal. I may mention that, if it were not for the unfortunate proceedings in relation to Hampstead Hospital, at least 300 more beds would be available for small-pox patients in that establishment. I shall have no objection to lay on the table of the House communications from the managers to the Local Government Board, and the reply of the Board thereto.—Mr. TORRENS asked the President of the Local Government Board, whether experience had not shown that the aggregation of small-pox patients in the metropolitan asylums had frequently been attended with a serious outbreak of the disease in the surrounding houses; whether the number of deaths in the metropolis from small-pox since 1870 had not, on the average, been twice as numerous as in the previous eleven years; and whether any steps were about to be taken to provide more effectually than under the present system for the prevention and cure of the disease. Mr. DODSON, in response, said: In answer to the first question, I have to say that I have caused careful inquiries to be made to ascertain whether these allegations are well founded. Until that inquiry has been completed, it would be improper for me to express any opinion on the subject. In answer to the second question, I have to say that there is no doubt the average number of deaths in the metropolis from small-pox since 1870 has been largely in advance of that of the previous eleven years. That arises from the fact that the latter period includes the very exceptional year of 1871. The deaths since 1870 amount to 15,533, of which 7,878, or more than half, occurred in the single year of 1871. If, however, the twelve years from 1860 to 1871 be compared with the nine years from 1872 to 1880, it will be found that in the latter period the average number of deaths was 850, against 1425 in the former period. In answer to the last question, I may say I have recently caused circulars to be addressed to the various sanitary authorities and boards of guardians, asking that measures be adopted with a view of securing vaccination and revaccination as far as practicable; and I am glad to be able to state that the local authorities generally have made a ready response to that appeal.

The Sale of Arsenic.—Mr. CHAPLIN asked the Home Secretary whether his attention had been called to a case of horse-poisoning at Ruskington, in Lincolnshire, in which it was shown that two horses had been poisoned with arsenic by George Olive, the person in charge of them; and whether he was aware that evidence had been given in the case to the effect that arsenic sufficient to poison fifty horses had been sold by Mr. Smith, chemist at Sleaford, to Olive; and that it was entered in the chemist's book "to be given to horses"?—Sir WILLIAM HARCOURT: With regard to this matter, I find that a person guilty of horse-poisoning has been punished under the recent Act. As to the chemist who sold the arsenic, he might be punished, because the purchaser was under age. That, of course, would not entirely answer the question, because the purchaser might be of full age, and the true remedy is in the amendment of the Arsenic Act, 1861; and if my honourable friend would introduce a Bill for the purpose, I should be happy to assist him.

MEDICAL MAGISTRATE.—Dr. George J. Wycherley has been appointed a magistrate for Cork.

UNIVERSITY INTELLIGENCE.

CAMBRIDGE.

Dr. Michael Foster continues his course of Elementary Physiology. The advanced lectures announced this term are by Mr. Lea (who has been appointed Lecturer in Physiology at Gonville and Caius College), on Physiological Chemistry; Mr. Langley, on the Histology and Physiology of the Digestive System; and Mr. Hill (Downing College) on the Central Nervous System.

OXFORD.

Sir William Harcourt announced on Monday that the evidence taken before the Oxford University Commissioners would be laid before Parliament without delay. We shall then have an opportunity of seeing how it is that this much discredited Commission has been persuaded to negative reform in the medical teaching of the University, and to sanction and acquiesce in the present lamentable downfall of the Medical Faculty; and the uniquely disgraceful position of Oxford among European and British universities, in the neglect of medical teaching, and the exile of medical students from the University.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE BIRMINGHAM GENERAL HOSPITAL.

The hundred and first annual report of this institution has just been issued. During 1880, 30,785 patients have been treated—3,128 as in-patients, and 27,657 as out-patients. Of the in-patients, 840 were admitted by ticket, and 2,288 as accidents or urgent cases. Of the out-patients, 12,021 were admitted by ticket, and 15,636 as emergencies. The ordinary expenditure for the year was £12,727, giving £2 17s. 1½d. as the average cost of each in-patient; £52 8s. 2d. as the average cost *per annum* of each bed occupied, "exclusive of convalescent institutions and instrumental supports"; and 2s. 8½d. as the average cost of each out-patient, exclusive of dental cases. The daily average of patients in the hospital has been 227, and the average period of detention 35⅞ days. The committee announce that they will wait for a revival of trade, before they appeal for funds for the establishment of their long-talked-of suburban hospital for chronic cases.

KILBURN PROVIDENT MEDICAL INSTITUTE.

In their report for 1880 the committee of the Kilburn Provident Medical Institute announce a considerable addition to the number of free members, as compared with the previous year. The number of members on the books on the 31st December, 1879, was 2,276, comprising 781 families. During the year 930 new members joined, and the names of 703, who ceased to be members from non-payment of their subscriptions and other causes, were erased from the books, leaving a net gain of 227. This makes the total number of members on the 31st December, 1880, 2,503, viz., 427 men, 811 women, and 1,265 children, comprising 878 families. The committee regret that the donations fell off considerably, and notwithstanding their efforts to keep the expenses of management as low as possible, an appreciable increase in the amount of the drug and stationery bills, together with some necessary repairs, augmented the expenses by £50 over 1879. This necessitated a sum of £109 19s. 7d. being taken from the Free Members' Fund, and thus only enabled the committee to divide the same amount as last, in 1879, among the medical staff: namely, £413; although, on account of the increase of free members, the medical officers ought to receive a larger remuneration.

THE CANCER HOSPITAL.

The annual general meeting of the governors of this hospital was held on Wednesday, the 2nd instant, the chair being occupied by David Mocatta, Esq. From the thirtieth annual report, it appeared that the hospital was steadily advancing in usefulness; and that, during the year, there had been an increase of funds, much of which was through further donations from pre-existing donors. The extension of the hospital by building had been materially considered; and, after very careful deliberation, it was decided to commence the works forthwith, to enable a much larger number of patients to be received, as well as to facilitate the study of the disease, for which purpose it was proposed to open a "Special Building Fund". The surgeon's report showed that, during the year, 1,028 new patients were received—339 being in, and 689 out-patients. Of the in-patients, 142 underwent surgical operations, and 197 were treated by other means; while the total number of visits made by new and out-patients was 3,947. Thanks were accorded to all interested in the welfare of the institution; and a vote of thanks to the chairman terminated the proceedings.

CHARING CROSS HOSPITAL.

The sixtieth annual meeting of the governors and supporters of this hospital was recently held in the board-room of the institution. Lord Denman was voted to the chair. The report, which was adopted, stated that the funds of the hospital during the past year had so seriously diminished, as to compel the governors to withdraw thirty beds from the wards. This grave condition of the state of the finances had led the governors to make a special appeal to the public, and they were glad to say that a very substantial response had followed. The donations received at the last anniversary festival amounted to £2,500. The council were, at the present time, quite unable to restore the number of beds withdrawn; in fact, it had been difficult to carry on the institution with efficiency. The council had, however, exerted themselves for the benefit of the poor, and over 20,000 persons had been healed during the past year. There had been 1,477 in-patients, 19,003 out-patients, and 7,106 cases of accident. The total receipts for the year amounted to £13,433, and the total expenditure to £16,113.

MILITARY AND NAVAL MEDICAL SERVICES.

Surgeon-Major T. Jerram Orton, Army Medical Department, has been appointed Medical Officer to the Military Prison at Glencorse. Mr. Orton, who entered the army 17th January, 1855, served with the Royal Artillery in the trenches before Sebastopol in 1855, and at the assault of the Redan on the 8th September (medal with clasp and Turkish medal). Served with the Central India Field Force, under Sir Hugh Rose, in 1858 and was present at the siege and capture of the fort of Chandoiree, siege and capture of Jhansi, battle of the Betwa, action at Koonch, actions of the 17th and 18th May, and of the 21st May at Golowlie, and capture of Calpee; was afterwards present in various actions in the Bundelkund district (medal). Accompanied the Perak expedition as Principal Medical Officer of the force (mentioned in despatches, medal with clasp).

THE FUTURE DIRECTOR-GENERAL OF THE ARMY MEDICAL DEPARTMENT.

Sir,—With reference to the paragraph which appeared in the Journal of the 11th of December last, stating that Sir William Muir would retire at the end of the present financial year, and alluding to the relative merits of his probable successors, I think, in the interest of quiet and contentment in the service, the time has arrived when the officers of the department should have some voice in the selection of their future chief—a privilege granted to every professional body; and that the mere question of seniority should no longer be the only one justifying a selection to an appointment, the holder of which wields such a power for better or the reverse.

Few will dissent from the opinion that Dr. Crawford should be Sir William Muir's successor. The present Surgeon-General of the Indian Army has been ever deservedly loved and respected by all who have served under him. While he was head of the Medical Branch at Whitehall Yard, his tenure of office was marked by a courteous and conciliatory manner remembered by us all. The roster was open for inspection, and no absurd official mystery shrouded his proceedings. We all recollect the parting dinner at Netley, and with what warm acclamations his health was received, and the genuineness of the parting tribute paid him by Sir Gilbraith Logan when he said, "You leave us with troops of friends". Before his recent departure for India, Dr. Crawford was entertained by his brother-officers in Dublin—a mark of regret and respect which drew men from the most remote parts of Ireland to do him honour and say their regretful adieus. It has always been with him the same story. Such men are rare in military departments; and, when we have them, we should do all we can to keep them with us. Dr. Crawford has always been my *beau ideal* of a military surgeon. Fond of his profession, ever eager to mix with its members in civil life, and draw closer in friendly intercourse the two great branches together, with a kind heart and genial manner, no officer ever yet had to confide to him a grievance which, if a good one, he did not always do his best to remedy; and, if obliged to refuse, in justice to others, did it in such a way that satisfaction, not pain, was the result. His hospitality has been generous to a fault, and not confined to some insignificant ensigns, but to the youngest and least known surgeons

of the army, as well as the oldest. On such occasions, you always felt with Dr. Crawford that for the time being you were one of his family, and that your invitation was not an act of formal courtesy: so unlike some others, who have ever affected to ignore the members of their profession. The Army Medical Reports testify to the industry and ability of Dr. Crawford as a military surgeon. Many other facts during his long career might be recounted to his honour, were it necessary. That an officer possessing so many estimable qualities would be the choice of the profession, there can be little doubt. But, whether he become so or not, the recollection of his good name will be long remembered in the Army Medical Department.—I am, etc.,

A.M.D.

INDIAN MEDICAL SERVICE.—The following is a list of candidates for commissions as surgeons in Her Majesty's Indian Medical Service who were successful at both the London and Netley examinations, February 1881.

	Marks.		Marks.
*1. G. M. J. Giles	5410	14. F. S. Peck	3890
2. A. R. W. Sedgefield	5017	15. K. H. Mistri	3800
3. J. L. Vangeyzel	4953	16. W. Deane	3785
4. A. F. Ferguson	4540	17. P. De Conceição	3715
5. E. F. H. Dobson	4305	18. G. E. Fooks	3657
†6. J. Shearer	4275	19. K. C. Sanjana	3615
7. S. Hassan	4230	20. J. W. T. Anderson	3555
8. R. J. Polden	4135	21. H. M. Hakim	3552
9. H. C. Banerji	4070	22. J. A. Burton	3550
10. H. N. V. Harington	4007	23. F. J. Doyle	3520
11. S. C. Nandi	3920	24. M. J. Kelawala	3514
12. G. M. E. McKee	3918	25. P. H. W. Boon	3430
13. A. H. Pierson	3895	26. M. P. Kharegat	3280

* Gained the Herbert prize, and also the Parkes memorial bronze medal.
† Gained the Maclaine prize in military surgery.

NAVAL MEDICAL SERVICE.—The following is a list of candidates for commissions as surgeons who were successful at both the London and Netley examinations, February 1881.

	Marks.		Marks.
1. W. J. Christie	3630	3. G. F. Wales	3150
2. J. J. Dinnis	3390	4. M. V. Stace	3030

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

AN inspector from the Local Government Board held an inquiry this week, at Bromley, into an application on the part of the Bromley and Beckenham Local Boards, and the Bromley Rural Authority, to form the district into an united district for the purpose of erecting a joint hospital for infectious cases. The population of the combined district was estimated at 50,000, the acreage was 41,270, and the rateable value £358,299. The inspector intimated that he should report favourably on the scheme.

PAYMENT FOR VACCINATION STATIONS.

THE Wolverhampton Board of Guardians are engaged in a prolonged struggle with the Local Government Board, as to the payments made for the use of vaccination stations in the union. It is distinctly laid down in the Vaccination Act of 1867 (section 7), that "the guardians shall provide all stations at which vaccination shall be appointed to be performed, other than the surgery or residence of the public vaccinator"; in other words, that the expenses of such stations are to be paid out of the guardians' funds. Notwithstanding this definite statutory provision, however, the Wolverhampton Board have systematically inserted in their notices of vacancies in the office of public vaccinator, the condition that the officer will have to provide a station at his own expense, thus seriously diminishing the already small fee that is allowed by the guardians for the performance of each operation. Not only, therefore, do the guardians evade the law, but they inflict a serious injustice upon their vaccinators. The Local Government Board, having at length awakened to the subject, have now written to the guardians pointing out the illegality of their conduct, and requesting them to comply with the requirements of the law. The guardians persist, however, in their course of action, and have adjourned the question for six months; that is, have attempted to shelve the matter altogether. The Local Government Board have power to put an end to contracts for vaccination if they see fit; and, after the contracts have been thus terminated, no payment for vaccination under them is legal. It is to be hoped, therefore, that in view of the pecuniary sacrifice which the Wolverhampton public vaccinators are unlawfully called upon to undergo, the Whitehall authorities will not allow the matter to remain in its present very unsatisfactory position.

A QUESTION REGARDING EXTRA FEES.

SIR,—I should be glad of your advice in the following case. I am medical officer to a union district here, and, on my list of "permanent paupers" is a person (L. A.) who is single, and a cripple. About four months ago, it came to the knowledge of the guardians that L. A. was pregnant; and, in consequence, her pay was stopped, and I was notified of the fact by the relieving officer of the district. On January 4th, in the middle of the night, I was summoned to L. A., who, I was told, was in labour. I attended her in her confinement; and, as the relieving officer lives six miles off, did not tell the friends to apply for an order, but wrote on the following day to the relieving officer, asking for an order. My letter was laid before the next meeting of the board of guardians, and I have received a reply saying the guardians decline to sanction an order in the case. I should like to know whether, as the person's name is actually on my list of permanent paupers, I am not legally entitled to charge an extra fee for my attendance on L. A. in her confinement? I certainly felt, when I was called to her, that I was bound to go.—Yours truly,

A MEMBER.

*** We fear that the board of guardians of the union of which our correspondent is a medical officer, are legally within their rights in refusing to grant an order, seeing that, by stopping the relief, and intimating through their relieving officer that they had done so, this woman was put out of the category of a permanent pauper. It is to be regretted that an application was not then made as to what should be done, in the absolutely certain contingency of his being called to attend her; for, if an order had been refused, which is likely, he would then have been not only morally, but legally, free from all liability, if he had declined to attend. It is a hard case; and the only suggestion we can now offer is, to lay the facts before the Local Government Board, who may direct the local board to pay the fee. Medical officers cannot well be too particular in matters of this kind, as they are frequently exposed to two fires; first, from the public, when they refuse attendance in cases of urgency, unless an order be obtained; and, secondly, from the guardians, who take advantage of their good nature, as in this instance, when they give attendance without an order having been granted.

SALARIES OF HEALTH-OFFICERS.

SIR,—As an officer of health over a large area, I shall be very glad of any information as to the principle on which medical officers are elected. Is there any scale by which an estimate can be made as to what is a fair remuneration? Will it do to take population and area as a basis? or is it considered that there are special circumstances which will cause a difference in the pay received? One district of wide area pays £800 a year; another, nearly as large, and with less population, pays £500. Both of these are so-called rural districts. In an urban district of 31,000 inhabitants, the salary is £200, with extra pay for other duties. Another place of 30,000 people, similar in character to the last, pays but £30 for everything; and from what I know of the place, there must be more work than in the former. Why is there such a discrepancy? My own district comprises a population of over 40,000 and an area of about 70 miles. My salary is £155 a year inclusive, or somewhere about three-farthings to one penny per head. There ought to be some rate to guide, and the Local Government Board should see that their officers are paid in a way that will enable them to do their duties properly, and not leave them entirely to the tender mercies of county boards. A fixed scale, according to area and population, would be more just, and enable men to give more time to the work. Then, as to the inspector of nuisances, he should be subject to the control of the medical officer, and answerable to him for the proper performance of his sanitary work. At present, he works independently in most instances, and is frequently quite incompetent to discharge his duties. Should not every inspector be chosen by the medical officer as being competent to do the work required, and not elected because of any personal favouritism? The Local Government Board ought to interfere, and prevent men from being appointed who know nothing and do nothing.—Yours, etc.,

IGNORAMUS.

*** The salaries of medical officers of health are not settled on any general principle. In particular cases, the Local Government Board interferes, where the remuneration proposed is obviously inadequate; but, otherwise, authorities are left to their own estimate of the value of a health-officer's services in settling his salary. Anomalies of the kind referred to by our correspondent are the rule rather than the exception. The whole subject of appointments and salaries of health-officers needs overhauling and reconstruction. As to inspectors of nuisances, they ought certainly to be subordinated to medical officers of health, by whom their work should be directed.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, February 10th, 1881.

Cranstone, William Lefevre, Barrington Street, N.W.
Partrige, William Strowd, Newhall Street, Birmingham.
Humphreys, William Carr, Bank House, Bromsgrove.

The following gentleman also on the same day passed the Primary Professional Examination.

Jennings, Charles Egerton, London Hospital.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced:—

*BRIGHTON AND HOVE LYING-IN INSTITUTION—A fourth Honorary Surgeon. Applications, with testimonials and copies of registration, to the Secretary, by the 1st of March.

*BURY ST. EDMUNDS FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION—Dispenser and Assistant to Medical Officer. Must be registered, with at least one qualification; single; and able to commence his duties as soon as possible. Salary, £100 per annum, with furnished lodgings. Applications to Mr. Hazell, Victoria Street, Bury St. Edmunds, on or before February 25th.

CLOGHEEN UNION—Medical Officer for Cahir Dispensary District. Salary, £120 per annum, exclusive of sanitary, registration, and vaccination fees. Election on the 28th inst.

COUNTY GENERAL INFIRMARY, Stafford.—Physician. Applications to the Clerk of the Guardians.

*HALIFAX INFIRMARY—House-Surgeon. Salary, £80 per annum, with yearly allowance of £10 up to £100. Applications, with testimonials, to the Senior Physician, on or before Thursday next, the 24th instant.

JESSOP HOSPITAL FOR WOMEN, Sheffield.—Medical Officer. Must be a registered practitioner possessed of a medical and surgical degree of Great Britain or Ireland. Applications, with proof of qualifications, on or before Monday, the 28th instant.

*KENT AND CANTERBURY HOSPITAL—House-Surgeon. Salary, £80 per annum, to be raised to £90 per annum after six months' service, and to £100 per annum after twelve months' service, with board, lodging, and washing. Applications, with testimonials, to be sent on Friday, March 25th, by 12 o'clock noon.

*ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL—House-Surgeon. Salary, £100 per annum, with board and residence. Applications, with testimonials, etc., to be addressed to the Chairman of the Committee, Vicarage, Portsmouth, on or before Monday, the 28th instant.

*ROYAL UNITED HOSPITAL, Bath. Resident Medical Officer. Salary, £100 per annum, with board and lodging. Applications, with diplomas and testimonials, to be forwarded to the Secretary, on or before March 11th.

*ST. BARTHOLOMEW'S HOSPITAL Assistant Surgeon. Candidates must attend a Committee of Governors on Thursday, February 24th. All applications to be left, on or before Tuesday, the 22nd inst., with William Henry Cross, Clerk.

STOCKPORT INFIRMARY—Matron. Salary to commence at £40, with board and rooms. Applications in own handwriting, to be accompanied with good testimonials, to S. W. Wilkinson, Honorary Secretary, Greek Street, on or before March 8th, 1881, from whom any information may be had.

SUFFOLK COUNTY ASYLUM—Assistant Medical Officer. Salary, £100 per annum, with board, lodging, and washing, increasing £10 a year to £150. Candidates must be single, fully qualified, and registered according to the Medical Act. Applications to the Resident Physician, County Asylum, Melton, Woodbridge, Suffolk.

UNIVERSITY OF GLASGOW.—Examiners in Medicine, vacant April 1st; viz., 1. Physiology and Pathology; 2. Medicine and Clinical Medicine; 3. Surgery and Clinical Surgery. Annual fee of each examiner, £40; term of office, four years. Applicants resident in Glasgow not expected to give in testimonials; those resident elsewhere are requested not to present more than four. Applications, on or before March 15th, to Dr. Anderson Kirkwood, 145, West George Street, Glasgow.

MEDICAL APPOINTMENTS.

BROOMS, J. E., M.R.C.S., L.R.C.P., appointed Surgeon to the Ludlow Public Dispensary.

COX, F. A., M.R.C.S., appointed Assistant Medical Officer and Chloroformist to the Hospital for Women and Children, Vincent Square, S.W.

FROST, W. Adams, F.R.C.S.Eng., appointed Assistant Ophthalmic Surgeon to St. George's Hospital.

STREET, Alfred Francis, M.A., M.B., appointed Junior Resident Medical Officer to the Hospital for Sick Children, Pendlebury, Manchester.

POOR-LAW MEDICAL APPOINTMENTS.

FISHER, Turner F., M.D., appointed Medical Officer of the No. 5 District of the Hackney Union, *vice* G. Batchelor, M.B., resigned.

LOVE, J. H., M.R.C.S.Eng., re appointed Medical Officer of Health for the Borough of Wolverhampton.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

GARLAND.—February 5th, at Walworth, the wife of Henry Garland, L.R.C.P.Ed., of a daughter.

GREGORY.—On the 30th ult., the wife of George Gregory, M.D., Brackley Park, Great Lever, Bolton, of a son.

MARRIAGE.

MASTER—MANBY.—On the 10th inst., at the Parish Church, Morecambe, by the Rev. M. N. Kearney, M.A., Canon of Elphin Cathedral and Rector of Strokestown, Co. Roscommon, Brother-in-law to the bride, George Reginald, youngest son of Alfred Master, Esq., J.P., F.R.C.S., of Norwich, to Emily Caroline, youngest daughter of the late Rev. E. F. Manby, Rector of Morecambe.

DEATH.

MASON.—On the 12th ult., at his residence, The Vinery, Wellington, Herefordshire, Thomas Mason, M.R.C.S.E., etc., aged 45.

THE Hawarden Guardians have had before them a case which has caused great excitement in the neighbourhood. It appears that four children have lately died, as is alleged, of scarlet fever, and that the father and the medical officer of the Union had not acted properly, the father starving the children, and the doctor not attending to them as he ought to have done when they were ill. The medical officer was censured for not being more prompt in his duty.

PUBLIC HEALTH.—The annual rate of mortality last week in twenty of the largest English towns averaged 22.9 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Portsmouth 13, Sunderland 16, Bristol 17, Leicester 18, Sheffield 20, Bradford 20, Wolverhampton 21, Newcastle-on-Tyne 21, Hull 21, Birmingham 22, Salford 22, London 23, Plymouth 23, Leeds 23, Brighton 23, Nottingham 24, Norwich 25, Manchester 26, Liverpool 28, and Oldham 31. Scarlet fever showed the largest proportional fatality in Wolverhampton and Nottingham; and whooping-cough in Leeds and Nottingham. The death-rate from fever (principally enteric) was highest in Newcastle-upon-Tyne, Nottingham, and Leicester. Small-pox caused 54 more deaths in London and its suburban districts, but not one in any of the nineteen large provincial towns. In London, 1,633 deaths were registered, which were 229 below the average, and gave an annual death-rate of 23.0. The 1,633 deaths included 52 from small-pox, 20 from measles, 28 from scarlet fever, 17 from diphtheria, 23 from whooping-cough, 9 from enteric fever, one from an ill-defined form of continued fever, 10 from diarrhœa, and not one either from typhus, dysentery, or simple cholera; thus, 262 deaths were referred to these diseases, being 90 below the average. The deaths referred to diseases of the respiratory organs, which had been 617, 702, and 606 in the three preceding weeks, further declined to 408 last week, and were no fewer than 127 below the average; 269 were attributed to bronchitis, and 91 to pneumonia. Different forms of violence caused 67 deaths; 63 were the result of negligence or accident, including 22 from fractures and contusions, 8 from burns and scalds, 6 from drowning, one from poison, and 16 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 38.8°, and 0.8° below the average. The direction of the wind was variable, and the horizontal movement of the air averaged 22.1 miles per hour, which was 8.4 above the average. Rain or melted snow was measured on five days of the week, to the aggregate amount of 0.77 of an inch. The duration of registered bright sunshine in the week was equal to 23 per cent. of its possible duration. The recorded amount of ozone was above the average during the week, especially on Thursday and Friday.

SMALL-POX IN LONDON.—The fatal cases of small-pox in London, which had been 42, 52, and 54 in the three preceding weeks, were again 52 last week, and exceeded the corrected average in the corresponding week of the past ten years by 3; 35 were recorded in the Metropolitan Asylum Hospitals at Fulham, Homerton, Stockwell, and Deptford, one in the Highgate Small-Pox Hospital, and 16 in private dwelling-houses. Of the 52 persons who died from small-pox, 16 had resided in the East, 15 in the South, 15 in the North, 5 in the West, and 1 in the Central groups of registration districts; 9 fatal cases belonged to Hackney, 4 to Shoreditch, and 5 to Lambeth. The 52 fatal cases included 14 of children under five years of age, 7 of whom were certified to be unvaccinated, while the medical certificate in the 7 other cases contained no statement as to vaccination. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had steadily increased in the fifteen preceding weeks from 77 to 617, further rose last week to 683. The new cases of small-pox admitted to these hospitals, which had been 114 and 234 in the two previous weeks, were 176 last week. The Highgate Small-Pox Hospital contained 46 patients on Saturday last, against 30 and 37 at the end of the two preceding weeks.

MANCHESTER MEDICO-ETHICAL ASSOCIATION.—The thirty-third annual meeting of this association was held at the Grosvenor Hotel, on Friday, the 28th January, 1881. The report of the committee showed the growing prosperity of the association, there now being 121 members. It was stated that the first annual dinner was held on the 25th inst. Dr. Simpson, president, in the chair. The attendance was large, and included visitors from Liverpool, Blackpool, Bolton, Oldham, etc. The following is a list of office-bearers for 1881:—*President*, Dr. John Roberts; *Vice-Presidents*, Mr. Dacre Fox; Dr. Henry Simpson, Mr. R. B. Smart, Dr. Thorburn; *Treasurer*, Dr. Joseph Stone; *Secretaries*, Dr. A. Wahltuch, Mr. J. Broadbent; *Committee*, Dr. Addy, Dr. Ashby, Dr. Barlow, Mr. Cullingworth, Dr. A. M. Edge, Dr. J. S. Fletcher, Dr. A. Emrys Jones, Dr. Ledward, Dr. Mallett, Dr. Peatson, Dr. Pierce, Dr. Ward.

PRESENTATION.—On February 5th, there was presented to Dr. Belcher, on his resignation of the appointment of medical superintendent of the Infirmary, St. George's East, a handsome silver inkstand, with suitable inscription, by the oldest subordinate officers, to show the honour and esteem in which they held their superior medical officer.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th. 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 2; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. Samuel Osborn will show Two Cases of Hydrocele cured by simple Tapping and subsequent application of Pulvermacher's Suspensory Bandage. The President (Mr. F. T. Gant) will read a Case of Epithelioma of the Tongue; Organ removed by Buccal Operation; both the specimen and the patient will be shown. Dr. Gilbart Smith will exhibit Photographs of the mechanical means used by Dr. Lauder of Stockholm for Exercising Weakened Muscles. The President may also show Gale, the pedestrian. Mr. Royes Bell will show a Specimen of the Tongue removed by Nunneley's Operation.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. Spencer Wells: On Two Hundred additional Cases, completing One Thousand Cases of Ovariotomy; with Remarks on Recent Improvements in the Operation. Dr. George Thin: On the Development of a Layer of Elastic Fibres in Duct Cancer of the Breast.

WEDNESDAY.—Hunterian Society, 8 P.M. Introductory Address by the President. Mr. J. E. Adams, on Diphtheritic Ophthalmia. Mr. G. F. B. Stevens: A Case of Erysipelas of the Scrotum and Penis.

FRIDAY.—Clinical Society of London, 8.30 P.M. Dr. Hilton Fagge: A Case of Paralysis due to Partial Disease of the Nuclei of the Motor Roots of the Fifth Nerves. Mr. Teale (Scarborough): A Case of Quiescent Scirrhus. Dr. Crocker: Cases of Erythema Iris. Dr. F. Taylor: Cases of Pemphigus and Herpes Iris.—Quekett Microscopical Club, 8 P.M. Ordinary Meeting.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

HOSPITAL OUT-PATIENTS AND CERTIFICATES OF DEATH.

SIR,—Would any of your readers kindly give me his advice on the following? I attend the out-patient department of one of the hospitals in this town twice a week. The cases are mostly chronic; chiefly rheumatism, phthisis, and chronic bronchitis. The patients attend regularly for a few weeks; then they stay away, and consult me by proxy. They linger on, perhaps, for months; and then a message comes that so and so is dead, and a certificate is wanted. In one or two cases I gave certificates for persons I had not seen for six weeks or two months. Is there any limit to the time after seeing a patient in which I must give a certificate, even if he died of the original complaint—without any intercurrent affection—for which I attended him?—I am, etc.,

A YOUNG PRACTITIONER.

Manchester, Feb. 14th, 1881.

W. J. M.—The average weight of a child at birth is about seven pounds, or a little over (3,250 grammes). A one year-old child is about treble its own weight at birth. It would be probable that a seven months' child would be considerably below the average weight at birth, and, consequently, below the average weight at one year; and further probable, considering the slow development and delicacy of many seven months' children, that at one year old their weight might have progressed by less than the normal increment.

ALLEGED SCARLET FEVER IN LINCOLN.

WITH reference to a paragraph in the JOURNAL of January 22nd, stating that "the neighbourhood of Lincoln is reported to be the seat of an epidemic of scarlet fever, which has already resulted in several deaths", Dr. C. Harrison writes, "that the urban and rural sanitary districts of Lincoln are free from any epidemic of fever. A few cases of scarlet fever have been reported in two villages in the rural district, and one death has been registered".

DR. W. SMYTH.—Morbid specimens, and, indeed, all anatomical specimens, should, after they are removed from the body, be placed in cold water for from eighteen to twenty hours, so as to remove as much of the blood from them as possible. They may then be placed in a weak solution of methylated spirit and water. The strength our correspondent uses is suitable; after four or five days, or a week, they should be put into a stronger solution, say of equal parts of spirit and water. Every time the spirit is changed, which may be done about once a week, it should be strengthened till three weeks or a month has elapsed since its first immersion, when it may be finally mounted in pure methylated spirit. If weak spirit and water is used in the first instance, the preparation will not shrink, as it does when immersed at once in strong spirit.

INSTITUTIONS FOR INEBRIATES.

SIR,—In reply to the inquiry from a "Surgeon", in the last number of the BRITISH MEDICAL JOURNAL, as to there being any institution in or near London for the cure of inebriates, I am sorry to say there are none at present, although some in other parts of the country. We propose to start a Model Inebriate Home, at a moderate charge, in or near London, as soon as we have a sufficient guarantee fund for the preliminary expenses. I shall be glad to give "Surgeon", or any others, further information on their applying to, yours truly,

61, Haverstock Hill, N.W. STEPHEN S. ALFORD, F.R.C.S.

J. W. H. We can see nothing illegal in the alleged proceedings; but, as the case is stated, the new-comer is being led into a course which is not professionally proper.

FEES FOR DEATH-CERTIFICATES.

SIR,—Will you, or any of your readers, kindly advise me on the following case? A pensioner was brought to the dispensary, and died in an hour; and an inquest was held on his body. He was buried by the parish authorities; the verdict of the jury (viz., "Bronchitis") being accepted by the registrar as equivalent to a death-certificate. A few days afterwards, I received a polite letter from the Pay Office, requiring me to furnish the War Office with a death-certificate. I declined to do so unless my fee was paid. The reason I refused was, because too many calls are made on medical men for certificates (gratis) by different offices. I should like to know whether I was right in refusing; and whether I am liable to be fined for refusing.—I am, yours truly,

R. O'B.

*** The parochial authorities have no right to call on the dispensary medical officer for a certificate of the cause of death of the pensioner, without tending a fee. They have probably applied to the registrar for a copy of the verdict of the jury; and he having requested payment for the same, as by law he is entitled to do, have subsequently applied to the parochial medical officer, trusting to get a certificate for nothing. It is as well that Poor-law medical officers should know that, when they have given a certificate as to the cause of death of a pauper dying under their charge, their duty is at an end; and if a duplicate copy be required, either by the guardians or by the friends of the deceased, such medical officer can claim a fee.

X. Y. B. should become a member of the Medical Defence Association; and should apply, with details, to R. H. S. Carpenter, Esq., L.R.C.P., Stockwell Road.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

FEES FOR ATTENDANCE AT INQUESTS.

SIR,—Will you kindly insert the following in next week's JOURNAL, or the answer? The coroner orders a *post mortem* examination in a case of supposed murder or manslaughter, and the medical man makes the examination as ordered, and attends to give his evidence; but, after a preliminary inquiry of two hours' duration, the inquest was adjourned for five days. The medical man again attended, and was detained all the day; in the evening his evidence was taken, and the coroner paid him two guineas for the *post mortem* examination and attending two days to give his evidence. I was under the impression that the fee was one guinea for each day's attendance. What is the law (if any) in such cases?—I am, etc.,

S. GOURLEY.

*** It is certainly very hard on our correspondent that he should have been required to give attendance on two separate days; but the law is, unfortunately, against any extra payment; for, by the Coroners' Witnesses Act, the fees are thus arranged: for making a *post mortem* examination, £1 1s.; for attending and giving evidence, £1 1s.; but there is no provision as to the duration of such attendance. Coroners are ordinarily very considerate to medical men; and probably our correspondent's evidence would have been taken earlier if he had made application. He will be wiser next time.

BROMSGROVE.—We are somewhat surprised that our correspondent should have formed the idea that, because in his position as an assistant he has been called to a case which subsequently becomes the subject of a local inquiry, and is afterwards remitted to the assizes for trial, he has a claim of any kind to the fees accruing therefrom. The only way in which he could establish a claim would be by showing that, by the terms of his engagement, his principal arranged to give all or part of the fees earned by the assistant; in the absence of that, all monies earned by the latter belong by legal right to the principal.

SIR,—Would you oblige me by giving me the following information in your next issue? I was appointed medical officer of health for this district, of which I am Poor-law medical officer, in 1874, under the Public Health Act of 1872. I was then appointed until further notice, or during the will and pleasure of their board (urban sanitary authority). As my salary was not paid out of moneys voted by Parliament, I was not considered to be under the control of the Local Government Board, but I have had a letter from that Board, calling upon me to send them a copy of my annual report, and to fill up their statistical papers. Can you tell me whether they can make me do this? What control they have over me? and what I had better do? I have never been reappointed since 1874.—Yours truly, INQUIRENS.

P.S.—The Local Government Board have never been requested to sanction my appointment.

*** The Local Government Board possess the same power over the appointment of Poor-law medical officers, as medical officers of health, that they have over appointments where they repay half the salary. The fact of the Board "not having been requested to sanction your appointment" at the time it was made, was an omission which the Whitehall authorities have apparently only just found out. The Local Government Board now invariably require, as a condition of their sanctioning the appointment of district medical officers as medical officers of health, that the reports and returns specified in their Orders shall be forwarded to them; and we fear you will not be able to evade this requirement.

INFANTILE SUMMER DIARRHŒA.

SIR, With regard to the above subject, it is difficult to arrive at any other conclusion than that heat is the exciting cause. Those who travel on the ocean in medical charge of infantile life know that the tropics produce diarrhœa as naturally as that the strawberry blooms in spring; and that when the tropics are left diarrhœa as naturally ceases. The nature of the food, overcrowding, and other assignable causes can be excluded in such a case; as neither fowl, fresh meat, or vegetables in a condition likely to decompose quickly are used as articles of diet. Mr. George Turner of Southsea has, I believe, devoted much time to the study of the causes of the ailment; and the result of his investigations would, doubtless, be gladly received by those members of the profession who, like myself, have taken some interest in the matter.—I am, sir, etc., GEO. WORTHINGTON, M.K.Q.C.P.

ARTERIAL ANOMALIES.

SIR,—It fell to my lot, during a recent dissection of the scapular arteries of an adult male, to find the suprascapular arising from the first portion of the axillary artery. As I feel sure this must be an abnormality of extremely rare occurrence, and the possibility of such occurring a matter of surgical interest, I venture to add a short description of the axillary portion of the suprascapular artery in this case, trusting you may have space for the publication of this communication in your valuable JOURNAL.

The artery, given off from the posterior part of the axillary trunk half an inch below the clavicle, immediately descended to the extent of one inch into the apex of the axilla, lying on the upper border of the subscapularis muscle; then, making a sharp turn, it ran upwards and outwards, coming in contact with the posterior thoracic nerve; again passing behind the axillary, it pursued an extremely tortuous course towards the supra scapular notch, passing over the outer cord of the brachial plexus, and being embedded in a quantity of fat beneath the costo-coracoid membrane. Arriving at the base of the coracoid process, it dipped downwards, passing beneath the transverse ligament, thence through the suprascapular notch to the under surface of the supraspinatus muscle. One inch from its origin it gave off two small branches; one supplying the axillary surface of the subscapularis muscle, the other ramifying between this muscle and the bone. In addition to the suprascapular, the axillary gave off all its usual branches.

In the same subject, the suprascapular nerve arose from the inner cord of the brachial plexus, close to the origin of the suprascapular artery, and took very much the same course as the artery, also passing beneath the transverse ligament, lying there beneath its companion. These abnormalities existed on both sides of the body. The same body presented the posterior scapular artery arising from the third portion of the subclavian.

I should be interested to learn whether the above abnormality of the suprascapular artery has before been noticed by any of your readers.—I am, sir, yours faithfully, G. WALTER STEEVES, M.R.C.S., etc.

51, Parkfield Road, Princes Park, Liverpool, Feb. 2nd, 1881.

INFANT MORTALITY.

SIR,—It is admitted that, if infants were fed upon proper food, amidst proper surroundings, and trained with proper care, there would be a great reduction of the present mortality. This is a conclusion drawn mainly from the fact that the worse the food and surroundings, the greater the mortality—of which instances and statistics are only too numerous. This is the black side of the picture; and it has occurred to me that the British Medical Association might throw light upon the subject by engaging in the task of finding and disclosing the other bright side, and demonstrate amongst an educated class of people, with hygienic and medical aid always at hand, how much the mortality may be reduced.

The necessary information might easily be obtained, by asking each member to make a return, upon a suitable form, of the number of his own children born alive, the number dead, and the ages at which they died or have already arrived. Your influential organ should also put forth every effort to impress upon members the desirability of returning the forms; indeed, I think every one of them would be interested in the result.—I am, sir, yours, etc., PATERFAMILIAS.

SIR,—The writer of the article at p. 1002 in your JOURNAL for Dec. 18th will find, in a recently published report of the late Convention of the National Public Health Association, at p. 24, the latest that has been put in print respecting the operation here of the contagious disease and public school work, the general plan of which is accurately outlined by him in the above-mentioned issue.—Yours truly,

Brooklyn, Jan. 4th, 1881. R. M. WYCKOFF, M.D.

ERRATA.—In Dr. M. Charteris's article on Salicin and Salicylate of Soda in the JOURNAL of February 12th, page 229, column 2, the following corrections should be made. In conclusion 1, line 2, *after* "grains", *add* "every two hours"; and in conclusion 4, last line but two, *between* "iron" and "transformed" *insert* "on the salicin".

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BOOKS, ETC., RECEIVED.

A Directory for the Dissection of the Human Body. By J. Cleland, M.D. London: Smith, Elder, and Co. 1880.

Carpenter's Human Physiology. By H. Power, M.B. London: J. and A. Churchill.

New Sydenham Society. Vol. lxxxviii.

A Treatise of the Diseases of the Joints. By R. Barwell, F.R.C.S. London: Macmillan and Co. 1881.

Bovine Tuberculosis in Man. By C. Creighton. London: Macmillan and Co. 1881.

Evolution, Expression, and Sensation. By J. Cleland, M.D. Glasgow: J. Macklehose. 1881.

General Physiology, and Muscles and Nerves. By Dr. Rosenthal. London: Kegan Paul and Co. 1881.

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LECTURES
ON
BRONCHIECTASIS.

Delivered at the Hospital for Consumption and Diseases of the Chest, Brompton.

By C. THEODORE WILLIAMS, M.A., M.D., F.R.C.P.,
Physician to the Hospital.

Lecture I.

Bronchiectasis, or dilatation of the bronchi, can hardly be considered a disease, inasmuch as it is present in several and somewhat differing states of the lung. It is rather to be called a result of disease, the chief characteristic being a loss of the natural elasticity of the bronchial tubes, and, therefore, an inability to resist the normal air-pressure, and to expel the bronchial secretion.

There are three principal causes of bronchiectasis, and the part which each plays in the course of dilatation determines, to a great extent, the form of the lesion; these are, (1) inflammatory changes in the walls of the bronchi; (2) accumulation of secretion; (3) increased air-pressure. The action of the first cause may be seen in cases of bronchial dilatation following bronchitis; of the second, where a tumour obstructs the main bronchus, and causes accumulated secretion behind the obstacle. In this case a whole lung, or at any rate a whole lobe, is converted into what appears, at first sight, to be a series of abscesses extending to the pleural surface, but which are really bronchi dilated from accumulated secretion. The action of the third cause is well seen in long-standing cases of pleuritic effusion, and in fibroid phthisis, where, owing to the air-pressure, which would naturally be distributed over the whole pulmonary surface, being concentrated on the limited area of the bronchial tubes, dilatation of the walls takes place.

Bronchiectasis varies considerably in extent; in many cases of bronchitis and phthisis, it is limited to a few of the tubes, and, beyond causing delay in expectoration, is of little significance. Where, however, it involves the greater part of the bronchial tree, and even if only that of one lung, it becomes a serious and very dangerous condition, forming an insurmountable mechanical difficulty in the way of expectoration. In these cases, the secretions are retained, putrefy, and give rise to ulcerative changes in the bronchial walls. Cavities, differing from tubercular caverns by their labyrinthine shape and their fœtid contents, form, and still further intensify the difficulties of the patient. The violent expiratory efforts are followed by deep inspirations, and by inhalation of the putrid matter into the hitherto healthy portions of lung-tissue; septic pneumonia supervenes, and the patient dies, poisoned by his own secretions. The cases I shall in the next lecture relate will prove to you that this mode of termination is by no means uncommon.

Before proceeding to the clinical examples of this disease, let us briefly consider its morbid anatomy and pathology.

Morbid Anatomy.—Two principal forms of bronchial dilatation, the cylindrical and the globular, are found in the *post mortem* room; in each case the tertiary bronchi are dilated, so as to measure as much, and even more, in circumference, than the primary. In the cylindrical form, the dilatation is more general, the tubes being stretched like the fingers of a glove; the walls are thickened, the submucous and mucous layers are hypertrophied, and stand out in folds. The generally tubular form of the bronchi is owing, according to Hamilton, to the traction on their ends from an adherent pleura. In the globular form, the tubes are dilated at or near their ends into pouches or ampullæ of large size, the adjacent dilated tubes often freely communicating with each other, the mucous membrane appearing to form folds or wrinkles in their interior. The lung beyond the ampullæ is generally non-vesicular from collapse and from pneumonic infiltration of the air-vesicles. The globular dilatation is sometimes fusiform and sometimes saccular, presenting a surface of mucous membrane which secretes largely, and thus leads to greater accumulation of mucus than in the cylindrical form. The walls of the bronchi are so thin, that the grey tissue of the lung can be seen through them.

In the specimens before you, there will be noticed the smooth, shining character of the lining-membrane of these cavities, which generally distinguishes them from the vomicæ of phthisis; for, though it is not rare to find a phthisical cavity lined with a membrane, the membrane in this case is pus-secreting and thin, and seldom of the shining appearance of a bronchiectatic one. The cause of this is the presence in these dilatations of the basement-membrane of the bronchus, which appears to be remarkably tough and elastic, and therefore dilates with the bronchus without cracking. In some cases, however, a later stage is arrived at, when ulceration of the wall of the bronchus takes place, and the fresh excavation, which is often accompanied by gangrene of the lung, is not lined by any membrane. In the cylindrical form, we find the lung-tissue generally compressed and airless, or else in a state of interstitial pneumonia, the pleura adherent, and the interlobular fibrous septa, which pass from the fibrous coat of the bronchi to the pleural surface, enormously thickened, the walls of the bronchi themselves being apparently indurated. Another feature is the labyrinthine character of the cavity; one dilatation opens into another, and, besides the recesses which are seen within the original cavity, several bronchi are to be found opening into the same bronchiectasis.

The globular form is found in connection with emphysema, and in lungs collapsed by pressure of fluid; the extent of dilatation of the tubes varies in different bronchi, being as a rule most extensive in tertiary tubes where the amount of cartilage present is very small.

The condition of the intervening alveolar tissue, as you may have gleaned from what I said, varies greatly. In cases of slight bronchiectasis, there need be no great variation from the normal standard. In many instances, large-lunged emphysema is present, though, curiously, Biermer denies its possibility, and argues that the resiliency and support which such tissue would give to the bronchial tubes would prevent their becoming dilated. He, however, quite forgets that the great inspiratory efforts which produced the emphysema might also produce bronchiectasis. Dilated bronchi often accompany the small-lunged emphysema of the aged. In many cases, however, where the dilating force is great, and, specially, where some obstruction exists in the main bronchus, the alveolar tissue appears to be almost entirely absorbed, and the lung has a honeycombed appearance, being composed entirely of dilated bronchi, full of yellow secretion retained through obstruction. I recorded a case of this kind in the *Pathological Transactions* (vol. xxiv, p. 23), where the obstruction was a cancerous growth invading the right bronchus, but growths of which, in the form of villous excrescences, blocked the lumen. Sir George Burrows *Medico-Chirurgical Transactions*, vol. xxvii) and Biermer have also recorded cases.

The pleura, in most of these cases, shows adhesions. Barth found that, out of thirty instances, only two had the pleura unaffected; in two, there was liquid effusion, and in the rest adhesions, which as a rule overlay the seats of bronchiectasis.

In one of our specimens, you will see the distension from accumulation of secretion well shown. It is a specimen taken from a patient of Dr. Tatham's, who died of tubercular meningitis. The lungs contained old tubercle, but also a curious condition of the bronchial tubes. The left bronchus is slightly contracted at its commencement; the secondary bronchi are slightly dilated, but empty; the terminal ones in several instances are largely dilated, *i.e.*, to the size of a walnut or filbert, and contain masses of opalescent mucus. The lung-tissue is partly pneumonic and partly in a state of fibrosis. Here it is probable that the contraction of the bronchus, by opposing free expectoration, caused accumulation of secretion, and dilatation of the terminal bronchi.

Histology.—If we examine sections of a dilated bronchus, we soon discover the cause of its diminished elasticity. In cases of bronchiectasis originating in bronchitis, the course of events appears to be as follows: (1) congestion of the bronchial capillaries; (2) proliferation of the transitional epithelium, the ciliated being shed, and the new cells partaking of the ovoid form; (3) infiltration of the submucous and inner fibrous coats by serum and migrated leucocytes; (4) the proliferation of the connective-tissue corpuscles of the peribronchial fibrous tissue. This infiltration of the inner and middle coats becomes in time organised into a species of fibroid tissue, which, pressing on the glands and non-striated muscle of the submucous layer, soon accomplishes their destruction. We find the muscular fibres undergoing granular degeneration, and replaced entirely by this fibroid tissue. The openings to the mucous glands become the seats of small abscesses, which are often the starting-points of ulceration of the epithelial surface, their acini being abolished by the infiltration. Bronchial cartilages disappear under the same pressure. The hyaline matrix is absorbed, leaving larger spaces in which at first the cartilage-cells remain as wandering cells; but these speedily undergo degeneration, the nuclei being only traced by globules of oil. Thus the bronchus becomes a fibroid tube, incapable of contraction, and only capable of gradually yielding to the air-pressure. The columnal epithelium being shed, it has lost the help which ciliary movement gives to expectoration. In this state of things, the increased bronchial secretion accumulating blocks up some of the

smaller bronchi; and consequently, the remainder being subjected to a larger proportion of inspiratory pressure, further dilatation takes place.

For the various theories which have been put forward to explain bronchiectasis by Laennec, Andral, Renand, C. J. B. Williams, Corrigan, Gairdner, Stokes, Grainger Stewart, and Lebert, I must refer you to Dr. Grainger Stewart's excellent article (*Edinburgh Medical Journal*, vol. xiii). But, in attempting to explain bronchiectasis, we must take into account the three following factors: (1) loss of elasticity of the bronchial walls through inflammatory changes; (2) the results of accumulating secretions; (3) an increase of inspiratory pressure.

As a rule, the first and third causes are generally those in operation; for, we must bear in mind, pneumonia precedes bronchiectasis in a large number of cases. Barth found it in twelve out of forty. Kapp states that twenty-one out of twenty-three of his cases died of pneumonia; but he probably refers to the secondary or septic pneumonia induced by the inhalation of the fœtid matters, which is not what we are considering at present.

With regard to the second cause, it is doubtful, provided the bronchial wall be healthy, if accumulation of secretion alone can cause bronchiectasis. There must exist a narrowing of the bronchus above, whether the obstruction be caused by the pressure of an enlarged bronchial gland, or from a lymphoid or cancerous growth pressing on or invading the channel, or, again, from shrinking of the lung-tissue around the tube, as in fibrosis or cirrhosis of the lung. The inspiratory pressure is a most powerful element; but, in severe coughing, the expiratory act, owing to partial closure of the glottis, may assist in the process of dilatation. The effect of the inspiratory pressure may be well seen in cases of chronic effusion into the pleura and of pleuro-pneumonia. Here the inspiratory force, which ought to be distributed over the whole aërial pulmonary surface, is concentrated on a few bronchi; and it is not wonderful that in time their walls should yield.

Clinical History.—In the history of this complaint, it is sometimes marvellous to note how such great changes can take place in the air-tubes without giving rise to more symptoms. In most cases, all that can be obtained from the patient is a history of winter-cough for some years, with perhaps a slight attack of hæmoptysis. The breath has become short lately, and the expectoration more profuse. The patient lays great stress on his not losing flesh; and often states that, were it not for the cough, he would be quite well. Let us take a few of the symptoms and consider them closely. The cough is very characteristic; it is a convulsive, frame-shaking cough, often followed by deep inspirations; it is by no means continuous, the patient generally complaining from four or five paroxysms in the day, which sometimes end in vomiting. The greater part of the expectoration is frothy mucus, mostly brought up from the smaller bronchi and from the alveoli, largely intermingled with air. In time, we get the more marked nummular sputa, the inspissated mucin, and the fibrinous casts. Besides these, lung-tissue is soon detected, showing that the basement-membrane is broken, and that ulceration has begun. The odour of the expectoration is very offensive, and has been assigned to the presence of various chemical combinations; to sulphuretted hydrogen; and to lactic and butyric acids, crystals of the latter having been detected in the expectoration. Various fungi have also been found.

The fœtor is of the sickly rotten-egg kind, and contrasts strongly with that of gangrene of the lung, which is much more pungent and overwhelming. The taste of the expectoration, according to the evidence of a sufferer, is very sweet; and this patient stated that it annoyed her more than the fœtor, which was objectionable to her friends rather than to herself.

The aspect of these patients differs entirely from that of phthisical ones. They are generally middle-aged people, with large chests of the emphysematous type, though often with some collapsed portions in the lower mammary regions. They are ruddy, and occasionally livid, seldom pale; in fact, in their appearance, they perfectly show forth the local nature of their disorder; their trouble being, in truth, of a mechanical nature to wit, difficulty of expectoration. The temperature and pulse vary little from the normal, unless septic pneumonia sets in; and they then follow the pneumonic type. The breathing, on the other hand, is quickened. The appetite is good, and gain of weight more common than loss.

Physical Signs.—It must always be remembered that dilatation of the bronchi is not a disease of itself, but an affection secondary to other diseases; and therefore we must expect it to be marked by the physical signs of its accompaniments, such as emphysema and pneumonia, fibrosis of the lung, and occasionally pleuritic effusion. The signs are, of course, those of a limited excavation, modified by those of the surrounding tissues. Where much emphysema is present, it is impossible to diagnose dilatation of the bronchi by physical signs, as a careful examination of the whole chest may fail to detect one point where even tubular breathing is audible. This is sometimes the case when the expectoration gives undoubted proof of the existence of ulceration of the bronchi, and where, from the quantity discharged at certain intervals, it is obvious that certain portions of the bronchi must be dilated.

As regards the actual character of the sound heard, there is no definite distinction to be laid down between the sounds of bronchiectasis and those of a limited cavity; but much may be learnt by noting the position of these sounds. In many of the text-books, it is laid down that dilatation of the bronchi shows itself by cavernous sounds in the lower portions of the chest, and especially in the mammary and interscapular regions, and not at the apices. This, however, is an erroneous statement, as dilated bronchi are not limited to special regions of the chest. The specimens I have just shown you prove decidedly that dilatation may take place in any bronchus and in any part of the lung; and it is as possible to have the signs of a dilated bronchus in the first interspace as at the posterior base, or in the scapular region as in the interscapular. Far more importance should be laid on—(1) the extent of surface over which the cavernous sounds are audible; (2) on their jarring nature; and on their (3) combination with the sounds of emphysema. When there is a dilated bronchus near the apex of the lung, the cavernous sounds are heard in the first interspace; not midway between the sternum and the shoulder, but nearer to the sternum than the sounds of a tuberculous cavity. There is resonance too; and you are surprised that, with such loud cavernous sounds, amphoric breathing is not audible. Where the ectasia is tolerably superficial, and has no emphysematous lung in front of it, or if it has only a layer of fluid separating it from the chest wall, the tracheal or amphoric note is often to be detected; and this generally occurs in the upper regions of the anterior chest.

The termination of bronchiectasis varies; but, if extensive and involving a large number of tubes, it is generally fatal. The contents of the dilatation, which sometimes are so extensive as to reach the pleural surface, set up further ulcerative processes, and may open into the pleural cavity and cause pneumothorax. Two of Dr. Grainger Stewart's cases and four of Biermer's proved fatal in this way. When this is not the case, the inflammatory changes round the tubes often assume the gangrenous form, and either gangrene of the lung or fœtid abscess is the result, from which the patient may sink exhausted.

A third ending, and one which has been the commonest in my experience, is death by septicæmia. Some of the fœtid material is inhaled into the healthy lung, where it induces septic pneumonia, which soon proves fatal.

Syrup of Buckthorn.—At Salisbury, an inquest was held lately on the body of a child, the son of a woman named Crocett, who had died from a dose of buckthorn, administered by the mother to alleviate the irritation caused by the child having been vaccinated. Mr. Gowing stated that buckthorn was never prescribed by the profession, and was generally used for dogs. Diarrhœa and contraction of the arms and legs resulted, and the child died in a few hours from exhaustion. A verdict of death from natural causes was returned, and the jury were strongly of opinion that the poorer classes, who frequently used buckthorn, should be warned against it.

Poisoning by Atropin successfully treated by Hypodermic Injection of Pilocarpin.—Professor Purjesz relates, in the *Pester Med.-Chir. Presse*, Nos. 15, 17, and 18, 1880, the case of a hospital patient, aged 19, under treatment for aortic insufficiency and keratoiritis, who drank with suicidal intent the contents of a bottle of solution of atropin which was used for dropping in his eye. The quantity of atropin taken was about nine-tenths of a grain. The pupils were dilated to the maximum, the face was pale; respirations frequent, 40 to 50 in the minute; pulse 140 to 150. The patient was perfectly unconscious; sensibility was not lost. Relying on the observation by Luchsinger of the physiological antagonism between atropin and pilocarpin, Dr. Purjesz injected in succession six syringefuls of a one per cent. solution of pilocarpin (about 0.0 grain in each); and repeated the injection at intervals from five to eight minutes. After the tenth injection, the patient began to speak; the pupils were distinctly narrower; and, as the secretion of saliva and sweat had not yet appeared, another injection of nine-tenths of a grain of pilocarpin was made. After this dose, the patient gave rational answers; the pulse fell to 80; the pupils regained their normal size, but reacted rather slowly to light; the respiratory movements became normal, the skin moist, and all the symptoms of poisoning by atropin disappeared.

ABSTRACT OF LECTURES
ON THE
STRUCTURE OF THE SKELETON IN THE SAUROPSIDA.

Delivered at the Royal College of Surgeons of England.

By W. K. PARKER, F.R.S.,
Hunterian Professor of Anatomy in the College.

Lecture I.—The Principal Points in the Classification and Development of the Sauropsida.

The term Sauropsida is applied to one of the primary divisions of the vertebrata, and includes two classes—namely, the true reptiles and the birds. This group is apparently composed of very diverse types; yet its members have, nevertheless, a large number of most important characters in common, by which they are distinguished from the types beneath them (Ichthyopsida), and from those above them (the Mammalia). Professor Huxley has given an enumeration of the principal points in which birds and reptiles agree with one another, and differ from the mammalia, from which the following is modified. They are devoid of hair; the centra of their vertebræ have no epiphyses; their skulls have a single occipital condyle; the proötic bone either remains distinct throughout life, or unites with the epiotic and opisthotic after they have become ankylosed with the superoccipital and exoccipital. The counterpart of the malleus is not subservient to the function of hearing, and the counterpart of the incus is ossified continuously with the stapes. The mandible is connected with the skull by the intermediation of a quadrate bone, which represents the main part of the malleus of mammalia. Each ramus of the mandible is composed of a number of separate ossifications, which may amount to as many as six. Of these, the articulo-meckelian rod corresponds to the primary processus gracilis of mammalia. The apparent ankle-joint is situated not between the tibia and the astragalus, as in man and the mammalia, but between the proximal and distal divisions of the tarsus. The brain is devoid of any corpus callosum. The heart is provided with two aortic arches: if only one remain, it is the right; whereas, in the mammalia, it is the left which is developed. The red blood-corpuscles are oval and nucleated. The cavities of the thorax and abdomen are never separated by a complete diaphragm. The allantois, which is highly vascular, is very large, and envelops the embryo; but no villi for placental connection with the parent are developed upon it. There are no mammary glands. The nasal and auditory labyrinths are simple, as compared with those of the mammalia.

The principal characters in which the sauropsida differ from the fishes and the batrachians, the groups below them, are these. Their eggs have generally a much larger amount of food-yolk; they develop an amnion and an allantois. The visceral clefts are but little developed, and they never possess gills. The chondrocranium is more feebly developed, but the existing bones are much more specialised. The occipital condyle is single, whereas in the amphibia it is double, as in the mammalia: indicating that the mammalia have sprung from a parent stem below the sauropsida. The spinal column is much more perfect. When the sternum exists, it is connected with the spinal column by means of complete vertebral and sternal ribs. The shoulder-girdle, when perfect, has three separately developed clavicular bones.

The sauropsida, as a group, are naturally divided into two classes—viz., the reptiles and the birds. The differences between these two classes may be shortly stated thus.

In the reptiles, the blood is cold; the currents of venous and arterial blood are mixed, either in the heart or at the orifices of the aortic and pulmonary trunks; there are always two aortic arches; the corpora bigemina lie on the upper surface of the brain; the exoskeleton is composed of only horny scales or bony scutes; the faces of the centra are never cylindrical. The sternum, if developed, is rhomboidal, and is never properly ossified, and may have backward prolongations with which the posterior ribs articulate. The interclavicle, when present, does not coalesce with the clavicle. The manus, when present, contains more than three digits, and the digits of the pes are not fewer than three. The metatarsal bones are not ankylosed together, nor with the distal tarsal bones. The ilium has a very slight antero-posterior extension, and the pubes and ischia unite respectively below. The sacral vertebræ have expanded ribs, to which the ilia are attached.

In the birds, the blood is hot; the venous and arterial blood only communicate through the capillaries; only the right aortic arch is present; the corpora bigemina lie at the sides of the brain; the exoskeleton is composed mainly of feathers. The faces of the cervical, and generally of the dorsal, vertebræ are cylindroidal. The sternum is thoroughly ossified, and there are no rib-bearing backward prolongations. As a rule, there are both interclavicles and clavicles united to form the furcula. The manus never contains more than two digits which have claws; and, as a rule, there are only two carpal bones. The three principal metacarpal bones are ankylosed together, and with the distal tarsal bone, and the astragalus ankyloses with the tibia. The ilium is greatly developed antero-posteriorly. The ischia and pubes proper do not unite in a symphysis below. The true sacral vertebræ have no ribs intervening between them and the ilium. The tail, as a rule, is aborted.

Lecture II.—The Development of the Sauropsida.

The chief points in the early development of the Sauropsida correspond accurately with each other in all the known types that have been examined. The first thing to be remarked is, that they are all oviparous. The egg is large, contains much food-yolk, and is invested by a more or less calcified shell. The yolk undergoes only partial segmentation; the egg is therefore meroblastic. The first external appearance of the embryo is in the form of a shallow groove—the medullary groove—which extends along the axis of the now pyriform blastoderm. A transverse section through the body-region at this stage shows that the three layers of the blastoderm—namely, the epiblast, hypoblast, and mesoblast—are now fully established. In the region of the medullary groove, the epiblast is thickening to give rise to the spinal cord and brain; the remainder of it goes to form the epidermis. The hypoblast, which eventually gives rise to the whole of the epithelium of the alimentary canal and appended glands, is seen as a single row of somewhat oval cells, except in the centre line, where it thickens, to give rise to a solid rod, which becomes detached from it very early, and forms the notochord. A solid mass of mesoblastic cells lies on each side of the notochord. These cells are first beginnings of the skeleton, muscles, cutis vera, kidneys, generative organs, etc. The first segmentation is caused by the breaking up of the mesoblast into a series of cubical masses—the so-called protovertebræ, or, better, mesoblastic somites, lying on each side of the medullary groove. This process begins in the region of the neck, and extends gradually backwards, and forwards as far as the head. Those mesoblastic somites do not correspond with the vertebræ; the latter not being formed till much later, and alternating with them. The process of development just described in the sauropsida corresponds exactly with what takes place in the mammalia, and in man himself.

ON THE VALUE OF WASHING OUT THE STOMACH IN THE TREATMENT OF DILATATION OF THAT ORGAN.*

By JAMES RUSSELL, M.D., F.R.C.P.

It is not often that so good an opportunity is afforded of demonstrating the value of this measure, as occurred in our present case. The circumstances under which contraction of the pylorus more generally occurs involve disease of so grave a character, as to preclude the hope of gaining full advantage from any remedy we may employ. It was not so with our patient. The case, of itself, is one of much interest; it covers a period of twenty years. It is apparently an instance of contracted pylorus, occurring as a remote consequence of abscess in or near the liver, itself probably the result of gastric or duodenal ulcer. The benefit which the method of treatment I am now recommending is able to confer, was remarkably illustrated in this patient. The principle on which it proceeds is simply to preserve the food taken into the stomach in a state of purity, by putting an end to the putrefactive process which had been previously at work. We employed no other means; but, from the day on which the stomach was cleansed by the washing it received, and the freshly supplied food was preserved in a condition to act as aliment to the system, flesh was regained with marvellous rapidity, and health was completely re-established. Moreover, this occurred on two separate occasions.

The case is typical of what occurs in all cases of dilated stomach, whether from mechanical obstruction or from perverted function. A seething mass of fermenting matter lies within the stomach, at a temperature of 100°, ready to hurry every added portion into the same

* Part of a Clinical Lecture delivered at the Birmingham General Hospital. I may refer to a paper on the same subject published in the JOURNAL, a few months ago, by Dr. Clifford Allbutt.

destructive process, and thus to deprive it of every nutrient property. Fermentation is thus perpetually renewed, fresh gases are evolved, the cavity of the organ is kept distended, and thus dilatation continually increases; whilst the body is starved, the disease is augmented in an increasing ratio. Now, you will easily perceive that the circumstances which bring into operation the principle, which I have stated to lie at the foundation of all forms of gastric dilatation, are not limited to instances of mechanical obstruction. Given any set of circumstances in which food remains in the stomach imperfectly acted upon by the digestive ferments, and you have present the conditions for producing dilatation of the organ. Thus, many instances of so-called indigestion, or of recurring "bilious attacks", really involve the elements of this disease, though, happily, not often passing beyond the initiatory period. Deficiency in the production of the gastric juices, on the one hand; habitual overloading of the stomach, or the ingestion of masses of food which the fluids of the stomach cannot penetrate, on the other; or, again, the use of food already decomposing, or so saturated with fatty matter as not to mix with the digestive juices, will point to a large group of cases involving the principle to which I have referred. Various forms of impaired health, constitutional, or the remnants of acute disease, in which secreting force is lessened, or the materials are wanting; erroneous dietetics as to quantity as well as quality; imperfect mastication from habit or misfortune—cover a variety of causes connected with daily life. Once the condition of putrefaction or fermentation is set up, other circumstances follow and hasten the process of dilatation; above all, a state of low inflammation is established in the walls of the stomach, in consequence of the abnormal matters which are produced by the abnormal chemical action; the fatty and other acids; the gases, etc., whose presence is so clearly attested by the chief symptom of which the patient will complain, the gastric pains, the heartburn, the fulness, the eructation, etc.; by this inflammation the muscular fibres of the stomach are weakened, and offer diminished resistance to distension, and mucus is secreted which acts as a fresh ferment for putrefaction. Thus, you will see that every consideration points to the one indication, which, in one of its forms, is well illustrated by the case I now narrate. You will, of course, understand that the mechanical method of emptying the stomach, which was employed in the present instance, applies only to the more serious forms of the disease. For the milder forms, and for the early stages, when dilatation has not been established, a very different class of remedies is required. I do not now consider these, as it is with the principle only I have to do. Only let me say that, among the remedies to be proposed, preventive measures to remove the cause are of the first importance, and can only be directed by a knowledge of the abnormal conditions in which the malady originates.

A man, aged 50, of highly respectable character, began to suffer from pain in the right hypochondrium twenty years ago; it was chiefly produced by the presence of food, so that he avoided eating. He then vomited, or rather eructated, clear fluid; and in process of time began to throw up his food about three hours after a meal. He lost flesh considerably, and had to leave work. These symptoms persisted, with varying severity, through six years; when one night, without any further change having occurred of which he was sensible, he was awakened by something giving way within him in the hepatic region, at the inner border of the costal arch; and a quarter of an hour afterwards, he rejected, without effort, about three pints of "thick, sticky, greenish" pus. Regularly for the next month, on awaking in the morning, he rejected about half a pint of the same matter, "of the colour of yolk of egg", and remained free during the rest of the day. My friend Dr. Underhill, who attended him, has been good enough to confirm the patient's description of the serious nature of the attack.

At the end of a month, the discharge began to lessen; but it continued for nine weeks longer in smaller quantity.

Two years later, the patient had a temporary return of the pain.

During the last two or three years, the same symptoms have returned, with still greater severity; one paroxysm of pain, eighteen months ago, Dr. Arthur Underhill tells me, had all the severity of hepatic colic. The stomach dilated, and, Dr. Underhill tells me, was often visible through the abdominal wall. After one of these attacks, the man threw up a large quantity of blood.

The patient entered the Birmingham General Hospital on June 16th, 1879. The stomach then reached half-way between the navel and pubes; sarcinous matter was vomited. The man was thin, but not cachectic; and there was no other physical sign of disease in the chest or abdomen.

On June 20th, washing out the stomach by means of the syphon-tube was commenced, and was continued daily, the patient falling into the use of the tube with great facility. The food was at first milk; but solids soon became necessary, in order to avoid keeping up the distension of the stomach, as well as for other obvious reasons. Solid food was given in the morning, immediately after cleansing, to gain the whole day for digestion; and with it was administered pepsine, with nitric acid and liquor strychniæ. From this day, amendment began. At admission, the patient weighed 114 pounds (his original weight had exceeded 168 pounds); on leaving the hospital, on September 4th, he weighed 150½ pounds, and had returned to ordinary diet.

It is noteworthy that, through his residence in hospital, his bowels acted quite regularly, and that the stools were of perfectly natural quality. A considerable deposit of fat upon the omentum, which took place with renewed nutrition, prevented our ascertaining the exact dimensions of the stomach.

When at home, however, he presumed too much on his improved condition, and neglected to wash out his stomach. He returned on November 24th, with renewal of all his former symptoms, and with his weight reduced again to 116 pounds; the distension of the stomach had somewhat increased. The same treatment was again employed, and was attended with the same fortunate results. He left the hospital on December 20th, with restored health.

On February 22nd of last year, he made his appearance, apparently quite well, and not having used the syphon for a month. He weighed 154 pounds. Since this date, however, fresh symptoms have set in, which do not fall within the purpose of my present remarks, but, I fear, are of evil augury.

THE CROTON-OIL TREATMENT OF TINEA TONSURANS.

By J. MAGEE FINNY, M.D.Dub., L.K.Q.C.P.,
Visiting Clinical Physician and Dermatologist to the City of Dublin Hospital.

THE intractable nature of chronic general ringworm of the hairy scalp, and its resistance to all ordinary medication, is a subject not sufficiently recognised by the profession. Dr. Alder Smith, in his admirable papers on the subject published last year, did good work in giving prominence to the frequency of the disease and its tendency to escape detection when diffused and chronic; but I am convinced that the difficulties in treating these cases can never be fully realised except after some practical experience.

I have been frequently consulted by parents and guardians about children with chronic ringworm of eighteen months or two years' standing. The story told is nearly always the same: that the child was either sent home from or refused admission into school because of ringworm; that medical advice was sought, and, after three months or so, the disease was pronounced cured, and the child returned to school; but that within a short time the disease seemed to break out again, and necessitated the child's removal, etc. The amount of personal inconvenience and disappointment, as well as of pecuniary expense and domestic disarrangements, to which such cases give rise, can hardly be estimated.

Now such cases are by no means uncommon, and they cast upon the profession an opprobrium not altogether undeserved. Any attempt, therefore, to remove this blot, and to establish sound principles of treatment for so troublesome a disease, deserves all attention.

For the last four years, since my attention was directed to the croton-oil treatment by an article which caught my eye in the *Jahresbericht* for 1876, I have employed it in some very aggravated cases, which had resisted all other means, and with great success. The cases for its application must be selected, as an indiscriminate use of so powerful a remedy will not only injure the scalp permanently, but bring unmerited discredit on a most useful means of rapid cure.

To the practical and sound suggestions as to its use made by Dr. Liveing in the JOURNAL of February 12th I can add nothing, as I fully endorse all that he says on the subject; and, as my practice has been almost identical with his in this respect, if I make any exception to this note of general approval, it would be to extend the rule as to the age of the child in whom it may be used with safety; for I have treated successfully cases between the ages of five and eight; and a French writer, to whom I will shortly more fully refer, has employed it in children between two and five years of age.

The method of application which I have practised is that of which Dr. Liveing speaks; namely, rubbing in the croton-oil by means of a stiff brush to the spot or spots of greatest severity; taking care not to use too much, so that neither may baldness be produced by destruction of the hair-follicles, nor any of the oil run down and irritate neighbouring parts.

Dr. Alder Smith, who, of English writers, first prominently advanced the benefits of croton-oil in ringworm, suggests it in the form of a liniment. This I have not used, and therefore cannot speak of its

merits; but I wish to refer those interested in the subject to another method of applying the oil, as it is one which, though I have not used it, theoretically commends itself to my mind, and which I have not seen alluded to by Dr. Alder Smith, or by any subsequent writers. At the same time, it will, I doubt not, interest the readers of the JOURNAL to know the name of the originator of this treatment and the date of its publication. This information is to be found in an article published in 1876, in *Le Bulletin Général de Thérapeutique* (p. 97), where the treatment of ringworm by croton-oil is most fully detailed. The writer, Dr. Ladreit de Lacharrière, recognising the difficulty of eradicating the *trichophyton* from the root-bulbs in chronic tinea tonsurans by the ordinary lotions, ointments, and applications, refers to the advantages of croton-oil in destroying the diseased hairs and stumps by a process of suppuration (or an artificial *kerion*), while leaving the follicles intact. He states that the treatment was successful in eighteen cases, the duration of treatment lasting from six weeks to two months; and the cases treated, as I have already stated, were of the tender age of from two to five years.

Instead of employing the pure oil, as I have done, Dr. Ladreit de Lacharrière thinks better results are to be obtained from using it mixed with cacao-butter and white wax, in the proportions of 100 parts of the oil to 50 parts each of the adjuncts; and he advises that it should be made in moulds, so as to resemble a stick of *cosmetique*, as thereby the croton-oil can be applied with great accuracy as to both extent and depth.

It would be interesting if further experience of this method were forthcoming, more particularly at the present time, when attention is being directed to the therapeutics of ringworm, and while the merits of a rival non-irritating application (in the shape of thymol, as recommended by Mr. M. Morris) are before the profession.

TRIPIER'S AMPUTATION OF THE FOOT.

By P. J. HAYES, F.R.C.S.Ed.,
Surgeon to the Mater Misericordiæ Hospital, etc.

THE description of a case, in which subastragalar amputation was performed, according to the method proposed by Dr. L. Tripier of Lyons, may be deemed worthy of notice, particularly as I believe this to be the first occasion on which the operation was subjected to the test of practice.

A countrywoman, aged 65, suffering from an epithelioma of large size, affecting the anterior and outer parts of the left foot, was admitted into the hospital on April 6th, 1880. The patient, though pale, did not present a cachectic aspect, and the lymphatics seemed free from traces of secondary deposit. As regards the history of her disease: twelve or thirteen months previously she observed a small hard tumour in the sole of her left foot, near the base of the fourth toe. This tumour gradually increased in size. The skin covering it became of a dark-greenish hue, and pressure upon it caused the patient great suffering. At length ulceration occurred at two points, and the openings gave vent to a fœtid blood-stained fluid. A "cancer-curer" was invited to treat the case; but the applications employed by him, though they caused pain, proved futile; and the woman, ultimately acting on the advice of a medical practitioner, became an inmate of the Mater Misericordiæ Hospital.

In the number of the *London Medical Record* for April 15th, 1880, will be found a lucid description of Tripier's amputation, written by Mr. Wagstaffe of St. Thomas's Hospital. Impressed by this article, and judging my patient to be just the kind of case for which the new operation would prove suitable, I resolved to practise it without delay. On April 20th, the patient having been brought under the influence of ether, and Esmarch's cord having been adjusted, I commenced an incision at the outer border of the tendo Achillis, on a plane one inch and a quarter below the point of the external malleolus. This incision was carried through the skin and subcutaneous tissue, in a direction at first forwards, then upwards, forwards, and inwards—so as to pass two finger-breadths above the projecting base of the fifth metatarsal bone, and to terminate on the inner side of the tendon of the extensor proprius pollicis, over the tarsal end of the corresponding metatarsal bone. The next incision was made from where the previous one terminated, in a direction downwards and forwards, so as to enter the inner part of the sole, one inch in front of the first tarso-metatarsal articulation. It was then carried outwards beneath the metatarsal bones; and, lastly, backwards, so as to join the first incision over the outer side of the os calcis. The deeper structures, corresponding to the dorsal wound, were next divided; then the knife was made to sever all the soft parts, from the plantar incision down to the bones; and, afterwards, a thick inferior flap was carefully raised until the under surface of the os calcis was exposed. At this stage, disarticulation of the scaphoid and cuboid from the astragalus and os calcis was effected, and separation of the plantar flap was continued until the point of the heel was turned; then the periosteum, covering the inferior aspect of the calcaneum, was incised in the antero-posterior direction, and detached from the bone up to the level of the sustentaculum tali. The exposed bone was divided, from within outwards, by means of Professor Spence's saw, so as to leave a broad flat surface level with the sustentaculum. All sharp angles were rounded off; whilst, to provide against the possible formation of neuroma, a high section of the posterior tibial nerve was effected from the deep surface of the plantar flap. The arteries were ligatured with carbolised catgut; the raw surface was everywhere bathed with a one-in-forty solution of carbolic acid; catgut sutures were used for the purpose of keeping the flaps in apposition; and a drainage-tube was inserted at the posterior angle of the wound, close to the outer edge of the tendo Achillis. Antiseptic dressings were employed for some days; and it only remains for me to add, that, within a month from the date of operation, the patient was able to walk about with the aid of crutches. The stump is now in a most satisfactory condition, being broad, even, and steady; whilst the movements of the ankle-joint are free and perfect as ever.

Surgeons who may desire full information respecting the arguments in favour of the new method, as contrasted with Chopart's and ordinary subastragalar amputation, will find an excellent *résumé* in Mr. Wagstaffe's paper. The experience derived from this first case induces me to form a high estimate of Dr. Tripier's amputation. It seems to possess all the advantages which have been claimed for it by the author.

PATHOLOGICAL MEMORANDA.

WORM-LIKE BODIES FROM THE BLADDER.

WITH reference to the case of "worm-like bodies from the bladder", recently brought before the Glasgow Pathological Society by Dr. Foulis, and reported in the JOURNAL of the 12th instant, may I be permitted to suggest that, however closely these bodies may resemble "arteries" in their microscopical appearances, it is scarcely possible that they should in reality be such structures. Is not the explanation of their true nature to be found in the following passage from Boerhaave's *Institutes?* He says: "When blood extravasated into the pelvis of the kidney congeals into grumes, as they pass from thence into the ureter and bladder, an obstruction is by this means generally formed either in the ureter or urethra. I have myself seen blood concreted so as to put on the shape of a worm in the urethra, from whence we were obliged to extract it by a hook. Of this disorder died that considerable anatomist, Drelincourt."

I may add that, shortly before I met with the foregoing extract from Boerhaave, Dr. King of this town showed me some bodies, of a curiously vermiform appearance, which were passed from the bladder by a male patient of his. I had no opportunity of examining them closely at the time, but I have now little doubt that they were portions of decolorised clot, which had been moulded in the ureter.

Notwithstanding what I may call their histological mimicry of "arteries", it seems at least highly probable that the specimens which were exhibited at Glasgow also consisted of fibrin, and had assumed their peculiar conformation in the ureter.

GEORGE F. ELLIOTT, M.D., Hull.

CLINICAL MEMORANDA.

ON THE PERIOD OF INCUBATION IN TYPHUS FEVER.

THE following notes speak for themselves.

Mrs. B., aged 33, was admitted to the City of Glasgow Fever Hospital on January 22nd, 1879, with a severe attack of typhus fever. On January 29th, I had a communication from Dr. Russell, Medical Officer of Health for Glasgow, regarding this woman and her husband's brother, who was a patient in the hospital. It seems that a girl named K., a niece of Mrs. B., had typhus in Port Glasgow, and, when convalescent, she came up to Glasgow, and stayed a night with the B.'s. That visit was the means of communicating the disease to the B.'s; and Dr. Russell wished to ascertain the period of incubation in these cases. The facts are these: Agnes K., convalescent from typhus, stayed a night in the house of the B.'s (December 26th, 1878); Mrs. B. was admitted here on January 22nd, on the tenth day of illness. The period of incubation in this case was seventeen days. The lad B. was admitted at the same date, on the fifth (?) day of illness. The period of incubation was twenty-two days.

Jane S., nurse, was admitted on February 28th, 1879 (Friday). This

was the patient's fifth day of illness. She became ill on Monday. She felt cold, and had a sore head; had shivering. Eight or nine days before that (she thought about that time), there was a typhus case in her ward, which she put to bed. After doing so, she was sick and vomited. She felt nothing wrong with her from that time up till Monday evening. It seems clear that she got her "dose" on that occasion, and that the disease had a period of incubation of eight or nine days; during which time she felt nothing wrong with her. Typhus rash was noted in this case. The patient died on March 9th, 1879.

It is an interesting point in connection with Case III that, during the period of incubation, she felt nothing wrong with her.

JAMES W. ALLAN, M.B., City of Glasgow Fever Hospital.

THERAPEUTIC MEMORANDA.

GELSEMINUM IN FACIAL NEURALGIA.

I HAVE had a good deal of experience in the use of gelseminum, both in my own person and that of patients. I have found it a reliable and safe drug in suitable cases, such being cases of neuralgia of the dental nerves due to carious teeth. In my own personal case, I always have recourse to it, and with success, as soon as ever I feel a twinge in a decayed tooth; and I have given it to patients under similar circumstances, with like favourable results when taken soon enough. In cases of facial neuralgia, however, involving other parts of the face, as the forehead and the temples, I have not had good results from it, and have latterly always limited its employment to cases where the neuralgia was apparently due to the condition of the teeth.

I usually prescribe the tincture in doses of ten or fifteen minims, repeated every half-hour or hour until the pain is relieved. I have never seen or experienced any deleterious effects, and, in my own case, have taken it at all times of the day and night, and in all positions.

W. DOUGLAS HEMMING, F.R.C.S.Ed., Bournemouth.

THE CROTON-OIL TREATMENT OF RINGWORM.

I AM glad to see, by his valuable paper on the subject, that the croton-oil treatment of ringworm has prospered in Dr. Liveing's hands. There are two essential points to be borne in mind in the local treatment of this disease, when it has become chronic, and has penetrated the deep hair-follicles of the scalp. The first point is that, whatever parasiticide is employed, it must be made to penetrate the hair-follicles. This may be brought about (1) by rubbing the parasiticide, whether in the form of an ointment or liniment, well into the part; (2) penetration may be greatly aided by using some subtle penetrating fluid as the vehicle for the remedy, such as alcohol, ether, benzine, turpentine, etc.; (3) by the removal of crusts, scales, and diseased hairs, which leaves a clearer channel for the entry of the medicaments. The second point to be remembered is that, if the efficient application of remedies as above indicated fail to remove the disease, and the complaint be of limited extent, and there exist no special reason in the case to contraindicate such measures, the parasite may generally be destroyed by setting up an inflammation that involves the cutaneous tissues as deep as the hair-folicles extend. This may be best accomplished by painting the affected part with strong croton-oil liniment (which may be repeated if necessary), so as to cause pustulation. It is necessary that the pustules should involve the tissues at least to the depth of the hair-follicles, and should be contiguous, so that there may remain no portion of the skin-structures between the pustules beyond the sphere of the inflammatory action. No permanent loss of hair nor sloughing has followed the use of croton-oil in this way in my experience.

I was led to adopt the plan of setting up local suppurative inflammation for the removal of chronic ringworm, by noticing in practice how repeatedly the disease disappeared from the tracts of skin where kerion had accidentally occurred. Croton-oil seemed the most suitable agent, the effects of which, when employed as a counterirritant on the chest, are familiar.

I advocated this form of treatment in a paper read before the Dermatological Section of the British Medical Association, at the meeting in August 1879, which was published in the BRITISH MEDICAL JOURNAL of May 29th, 1880. Dr. A. Smith also pointed out the advantages of croton-oil in the treatment of ringworm, in January 1880.

WYNDHAM COTTLE, M.B.Oxon., F.R.C.S.,
Assistant-Surgeon to the Hospital for Diseases of the Skin, Blackfriars.

DR. GILL of Scalloway, Shetland, has been appointed medical officer and public vaccinator to the parish of Ballantrae. There were twelve candidates for the appointment.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, FEBRUARY 15TH, 1881.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

Congenital Truncation of Forearm.—Mr. BARWELL showed two cases of this condition. In one, a young girl, there were four rudimentary fingers and a deep scar-like pucker; in the other, a middle-aged woman, the fingers were better developed, and there was distinct power in them of adduction and rotation. There was an indication of a palm, but no pucker, as in the girl. Mr. Barwell remarked that it seemed to be generally taught that this condition was due to intra-uterine amputation, brought about by constricting shreds and bands of lymph; but he had only been able to collect three cases in which the birth of the amputated limb distinctly proved this to be the case. Simpson thought that the scar-like pucker which was frequently seen, and which was present in the younger of the two patients now shown, was an indication of a flap, and that the small digits were evidences of rudimentary reproduction. This theory, however, he considered to be negatived by the slight power of rotation and adduction possessed by the woman; from this, and from a general consideration of the probabilities, he was inclined to think that the cases were instances of arrest of development.—Dr. NORMAN MOORE thought that this view was borne out by a reference to some facts in comparative anatomy. In the sirenia, which were closely related to the ruminants, and might be described as marine herbivorous animals, all traces of hind-limbs had disappeared, and the fore-limbs were shortened, had no external digits, and were, in fact, converted into paddles. In the amphibia, in whom reproduction of an amputated limb readily occurred, it was reproduced perfectly.—Dr. WILTSHIRE also supported the view that the condition was a rule due to imperfect development; the fingers were about the size of those of a fœtus of the third or fourth month. He pointed out that if the stunting of the arms and legs observed in cretinoid infants were carried somewhat further, a condition closely resembling that present in these cases would be attained. Intra-uterine amputation he believed to be a very rare event.

Tubercular Disease of Joints.—Mr. CROFT showed a number of microscopical sections of this condition, and gave a short account of the six cases from which the specimens were obtained; these included three cases of morbus coxæ, and two in which the knee, and one in which the ankle, was diseased. By "tubercle", he understood a small cell-growth, including epithelium and giant-cells, and a fine reticulum, the whole being non-vascular, and tending, with varying rapidity, to caseate. All the cases had been characterised by bad general health, tedious progress, and indolent swelling, with abscesses which discharged carious pus. Mr. Croft then read the report on the microscopical appearances, which had been furnished to him by Drs. Greenfield and Clifford Mercer (of Syracuse) who had conducted this part of the investigation. The *first* specimens were taken from a case of knee-joint disease in a young man aged twenty, who had a phthisical history. The limb was amputated, and the patient died thirteen months later from intestinal phthisis. One series of sections had been made in this case through the semilunar cartilage, and a fungating mass growing from it. The lower part of the cartilage was unaltered, but the upper layers showed signs of inflammation. Continuous with this was a layer of granulation-tissue, half an inch thick, vascular, and differing in no respects from ordinary cicatricial tissue; towards its surface, it was seen to contain a larger number of cells. Covering this layer, and in some places penetrating between it and the free edge of the cartilage, was a well-defined zone of a totally different structure, consisting of tubercular granulations in all stages of growth and caseation. The granulations were not, in many instances, at all typical, but they showed more or less distinctly the elements defined by Mr. Croft as in their combination characteristic of tubercle; and the layer was in every respect identical with the appearances found in a layer of tubercular material from the peritoneum or other membrane. Caseation tended to occur at an early stage, and fibrous transformation was rare. A second series of sections had been made through articular surface and bone, and neither of these structures showed any marked change; these sections also included a layer of vegetations at the articular margin; here the appearances were the same as in the mass springing from the semilunar cartilage. In some places, the synovial membrane was continuous over these tubercular vegetations, and appeared little altered. The *next* sections shown were made through the thickened synovial membrane from a case of hip-disease. Here a deep layer, consisting of the synovial membrane infiltrated by

granulation-tissue, a superficial caseous layer, and an intermediate layer of typical tubercular granulations with many vessels in their interstices, could be seen; very little caseation had occurred except at the surface, and the vessels traced towards this layer could be seen to have become gradually blocked by proliferation from their cellular walls. Sections of bone from the head of the femur showed to the naked eye a few gray granulations, and microscopical sections showed that these had the same structure as the tubercle in the synovial membrane. They were situated in the medullary tissue. The *third* series of specimens had been taken from a patient in whom Mr. Mac Cormac excised the head of the femur for disease of about one year's standing. The sections, made through the articular end of the femur and an overlying cauliflower-like mass of granulations, showed a condition very similar to that found in the first case. The cartilage showed merely a few cavities containing granulation-tissue, caseation in the tubercular layer was more general, and the tubercles were less well developed. The bone was unaffected. The *fourth* series consisted of sections of the synovial membrane from a case of knee-joint disease in a woman aged 20, who had had symptoms of local disease for two years. The joint was excised, the patient sank from the effects of the operation, and the *post mortem* examination revealed tubercular disease of lungs and spleen. The sections showed a layer of granulation-tissue and a layer of tubercular growth, but the line of division between these two zones was not so well marked as in the other cases. The tubercular layer also was thicker, but very typical in its structure, and caseating on the surface. The *fifth* series were sections of a swollen synovial fringe; the specimen had been imperfectly preserved, but showed in some parts an infiltration of the tissue with tubercle. The *sixth* set were taken from a patient with hip-disease who subsequently died of tubercular meningitis. The sections through the bone showed scattered tubercular granulation in the medullary tissue; the periosteum and synovial membrane contained none. Sections were also shown of the round ligament from another case of hip-disease; there was no tubercular disease, but merely evidence of active development of young tissue. With the exception of this case in which only the round ligament was examined, tubercle had been found in all the cases where bone and synovial membrane had been examined. In all the specimens three zones might with more or less clearness be observed—viz. 1. A superficial caseous zone; 2. A zone of tubercular material; 3. A zone formed of the synovial membrane infiltrated with granulation tissue. In this last zone, and in the bone beneath, scattered tubercles were to be found in some cases, but never in the cartilage. Mr. Croft did not hesitate to describe the changes as tubercular, for the structure was such as was met with in the rapid growth of tubercle elsewhere, and such as was nearly always seen in some parts of tubercular infiltrations in other organs, especially the spleen and liver; further, in the cases where the tubercular structure was most typical, tubercle was found elsewhere, in the meninges or the lungs. The clinical history in these cases was just like that of cases undoubtedly tubercular; and in the third case, where the tubercular development was least typical, there was extensive tubercular disease of other parts. He thought that the cases raised many points worthy of inquiry. The microscopical appearances and clinical history proved that the disease was tubercular, and not merely chronic inflammation; inflammation had probably first been produced, and upon that followed the tubercular development. Did the disease in the synovial membrane form a focus for systemic infection? In five out of the six cases, there was no evidence of disease of any organs antecedent to the joint-trouble, so that he thought this latter condition might be considered to be really primary. Since then, tubercle was non-vascular, and rapidly tended to caseate, and since such caseous collections could act as the foci from which systemic infection occurs, was not early removal indicated? He thought that a special class ought to be formed for primary tubercular disease of synovial membranes, and quoted Volkmann, Köster, Cornil and Ranvier, and Wilks and Moxon to this point. Mr. Croft agreed with Volkmann in thinking that the cases were rare and most unfavourable, the patients dying, as a rule, of pulmonary or intestinal phthisis. As to whether there was a true primary tubercular arthritis, he quoted from the manuals of Erichsen, Holmes, and Bryant, to show that in the estimation of English surgeons the cases were very rare. Wilks and Moxon gave only one case; and the only microscopical examination he knew, had been presented to this society by Mr. Godlee a few years ago. Billroth, König, and other German surgeons, on the other hand, maintained it to be very frequent. Volkmann taught that the disease began in the bone, and was throughout tubercular. Cornil and Ranvier said that the cases had not been sufficiently described, and were generally confounded with strumous arthritis. He hoped that this communication might stimulate inquiry, and reconcile the differences existing between the English and German opinion.—Mr. MAKINS showed specimens from a case of tubercle of the synovial membrane from the elbow. The man had no history of tubercle or signs of tubercle in other organs. The tubercle was confined to the synovial membrane, and did not occur in the bone. In reply to Dr. Powell, he added that there was no family history of phthisis, and the joint had never been injured.—Dr. DOUGLAS POWELL pointed out that Mr. Croft's cases showed the influence of injury in determining the onset of the disease, just as it might determine an attack of gout or rheumatism in a joint; they also showed that tubercular disease of joints, for it could not be doubted that the cases were really tubercular, might set up general miliary tuberculosis. The suggestion of primary miliary tuberculosis of one joint was very striking, and he felt a little scepticism on this point.—Mr. BRYANT could not resist the conclusion that these cases were really tubercular, but that did not involve the admission that tubercle was the primary disease, for tubercular disease of bones or joints was rare, and, as a rule, associated with tubercle in other parts. Such cases he had seen, and they did not differ clinically from ordinary chronic cases of disease of joints, and often ended in phthisis or tubercular meningitis. He thought that in Mr. Croft's cases the tubercle was secondary; and believing this to be so, at any rate in the vast majority, he was not inclined to make a special class of tubercular disease of synovial membranes.—Mr. GODLEE asked whether, in cases of supposed tubercular disease, the synovial membranes had been found free from tubercle; and whether they had been found in patients presumably free from tubercle. In the case he had reported to the Society in 1877, there were no naked-eye signs of tubercle; he still thought that the changes seen were merely one phase of the changes which occur in chronic inflammatory products. He questioned whether there was not danger in assuming any microscopical structure to be diagnostic of tubercle.—Mr. BARWELL said that chronic inflammation of joints frequently followed some injury; in such cases caseous patches might be found, and the patients often died with tubercle in other organs. He thought that tubercle occurred in inflammatory products and not in the bone proper.—Mr. MACNAMARA had made many examinations, and believed, with the German surgeons, that a growth quite indistinguishable from tubercle did frequently occur in the medullary structure of bone; he had also seen it in synovial membranes, especially that of the ankle-joint—typical miliary tubercle. Cases of joint-disease with continued high temperature were almost always tubercular, and ended in tuberculosis of other organs; tubercle might first be formed in the bone, especially at the junction of the diaphysis and epiphysis, or it might be primary in the synovial membrane. Injury often seemed to be the determining cause, and most of the cases occurred in tubercular families.—Mr. TREVES, while he thought that the synovial disease was undoubtedly tubercular, doubted whether this was the case in the bone. Giant-cells were not characteristic of tubercle.—Mr. CROFT, in reply, said that he had not given the clinical history of his cases, because he thought the existence of such a condition as tubercular disease of joints ought first to be proved. In reference to the frequency with which tubercle occurred, he pointed out that it was easy to overlook it when present, unless microscopical examinations were made; further, what appeared to the naked-eye to be tubercle, might not be of that nature. He had carefully defined that he meant by tubercle a certain combination of elements; he did not pretend that giant-cells alone, or reticulum alone, were characteristic. He was glad of the support of Mr. Macnamara, who had made microscopical examination in such cases. He had himself only examined the cases now detailed. He had wished to raise the question of the relationship between tubercle and inflammation of joints, and to point out the frequency with which the former condition occurred.

Abscess of Liver.—Dr. ANDREW CLARK showed a specimen of abscess of the liver. The patient was a master-mariner, aged 40. His personal and family history was remarkably good; with the exception of a fever about seven years before, he had never suffered from any illness until June 1880. About that time, and shortly after leaving Calcutta on the homeward voyage, he began to feel ill, to lose flesh and appetite, and was feverish at times. He landed at Natal, and in the hospital there was told that he had an enlarged liver; not improving, he pursued his journey to England, and soon after his arrival was admitted into the London Hospital. When first seen, he complained of an indefinite feeling of illness, of loss of flesh, and occasional night-sweats. There were no physical signs of disease in any organ, beyond that the liver appeared to be smaller than natural, but there were no tender spots; the bowels were constipated. Dr. Clark thought that his symptoms were due to the presence of pus somewhere, not improbably—as he came from India—in the liver; this view was confirmed at the next visit by the discovery, over two limited areas at the right pulmonary base, of dry pleural friction-sounds. Dr. Clark

diagnosed a collection of pus in the middle of the right lobe of the liver, at the upper and posterior part. An aspirating needle was introduced from the axilla, and passed from right to left through the organ; after some little difficulty, about ten ounces of reddish yellow matter were drawn off. For about a week after this there was marked improvement, but at the end of that time the old symptoms returned, and physical examination revealed that the liver reached upward in front as high as the nipple, and a little higher behind; over the liver a dry friction-rub was heard; and the right lung was consolidated as high as the middle of the scapula. After a consultation, it was determined to lay open the abscess, and treat the wound antiseptically. As, however, at a preliminary aspiration—in which the needle was by an oversight, not recognised at the time, passed from before back—no pus was found, this intention was abandoned. The patient died a few days later; a short time before his death he coughed up some pellets of the colour of the matter drawn off at the first aspiration; elastic tissue from the lung was found in these pellets, and also evidence of bile-pigment. *Post mortem*, an oval abscess was found in the middle and back part of the liver, reaching as high as the level of the root of the lung; in the liver-tissue around it were numerous smaller abscesses. The anterior surface of the liver was not adherent to the abdominal wall. The large intestine showed numerous ulcers extending from the caput cæcum to the hepatic flexure; none of those ulcers were of long standing, but those in the neighbourhood of the cæcum were older than those higher up. Dr. Clark remarked as to the origin of the abscess, that it was probably embolic, but he was not satisfied that the embola came from the ulcers in the intestine, for they were evidently so recent that he questioned whether they had preceded the abscess. The lessons which he thought might be learnt from this, and other similar cases he had seen, were three: first, that where the liver is small, and there are no tender spots, the pus is more likely to be found if the aspirating needle is passed from right to left; secondly, that friction, however extensive, does not prove that the pleural or the peritoneal surfaces are adherent; lastly, he thought that in this case it would have been wiser to open the abscess antiseptically as soon as pus was found.—Dr. GREENFIELD inquired whether the heart was displaced, as in several cases he had seen this had clenched the diagnosis; also whether, after the puncture, there were any rigors pointing to the occurrence of a secondary pyæmic process.—Dr. ANDREW CLARK said that the heart was not displaced; after the puncture, fresh abortive rigors with sweatings and rises of temperature did occur.

Mr. SHATTOCK showed by card a congenital sacral tumour; also drawings of the microscopical appearances.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, JANUARY 29TH, 1881.

A. W. FOOT, M.D., President, in the Chair.

Myelo-Sarcoma of the Leg.—Dr. BOYD showed a specimen of this form of new growth, for which he had amputated the left leg of a young woman aged 20. The operation was that recommended by Mr. Teale. Necrosis of the fibula had occurred three years previously. The tumour was a typical example of a giant-celled chondro-sarcoma. Commenting on the case, Dr. Bennett said an interesting feature was the origin of the new growth in an injury. It began, probably, in the granular tissue left after the necrosis.

Rupture of Left Ventricle of Heart.—Dr. CORLEY presented the heart of a man aged 70, who had suffered from symptoms of mild angina pectoris for two years, and who was of intemperate habits. He died suddenly in the recent cold weather. The kidneys were intensely congested; they contained some cysts. The lungs were congested, and in them were scattered cheesy or calcareous deposits. The aorta was stained and atheromatous, particularly near the origin of the intercostal arteries. The right heart appeared healthy; but in the posterior aspect of the left ventricle a rupture existed, extending an inch and a quarter towards the apex. The pericardium was full of blood.

Rupture of Right Auricle of Heart.—Dr. DUFFEY showed the heart of a man aged 65, stated to have enjoyed good health, who, after a "weak fit", was admitted to hospital in extreme syncope. His pulse was very weak, but perceptible. He died in an hour. The pericardium was filled with fluid and clotted blood. A large rent was found on the posterior and upper surface of the right auricle; it ran obliquely, and was three-quarters of an inch in length. Fat lay three lines in depth on the surface of the right ventricle. The aortic valves were diseased. Dr. Duffey quoted statistics to prove the exceptional occurrence of rupture of the right auricle.—In the discussion which followed the exhibition of these two specimens of rupture of the heart, Dr. HAYDEN expressed his conviction that, in all such cases, antecedent structural degeneration of tissue would be found to have taken place. He believed that the internal muscular strata always ruptured first, and more extensively than the outer layers. This was indicated by a marginal infiltration of blood, which was nearly always to be observed round the site of rupture.

Thrombosis of Pulmonary Artery.—Dr. C. J. NIXON laid before the Society the heart and lungs of a girl aged 28, admitted to hospital deeply cyanotic. She improved for some days, but died suddenly at 6 A.M. to-day (January 29th, 1881). A prolonged presystolic murmur, which was present, was considered to indicate extreme mitral stenosis. After death, a large thrombus was found extending from the right ventricle into the pulmonary artery and its main branches. The lungs were remarkably bloodless. The left auricle was much dilated, and presented signs of endocarditis. There was considerable mitral stenosis. The chordæ tendineæ of the anterior segment of the mitral valve were much thickened. The walls of the left ventricle were greatly enlarged, presenting an example, as Dr. Hayden suggested, of what was perhaps the "concentric hypertrophy" of Cruveilhier. The cusps of the mitral valve were thickened at their free margins.

Empyema opening into the Œsophagus.—The PRESIDENT submitted a specimen of right empyema from the body of a man aged 48, who had been under the care of his colleague Dr. J. W. Moore in the Meath Hospital. The empyema was confined to the posterior part of the chest by dense adhesions. The pus had invaded the posterior mediastinum, and, burrowing across in front of the aorta, had come into contact with the œsophagus. Two sloughy apertures, close beside each other, existed in the right side of the œsophagus. The empyema had not evacuated itself to any great extent by this channel. The sac contained about a quart of pus. It was circumscribed, being bounded anteriorly by the condensed lung. The patient died after an illness of about nine weeks, in a state of dyspnœa (from collateral œdema of the left lung), cyanosis, and general anasarca, particularly of the left side of the chest and left arm.

SATURDAY, FEBRUARY 5TH, 1881.

A. W. FOOT, M.D., President, in the Chair.

Epithelioma of Rectum.—Dr. E. H. BENNETT exhibited the lower intestine and bladder of a discharged soldier, aged about forty-five years, who was admitted to hospital for obstinate diarrhœa and vomiting. He had suffered from intermittent fever. A rectal examination revealed the presence of a tumour, with a nipple-shaped projecting and central opening, as far up the bowel as the finger could reach. The diarrhœa was, therefore, regarded as due to obstruction. The patient began to complain of piles, and finally sank from asthenia. The tumour presented all the characters of an epithelioma. The ulceration had perforated the intestine, and opened into the pelvic areolar tissue, where it had caused the formation of a large diffuse fœtid abscess. The bladder was healthy.

Cirrhosis of the Lung.—The PRESIDENT showed an example of this condition, taken from the body of a policeman, aged 30, who died suddenly from profuse hæmorrhage. The physical signs over the left apex had been absolute want of expansion, dulness of the densest kind, and a multitudinous crackling ("cirrhotic crackling" of Jürgensen). The body was examined twelve hours after death. Hypostatic congestion was fairly visible. Cadaveric rigidity was strongly marked. The left lung was reduced to one-third its original size. It was condensed and indurated. There were dense pleural adhesions. Bronchiectasis was present, but not to any great degree. Both lungs were the seat of an extensive tubercular infiltration, under the form of clusters of soft, dirty yellow deposits, of the size of hempseed. Two vomicæ, as large as hazel-nuts, lay in the apex of the right lung, which was enlarged and hyperæmic. It was probably the source of the fatal hæmorrhage.

SURGICAL SOCIETY OF IRELAND.

FRIDAY, FEBRUARY 4TH, 1881.

E. D. MAPOTHER, M.D., in the Chair.

Adjourned Discussion on Mr. William Wheeler's Communication.—Mr. H. FITZGIBBON considered that where untoward results, such as mortification, occurred in cases treated after Lister's method, the blame was not to be attributed to carbolic acid, but often rather to some neglect on the part of the surgeon: perhaps too tight and long-continued use of Esmarch's bandage, causing strangulation of the vessels and consequent diminution of temperature in the stump—an effect still further increased by the use of a cold spray. The solution of carbolic

acid used ought to be heated to 80° Fahr. Further mischief was often caused by the use of impure carbolic acid, and by vicious methods of holding it in solution in the water, such as the employment of glycerine, the effect of which was that, not unfrequently, the glycerine and carbolic acid accumulated into globules in the bottom of the vessel, and might thus often be sucked into the spray almost pure. If the carbolic acid used was not free from impurities, it smarted the hands of the operator—a result not to be experienced when the best quality carbolic acid was employed. The gauze also only produced an eczematous eruption round the wound when it was improperly prepared, oil being the ingredient often most wanting. A great advantage of the Listerian method of treating wounds was, that if sloughing did occur, if the flap did mortify, it did so without putrefaction, without smell. This was too often the reverse of what happened in cases treated without Listerism; and although many cases might eventually turn out great surgical successes without the employment of antiseptics, yet the comfort to the patient, the attendants, and in hospitals the neighbouring patients, arising from this immunity from fœtor was immense. It was true that many cases were unsuitable for the employment of carbolic acid; chronic abscess, for instance, where there was an old-standing pyogenic membrane. In such cases, free suppuration and granulation were necessary to throw off and get rid of the membrane; and carbolic acid, by retarding suppuration, retarded the cure. But healthy or freshly made wounds were quite otherwise affected, and would heal without the formation of pus.—Dr. J. K. BARTON said that he had lately a case of excision of the knee in a boy aged seven years, in which a kind of experiment had been tried regarding the merits and demerits of the spray. The operation was performed antiseptically, and in the first and second dressings also the spray was assiduously worked; after which the boy took such a hatred to the spray, that they could not continue its use. Free suppuration then occurred in the wound, which was treated for three weeks, but was healing up very slowly. The spray was again employed, with a marked benefit to the boy, checking suppuration, and hastening the healing process.—Mr. WILLIAM THOMSON considered that, as a series of cases, the results obtained by Mr. Wheeler were quite impossible if Listerism was properly carried out, as they were entirely at variance with the results obtained by other surgeons. He wished to ask Mr. Wheeler what were his theories of suppuration; for if he believed in the germ-theory, his precautions were quite inadequate; if he did not, they were unnecessary. He did not pretend that Listerism was the only method of treatment by which good results could be obtained; but that it was the method most likely to yield the best results of any which had been yet introduced.—Mr. STACK said that he denied Mr. Wheeler's major premiss; he denied that the cases treated by him could have been treated in accordance with Lister's method. The best place to study the action of antiseptics was the cavity of a tooth. A tooth in which there was a mortified nerve might, by the help of carbolic acid, be sealed up; whereas, were the carbolic not used, suppuration would be sure to follow, with its attendant toothache.—Dr. QUINLAN, Dr. KENNEDY, and Dr. PUREFOY, also took part in the debate.—Mr. WHEELER, in reply, said that he considered he was perfectly justified in making a distinction between "Listerism" and "antiseptic surgery". By the latter he meant drainage as introduced by Messrs. Callender and Heath, rest as advocated by Hilton, and surgical cleanliness. By "Listerism" he meant the spray and the gauze, which were not essentials in the carrying out of "antiseptic surgery". The spray should be employed only by those who believed in washing the air of its impurities. Mr. Stoker had stated that he never heard it claimed by the opponents of Listerism, that worse results were obtained by it than by other methods, although results as good had been claimed, and regarded it as a suspicious circumstance in the report of the cases which he (Mr. Wheeler) had brought forward; in reply to which he would wish to direct Mr. Stoker's attention to the literature of the subject, and particularly to the journals recently issued, in which high authorities stated that better results had followed their practice since they gave up Listerism. Volkmann had even ascribed some of his unfavourable results to what he termed aseptic fever. Mr. Fitzgibbon stated that some of his (Mr. Wheeler's) cases "smelled", but that cases of gangrene, when dressed according to Lister's method, did not. This he denied, and referred to a case quoted in his paper, in which a gangrenous stump was most offensive, although treated according to Listerism. Perhaps one or two of his cases might have smelt a little; but he maintained that the same might occur with rigid Listerism. He invited any member present to go up to the City of Dublin Hospital early any morning, and examine his cases for themselves, and see if they smelt offensively. Mr. Thomson had appeared surprised at the mean highest temperature in the cases treated by Listerism being higher than that of those treated antiseptically; but he would remind Mr. Thomson that it was the experience of many surgeons, that as the strength of the spray was reduced (making it incompatible with Lister's doctrines), the temperature was proportionally reduced; and in an ovariotomy performed after Lister's method, a temperature of 107.2° was registered. He regretted that Mr. Thomson had adopted that hackneyed explanation, that something must have been missed in carrying out Lister's treatment: it was a *petitio principii*, a mere begging of the question, to make such an assertion; for if he could have some of his cases resulting as it was stated all should when treated with the spray and the gauze, it was a mere assumption to say that those of his which did not come up to the promised standard had failed through misapplication. In conclusion, Mr. Wheeler alluded to a statement, in the BRITISH MEDICAL JOURNAL, of Mr. Spencer Wells, where it was asserted that the mortality in his practice had certainly diminished as his experience had increased, and that his death-rate was exactly the same as in his last two years of hospital practice without special antiseptic measures; also to an article, in the same JOURNAL of January 29th, 1881, where it was asserted that the spray was not by any means absolutely essential for antiseptic work or aseptic results.

BATH AND BRISTOL BRANCH.

THURSDAY, JANUARY 20TH.

ALEXANDER WAUGH, Esq., President, in the Chair.

Transference of Senses.—Dr. J. G. DAVEY read a paper on the transference of senses. The subject of this paper was a woman, forty years of age. About puberty, she was liable to syncopal attacks, probably hysterical; at nineteen, she married; five years later, her spine was said to have been injured by a fall, and epilepsy was stated to have followed. About this time, she sustained a severe shock through the death of a child, and her legs became very weak; she was also unable to take solid food. For the last fourteen years, she had been bedridden. In 1870, she became blind; in 1871, deaf; in 1874, speechless; in 1879, the upper limbs became paralysed. At the present time, she usually lay semi-recumbent, with the eyes closed (when sight was first lost, the eyes remained open for years). The masseter muscles were in a state of constant tetanic rigidity, and food was inserted through a gap in the teeth. There was complete paralysis of the left arm and of both legs, but no paralysis of the right arm. The knees were flexed upon the thighs at an acute angle. The special "transference of sense" was shown by a power of "seeing" with the fingers and the palm of the right hand. If a picture were given to her, she would pass her fingers slowly over it, often also placing it to her lips and chin, and she was then able to describe it. Care had been taken to prevent deception: the eyes had been covered with cotton-wool and a bandage, the room had been darkened, and her daughter (her constant companion) had been absent; but the picture was described notwithstanding. The patient communicated with those around by writing on a slate, or by a muffled speech with the lips closed; while her friends wrote what they wished to say on her cheek with the finger, and she at once understood them (in this there was nothing remarkable, as with a little practice any one could do the same). Her daughter, however, had only to come into close contact with her in order to the interchange of ideas, without any such writing on the cheek. It was also said that she had foretold Dr. Davey's visits; and that she could detect by "sympathy" letters from her friends. Although said to be perfectly deaf, she was fond of music; if any one took her hand and sang to her, she would whistle the contralto, or join in the air. She was also said to possess the "clairvoyant" faculty, and to be able to tell what was going on at a distance. This remarkable case must not be looked upon as exhibiting any supernatural phenomena; it must be considered from a purely physiological stand-point. It exemplified the "law of compensation", just as much as did the increased action of the kidney in cold weather to make up for diminished secretion by the skin. The eyes could not fulfil their function; and, therefore, the power of sight was transferred to the right hand. In the lower animals, analogous facts might be seen. Molluscan vision was not seeing, but feeling. Again: Lewes defined vision as a "combination of sensations of touch, and of temperature of a certain kind"; and said, that "we see very much by the aid of our fingers". Spallanzani's bats flew about and caught their prey, and avoided obstacles, just as well without eyes as with them, "seeing" by means of their exceedingly sensitive wings. With regard to the clairvoyant faculty which existed in this case, it was the power of noticing impressions produced by a subtle agent, "vital mesmerism", which was generally overpowered by the coarser senses. Clairvoyancy consisted in the shutting out of the latter, so that the former could be perceived; and in some cases, as in the present, this power could be brought into play by voluntary concentration.—Dr. LONG FOX had seen the patient, who refused to describe pictures in his presence; but the following was her

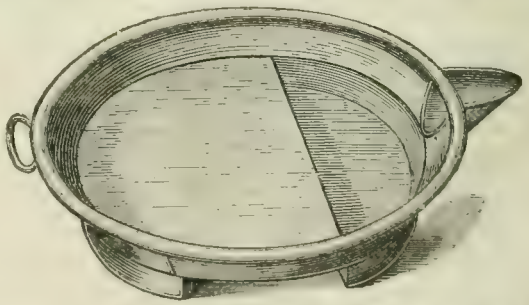
physical condition. She had perfect use of the right arm (which, it was noteworthy, had more than once been paralysed). The left arm was not used, and was anæsthetic up to the deltoid; but, above this, sensation was normal. There was anæsthesia of the left side of the head and face, and of both legs. The knees were tightly flexed on the thighs, but the thighs were not bent on the trunk (the patient, therefore, sat on her heels). The knees were so rigid as to defy extension; but the toes were quite lissom. There were no abrasions on the legs after ten years' paralysis; and the patient could raise herself off her ankles to wash the legs. The sphincters were unaffected. As to the asserted trismus, was it possible that this, if due to organic lesion, could persist thus for eleven years? There was no motor paralysis of the face; the double ptosis was only apparent, but there was resistance to opening the eyes. There was great sensitiveness to touch, and to vibrations in the air; and the lips were quite as sensitive as the fingers. The phenomena were probably not due to organic disease, caused by the fall in early life, but to hysteria: for it was especially to be noted that the limbs were never cold, the muscles not atrophied; the thighs were not flexed on the body; the sphincters were unaffected; and the right leg was as bad as the left. The patient must not be considered as a humbug; she was diseased, perhaps physically, certainly very much mentally. Ten years ago, something might have been done; but now, her condition had been so fostered by attention and notoriety as to be probably incurable.—Dr. MARKHAM SKERRITT had had an opportunity of seeing the patient, through the kindness of Dr. Davey, and had been able to test her reputed power of visual perception by means of touch. When a photograph was given her, she first passed the fingers of the right hand firmly all over it, and then rapidly applied it to her lips; this was done in such a way as to make it difficult to keep strict guard over her eyes. While precautions were taken to guard the eyes, the patient made mistake after mistake; but, when allowed to proceed in her ordinary way, she described the same pictures with the greatest facility. The eyelids could be separated with difficulty, owing to muscular opposition; but the pupils were seen to be normal, and to act to light. No ophthalmoscopic examination was suggested, as it would not have been allowed. A lamp was burning in the room, and, when it was turned down, the patient was at once aware of it, in spite of her blindness, and objected strongly. There was also evidence to justify a doubt as to her inability to hear. As to the reputed trismus, there was apparently no abnormal tension of the masseters when the patient's attention was not directed to them. The patient spoke with the mouth closed, pronouncing fairly well all letters, except labials; and it was plain that the only obstacle to perfect speech was the closure of the lips and teeth. There was certainly not complete loss of power in the left arm, which was supposed to be paralysed: for when the patient became excited, she moved the hand with considerable freedom, and supported the forearm by the action of its own muscles. The sense of touch was highly cultivated, but apparently not more so than in many cases where there was no pretence to any extraordinary power. The examination of the physical condition of the patient led to the opinion expressed by Dr. Fox, that there was not sufficient evidence of any organic lesion. The patient was of a highly nervous temperament, easily excited, laughing and crying on slight provocation; and the case appeared to be one of the group commonly known as "hysterical". The examination did not afford sufficient evidence of the existence of any unique power of perception.—Dr. BONVILLE FOX asked whether the patient always applied the pictures to her lips, and whether she recognised most easily those that were elevated on the surface; also, whether she might not be aided by her daughter? What had been the effect of galvanism? Hemiplegia and hemianæsthesia occurring on the same side was commonly a hysterical condition.—Mr. COLLINS asked whether the patient was dependent upon charity for her living. Many years ago, he had seen a very similar case, where the symptoms lasted several years, and then gradually disappeared; and the patient married, and had children. The present case was certainly not above suspicion. Dr. BUCKLER took exception to the saying, that "seeing is believing". The apparent evidence of the senses must be rigidly examined in the light of "common sense". Dr. SHINGLETON SMITH thought that Dr. Davey's theory was so opposed to all the ordinary phenomena of disease, that it would need the strongest possible evidence to secure its acceptance. The query as to the existence of any possible motive for deception in this case was of importance. It was desirable to know the state of the electrical reaction of the muscles, and the condition of the optic discs. Dr. Davey had referred to instances in the lower animals, where one sense appeared to take the place of another; these illustrations were not to the point, as the organs of sense in these animals had developed by a process of evolution, extending through many generations whereas, the case under discussion was an isolated instance. All that could be inferred was, that the sense of touch in this patient was very highly developed.—Mr. S. H. SWAYNE asked whether any pictures had been given to the patient with the wrong side uppermost.—Dr. MARKHAM SKERRITT said that photographs were given her with the face downwards, and that she detected this; but he thought that anyone could distinguish the right side from the wrong by the sense of touch.—Dr. DAVEY, in reply, said that the patient was dependent upon charity. Electricity had been tried formerly, without effect; his own treatment had been only palliative. He maintained strongly that there was no deception in the case; the tests had been applied under the most stringent precautions; and he was fully confirmed of the truth of his statements.

Freezing Microtome.—Dr. ROXBURGH exhibited a new freezing microtome, and demonstrated its mode of use. The instrument was the invention of his friend, Dr. Roy of Cambridge. It consisted of a stage on which any fresh specimens could be placed; and the tissue was frozen by the play of an ether spray upon the under surface of the stage, so that the ether did not touch the specimen. Above this stage was an arm, in which any razor could be fixed; and, by the horizontal sweep of this arm, the razor was made to cut sections of the frozen specimen with the greatest rapidity and accuracy. The advantages of this instrument over others were these: that it was really a microtome, cutting sections, and not merely holding them firmly for cutting by hand, as in other instruments; and that the process was very rapid. The specimen could be frozen in one minute, and the section cut and placed upon the slide in another.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MESSRS. GROOM AND CO.'S HYGIENIC SPONGE-BATH.

THE luxury and healthful tone imparted to the system by cold sponging is one that would not be easily dispensed with by those who habitually use themselves to it; yet it has always had its drawbacks to persons of delicate constitution, owing to the necessity of having to stand in cold water during the operation, which the medical profession generally condemn. To obviate the objection, impromptu devices are indulged in by many, such as placing a stool in the centre of the bath, with the danger of its upsetting in stooping; while others have a basin of water at the side, from which they draw the supply, by that means lessening the quantity in which they stand, or reducing its temperature slightly by passing it over the body first. But it is singular that, in the present age of invention, no appliance to overcome the difficulty appeared until Messrs. Groom and Co. introduced, a few months since, their "well and dry platform sponge-bath". Our illustration clearly shows the



arrangement. Nearly two-thirds of the bath are covered with a platform, on which the bather stands; the remaining portion forming a well or receptacle for the water. By this means, economy in time and water is secured; and, in winter, a small quantity of hot water poured over the platform will keep the feet warm during the period of bathing. The success that has attended the introduction of this bath is a convincing proof that such an invention was required. From their numerous customers (the ironmongers in different parts of the kingdom) Messrs. Groom have ample testimony to convince them that it is appreciated, and that many gentlemen of the medical profession have taken it up. During the winter months—a time when, generally speaking, sponging baths are not much sold—orders have been continually received, which is the best proof to which the inventors can point in commendation of it; and we have no doubt that during the coming season the demand will be considerably increased.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, FEBRUARY 26TH, 1881.

REGULATION OF HOUSES LET IN LODGINGS.

THE Local Government Board, after taking five years to consider the subject, have issued a draft form of model by-laws for the use of sanitary authorities, on the important matter of "Houses let in Lodgings". The memorandum attached to them is useful, as it sets out and explains, amongst other matters, the section of the Public Health Act, 1875, under which the local authorities can make the by-laws, after the Local Government Board has declared in the *London Gazette* that they may take this step. After stating the well-known provisions of the Act, the Local Government Board points out that, in the absence of any express limitation to their scope, the by-laws might be made to apply to every house, not being a common lodging-house, which is let in lodgings, or occupied by members of more than one family. They, therefore, after giving an interpretation of the terms "lodging-house", "landlord", and "lodger", propose that there should be two kinds of exempted houses, that is to say, when the rateable value of the house exceeds a certain sum to be fixed by the local authority, and the rent or charge payable by each lodger in (1) unfurnished, and (2) furnished lodgings, "shall be at the rate or in the proportion of not less than —— per week". This is a very useful provision, as it enables each local authority to determine what is to be the rateable value of a house let in lodgings, which will exempt the owner and occupier from the periodical visits of an inspector, and the penalties for neglecting to carry out the Act. It is evident that a hard and fast line as regards the rent of a room or rooms would act most unjustly, as the value of house property varies so largely in various parts of the country; but it is to be hoped that too small a sum will not be fixed by the local authorities. The basis of this exemption appears to be a decision in the Court of Common Pleas Division, that lodgers of a certain social position can exercise the necessary supervision themselves to obtain proper sanitary requirements. We know that this does not obtain to a very great extent, especially amongst lodgers at health-resorts, but it is hardly possible that any other course could have been taken.

The landlord, that is to say, the person who receives, or is entitled to receive, the profits from letting lodgings, shall not suffer a larger number of persons in a room used exclusively as a sleeping apartment than will allow three hundred cubic feet for each person above ten years of age; or, in a room not used exclusively for that purpose, a space of four hundred cubic feet; children under ten years of age to have half this amount. In every case, it is to be "free air-space", which, we understand, is exclusive of furniture. This is important, as many small rooms are sometimes occupied to a fourth of their space by furniture, which is generally not deducted; but, in addition, the standard is higher than that already legalised by former Secretaries of State in many parishes and districts, especially in the metropolis. In the memorandum, it is stated that, if local authorities shall find it practicable to increase this space for each occupant of a lodging-house, "the board will gladly facilitate the confirmation of new by-laws for that purpose". This sentence shows that the Local Government Board is getting more alive to their duties and responsibilities. Under regulations 5 and 6, lodgers in a lodging-house underletting the rooms, are placed under the same restrictions as landlords. In the memorandum, it is assumed that, when the maximum number of inmates has been fixed by the local authority, tickets or placards will be supplied to the landlords and lodgers for affixing to the walls or other suitable places, showing how many persons may occupy each room.

Another important regulation is, that the landlord of a lodging-house, or his agent, shall, within — days after receiving notice from the clerk, attend at the office of the local authority, during office hours, to furnish and sign a true statement respecting (1) the total number of rooms in the house, (2) the number of rooms let in lodgings, (3) the manner of use of each room, (4) the number, age, and sex of the occupants, (5) the Christian name and surname of the lessee of each room, and (6) the amount of rent payable by each lessee. The two latter provisions may seem at first to be unnecessary, but their object clearly is to fix the responsibility of overcrowding on the person causing it. It is also provided that the landlord or person having the control of the front door shall give the medical officer of health, inspector, or surveyor, free access for the purpose of inspection; and every lodger shall afford free access to his room or rooms, and shall not obstruct the inspecting officer.

Under the regulations regarding water-closets, earth-closets, and privies, which are very numerous, we find the important provision, that there shall be one such place for every twelve persons, which is a decided advance on what is considered in many places to be sufficient "privy accommodation", viz., one for each twenty persons. The regulations for the construction of water-closets might be most usefully enforced for all houses hereafter to be built. They are briefly as follows: 1. One side of a water-closet at the least shall be an external wall, having (2) a window, of not less dimensions than two feet by one foot, opening directly into the external air; and one air-brick. The closet shall be provided with a separate cistern or flushing-box, without any direct communication with any other service-pipe on the premises; with a suitable pan or other non-absorbent receptacle, not having a container underneath; and a proper water-supply and water-supply apparatus. Arrangements for earth-closets are detailed with great clearness as regards lighting, ventilation, the position of the reservoir or fixed receptacle, and the dry earth or other deodorising substance to be used; also the maximum size of the receptacle, and the period for which the contents may remain in it without removal. The rules for the construction and maintenance of new privies are equally definite, that is to say, it shall not be nearer than six feet from any house or public building, nor within thirty feet of a well; and it shall be placed so as to admit of being emptied without the contents being carried through the house. The floor is to be six inches at least above the surface of the ground, and shall be paved with a non-absorbent material, having a slope towards the door. There are other regulations, which we need not particularise, for privies having fixed or movable receptacles for the reception of filth.

In addition to these, there are other regulations for the cleansing of the courtyard, area, or other open space within the curtilage of the house; for maintaining the water-closet, etc., in good order; and for the application of dry earth, or other suitable substance, to earth-closets. In each case, the person upon whom this duty is cast is carefully defined, not only for these purposes, but for the cleansing of the staircases, landings, and passages, as well as of the cisterns. The month in which the landlord is to wash, with hot limewash, the walls and ceilings of the house, is left in blank, as it would be obviously objectionable to require all of them to be done in the same month; and the same remark applies to the cleansing of paint or renewal of other covering of the walls. The landlord is also to give written notice to the medical officer of health of the existence of any infectious disease in the house, and a similar duty is cast upon the lodger, with the addition that he is to give notice to every other lodger in such house. Finally, when an order has been obtained from a justice for the removal of a person suffering from an infectious disorder, the landlord and lodger shall take such steps as may be necessary to secure the safe and prompt

removal of such person, in accordance with the instructions received from the medical officer of health. The penalties for offending against the by-laws, and for a continuing offence, are left in blank, with the addition that the justices before whom a complaint is made may adjudge under a smaller penalty than the full amount imposed by the by-laws.

The abstract just given shows that a considerable amount of care has been bestowed upon these by-laws, in order to prevent any blundering by the local authorities; and it is much to be regretted that they cannot be made compulsory, not only on the sanitary authorities who have to carry out the Public Health Act under which they are framed, but also on the vestries and district boards of the metropolis, most of whom have neglected to carry out the thirty-fifth section of the Sanitary Act which empowers them to make similar regulations.

ALCOHOLISM IN SWEDEN.

THE fourth number of volume xii of the *Nordiskt Mediciniskt Arkiv* contains a summary of a paper, read by Dr. Gerhard Westfelt before the Swedish Medical Society, and published in the *Svenska Lakaresallskapets nya Handlingar*, series 2, vol. vii, on the statistics of alcoholic abuse and its results in Sweden during the years 1861 to 1877.

The author says that, about fifty years ago, when the excessive use of strong drink was at its height, the quantity consumed during the year was about 50,000,000 *kannor** (28,801,500 gallons) in the whole kingdom, or nearly ten gallons for each individual of the population. After this, there was a further increase. In 1855, legislation on the subject took place; and from that year to 1860, the average yearly amount was 13 to 14 millions of *kannor* (6,488,390 to 8,064,420 gallons).

Comparing the amount of alcoholic drinks used with the results of intemperance as shown in the statistics of disease and mortality for the several years 1861 to 1877, the author finds a close proportion between the figures. This is shown in a table; and the average result for the seventeen years is as follows:

Average amount of alcoholic liquor (containing 50 per cent. of alcohol) consumed by each individual = 4.02 *kannor* = 2.3 gallons.

Average ratio of alcoholic disease in each 100,000 of the population of the kingdom = 14.

Average mortality from alcohol in towns in 100,000 of the town population = 19.

During the years 1867-68-69, the average amount of alcohol consumed and the rates of disease and death therefrom were at the minimum (viz., 3.11, 2.85, and 3.03 *kannor* of alcohol; 11, 6, and 7 cases of disease; and 11, 9, and 14 deaths). After this there was an increase; and in 1874, the amount of alcohol consumed was the greatest in any of the seventeen years, being at the rate of 5.14 *kannor* for each individual; while the disease-rate, calculated as above, was 21 (the greatest in any year except 1876), and the death-rate in the towns 30 per 100,000, or 3 above any other year, and more than three times as great as in 1868.

A comparison with other countries shows that the average yearly consumption of alcohol by each individual during the years 1872-76 was as follows: in Denmark, 7.4 *kannor;* Sweden, 4.6; Russia in Europe, 3.8; North Germany, 3.7; Holland, 3.5; Belgium, 2.7; Great Britain and Ireland, 2.4; Norway, 2.3; Finland, 2.2; France, 2.

The statistics of sudden death after the abuse of alcohol, which in Sweden go back as far as 1802, show a marked decrease since 1852, when the maximum of 94 deaths was reached. From 1841 to 1850, the yearly average was 67.1; from 1851 to 1860, 59.5; from 1861 to 1870, 28.6; and from 1871 to 1877, 22.7.

According to official records obtained from all the civil and military hospitals in the kingdom, the total number of cases of chronic alcoholism and delirium tremens admitted during the years 1861-77 was 10,287, and the number of deaths 700; the yearly averages being 605 and 41 respectively. The minimum of cases both of disease and of death was met with in 1868 (244 of disease and 18 of death); the maximum of disease (1067) in 1867; and the maximum of deaths (67) in 1874. These numbers, however, represent only a small proportion of the cases occurring in the whole kingdom, and have, therefore, only a relative value. In Stockholm, during the period under notice, there were 6,378 cases of alcoholic disease, or a yearly average of 375 (the maximum being 692 in 1876, and the minimum 100 in 1868). As regards sex, it appears that, during the years 1874-77, the percentage of males among the cases of alcoholic disease was 96, and of females 4. As regards age, the percentage between the age of 21 and 40 was 55.6; between 41 and 60, 41; above 60, 3; and under 21, 0.4.

The certified deaths from alcoholic diseases in the whole kingdom during the seventeen years were 1,742, or a yearly average of 102; the minimum being 49 in 1868, and the maximum 179 in 1874. The average death-rate among the urban populations was 19 per 100,000: being in Upsala, 23; in Helsingborg, 25; in Stockholm, 26; in Sundsvall, 31; in Malmö, 33; and in Södertelje, 60. The proportion among the sexes was 96 males to 4 females. As regards age, the percentages were, 85 between 25 and 55, 10 between 55 and 65, 3 above 65, and 2 between 20 and 25.

In Stockholm, during 1874 about one-twentieth, and in 1875 about one-sixteenth, of the deaths among the male population between the ages of 25 and 55, were due to alcoholism and delirium tremens. These numbers, which express only the immediate results of the abuse of alcohol, give no indication of the entire extent of the influence of alcohol on mortality; for a number of deaths from disease arising from excess in alcohol are certified under various names, such as cirrhosis of the liver, chronic nephritis, Bright's disease, fatty degeneration of the heart and blood-vessels, cerebral hæmorrhage, etc.; moreover, the abuse of alcohol has a great share in the fatal issue of several diseases, for example, pneumonia, which, when complicated with delirium tremens, is three times as fatal as otherwise. How great this share is, may with probability be inferred from the fact that the number of deaths of males, from the most usual and prevalent diseases, between the ages of 25 and 55, is very considerable, and, indeed, may be said to greatly exceed that among females; while, at other ages, the deaths among women exceed those among men. Of 7,354 deaths between the ages 25 and 55 recorded in Stockholm from 1869 to 1875 as having occurred from the most usual diseases, such as phthisis, pneumonia, typhoid fever, typhus, small-pox, apoplexy, cerebritis, Bright's disease, alcoholic diseases, and accidents, 68 per cent. were in men, and 32 in women; while of 8,879 deaths from the same diseases at other ages, 49 per cent. were in men, and 51 in women. The importance of this fact is increased by the circumstance that the number of males in Stockholm between the ages of 25 and 55 is not remarkably less than that of females; and that this inference is correct, is shown by the fact, that the proportionate excess of mortality of males over that of females within the above mentioned ages in all the towns of the kingdom during the several years, agrees exactly with the proportion of deaths from alcohol and with the fluctuations in the amount of drink consumed. A year with a great consumption of alcohol shows not only a large number of deaths from alcoholic diseases, but also a great excess of deaths of males in general within the ages mentioned; and *vice versâ*.

The influence of the abuse of alcohol on the mortality from violence and from accident is less distinctly shown by the statistics; but the maxima and minima of these agree with the corresponding variations in the use of alcohol. On the other hand, there does not appear to be any similar parallelism in Sweden between alcoholic abuse and suicide. Regarding the frequency of mental diseases, Dr. Westfelt calculates that at least from 7 to 12 or 13 per cent. among males, and from 1 to 2 per cent. among females, of all cases of acquired insanity in the kingdom, are due to the abuse of alcohol. Of the influence of alcoholic abuse on the progeny and race, a statistical proof is afforded in the increase and decrease of the population in certain parts of Swedish Lapland. A steady diminution of the population of the Laplandish part of Norrland commenced in 1825, and was coincident with a period when drunkenness was at its greatest height. At the end of 1840, there was

* The Swedish *Kanna* is $\frac{1}{43}$ English gallon.

a temperance movement, which exercised a widely spread influence for the better; and, in the latter half of 1850, an increase of the population commenced, and continued year by year until 1870. The proportion of males to females was influenced by the abuse of alcohol. Formerly, the census always showed for the whole of Lapland a great excess of females over males; and this condition prevailed generally throughout the kingdom. In 1870, the census showed that the number of male Lapps had greatly increased, there being 1,000, to 1,039 females; while the numbers in the whole kingdom were 1,000 males to 1,067 females. In the several parts of the province of Norrland, there was an absolute excess of males over females.

The conclusions which the author considers himself justified in drawing from the statistics collected by him are the following. About the year 1855, a comprehensive measure of reform produced a considerable reduction in the number of cases of disease and death due to the abuse of alcohol; but this reduction was for the first time distinctly evident in the first half of the decennial period commencing with 1860. In the later years of that decennial period, there was a very distinct improvement, which reached its height in 1868, when the abuse of alcohol and its evil consequences were less than at any other time during the whole period of seventeen years. From 1872, drunkenness again increased, and during 1874 and 1875 was greater than at any previous time since 1855. Again, in 1876, signs of diminution in the use of alcohol began to show themselves; and finally, in 1877, improvement had set in anew. These fluctuations, he says, must obviously have their source in varying economical conditions.

MEDICAL REFORM.

A TRANSPARENT effort has been made by a writer, who adopts the signature of "A Registered Medical Practitioner", to lead the readers of the *Times* to suppose that the Medical Reform Bill, promoted by the professional conference recently held, representing the leading medical associations of Great Britain, is, in fact, a trades-union effort to obtain special advantages for the profession, and to cut down university privileges. This effort will deceive no one who is at all behind the scenes, and will certainly excite considerable professional indignation. It may be taken for granted that the writer is not what he pretends to be, and does not belong to the class of which he assumes the title. It is, indeed, perfectly plain that he is an official defender of the *status quo;* a determined opponent of direct representation; an apologist of the Council, who adopts the Old Bailey tactics of throwing dirt at his opponent, while endeavouring to throw dust in the eyes of the public. Everyone knows that the British Medical Association has no other object than the public good, and the advancement of professional education and the elevation of professional standing in their action in this matter. To attempt to represent the Bill as a piece of trades-unionism is an unworthy effort to displace the discussion. If the whole of the clause to which he refers were struck out, the Bill would have little less interest to the world at large than it has now. It is true, the public would be left the unprotected subject of the birds of prey who fasten on the miseries of the poor, and, by every kind of misrepresentation, terrorism, and quackish device, rob the victims, whom they not only deprive of their poor pence, but often also of their peace of mind, as well as of their health of body. These are the clients for whom the gentleman who describes himself as "A Registered Medical Practitioner" has suddenly conceived such strong affection, and on behalf of whom he appeals to the public to stop the measure which Mr. Hardcastle has introduced. That he can have any real sympathy with them is hardly possible; but the purpose for which he employs their supposed hardships under the Bill is as ignoble as the public defence of their interests which he undertakes. This is, however, a side issue; and it is certain that those who really understand the question will not be diverted from it by any such plausible and ingenious, but worthless, devices. It is lamentable to see the *Times* put itself in the hands of a small obstructive party, which aims at no less than reversing the decision at which the Select Committee of the House of Commons was obviously on the verge of arriving, and at postponing that which it will certainly be unable to avert—the reform of the General Medical Council, and the representation of the profession within its ranks. Whether a Royal Commission be or be not appointed, or whether the work of the Select Committee be continued, until a result can be obtained, this last device of hanging up reform, and of postponing the necessary changes in the organisation of the Medical Council, will not be ultimately successful. The profession at large are united, and are determined on the question; and a small knot of medical officials who persuade themselves that they can effectually bend the will of the profession to their own, or thwart it by political intriguing, are attempting a task which is utterly hopeless, and which will end in discomfiture. Meanwhile, they should at least have enough respect for their profession and for themselves to abstain from imputing low motives to the representatives of the great body of their professional brethren; and should, above all things, abstain from falsely representing to the outside world that the objects, either of the British Medical Association, or of the Irish Medical Association, or of the profession at large, in desiring this reform, are selfish, petty, and unworthy motives. The resort to such tactics is an evidence of a certain degree of peevish irritation which often characterises the sentiments of a small *clique*, who feel that they are defending a losing cause; but a return to a higher and more generous sentiment of what is due to themselves and to their profession will, we hope, prevent a recurrence of these utterly groundless and entirely false accusations.

M. JULES FERRY has taken the wise and kind initiative of creating a library for patients in every hospital in Paris. It is intended that the system shall be extended to the whole of France.

DURING the past seven weeks of the current quarter, the death-rate in the metropolis has averaged only 24.9 per 1,000, against 26.4 and 31.5 in the corresponding seven weeks of 1879 and 1880.

IN consequence of the annual meeting of the Royal Medical and Chirurgical Society being held on Tuesday next, the meeting of the Pathological Society of London will take place on Thursday, March 3rd.

THE Marquis of Huntly has introduced into the House of Lords a Bill for the compulsory condensation of hydrochloric and other acid gases in alkali works, the condensation of acid gases in sulphuric acid works, and the prevention of the discharge of certain gases in salt factories.

THE new journal, *Land*, announces that Mr. Staveley Hill, M.P., is drafting a Bill to provide for the compulsory sanitary inspection of house property. The Bill will apply to houses in course of erection equally with those already built or occupied.

THE next meeting of the Epidemiological Society will be held at University College, Gower Street, on Wednesday, March 2nd, when a paper will be read, "On the Influence of Fairs, Floods, Famines, and Seasons on the Development and Diffusion of Cholera in India", by Surgeon-General John Murray, M.D.

AT the suggestion of the President of the Zoological Society, Professor Flower, F.R.S., the Council of the Society unanimously resolved, "That free admission to the gardens at such times as they are open to the public (including Sundays) be granted to the members of the International Medical Congress during the sitting of the Congress in August next, upon presentation of their member's ticket at the gates."

THE Director of the Bureau of Statistics at Vienna has made some interesting researches concerning the comparative longevity of women and men in Europe. He finds that out of 102,831 individuals who have passed the age of ninety years, 60,303 are women, and only 42,528 are men. In Italy, 241 alleged centenarian women are found for 141 men of that age.

UPWARDS of four hundred names are entered for the preliminary or arts examinations for the diploma of Member of the Royal College of Surgeons of England, to be conducted, as usual, by the College of Preceptors at Burlington House, on the 1st, 2nd, and 3rd of the ensuing month. Candidates passing this examination will not be required to undergo any additional examination for the Fellowship of the College.

WE are glad to learn that Professor Wharton Jones has now completely recovered from the severe illness under which he has been for some weeks labouring, and which was, at one time, so serious as to give grounds for the gravest alarm. Professor Jones has filled the Chair of Ophthalmic Medicine and Surgery in University College for over thirty years.

ON Saturday last, a visit was paid to the Hunterian Museum of the Royal College of Surgeons by members of the East End University Extension Classes. The visitors were of both sexes, and were conducted round the museum by Mr. Pye, teacher of physiology, of whose class the persons present were chiefly members; and Mr. W. H. Flower, F.R.S., the Hunterian Curator, who most kindly and lucidly demonstrated various points in anatomy and physiology, illustrated by specimens in the museum. The class, which was composed of working men and women, was intensely interested in their visit, and expressed their desire that the privilege might be renewed; which will, no doubt, at a future period, be complied with.

OVARIOTOMY.

AT the meeting of the Royal Medical and Chirurgical Society, on Tuesday evening, Mr. Spencer Wells presented a tabulated report of the last two hundred of his thousand cases of ovariotomy. In proposing the usual vote of thanks to the author of the paper, the President, Mr. Erichsen, said not only the thanks of the society, but those of the profession and of the public at large, were due to Mr. Wells. It had not fallen to the lot of any other surgeon to record a thousand cases of an operation of such magnitude; and nothing could more redound to the credit, not only of Mr. Wells, but of the science and art of surgery, than the great results which he had achieved. He remembered the obloquy with which ovariotomy was regarded thirty or forty years ago; and felt gratified at having seen the operation not only survive that obloquy, but become one of the most successful of all the great operations of surgery.

THE RUGBY HOSPITAL.

AT a meeting held on Thursday last, the Council of the Birmingham and Midland Counties Branch passed the following resolution respecting the dispute between Dr. Clement Dukes and his colleagues in the Rugby Hospital, to which reference was made at page 241 of the JOURNAL for February 12th. "That Dr. Dukes acted in conformity with the laws of the Rugby Hospital; but that a law practically permitting patients to change their doctors in the hospital is opposed to that professional harmony which is essential to the good working of any medical charity."

THE MANAGEMENT OF HOSPITALS.

A MEETING of the Metropolitan Counties Branch was held on Wednesday evening, at the rooms of the Medical Society of London, for the purpose of discussing the management of hospitals. The chair was occupied by Dr. Habershon, President of the Branch, who made some introductory remarks; after which Mr. Timothy Holmes read a paper on the subject, and proposed the following resolution.

"That this meeting regards it as essential for the proper management of any hospital, that the medical staff should be efficiently represented in the government of the hospital."

This was seconded by Mr. John Wood; and, after some interesting remarks by Mr. H. C. Burdett, who was present as a visitor, was carried. Mr. Wood then proposed, and Mr. Sibley seconded:

"That, in the arrangement of hospitals, the necessary arrangements as regards treatment should be under the control of the medical staff."

This was also carried, after some remarks from Dr. R. Barnes, Dr. Gilbart Smith, and Mr. Rendle. In consequence of the time allowed to the meeting having expired, the consideration of other resolutions, relating principally to the nursing arrangements in hospitals, was postponed to a future meeting; and, on the proposal of Mr. Holmes, seconded by Dr. Heywood Smith, a committee was appointed to collect information on the subject before the next meeting. The committee, as nominated, consists of the President and Secretaries of the Branch, Mr. John Wood, Dr. Bristowe, Mr. Macnamara, Mr. Holmes, Dr. Mouat, Dr. Gilbart Smith, Dr. Heywood Smith, and Mr. H. C. Burdett. A more complete report of the proceedings will be given in a future number of the JOURNAL.

ORGANISATION OF NURSING.

IN the last sitting, the Managing Council of the Paris hospitals adopted, with one dissentient voice, the principle of adopting lay nurses in the hospitals, and, at the same time, a project for organising schools for male and female nurses. This project comprises two programmes, one for primary instruction, and the other for secondary or normal instruction. In the first, primary teaching is given by a teacher, and professional instruction by a special professor. These primary schools will be established in twelve or thirteen hospitals, and under the superintendence of the Director. At the end of each scholastic year, certificates of proficiency will be given to the best students, permitting them to present themselves at a competitive examination, which will admit to the normal schools. The latter, of which there will be three or four, will give various elementary instruction on anatomy, physiology, dressings, hygiene, care of lying-in women, and some notions about practice and their administration. There will be six professors under the direction of the administration. Their object will be to form a service capable of fulfilling with intelligence the duties of nurses, both male and female, and of matrons of the wards, who are, in fact, the most useful accessories of the medical profession.

THE SMALL-POX EPIDEMIC.

AT a meeting of the Hackney Guardians this week, a discussion took place on a letter from the Metropolitan Asylums Board, in which it was indicated that, should the small-pox increase so as to exceed the present accommodation in the hospitals under their management, unless the decision of the Hampstead case should be given in their favour, local sanitary authorities would have to consider the question of locally providing for the cases which might hereafter arise in their respective jurisdictions. The Asylums Board was severely criticised for thus endeavouring to throw the responsibility which it was specially created to meet upon local bodies; and it was maintained that the Asylums Board, from experience of previous epidemics, ought to have been better prepared for the present one. It was considered that sufficient accommodation existed in Hackney to meet the present emergency.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE annual general meeting of this Society, for the election of officers and other members of the Council for the ensuing year, and to receive the auditors' report and the report of the Council, will be held at 53, Berners Street, on Tuesday, March 1st, at 8 P.M. The following is the list of Officers and Council nominated for 1881-1882. *President:* *A. W. Barclay, M.D. *Vice-Presidents:* A. B. Garrod, M.D., F.R.S.; *S. O. Habershon, M.D.; *T. Spencer Wells; *T. Holmes. *Treasurers:* *C. B. Radcliffe, M.D.; J. Cooper Forster. *Secretaries:* R. E. Thompson, M.D.; *M. Berkeley Hill. *Librarians:* *E. H. Sieveking, M.D.; J. W. Hulke, F.R.S. *Other Members of Council:* *J. Andrew, M.D.; *W. Cholmeley, M.D.; C. Hilton Fagge, M.D.; *S. Ringer, M.D.; *R. Southey, M.D.; F. J. Gant; *J. Langton; Francis Mason; J. Morgan; A. Willett. Those gentlemen to whose name an asterisk is prefixed were not on the Council, or did not fill the same office, last year.

THE SALE OF VERMIN-POISON.

A MR. J. COOPER, of Winchester, a retailer of patent medicines, has been summoned by the Chemists' and Druggists' Trade Association, Bir-

mingham, for selling vermin-poison without either having his name on the cover, or entering the sale of the same in a book, in contravention of the Pharmacy Act. Mr. Templeman, assistant secretary to the Association, went to the defendant's shop and purchased a packet of Batty's vermin-killer, which he found contained a quantity of strychnine. It was contended for the defendant that the fact of the strychnine being mixed with other ingredients put the case for the prosecution out of court, as it only referred to poison pure and simple. His client had a licence to sell patent medicines, and when he received the goods from London he found the vermin-killer amongst them, and sold it in ignorance of the law. The Bench fined defendant £1 and £1 8s. costs.

VACCINATION IN JERSEY.

THE Jersey Medical Society have written a letter to the States, calling their attention to the unsatisfactory state of the present law regarding vaccination in the island. It seems that the permissive law passed by the States in February 1878, at the time they appointed public vaccinators, has been found from experience to be totally useless and barren of result. Very few cases of vaccination amongst the poor have taken place of late; and, should an outbreak of small-pox occur, the medical men in the island are of opinion that serious results are to be apprehended. They advise that, if compulsory vaccination in an extended form does not find favour amongst the majority of the members of the States, at least they should attempt to enforce it on the children who attend the parochial and public schools. This is a sensible and practical suggestion, in accordance with ascertained facts.

PARLIAMENTARY PROSPECTS OF VACCINATION.

MR. P. A. TAYLOR has written to one of his constituents in Leicester to say that, in his opinion, the case of antivaccinators is so strong, that he believes the compulsory clauses of the Act will die this session. It is a subject on which, happily, Mr. Taylor's opinion does not go for much in any deliberative assembly. It is sincerely to be hoped that a small-pox epidemic may not occur during the session at Leicester, to open the eyes of that misguided population, and to burden the conscience of their amiable member with the fearful tale of death, suffering, and mutilation which small-pox causes among populations unprotected by vaccination. It is stated that, at Leicester, the luckless infant population are largely deprived of this protection, owing in great measure to the false lights held aloft by their erratic representative in Parliament, whose annual jokes on this subject might make wise men weep.

MEDICAL SOCIETY OF LONDON.

THE general meeting for election of Officers and Council will be held on Monday, March 7th. The following are nominated for office by the Council. *President:* W. H. Broadbent, M.D. *Vice-Presidents:* A. Wiltshire, M.D.; J. W. Barnes, F.R.C.S.; R. Quain, M.D., F.R.S.; R. B. Carter, F.R.C.S. *Treasurer:* F. Mason, F.R.C.S. *Librarian:* H. R. Bell, F.R.C.S. *Secretaries in Ordinary:* T. Gilbart Smith, M.D.; Edmund Owen, F.R.C.S. *Secretary for Foreign Correspondence:* J. I. B. Berkart, M.D. *Council:* H. F. Baker, F.R.C.S.; P. Boulton, M.D.; J. C. Bucknill, M.D., F.R.S.; S. Coupland, M.D.; J. H. Craigie; A. E. Cumberbatch, F.R.C.S.; W. H. Day, M.D.; T. S. Dowse, M.D.; Sir J. Fayrer, M.D., K.C.S.I.; F. J. Gant, F.R.C.S.; C. Godson, M.D.; D. H. Goodsall, F.R.C.S.; A. P. Gould, F.R.C.S.; W. R. Gowers, M.D.; F. de H. Hall, M.D.; M. Morris; Heywood Smith, M.D.; W. F. Teevan, F.R.C.S.; J. C. Thorowgood, M.D.; C. T. Williams, M.D.

OXFORD LODGING HOUSES.

IN consequence of the unsatisfactory state of many of the lodging-houses in Oxford, in respect of their sanitary arrangements, a proposal will be brought before Congregation on March 1st "to make better provision for the supervision of lodging-houses". One of the delegates for licensing lodgings will be stipendiary, and it will be his duty to inspect every dwelling-house proposed for this use, and to satisfy himself of its sanitary fitness. He shall have the assistance of a sanitary inspector, and shall have proctorial authority over members of the University in his character of inspector. A special statute will also be proposed authorising the present delegates of lodging-houses to spend whatever sum they may think necessary on a general inspection of lodging-houses during the present year.

CONTAGIOUS DISEASES ACT.

THE Select Committee appointed to inquire into the Contagious Diseases Act, 1866-1869, their administration, operation, and effect, consists of Mr. Massey, Mr. Stansfeld, Mr. Cavendish Bentinck, Colonel Alexander, Viscount Crichton, Mr. Burt, Mr. O'Shaugnessy, Mr. Osborne Morgan, Mr. Cobbold, General Burnaby, Sir Henry Wolff, Mr. Ernest Noel, Colonel Digby, Mr. William Fowler, and Mr. Hopwood. They are instructed that they have power to receive evidence which may be tendered concerning similar systems in British colonies or in other countries, and to report whether the said Contagious Diseases Acts should be maintained, amended, or repealed. The committee met on Wednesday last, to choose a chairman, etc., and will probably begin to take further evidence on Wednesday next.

OLD CLOTHES.

THE guardians of the Holborn Union have distributed useful notices in all the localities within the union, pointing to the fact that small-pox and scarlet fever were very prevalent in the district, and warning persons from purchasing rags or old clothing in the streets, as it had come to their notice that these had, in many cases, been the medium of carrying infection. Vendors of such articles are warned, more especially in the neighbourhood of Leather Lane, where what are called "Dutch auctions" are frequent, that the sale of rags, underclothing, etc., which are not proved to have been disinfected, is illegal, and that such persons will not be permitted to hawk them about the thoroughfares or from house to house.

A CENSUS OF THE MEDICAL PROFESSION IN GREAT BRITAIN.

FROM the latest official data now furnished by the *Medical Register* up to date, it appears that the whole number of persons now on the *Medical Register* as legally qualified to practise for 1881 is 22,936. Of these, there are in England 15,918, in Scotland 3,454, in Ireland 3,564; so that it appears that 69 per cent. of the whole number of British practitioners are registered in England, 15 per cent. in Scotland, and 15.6 per cent. in Ireland. These numbers have remained pretty invariable since the *Medical Register* was first begun in 1858; the average percentage throughout that time being 69.2 in England, 14.6 in Scotland, 16.2 in Ireland. A slight increase appears in the number of practitioners during the last five years; the total number of medical practitioners for 1877 having been 22,713, while it is now 22,936.

THE NOTIFICATION OF INFECTIOUS DISEASE.

THOUGH the Local Government Board still hold back from taking powers for conferring upon such authorities as desire it the right to require the notification of cases of infectious disease within their districts, it is but due to the Board to state that they are taking opportunities, from time to time, for insuring such notification in cases where they can do so without fresh legislation. Thus, in a series of model by-laws just issued, with regard to houses let in lodgings, we find three by-laws dealing with the action which the landlord of a lodging-house is bound to take with regard to the outbreak of infectious disease in the house, when Section 90 of the Public Health Act has been declared in force in the district. These by-laws require that the landlord of a house let in lodgings, immediately after he has ascertained that any person in the house is ill of an infectious disease, is to give written notice to the medical officer of health of the Sanitary Authority. In every case where a lodger has reasonable grounds for believing that an occupant of any room which has been let to him is ill of an infectious disease, he is forthwith to give written notice to the landlord and to the medical officer of health, and verbal or written notice to every other lodger in the house. In every case where an order of a justice has been

obtained for the removal from a lodging-house to a hospital of a person suffering from any dangerous infectious disorder, who is without proper lodging or accommodation, or lodged in a room occupied by more than one family, the landlord and the lodger to whom any room occupied by the infected person has been let are, on being informed of the justice's order, forthwith to take all requisite steps for securing the safe and prompt removal of such person in compliance with the order, and are to adopt all such precautions as, in accordance with the instructions which such landlord and such lodger, respectively, received from the medical officer of health, may be most suitable for the circumstances of the case.

SCARLATINA DUE TO INFECTED MILK AT BROMLEY.

ANOTHER of the now numerous outbreaks of scarlatina due to infected milk has occurred at Bromley in Kent, where, in the course of a few days, nineteen families have been invaded, and thirty-four persons attacked by the disease. Dr. Baylis, the health-officer of the district, who with his usual energy has inquired immediately into the circumstances, finds that all the infected families, except one, had their milk from one milkman, who states that the families in question constituted the larger half of his customers, and included the largest consumers. Nearly all the sufferers are in a good social position, and belong to a different class from those who are usually most affected by infectious disease. Other circumstances conspire to make it very improbable that there could be anything common to the households invaded except their milk-supply. On investigation, it was found that a man employed at the farm supplying the infected dairy with milk, was engaged there while four of his family were suffering from scarlatina at home. He it was that milked the cows, and attended generally upon them; and he also it must have been who was the agent for the dissemination of the poison in the milk. On the discovery of the facts, all possible precautionary measures were at once adopted, and the outbreak seems now to be at an end.

AMERICAN PORK.

LOOKING at the matter from a practical point of view, it must be confessed that our English Government have done quite rightly in refusing to follow the course just taken by the French Government (as well as by the Governments of Russia, Italy, Austria, Spain, Portugal, and Greece) in prohibiting the importation of American pork. The action of France is stated to have been adopted on the advice of the Council of Hygiene, and to be based on the prevalence of trichinosis (by which, no doubt, is meant the prevalence of trichinous disease in the pork imported); on the hopelessness of inducing the poorer classes to disinfect the pork by boiling; and on the impossibility of microscopically examining at the ports consignments which, at Havre alone, amount to thirty million kilogrammes *per annum*. From other statistics, we learn that, last year, thirty-eight million kilogrammes of salt pork were imported into France; thirty-four millions of which came direct from America, and three millions indirectly by England or Belgium. The absolute prohibition of the importation of this enormous quantity of food must undoubtedly be followed by very serious results; and, indeed, it is stated that the French Government are endeavouring to devise a less stringent but sufficiently protective method. In this country, the stoppage of our pork supplies from America would mean the annual loss of twenty pounds of food per head of the population. Our annual importations of pork, bacon, and ham exceed five million and a quarter hundredweights, or more than seven times as much as those of France. A very large proportion of this produce—estimated to be worth £9,500,000—comes from America. As Mr. Mundella said on Tuesday, in reply to Mr. Dixon-Hartland, to cut off such an enormous supply of animal food would inflict great hardship on the poorer classes, and it could not be done except upon the most urgent necessity, and after the greatest deliberation. It seems to be certain that, if pork be well and sufficiently cooked, no danger of trichinosis need be feared. There has only been one single outbreak of trichinosis recognised in this country, and that was from eating the flesh of a home-bred pig. With these facts before them, our Government would certainly be acting unwisely to prohibit the importation of American pork. The real remedy for the selling of trichinous flesh would be the establishment of a rigid system of examination at the place of slaughter, instead of a necessarily inadequate one at the place of sale.

ROYAL COLLEGE OF SURGEONS.

PROFESSOR FLOWER, F.R.S., will commence his course of nine lectures on the Anatomy, Physiology, and Zoology of the Cetacea in the Theatre of the College, on Monday, the 28th instant. The anatomy of the group selected for consideration on this occasion is of great interest, and particularly well illustrated in the Museum, as it is a subject to which John Hunter devoted much attention, and upon which he published a valuable memoir in the *Philosophical Transactions* for 1787, entitled, "Observations on the Structure and Œconomy of Whales". The following is the programme of Professor Flower's course of Lectures.—General Characters of the Cetacea. Division into two distinct groups—*Mystacoceti* or Whalebone Whales, and *Odontoceti* or Tooth Whales. Anatomy of the Lesser Rorqual *(Balænoptera rostrata)* as a type of the *Mystacoceti*. Other Whalebone Whales. Rorquals *(Balænoptera)*, Humpbacks *(Megaptera)*, and Right Whales *(Balæna)*. Anatomy of the Porpoise *(Phocæna communis)* as a type of the *Odontoceti*. Other Toothed Whales. *Delphinidæ*. Dolphins. Beluga. Narwhal. Platanista, etc. *Physeteridæ*. Sperm Whale and its allies. Extinct Cetacea. Position of the Order in the Animal Kingdom, and relation to other groups. The course will conclude on Friday, March 18th.

BRITISH DENTAL ASSOCIATION.

THE Association has addressed a memorial to the several Colleges of Surgeons, asking that the objects of the originators and subsequent supporters of special dental education shall, now that dental education is made compulsory, be fully carried out. The following phrase from a memorial addressed to the College of Surgeons in 1857, states the objects referred to. "The memorialists do not suggest an education and an examination inferior to that required of the medical practitioner; but propose only a certain difference of kind, and not a difference of degree—an education specially adapted to meet the requirements of the dental surgeon, as distinguished from that fitted for the general surgeon." A copy of the memorial, and also a verbatim report of the late (dental) meeting of the General Medical Council, will be found in the *Dental Association Journal* for February.

THE SANITARY REQUIREMENTS OF CEMETERIES.

A MEMORANDUM has been drawn up by the Local Government Board, embodying the hygienic principles laid down by various English and foreign authorities as requisite to be observed in the establishment of a cemetery, to prevent it from becoming a source of nuisance and danger to the living. The dangers to public health, to which places of burial may give rise, are of two kinds, viz., the contamination of air by the gaseous and volatile, and of drinking water by the liquid and soluble, products of decomposition. Contamination of air may take place in several modes. The gases evolved from putrefying bodies may make their way to the surface through pores or fissures in the ground, or may pass into open graves dug in their neighbourhood. Or they may diffuse themselves laterally through the ground-air, and be drawn up into the interior of houses. Or noxious emanations may be given off from putrid drainage-water, whether baled out of graves and thrown upon the surface, or draining into open channels or watercourses. Thus nuisance and danger to health may be occasioned, not only to gravediggers and persons attending funerals, but also to the inhabitants of houses in the neighbourhood of the burial-ground. To obviate these risks, it is necessary that the number of decomposing bodies in a given portion of ground should not at any time be so great that the gaseous products cannot be oxidised into harmless substances in the interstices of the soil, or taken up by vegetation; that a sufficient depth of earth intervene between corpses

and the surface; and that the soil be of a suitable nature and properly drained, the drainage-water being innocuously disposed of. Furthermore, since the atmospheric contamination which has to be especially guarded against is that of the air in the interior and neighbourhood of human habitations and frequented places, it is necessary that the place of burial should be in an open situation and at a sufficient distance from dwellings, in order that any effluvia arising from it may be diluted by diffusion, or dispersed by the winds, so as not to find their way, in an injurious state of concentration, to places where they will be liable to be inhaled. Foul liquids from graves may enter and pollute a stream or wells in the vicinity of a graveyard, may be injured by percolation from it, and in either case, if the water be used for drinking, injury to health may be occasioned. The liability of wells to pollution obviously depends partly upon their proximity to it, and partly upon the configuration and geological structure of the ground. Thus an intervening impervious bed of clay will prevent foul matters from reaching a well, and filtration through a sufficient distance of porous aërated soil decomposes such matters into harmless inorganic substances, which are fixed by the soil or taken up by plants. It is necessary therefore, in order to obviate risk from this cause, that a cemetery should have a suitable soil and be properly drained; and that it should be at a sufficient distance from subterranean sources of water-supply; and in such a position with respect to them that the percolation of foul matters from one to the other may be impossible. The sanitary requirements for a cemetery indicated under the foregoing remarks may be summed up under four headings:—1. Suitable soil and proper elevation of site; 2. A suitable position, especially with respect to houses and sources of water-supply; 3. Sufficient space; 4. Proper regulation and management.

DEATHS IN PUBLIC INSTITUTIONS.

In workhouse establishments, hospitals, and public lunatic asylums, 12,002, or 9.5 per cent. of the total deaths were registered last quarter. This proportion showed a slight decline from the high rates in the two preceding corresponding quarters, but exceeded the average proportion in the autumn quarters of the ten years 1870-79. In the twenty large towns, 6,128, or 15.3 per cent. of the deaths were recorded in public institutions; the percentages in the several towns ranged from 5.7 and 7.8 in Plymouth and Hull, to 17.7 in Manchester, and 18.8 in London. Excluding the twenty large towns, the proportion of institution deaths in the rest of England and Wales did not exceed 6.8 per cent.

A POWERFUL ANTISEPTIC.

The President of the Pharmaceutical Society of Liverpool, exhibited last week a sample of eugenol, which had been placed in his hands on the previous day. He said it had recently been noticed as a very energetic antiseptic, and it was also said to be a remedy for toothache. Both these properties could be readily understood, as oil of cloves, from which it was obtained, as well as oil of peppermint, had long been used to prevent ink, starch, paste, etc., from becoming mouldy. The oils had also been long regarded as remedies for toothache. It was also known as eugenic or caryophyllic acid, having a formula $C_{10}H_{12}O_2$, and forming salts with bases. He said, it would be interesting to determine its rotatory power as compared with oil of cloves, which he would do before the next meeting.

DEATHS BY MISADVENTURE.

At a recent meeting of the Statistical Society, Mr. Cornelius Walford reviewed the numbers and causes of deaths from accident, negligence, violence, and misadventure, in the United Kingdom and some other countries. Mr. Walford was of opinion that violent deaths of various kinds had advanced with the progress of civilisation. New forces, as also increasing mechanical productiveness, rendered the risk to life and limb continually greater. The five great divisions in deaths of this class were those caused respectively by railways, in the working of mines, by mechanical fumes and compounds, and by asphyxia, or stifling, and by drowning. A sixth and important class remained—those which for various reasons could not be placed under the proper division to which they rightly belonged, as in the case of persons found dead without any means of determining the precise agency by which death had been occasioned. These were far more numerous than had been generally supposed. Railways were placed first in the enumeration, but they were not the cause of the greatest number of violent deaths. More persons were killed by horses and horse-accidents every year than by all the railways of the kingdom. The total of violent deaths registered annually in England and Wales is about 18,000, in Scotland about 3,000, and in Ireland about 2,000; and the non-fatal injuries are in the ratio of 100 to each fatal accident.

THE NEW MEDICAL REGISTER.

The new *Medical Register* for 1881 is now issued—a good deal earlier, therefore, than it has been possible to issue it in previous years, and with some considerable improvements. The work of revision is most laborious, and is rendered often difficult and ungrateful by the neglect of practitioners to acquaint the registrar with changes of address or additions to their qualifications, proper for insertion in the *Medical Register*. Great pains have, we believe, however, been taken to ensure accuracy; and, at the same time, the mechanical typographical arrangements are neater than heretofore. The several medical Acts up to the present time are arranged in an index at the beginning of the volume; and tables are furnished, showing the whole number of persons registered and now remaining on the local register for England, Ireland, and Scotland respectively.

COMPULSORY REGISTRATION OF INFECTIOUS DISEASES IN THE METROPOLIS.

The Vestry of St. Martin-in-the-Fields have unanimously resolved, on the motion of Mr. Edward J. Watherston, seconded by Mr. Hill, chairman of the Strand Union Board of Guardians, to present a petition to Parliament, praying that, "in future amendments of the law, provision may be made for the compulsory registration of infectious diseases, the certificate to be transmitted by the medical attendant to the sanitary authority". It was further resolved to communicate with the various vestries and district boards upon the subject. The Chelsea Vestry have also, in a communication addressed to the Sanitary Committee of the Metropolitan Board of Works, relative to a case of concealment and neglect of isolation of a case of small-pox which occurred in that parish, requested that, in any measures which may be promoted for the amendment of the existing sanitary laws, the Board will use their influence to obtain the insertion of a clause for the prevention of such concealment, and which shall provide a punishment in case of offence. In reply, the Committee stated that, in the event of any such Bill being promoted by the Metropolitan Board of Works, they will endeavour to obtain the insertion of a clause for the purpose named; and they also call attention of the Vestry to the efficacy of the course adopted by some local boards in directing their inspectors to report all cases of contagious diseases to the medical officer of health for the district.

THE OPERATIVE TREATMENT OF INTESTINAL OBSTRUCTION.

The treatment of chronic intestinal obstruction must always be a subject of great interest alike to the physician and to the surgeon. Though during the last century much has gradually been done to clear up the difficulties surrounding this subject, much yet remains to be accomplished before the resources of surgery can be said to be exhausted. No doubt, where it can be ascertained that the obstruction exists in the sigmoid flexure or in the rectum, Amussat's ingeniously devised operation offers the most rational means of treatment; but where it is impossible, either by palpation of the abdomen or digital examination *per rectum*, to make out, with any certainty, the site of the obstruction, the principles which should guide us are by no means clearly established. Mr. Clutton has recently operated at St. Thomas's Hospital on a woman who presented well-marked signs of intestinal obstruction. The abdomen was irregularly distended; vomiting and tenesmus were distressing; and the general condition of the patient, though not absolutely urgent, was still such as to call imperatively for relief. Dr.

Bristowe, under whose care she was, had been unable to ascertain the precise site of the obstacle; which, however, was thought to be, in all probability, due to malignant disease. Mr. Clutton cut down, under antiseptic precautions, in the left loin, as though about to perform colotomy. Finding that the colon could not be made to present in the wound, he opened the peritoneum; and, by introducing the fingers, ascertained that the colon was empty and collapsed, from which it was concluded that the obstruction was situated higher up. The gut was therefore returned, the wound closed, and antiseptic dressings applied. Before beginning to operate, Mr. Clutton had determined that, if the incision in the left lumbar region revealed the state of things which was actually found to exist, he would open the cæcum. With this object, he made an incision—again under antiseptic precautions—in the right iliac region, parallel to Poupart's ligament. Dissecting carefully through the successive layers, he opened the peritoneum, and, after a short search, brought forward into the wound a piece of gut, which, by its structure, was plainly seen to be a part of the large intestine. The two peritoneal surfaces (the parietal and the visceral) were then fixed in apposition by stitches which passed through the intestinal walls in the submucous layer, but did not penetrate the cavity of the intestine. To this mode of inserting the stitches Mr. Clutton attaches much importance; for plastic exudation occurs so rapidly from peritoneal surfaces when unirritated by septic or fæcal matter, that in the space of five or six hours the cavity of the peritoneum is effectually closed. At the end of this time, the gut may be opened in the wound without fear of any extravasation of fæces or gas. In consonance with this idea, the operation ended temporarily at this point by the application of an antiseptic dressing over the wound in the right groin. About six hours later, the knuckle of gut which had been retained in the groin-wound was opened, and a considerable quantity of gas escaped. The relief was very marked; pain and vomiting ceased immediately after the operation; and, three days later, the patient was reported to be progressing favourably.

FAMILY SUSCEPTIBILITY TO DIPHTHERIA.

THE report by Dr. Hubert Airy, to which we recently alluded, gives some striking illustrations of the family susceptibility to diphtheria, which is so strongly marked a feature of that disease. In two families, every one of the six children was attacked. All recovered in one family; but, in the other, five of the six attacked died within a fortnight. At another village, six out of a family of seven children were attacked, the only one escaping being a little girl of two years. In two instances, five children out of six caught the disease; and in four others, all the five children of the family were attacked. Instances of this kind might be multiplied; but the figures given above are sufficient for the purpose. It would be an interesting and profitable subject for study, to learn what are the peculiarities in family characteristics that predispose to attacks of this insidious disease. Dr. Airy makes, indeed, the curious remark that, in at least two of the eleven districts visited by him on account of diphtheria, the families affected were mostly fair-haired. Whether this is or is not a coincidence, cannot, of course, be decided; but the peculiarity is possibly not without its significance. At any rate, it seems of moment to attempt to find out what this terrible incidence of diphtheria upon particular families means.

DEATHS AFTER SWALLOWING FISH-BONES.

TWO cases of death from disease following the swallowing of fish-bones are recorded in abstract in the last number of the *Nordiskt Medicinisk Arkiv*. The first case was reported by Dr. Carl Wettergren, last year, at a meeting of the Swedish Medical Society. The subject, a man aged 41, in September 1875 swallowed a large bone of a bream; at the time, it produced much pain, which soon passed off. In October or November of the same year, he had an attack of suppurative perityphlitis, and another in the autumn of 1876. After his recovery from this, he had pain in the course of the transverse colon, his appetite being good, and his bowels regular. About midsummer 1879, the pains became more severe and continuous, and were localised in the right hypochondrium. On July 29th, he had a severe rigor, followed by deep collapse. He died in October. At the necropsy, the upper third of the vermiform appendix was found to be quite obliterated, while its lower two-thirds were distended into a cyst. There was no trace of perforation. Adhesions were found to exist between the upper part of the duodenum, the transverse colon, the sigmoid flexure, and the portal region of the liver. The left lobe of the liver contained several abscesses of various ages; and in one of them, lying to the right, close to the suspensory ligament, a fish-bone was found; it was three-fifths of an inch long, and one twenty-fifth of an inch wide, very firm and hard, and quite white, with sharp edges. Dr. Wettergren ascribed both the perityphlitis and the hepatic abscesses to the fish-bone. He assumed that it entered the vermiform appendix, which it perforated at the upper part, producing obliteration of the canal; that it then passed between the laminæ of the lesser mesentery, and reached the retro-peritoneal connective tissue, in which it caused inflammation and suppuration. The second case was related by Dr. E. Winge to the same Society, who exhibited a liver, in which there was suppurative pylephlebitis, due to perforation of the portal vein by a fish-bone. The subject was a lunatic, who had died after an illness which commenced with fever, pain in the right hypochondrium, and swelling and tenderness of the liver. At the necropsy, the upper surface of the liver was found covered with a fibrinous exudation, and there were partial adhesions to the diaphragm. On the upper surface of the liver, and in sections of the organ, numerous small yellowish-white branched bodies were seen; pus escaped from them on pressure. There were also numerous small abscesses on the peritoneal and mucous coverings of the gall-bladder. A decolorised thrombus, as thick as a thumb, was found in the main trunk of the portal vein; its centre was softened, and it sent prolongations into the larger branches and into the splenic vein. The wall of the portal vein at the part corresponding to the thrombus was of a green colour, and ulcerated; a fish-bone projected half an inch into the lumen of the vessel; and, on tracing its course, the other end was found in the jejunum. It was 3¼ centimètres (nearly 1⅓ inches) long. Dr. Winge had no doubt that the fish-bone produced the thrombosis in the portal vein, and that this gave rise to the diffuse inflammation of the portal vein and gall-bladder.

SCOTLAND.

WE regret to hear of the death of Dr. P. D. Handyside, many years lecturer on anatomy at Edinburgh. We shall next week publish an obituary notice of this respected teacher.

INSPECTORSHIP OF ANATOMY IN SCOTLAND.

THE vacancy caused by the death of Dr. Andrew Wood in the inspectorship of anatomy for Scotland has been filled by the Home Office by the appointment of James Alexander Russell, M.A., M.B., B.Sc. This is certainly an appropriate appointment, as regards both the schools and the public. Dr. Russell was for a considerable period Demonstrator of Anatomy in Edinburgh University, and is therefore conversant with the necessities of anatomical teaching; while his relation to the public as municipal representative answers other requirements.

THE NEW REGULATIONS FOR MILK-SHOPS IN GLASGOW.

AS intimated in the JOURNAL some months ago, the local authority of Glasgow, under the powers conferred on them by the Privy Council order of July 1879, issued regulations prohibiting all communication between a dairy and sleeping apartments at the back of houses. On the 19th instant, a milk-dealer was summoned for contravening these regulations, in that he permitted his dairy premises to be in direct communication with two rooms at the back, then used as sleeping apartments. The defence urged was, that the local authority, under the Privy Council order, had no power to issue any regulations prohibiting communication between a dairy and sleeping apartments at the back. That they were only authorised to make regulations as to the cleansing of

dairies and the milk-vessels used therein. The sheriff, in giving judgment in the case, sustained the defence, and dismissed the case, his view being that the local authority of Glasgow had no power to make such regulations themselves, and that it was evidently intended that the Privy Council should keep the power of making such regulations in their own hands. This is a most important decision, and it is to be hoped that steps will be at once taken to establish the validity and force of the regulations issued, as they cannot but exercise an important part in the prevention of milk-contamination and the spread of disease.

HERIOT'S HOSPITAL, EDINBURGH.

On Monday, the governors of Heriot's Hospital appointed Dr. Grainger Stewart consulting physician to the hospital, in place of Sir Robert Christison, resigned. At the same time, by a very large majority, the office of surgeon to the hospital was filled by the appointment of James Ritchie, M.B., to the vacancy caused by the death of Dr. Andrew Wood.

REGISTRAR-GENERAL'S RETURNS.

From the returns of the Registrar-General for the week ended February 12th, it appears that the death-rate in the eight principal towns was 24.3 per 1000 of estimated population. This rate is 0.5 above that for the corresponding week of last year, but 4.6 below that for the previous week of the present year. The lowest mortality was recorded in Perth—viz., 9.7 per 1000; and the highest in Paisley —viz., 37.1 per 1000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.5 per 1000, being slightly less than that for the previous week. Acute diseases of the chest caused 200 deaths, being 61 less than the number for the previous week. The mean temperature was 34.4°, being 3.8° below that for the week immediately preceding, and 10.7° below that for the corresponding week of last year.

HEALTH OF THE EIGHT PRINCIPAL SCOTCH TOWNS.

During the month of January 1881, the deaths of 3,212 persons were registered in the eight large Scotch towns; of this number, 1,499 were males, and, what rarely happens, a much larger number (1,713) were females. Making due allowance for increase of population, this is 59 above the average for the same month during the previous ten years. This is the first month for a long time where the number of deaths has been greater than the average of the ten previous years. The various death-rates were, per 1,000 of the population: Edinburgh and Greenock, 25; Aberdeen and Dundee, 28; Leith, 29; Glasgow, 32; Paisley, 35; and Perth, 36. Thirty-six per cent. of the total mortality was of children under five years of age; and the percentages in the different towns were: Perth, 13; Aberdeen, 31; Paisley, 33; Edinburgh and Dundee, 35; Glasgow, 38; Leith, 39; and Greenock, 44. Zymotic diseases contributed 442 deaths, equal to 13.8 per cent. of the entire mortality. Of 41 deaths due to fever, 29 were registered as enteric, and 12 as typhus. Scarlet fever caused 105 deaths, or 3.3 per cent. of the total; but in some of the towns this rate was much exceeded. Thus, in Edinburgh 6.1 per cent., and in Leith 17.0 per cent., of all the deaths, was due to scarlet fever. Whooping-cough was the most fatal of epidemic disorders, having caused 115 deaths; while measles caused 39, croup 37, diphtheria 33, and diarrhœa 31 deaths. Apoplexy and paralysis were credited with 146 deaths, cardiac diseases with 212, hydrocephalus with 76, and the debility of premature birth with 57. Phthisis contributed 315 deaths, nearly 10 per cent. of the total number; while inflammatory affections of the respiratory organs other than those already mentioned caused no fewer than 1,071 deaths, equal to 33.3 per cent. of the entire mortality—showing how a severe month, such as was January, affects the mortality due to diseases of the respiratory organs. Of 88 deaths attributed to violent causes, one was suicidal. Nine females died who were over 90 years of age, the eldest of whom was 106 years of age. The births registered for the month amounted to 3,485, of whom 1,765 were males, and 1,720 females. As regards meteorological conditions, the mean barometric pressure was greater by 0.135 inch, the mean temperature less by 9.6°, the mean daily range of temperature greater by 1.5°, the mean humidity less by 5, the rain-depth less by 2.99 inches, and the wind-pressure less by 1.02 lb. than the average of the same month during the previous twenty-four years. In the language of the report for the month, this memorable January of 1881 was unique "by its low mean temperature, lower than ever chronicled before for the same month in all recorded years, and for any month either. This remarkable cold was further accompanied by an equally remarkable and abnormal depth of snowfall; and that again by terrific drifting, and accumulating in special localities. Both cold and snow were the result of a terrestrial influence interfering with the direct rays of the sun, and have been more particularly traced up to an abnormal cyclone which entered Europe east of the North Cape, and came whirling down the Gulf of Bothnia, and thence across Sweden and Norway from a north-easterly path, contrary to the south-west path of the regular West Indian and Atlantic cyclonic storms". The lowest mean temperature recorded was in Glasgow (24.1°), and the highest at Leith (30.0°). The number of days of rain or snowfall was most at Aberdeen (sixteen), the least at Glasgow (four).

IRELAND.

It is announced that the Senate of the Royal University of Ireland has finally determined upon the scheme to be submitted to Her Majesty the Queen.

Dr. Kendal Franks, surgeon to the Adelaide Hospital, and Mr. Wheeler, of the City of Dublin Hospital, have been appointed, respectively, physician and surgeon to the National Institution for the Blind of Ireland, *vice* Dr. George F. Duffey and Mr. Wilmot, resigned.

A very successful concert in aid of the funds of the Belfast Hospital for Skin-Diseases was held in the Ulster Hall on Saturday last. A concert will also be given on the 26th instant in aid of the Belfast Royal Hospital.

In Belfast, last week, the average annual death-rate amounted to 40.2 per 1,000 inhabitants. This high mortality may be attributed to the recent inclement weather, as no fewer than forty-four deaths took place from diseases of the respiratory organs.

In consequence of Dr. McFadden's death, a vacancy for a coroner for the Cavan county has arisen. There are two candidates for the appointment—viz., Dr. Ryan of Bailieborough, and Mr. Lynch; and the polling will take place this week.

AN EXCELLENT EXAMPLE.

The late Dr. William Faussett of Moyville, Clontarf, has bequeathed £1,000, subject to certain life-interests, to the Royal Medical Benevolent Fund Society of Ireland. The testator also has left his leasehold property, Moyville, subject to life-interests and other eventualities, to the same charitable association; and has directed that a sum shall be set apart to be invested for the sole use and benefit of distressed dispensary medical officers, and their destitute widows and orphans.

THE COMPULSORY NOTIFICATION OF INFECTIOUS DISEASE.

The Irish Medical Association, while expressing its thorough approval of the principle of this measure, has lately endeavoured to ascertain from its Dublin members their unreserved opinions on the subject. For this purpose, the Committee of Council of the Association issued, some weeks ago, a circular setting forth what the measure proposed, and certain methods of notification, viz.: (*a*) the method adopted by the Parliamentary Bills Committee of the British Medical Association; (*b*) the method of direct notification by the medical attendant; and (*c*) that the custodian or house-occupier solely should be made directly responsible to ascertain, from a registered medical practitioner, the nature of the sickness, and to report the same to the sanitary authority, subject to penalties for omission to do so. Inclosed in the circular was a postcard with the following queries, which we give with the answers as returned

to the honorary secretary. 1. Do you approve of the medical attendant being, directly or indirectly, the informant, in writing, of the sanitary authority?—Answers: Yes, 60; No, 104. 2. If you approve, which proposition (*a* or *b*) do you prefer?—Answers: *a*, 31; *b*, 29. 3. If you do not approve of *a* or *b*, do you approve of *c*?—Answers: Yes, 109; No, 23. This result of the plebiscite was made known at a late meeting of the Council of the Association. Of 371 circulars sent out, only 201 were replied to. Three persons to whom it was sent were known to be absent; but 167 either did not receive it, or sent no reply. It is not our intention to criticise the terms of the circular, or assess the value of the above figures. We are satisfied that the profession in Dublin shows itself so nearly unanimous in favour of the principle of the measure which is now before Parliament; and we may venture to hope that the Irish Medical Association, and the Dublin Branch of this Association, may see their way to an unanimity of action in endeavouring to amend the Bill which Mr. Gray has introduced, so as to make its provisions, if possible, satisfactory to the profession and beneficial to the public.

ROTUNDA LYING-IN HOSPITAL.

Dr. Duke's term of office as Assistant-Physician to the hospital having expired, he was presented, on Monday week, by the students with a marble timepiece, bearing a suitable inscription. The nurses of the institution also presented him with a gold locket. Dr. Richard Henry has been appointed to the office vacated by Dr. Duke.

TYPHUS FEVER IN DUBLIN.

This disease is alarmingly on the increase in Dublin. On last Saturday week there were 171 cases of it in the city hospitals alone; and, for the last thirteen weeks, no fewer than 591 cases have been treated in these institutions. At the last meeting of the Dublin Sanitary Association, it was pointed out that typhus is mainly attributable to overcrowding, and that no adequate steps are taken by the sanitary authorities against that offence. For example, during the year ending August 31st, 1879, there were only two convictions for overcrowding obtained by the sanitary authority of Dublin, while in Liverpool there were 1,328 convictions obtained in a similar period for the same offence, and fines levied to the amount of £178.

THE LATE DR. CRYAN.

Resolutions of condolence with the family of this much esteemed gentleman, who died on the 17th instant, have been adopted by his late colleagues in Vincent's Hospital, by the students of that hospital, and by the students of the School of Medicine of the Catholic University. The latter have appointed a committee to receive subscriptions from past and present students of the school, towards the erection of a memorial.

THE LATE DR. PEELE.

We regret to hear of the death of Dr. Edward Peele of Dublin, on February 18th, from typhus fever, contracted in the discharge of his duty as medical officer of a dispensary district. He was forty-two years of age. The Committee of Council of the Irish Medical Association met on Tuesday last at the Royal College of Surgeons, and, having adopted the following resolutions, adjourned without transacting any other business. "That the Council of the Irish Medical Association have learned, with the deepest regret, of the untimely death of Dr. Edward Peele, a member of the Council, and they desire thus to record their sense of the loss sustained by the Association in the removal of one so loved and trusted." "That the Honorary Secretary to Council be requested to convey to the relatives of the deceased an expression of the sympathy felt with them in their bereavement by the members of the Council." "That, as a mark of respect to the memory of Dr. Peele, the Committee of Council do at once adjourn."

Dr. John Watt Reid, Inspector-General of the Medical Department of the Navy, has been appointed honorary physician to Her Majesty, *vice* Dr. Davidson, deceased.

THE DENTISTS AND THE COUNCIL.

It is only fair to the Medical Council, when considering the unsatisfactory position in which dental registration now stands, to remember that the dentists themselves have brought the trouble upon their own shoulders, although probably they can shelter themselves under the plea of defective legal advice. The resolution adopted by the Medical Council on the subject, on the motion of Dr. Quain and Dr. Pitman, was: "That, with reference to the Lord President's Bill, entitled, Medical Act (1858) Amendment Bill, as 'ordered by the House of Commons to be printed on June 13, 1878', the Council desires to express its wish that the Bill entitled the Dental Practitioners Bill be brought into conformity with the dental clauses of the Lord President's Bill." Now, if the Lord President's Bill (No. 216, 1878, House of Lords) be referred to, it will be seen that the registration clause ran as follows: "If a scheme for the examination, licensing, and registration, under the control of the General Medical Council, of dentists is submitted to the General Medical Council by any corporation, persons, or person, the General Medical Council may, if they think fit, submit such scheme to the Privy Council; and such scheme, when approved by the Privy Council, shall have effect as part of this Act, subject to being from time to time revoked, altered, and added to, by a subsequent scheme submitted by the General Medical Council to, and approved by, the Privy Council." It is obvious that, under these ample provisions, the Dental Association would have had the power of preparing a satisfactory scheme, excluding improper persons, and settling suitable schedules and forms; which scheme could have been thoroughly, carefully, and deliberately considered, and would have provided against the unpleasant circumstances which have now occurred. Instead of this, they adopted a scheme suggested by the clauses of the Medical Act of 1858—an Act which has had to be repeatedly amended, and which has never proved satisfactory in working. The General Medical Council have acted, in their interpretation of the clause, on a case drawn by the most eminent solicitors in London, and on the opinion of the law officers of the Crown. It is not easy to see how they could go beyond or behind the powers thus defined for them, nor to blame them if the instrument put into their hands has been thus defective. It is quite true that the President of the General Medical Council might have opposed the Bill actually passed, and caused its rejection, on the ground that it did not accord with the terms of the resolution of the General Medical Council; and we regret that he did not do so. It is impossible, however, severely to blame any medical person for not foreseeing difficulties, which were neither foreseen by Mr. Tomes and his friends, nor by the draftsman who, acting for them and for the Government, prepared the Bill as it stands. Exaggerated blame, where none is fairly due, is short-sighted policy, as all forms of injustice are in the end. The sins and imperfections of the General Medical Council are enormous enough, and it has fallen already into a stage of discredit and decreptitude; but in this matter we are unable to say that it deserves many of the bitter reproaches which are urged against it in this particular respect. We may say the same as to the schedule of additional qualification. The Council was anxious to have a schedule of additional qualifications, and framed one with a column for the purpose; it was only upon the advice of the present Mr. Justice Bowen that no such column could properly be added, under the provisions of the Act, that they reluctantly withdrew it. Here, again, the fault is not with the Council, but with the draftsman; and Mr. Tomes, Sir John Lubbock, and their legal advisers, are the persons who were at fault, if any one in the matter.

Violent Deaths.—The deaths referred to different forms of violence were 4218, and were fewer than those returned in either of the two preceding December quarters; they were equal to an annual rate of 0.66 per 1,000, and to 3.3 per cent. of the total deaths, which slightly exceeded the average proportion in the ten preceding December quarters. In the twenty large towns, the deaths from violence were equal to an average rate of 0.75 per 1,000, and the rates in the several towns ranged from 0.24 and 0.27 in Bradford and Plymouth, to 0.93 in Manchester, 0.97 in Newcastle-upon-Tyne, and 1.29 in Liverpool.

A Japanese Student.—Mr. Kanehiro Takaki, F.R.C.S. Eng., who received his professional education at St. Thomas's Hospital, was, on his return to Tokio, Japan, immediately appointed chief of the Imperial Naval Hospital, and a member of the committee for the preparation of a Japanese Pharmacopœia, and authorised to attend all the foreigners, with their families, employed by the Imperial Naval Department. Mr. Takaki passed his examination and was admitted a member of the Royal College of Surgeons of England in April 1878, and a Fellow in 1880.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.—The next meeting of the above will be held on Thursday, March 10th, 1881, at the Queen's Hotel, Upper Norwood, S.E., at 4 P.M.; John H. Galton, M.D., in the chair. The following communications have been promised. 1. Dr. J. H. Galton: Note upon a Symptom of Impacted Gall-stone; 2. Dr. J. Wickham Legg: The early Symptoms and Treatment of Cirrhosis of the Liver; 3. Dr. W. A. Duncan: On the Value of Early and Repeated Tapping in the Ascites due to Cirrhosis of the Liver; 4. Dr. J. H. Stowers: Observations on Infantile Eczema. Dinner will be provided at 6 P.M. precisely; charge, 7s., exclusive of wine.—J. HERBERT STOWERS, M.D., Honorary Secretary, 23, Finsbury Circus, E.C.

WEST SOMERSET BRANCH.—The spring meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, March 17th, at 4 o'clock. The ordinary business and papers or cases will be taken before, and the question after, dinner. Dinner (5s. a head, exclusive of wine) will be served at 5.30 punctually. The question as settled by the Council for the meeting to discuss is: The Treatment of Neuralgia. Members having communications to bring before the meeting are requested to send notice of the titles on or before the 10th March.—W. M. KELLY, M.D., Honorary Secretary.—Taunton, February 16th.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting of this district will take place at Dover on Thursday, March 17th. Dr. Eastes will read a paper "On Embolism". Members intending to read papers on the same subject are requested to give immediate notice.—T. WHITEHEAD REID, Honorary Secretary.—Canterbury, February 14th, 1881.

BATH AND BRISTOL BRANCH.—The fourth meeting of the session will be held at the Grand Pump Room Hotel, Bath, on Thursday evening, March 3rd, at 7.15 P.M.: Alex. Waugh, Esq., President.—R. S. FOWLER, E. MARKHAM SKERRITT, Honorary Secretaries.—6, Belmont, Bath, February 1881.

NORTH OF IRELAND BRANCH.—A meeting of this Branch will be held in the Belfast Royal Hospital, on Friday, March 4th, at 12 o'clock noon. Members intending to read papers or send communications will kindly intimate their intention to JOHN MOORE, M.D., Honorary Secretary, 2, Carlisle Terrace, Belfast.—February 7th, 1881.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ORDINARY MEETING.

THE fifth ordinary meeting of the session was held in the Medical Institute on February 10th, 1881. The chair was taken by the President, Mr. R. PROSSER; and there were sixty-four members present.

Communications.—The following communications were made.

1. Dr. SIMON showed a case of Glosso-pharyngeal Palsy, and drew attention to the points of interest in connection with the progress and symptoms.

2. Mr. WILLIAM THOMAS showed a case of Genu Valgum, upon which he had operated, with a very successful result.

3. Mr. BARTLEET showed a Bony Exostosis, which he had removed from the inner aspect of the Thigh.

4. Mr. BARTLEET also showed a Polypus of the Rectum, with microscopical sections of the same.

5. Mr. LAWSON TAIT showed the products he had removed by operation in two cases of Tumour of the Liver, and explained the steps of the operation.

6. Mr. S. B. WALFORD showed some Tarsal Bones which had been removed from a patient in the Guest Hospital by Dr. Underhill.

New Members.—Mr. G. Longsford Clay and Mr. C. J. Lewis were elected members of the Association and Branch.

The Skin and Lock Hospital.—Mr. OAKES brought forward three resolutions, of which he had given notice, in reference to the establishment of the Skin and Lock Hospital. Dr. SAWYER seconded the adoption of the resolutions. A long discussion followed, in which Mr. Lumby, Mr. Newnham, Mr. Palmer, Mr. Yates, Dr. Harvey, and Mr. Priestley Smith took part. Mr. LAWSON TAIT moved an amendment, which was seconded by Mr. T. W. WILLIAMS: "That the sentences on the agenda paper be referred to the Council of the Branch, with instructions to report at the next meeting of the Branch." This was carried unanimously.

Antiseptic Osteotomy.—Mr. BARTLEET read a paper on Antiseptic Osteotomy. It was illustrated by patients, photographs, and casts of cases. By the desire of the members present, the discussion was adjourned until the next meeting.

EDWARD GOODEVE MEMORIAL.—The execution of the bust of the late Dr. Goodeve, for the Medical College, Calcutta, has been entrusted to Mr. Geflowski, of 13, Bruton Street. Mr. Geflowski's name as a sculptor is well known in India. The busts of Sir P. L. Cavagnari, Sir Cecil Beadon, Dr. Oldham, Mr. Arthur Grote, and many others, came from his studio.

SPECIAL CORRESPONDENCE.

MELBOURNE.

[FROM OUR SPECIAL CORRESPONDENT.]

Proceedings of the Health-Section of the Social Science Congress.

THE Health-Section of the Social Science Congress has completed its sittings, which have been characterised by interesting debates and valuable discussion. Dr. McCrea, the president of that section, dealt in his opening address with some aspects of hygiene. He remarked that sanitary effort had been greatly directed towards the prevention of zymotic diseases; and that, in consequence, increased attention had been directed towards those fostering influences which affect mankind through air, food, water, drainage, and the mode in which the excreta and waste-products were dealt with; but, he continued, the glowing anticipations of sanitary reformers had not been realised, and preventable disease had not been prevented. He contended that sanitary measures had been too exclusively occupied in dealing with excreta, which were supposed to be the means through which zymotic diseases fomented and spread. Ventilation he regarded as a most important factor in reducing death-rate, and considered it wanted in the dwellings of the lower classes. This defect, and overcrowding, he regarded as a fertile source of disease. He considered that thorough drainage of a city improved its health; and strongly favoured the idea of susceptibility in the individual as a cause of disease. Intoxicating liquors played a conspicuous part in lowering vitality, as also food taken in excess. It was not sewerage, ventilation, or drainage that caused the rise of nations; it was temperance, practice of virtue, controlling the passions and appetite, and subjecting the body to exercise and training, that produced the dominant nations of antiquity. After mentioning numerous examples in testimony of his theory—such as Assyrians, Egyptians, Medes, Greeks, and Romans—he drew attention to the Jews, who, having lost their locality as a nation, in spite of persecutions of unprecedented severity by the other nations of the world, were still an united people, after having survived all the great nations of antiquity. He thought their unity and tenacity of existence to be due to the adhesion to the precepts of their law, which was conspicuous by its minute directions with regard to everything concerning life and death. A hearty vote of thanks was proposed to the President by Dr. Graham, and seconded by Professor McCoy, who remarked that Dr. McCrea had made Melbourne one of the healthiest spots in the world.

Dr. Jamieson read a paper on infant mortality. The Victorian rate, he stated, was lower than in most countries, amounting to 123 deaths to 1,000. The rate in Melbourne was 168 to 1,000, being greater than that of London. He considered that climate acted only indirectly, infantile death-rate being merely a question of feeding. He regarded much of the milk sold in Melbourne as bad; and urged the feeding of infants at the breast, and the controlling of milk-supply.

Dr. Louis Henry read a paper on the comparative immunity from disease among the Jews. He stated that statistics showed the Jews to have been very slightly affected by epidemic diseases; that they were not so liable to be affected by typhoid fever, cholera, consumption, intermittent fevers, syphilis, and puerperal fever as other races; that their vitality and longevity were very high: that suicides were rare; that they married early; and that a larger proportion of boys were born. The explanation of these statistics was offered by a review, historical and critical, of the sanitary laws of Moses.

Dr. Day of Geelong read a paper on the peroxide of hydrogen as a disinfectant. He considered benzine as containing a large amount of peroxide of hydrogen, and recommended its application to walls, floors, and furniture likely to contain contagion of any kind.

Dr. Paterson of Adelaide contributed a paper on quarantine. Dr. Louis Henry also read a paper on hospital architecture; Dr. Embling one on premature interments; Dr. Clelland of Adelaide on the commital and care of insane paying patients; and Dr. Ginders of New Zealand on school hygiene.

Dr. Balls-Headley read a paper on the Victorian relations of deaths in childbed to those from zymotic diseases. The author's view was that a zymotic fever might commence an epidemic of puerperal fever, which might be continued by local contagion. It appeared to him that a correlation existed in Victoria between puerperal deaths and those from typhoid fever, diarrhœa, diphtheria, croup, and erysipelas; and an absence of correlation between childbed deaths and scarlatina, measles, whooping-cough, and dysentery. The deductions were the necessity of isolation and sanitation of the former class from child-bearing

women. Particular attention was drawn to the relation between typhoid fever and childbed deaths.

Dr. Jamieson read a further paper on the excessive mortality among lying-in women in Victoria.

All these papers are to appear *in extenso* in a volume of proceedings to be shortly published.

CORRESPONDENCE.

REJECTIONS AT THE ROYAL COLLEGE OF SURGEONS.

SIR,—Many will agree with the gentleman who says in your last week's issue that the failure of so many young men, at the College of Surgeons, is caused by the miserably imperfect manner in which students of the present day are educated in our metropolitan medical schools. In the first place, many of our hospitals are overstocked with students, who cannot possibly have the attention and facilities due to them which they require during their anatomical and surgical education. In many hospitals, students are allowed to be surgeon's dressers before they have passed their primary examination, which, I think most will agree with me, ought not to be allowed, especially in a hospital with a limited number of beds, as it debars most students who have passed their anatomical examination from dressing; and most men prefer waiting for a dressership at their own hospital to going elsewhere. Again, the regulations, I believe, at all hospitals, require all first and second year's students to attend the hospital surgical wards daily; also the *post mortem* and out-patient rooms. Now, in justice to the more advanced students who are reading for their final examination, would it not be a grand addition to our hospital regulations if the first and second year's students were debarred from these several departments until they have passed their primary examination, thereby giving more room for the advanced ones to examine patients for themselves, and also better opportunity for the surgeon present to interrogate his men who are preparing for their examination? Having been in a large hospital myself, I can positively say that overcrowding of the out-patient rooms by first and second year's students is a great drawback to the senior men, who cannot frequently have a glance at the patient, much less examine him for themselves. This is the feeling amongst senior men in large hospitals, which can be confirmed by not a few. In most schools, the demonstrators of anatomy are supposed to take the men preparing for examination twice or thrice a week; but now the system of "cramming" seems to be so prevalent in every hospital, that, unless a student has a private coach, the chances are he will not even pass the test examination for the first lot in April, although he might be very well prepared for it, as the demonstrators send in their picked men at that time. Many men would be glad to see demonstrators of anatomy not allowed to take private pupils during hospital hours, as they cannot possibly have the same energy and patience with a public class immediately after cramming a private one. I hope some of the leading surgeons will take this subject in hand.—I am, yours truly,

THOMAS HUGH JONES.

Merthyr Vale, near Merthyr, February 21st, 1881.

HOSPITAL RESIGNATIONS.

SIR,—In justice to ourselves, we ask you to kindly insert in your next issue some few corrections of the statement in Dr. Clement Dukes' letter in reference to hospital resignations.

1. Ten (?) years ago, when Dr. Dukes first came to Rugby, he succeeded his predecessor, the Rugby School doctor, as medical officer to an institution then called "The Nursing Home". Eighteen months ago, in deference to public opinion, a general meeting decided that this institution should be converted into a cottage hospital; and, instead of the five medical men being "added at their (the medical men's) request", as he says, a circular was sent to all the medical practitioners in Rugby, containing this sentence: "In accordance with the wish of the subscribers, I hereby invite you to offer your services gratuitously, if you are so disposed, in order that we may make our arrangements for the year." So, practically, the request was on the other side.

2. Dr. Dukes says, "Making six doctors to twelve beds". This, we think, is no unusual proportion in cottage hospitals; but the number of beds has since been increased; and the building lately purchased is capable of containing many more, as funds will allow.

3. Further, Dr. Dukes accuses us of attacking him behind his back; but, when we say that our protest against his course of action was written to the Hospital Council, at whose weekly meetings (to use his own expression to us) he is "called upon to sit", we think your readers will see that he is as mistaken in so accusing us as you have shown him to be in saying we wrote anonymously.

4. Again, Dr. Dukes says we asked for an alteration in the rules without letting him know; when the fact is, we were requested by the Council (at whose weekly meetings he acknowledges he is "called upon to sit") to formulate some suggestions for so altering the rules, which suggestions, we are glad to see, you consider perfectly reasonable.

5. Dr. Dukes, you will observe, objects to our even *suggesting* alterations in the rules without his knowledge, though the Council (at whose weekly meetings he is "called upon to sit", and whose adviser on hospital matters he is acknowledged to be) has not hesitated to *pass* a rule for our observance in cases of operation in the hospital, without in any way consulting us, or letting us know their intention.

6. Dr. Dukes goes on to say that the subscribers at the public meeting rejected all our suggestions; but he omits to state that the chairman did his utmost to suppress our letter containing them, and used covert threats of resignation of some of the Council if they were accepted.—We are, sir, yours faithfully,

J. INGLEBY MACKENZIE. THOMAS DUKE.
WALTER A. E. WALLER. HERBERT SIMPSON.
RICHARD KING, Staff-Surgeon R.N.

LISTERIAN OVARIOTOMY.

SIR,—Before Mr. Oliver Calley Maurice took up this discussion, he ought to have taken the trouble to read carefully the correspondence which has excited his astonishment. Had he done so, he never could have said, "While one side attribute their success entirely to Listerian precautions, the other aver that their patients have been actually killed by the action of the carbolic spray". The facts are that, in the discussion, it has been Mr. Thornton who has made both of these statements, so that they are both made by one side, and not by the opposite sides.

Mr. Maurice would have helped the discussion more, if he had told us whether the two fatal cases he had early in his practice were or were not clamp cases; for, as far as my views are concerned, this is the initial question—Has or has not the intraperitoneal method of dealing with the pedicle a just claim for all our recent success? While I have by no means come to an absolute conclusion about Listerism, my experience is driving me to the opinion that my patients do much better without it.

Mr. Maurice's mortality of 14 per cent. is not very encouraging, one way or the other, seeing that we now have rivalries between 3.5 and 5 per cent. in large numbers of cases; and, if those of us largely engaged in abdominal surgery never get cases "which would undoubtedly have died soon if not operated on", we should have no mortality at all—with or without Listerism.—I am, etc.,

LAWSON TAIT.

AORTA LIGATURES.

SIR,—Your JOURNAL of February 5th reports Mr. Lister to have said in his address to the Clinical Society, concerning my ex-aorta ligatures: "I am given to understand that their form and size render them by no means very convenient." The size and form of a ligature, thin, and about one-eighth of an inch broad, seems hardly likely to be inconvenient. All that is needed to render its passage under the vessel perfectly easy, is that the eye of the aneurysm-needle should be a little longer than usual.

As I have in my possession letters from, I believe, all the surgeons who have used the ligature testifying to its efficacy, and saying no word of its inconvenience, I am rather surprised at the allegation.

May I request Mr. Lister to state who was his informant; whether he had ever used the ligature; and what were the inconveniences alleged?—Yours truly,

RICHARD BARWELL.

32, George Street, Hanover Square, W., February 12th, 1881.

HOUSE-SURGEONS AND CORONERS' INQUESTS.

SIR,—I should feel obliged if you would kindly find room in your valuable JOURNAL for an answer to the following questions.

1. Is it obligatory on house-surgeons of general hospitals to give notice to the coroner of any death that may occur in the hospital after an operation, such operation not having been performed for the relief of an injury, in order that he might determine whether an inquest should be held on the case, or not?

2. Is it the custom or rule to hold an inquest on a patient who has died, either on the operating table, or within a certain time of an

operation; excepting, of course, those cases in which the anæsthetic has produced death, or a previous injury has necessitated the operation?

3. Is there any book published, giving in a compact form the laws regulating the coroner and his court?

Hoping that you will pardon my thus trespassing on your space, I remain, sir, yours obediently, LEX.

February 2nd, 1881.

*** There is no written or prescriptive law as to the holding of inquests upon such cases of operations, etc.; but, in one of the largest of London districts, where they frequently occur, the coroner considers that inquests are necessary. As the verdict of the jury is one of "misadventure", it often prevents friends of patients from alleging blame to the hospital authorities, or those engaged in the operation or in the administration of anæsthetics. The friends not unfrequently express themselves satisfied whilst at the hospital, but afterwards, in conversation, remarks are passed which would be detrimental to the hospital or surgeons. This in all such instances is prevented by the facts being stated, and explanations duly recorded, in public court.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Friday, February 18th.

American Pork and Trichinosis.—Sir J. HAY asked the Secretary to the Admiralty whether the Admiralty are taking precautions in regard to the ration of pork for the Navy in consequence of the serious outbreak of trichinosis in America, which has caused the French Government, as reported, to forbid the importation of American pork.—Mr. TREVELYAN: Of the salt pork used in the Navy, about a third is supplied by Irish curers, and two-thirds by Danish firms, who deliver at Deptford cheaper than the Irish. Both Danish and Irish pork, apart from the fear of trichinosis, is better suited for Navy purposes than the American—so much better, that the presence of American pork could be detected in the barrels. But another and more effective precaution is afforded by the determination of the Admiralty to deal only with responsible and reputable firms, a determination to which they in all cases take the utmost pains to adhere.—Dr. DIXON-HARTLAND asked the Vice-President of the Council whether he had seen that the importation of pork from the United States had been prohibited in France, Russia, Italy, Austria, Spain, Portugal, and Greece, in consequence of the prevalence of trichinosis, and the hopelessness of inducing the poorer classes to disinfect the pork, and so prevent disease; and whether he was prepared to forbid its introduction into Great Britain and Ireland.—Mr. MUNDELLA: As the question of the hon. member affects large interests, and only appeared in the paper for the first time this morning, I am not able to answer it as fully as I could wish. We have no official information that the Governments of the countries referred to by the hon. member have prohibited the importation of pork from the United States; but we are making inquiries, through the Foreign Office, as to this part of the question. The importation of pork, bacon, and ham into this country exceeds 5¼ millions of hundredweights (nearly 20 lbs. per head of the entire population), and the estimated value exceeds 9½ millions sterling. Nearly the whole of this comes from the United States, Canada, Germany, and Belgium; and this is exclusive of the importation of live swine. To cut off such an enormous supply of animal food would inflict great hardship on the poorer classes, and could not be done except upon the most urgent necessity, and after the gravest consideration. It would not suffice to prohibit the American supply without prohibiting the importation from all other countries—the disease exists in other countries as well as America—for, so long as any country admits American pork, the trade is of such magnitude and importance that we should be sure to receive supplies at second hand. We have made inquiries of the Local Government Board, and we find no report of trichinosis in this country. Two years ago, there was a report of an outbreak on board a training ship, which has since been investigated, and the medical authorities are satisfied that it was not trichinosis. The Duke of Richmond, when Lord President in 1879, was asked a similar question; and, in his reply, he called attention to the fact that safety was only to be found in the thorough cooking of pork, whether fresh or salt. And it is only reasonable to suppose that the practice of eating smoked sausages, ham, and imperfectly cooked pork on the Continent and in Northern Europe, has contributed to the spread of this terrible disease; whereas in this country, where the importation has been on so large a scale, there has been no serious disease, owing, as we believe, to the thorough disinfection by cooking at a high temperature.—Mr. PAGET asked the President of the Board of Trade if his attention had been called to a letter from the British Consul at Philadelphia, dated December 21st, 1880, referring to the immense mortality among swine in Illinois, the immense quantity of pork annually shipped to the United Kingdom, and the terrible nature of the disease called "trichinosis"; and if he would state to the House if any, and what, powers were vested in the Board of Trade to order the inspection at the port of arrival of any pork, butter, or cheese imported into this country, with a view of preventing the introduction of a disease as appalling as that described in the letter of the British Consul.—Mr. CHAMBERLAIN replied that his attention had been called to the letter in question, but the Board of Trade had no authority to order the inspection which was desired by the hon. member.

OBITUARY.

WILLIAM RUTHERFORD SANDERS, M.D., F.R.C.P.E.

IT is our painful duty to record the death, on Friday, February 18th, of William Rutherford Sanders, M.D.Ed., B.L.Montpelier, F.R.C.P.E., and F.R.S.E., Professor of Pathology and of Clinical Medicine in the University of Edinburgh. In September, Dr. Sanders returned from his holiday stay in the Highlands, near Aberfeldy, apparently in vigorous health, and at once resumed his consulting practice. Three days afterwards, a paralytic seizure, of the nature of apoplexy or embolism, rendered him speechless, and without power in the limbs of the right side. From the paralysis he had, so far as his limbs were concerned, recovered to some extent. Speech, however, remained in the same condition as at first. He was never throughout his illness unconscious, and was able to take an interest in all his surroundings, and in the doings of the professional and general public. On Thursday, February 17th, early in the afternoon, he suddenly became unconscious. From this condition he never rallied, and he died in the forenoon of the following day, aged fifty-three years. Subsequent examination showed that embolism had been the cause of the first seizure in September.

Dr. Sanders was the son of Dr. James Sanders, at one time a prominent physician in Edinburgh, and the author of certain new ideas on the treatment of disease. Educated at the Edinburgh High School, the deceased proceeded to France, and there completed his general education, when he received the degree of Bachelor of Letters at Montpelier. He then returned to Edinburgh, studied medicine there, and received his M.D., with gold medal, for his dissertation thesis "On the Anatomy of the Spleen". Subsequently, he enlarged his course of study by a prolonged stay at Heidelberg and Paris. Since then, Dr. Sanders held in succession the appointments of Uterine Pathologist in the Edinburgh Infirmary; Conservator of the Museum of the Royal College of Surgeons, Edinburgh; Lecturer on Institutes of Medicine in the extramural School, Edinburgh; Physician to the Edinburgh Infirmary, and Lecturer on Clinical Medicine there; and, during the last eleven years, of Professor of Pathology and of Clinical Medicine in the University. As a matter of course, Dr. Sanders was a member of the various medical and scientific societies in Edinburgh, and, last year, was President of the Medico-Chirurgical Society; while he was also Consulting Physician to the Royal Public Dispensary and to the Dental Hospital, and to the English and Scottish Law Life Association.

In his earlier years, Dr. Sanders did much good work as an investigator in histology, and as a careful observer of clinical phenomena. His contributions to professional literature attest this; and those who have read his articles in Reynolds's *System of Medicine*, cannot but be impressed with the thoroughness of grasp with which he treated his subject. In the *Medical Directory* will be found the names of his most important contributions to medical literature. Of late years, the engrossing duties of the chair of pathology, and especially of clinical medicine, together with the large consulting practice which flowed in upon him, hindered the deceased from continuing to take that place in medical publications in which he was formerly so active; to this should be added, that, for nearly three years, Dr. Sanders was almost entirely laid aside by severe illness. As a lecturer, his teaching was characterised by its accuracy, its clear exposition of principles, and thorough mastery of detail; and in clinical medicine, it may be added, by its enthusiasm. At the bedside in the hospital, the late professor may be said to have been at his best; there he did imperishable work, by the thoroughness of his examination of physical signs and symptoms, not only as regarded the knowledge of the case in hand, but in its effect on the after-work of his pupils.

The death of Dr. Warburton Begbie coincided with the restoration to health of Dr. Sanders (after the prolonged illness already referred to), and contributed in no small measure to the steadily increasing consulting practice which came to Dr. Sanders, and which may be said

to have taxed him too heavily. By all who consulted him in the profession, he was respected as one who never hazarded a rash assertion, nor allowed himself, without ample evidence, carefully sifted, to pronounce a diagnosis for the sake of giving a recognised name to the obscure disease of some patient. In his private life, Dr. Sanders was esteemed as highly as in his professional and public life. He was modest to what his friends considered a fault. Firm and outspoken when abuse had to be corrected or admonition given, he was withal kindly in the performance of such duty; and nothing caused him more regret than when he found he had hurt the feelings of him whom he addressed. Generous and warm-hearted, and speaking ill of no man, it cannot be wondered that all who knew him now lament his loss with a depth of feeling, and revere his memory with a sorrow, that none but a thoroughly upright good man could have created.

THOMAS CAHILL, M.D.

We regret to announce the death of this gentleman, which occurred after a painful and protracted illness, at his residence, Albert Gate, Hyde Park, on Sunday, February 6th. Dr. Cahill was born at Meath in Ireland in 1807, and consequently had reached his seventy-fourth year. He studied medicine in Dublin. Crampton, Marsh, Stokes, and Corrigan were amongst his teachers; and with these and other eminent members of the Dublin school he continued always on intimate and friendly terms. Dr. Cahill subsequently studied at Glasgow, where he took his degree in 1837. In 1840 he settled in London in the immediate neighbourhood of his late residence, and from that period to within a short time of his decease he practised with success. Dr. Cahill had suffered from time to time from gouty symptoms, which led him to visit both Vichy and Carlsbad; and on the action of these waters he had written papers, which caused him to be regarded as an authority on the subject, and which attracted many patients of a high class to his consulting-room. He also published a memoir on the "Treatment of Delirium Tremens without Opium" in the *Dublin Medical Journal;* and one "On Cases of Typhoid Fever and its Treatment". Dr. Cahill's knowledge of his profession was varied and extensive, and that knowledge he applied with great discrimination in the management of diseases. He had long been a member of our Association. Amongst both his patients and his professional brethren, Dr. Cahill was regarded as an upright honest man and a faithful friend; and by both classes his loss is greatly lamented. He has left a widow, daughters, and an only son, who has nearly completed his professional education at St. George's Hospital.

Bequests and Donations.—Mr. E. B. Noden, of Brixton, has bequeathed £1,000 to the Manchester Royal Infirmary; £500 each to the Earlswood Asylum for Idiots, the Cancer Hospital, and the Hospital for Consumption and Diseases of the Chest; £300 to the Royal Hospital for Incurables; £250 to Miss Marsh's Convalescent Hospital at Brighton; and £200 each to the London Hospital, the British Hospital for Incurables, and St. Mark's Hospital for Fistula, etc.—The annual report of the Royal Infirmary, Liverpool, acknowledges the receipt of £1000 from the family of the late Mr. G. W. Bahr, "in his memory, for investment".—The Manchester Royal Infirmary has received £187 7s. 4d. under the will of Mr. Richard Jackson.—The Marquis of Salisbury has given one hundred guineas to the Royal Infirmary, Liverpool.—"J. W. H." has given fifty guineas to the North-Eastern Hospital for Children.—The Belfast Royal Hospital has received £100 from Anonymous, and £105 from the mother of a grateful patient.—The Samaritan Hospital, Belfast, has received a donation of £50 from Anonymous; and the Belfast Ophthalmic Hospital a bequest of £30 from the late Mrs. McNeilly.—The sum of £500 has been bequeathed to the Edinburgh Hospital for Incurables by the late Miss Magdalene Anderson Farnie, Edinburgh; and a donation of £100 each to the Royal Infirmary, the Association for Incurables, the Sick Children's Hospital, and the Destitute Sick Society, has been intimated by Mr. Councillor Crighton.—The following donations have been voted by the Court of the Leathersellers' Company to the charities and institutions named: St. Peter's Hospital for Stone, twenty guineas to the building fund, and ten guineas for general purposes; twenty guineas each to the Great Northern Hospital, London Hospital, Royal London Ophthalmic Hospital, City of London Hospital for Diseases of the Chest, London Fever Hospital, Seaside Convalescent Hospital (Seaford), Royal General Dispensary, and the Asylum for Idiots, Earlswood; and ten guineas each to the Cottage Hospital (Teddington and Hampton Wick), Metropolitan Free Hospital, Middlesex Hospital, University College Hospital, King's College Hospital, North-Eastern Hospital for Children, Royal Ear Hospital, Central London Throat and Ear Hospital, East London Hospital for Children, etc.

MILITARY AND NAVAL MEDICAL SERVICES.

THE ARMY MEDICAL SERVICE.

Sir,—I shall be happy to place my somewhat limited experience of the Army Medical Department at "Ignoramus's" disposal, if you will be good enough to insert these answers to his questions in your columns.

1. It is quite possible to live on your pay alone, with care, in the Army Medical Department.

2. As regards his second question, it is quite a matter of opinion. Some men would not think of marrying till their income amounted to £300 a year. In this case, a surgeon would have to wait till he became a surgeon-major, if he had only his pay to depend upon; promotion to this rank taking place after twelve years' service.

3. Uniform bill, with bills for surgical instruments (a dressing-case alone required costing £5 5s.), tin box, boots, etc., should not amount to more than £60, at the outside, from the best London makers. At Netley, a surgeon on probation receives 8s. a day. This is sufficient to pay all necessary expenses, such as mess subscriptions, servant, etc. On leaving Netley, a surgeon is not appointed to a regiment, all now being on the staff, but is sent to some station, where he is under the principal medical officer, and may have to do duty at the station hospital, or be attached for a time to some regiment anywhere within the district. The pay now is £16 5s. a month, after income-tax of 8s. 4d. has been deducted. If quarters are not available, a surgeon's allowances are, on the average, 5s. a day, varying, according to the time of year, for fuel and light. The constant moving to which juniors are subjected costs them a good deal of money, Government allowance for travelling not being sufficient, as a rule; but although during the ten months last year, after leaving Netley, I was obliged to move my residence six times, besides taking short trips with troops, I am glad to say I was able to finish the year with a small balance in my favour at my agent's, my necessary bills being paid on starting. This will, I think, prove my answer to the first question.

Any further information required I will gladly give as far as I can, and remain, sir, your obedient servant, Surgeon.

Sir,—In answer to the questions of "Ignoramus", I beg to reply as follows.

1. It all depends upon the habits of "Ignoramus" whether he is able to live on £80 *per annum*. He must not count the extra £80 allowed for lodgings, fuel, and light, as the probabilities are that he will be made to live in "quarters", and, of course, will not be entitled to draw lodging allowance, etc. If he be a man of moderate habits, and have the luck to be stationed in some small garrison town (where his existence is not ignored by the mess-presidents of the regiments quartered there), he may be made an honorary member of one of the messes; perhaps, if the said regiments be not very exclusive, of all; and he will be able to take his meals there, and, of course, will find this a great convenience, and a great means towards eking out his pay. If, unfortunately for him, he be quartered in a large garrison town, or be doing duty at one of the large station hospitals, his existence is very apt to be forgotten, and he will have to get his meals in the best way he can. This, of course, is one of the great drawbacks to our department; and until we have a mess of our own in all large garrison towns, or till we are made members of the nearest regimental mess as a right, we shall have to grub along, thankful to any good-natured regiment that takes pity on our loneliness.

2. This, again, depends on whether "Ignoramus's" future wife possesses means of her own; for I presume "Ignoramus" would not care to marry on £200 *per annum;* and he has to serve five years before he gets an increase of pay (£5).

3. The cost of uniform, of course, varies a great deal. If he goes to a good tailor, and gets good things, not garments that wear out after a few months' wear, his uniforms will cost him at the least between £80 and £90.

The necessary surgical instruments required comprise a regulation pocket-case (Weiss) made to fit into undress pouch; the cost is between £5 and £6; and other instruments are found for him. The cost of living at Netley may be reckoned (not including subscriptions to mess on joining, which amounts to £5, and a few other small subscriptions, such as library, etc., which may be covered by another £5) to about seven shillings a day, if he do not drink wine; but he cannot live on his pay whilst at Netley, let him be as careful as he pleases.

As to being appointed to a regiment, "Ignoramus" is evidently unaware that those good days have gone by; and that now, under the new *régime*, such a thing as a regimental surgeon in England is not to be found, except in the case of the Household troops, and the Guards. He is simply an officer of the Army Medical Department, and has nothing whatever to do with regiments, except as far as attending on their sick is concerned, and rarely comes into contact with their officers, unless he be appointed to the medical charge of officers, their families, and the women and children of the regiments at the station. Of course there are drawbacks in every branch of the service; and the one that we feel most, and especially young unmarried men on joining, is the want of a mess of our own, where we could return civilities shown us, and be rid of that feeling of obligation and sufferance with which it is our present lot to have to contend. I do not mean to say that it is the case in all stations; but there are many in which a medical officer might just as well be in Patagonia as far as regards the amusements, etc., in which our more fortunate brother combatants take part.

In conclusion, if "Ignoramus" be not of a very sensitive nature, and can bear a fair amount of snubbing with good temper, he cannot do better, provided he has no hankering after private practice, than by joining the Department. Do my own part, with all its drawbacks, I like it, and intend to stick to it; being convinced that the time is not far off when we shall again drift back to our old positions as regimental surgeons, and friendly advisers of both officers and men.—Your obedient servant, Indicus.

Inquests.—During the three months ending December last, 6,811 inquest cases were registered, equal to 5.4 per cent. of the total deaths; this proportion slightly exceeded that which has prevailed in recent corresponding quarters. The proportion of inquest cases in the twenty towns averaged 0.8 per cent.; it did not exceed 3.0 in Oldham, and 3.3 in Bradford and Sheffield, but ranged upwards in the other towns to 9.1 in Birmingham, and 10.2 in Manchester.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

SUPPRESSING A MEDICAL OFFICER'S REPORT.

It is, unfortunately, but too common for sanitary authorities to be utterly callous to the reports presented to them by their officers in which any reform or improvement is urged; but it is less common for authorities to be so much interested in a report that they order it to be revised—in order that any statements indicative of their own apathy or neglect may be expunged from it before publication. At the last meeting of the Tottenham Local Board, when the annual report of the Medical Officer of Health was read, certain of the members took umbrage at Dr. Watson's remarks about the unhealthy state of the district. One member asked indignantly whether Dr. Watson's statement (which is, no doubt, borne out by facts), that "there are at the present time a very large number of houses inhabited, and a great many more ready to be inhabited, which are not likely to improve the health of the community", was a state of things that ought to be published abroad; and expressed his opinion, that, "in its present form", the report "ought not to go out into the world. It was adverse to the interests of the parish and the district altogether; and against the reputation of the board, and every officer connected with it". Several other members agreed with these virtuous remarks; and, ultimately, a majority of the board decided that the report was to be sent back for revision. It other words, the board have suppressed Dr. Watson's honest (but adverse) comments on the sanitary state of the district, on the extraordinary ground that "they would prejudice the board and its officers". If the board had really done their duty to the district, the reason for such subterfuges as this would not exist.

VENTILATION OF SEWERS.

Sir,—In your Journal of December 11th, Dr. Alfred Carpenter advocates "sewer-ventilation", and he says the objectors would rather drive the foul air into the house than allow it to escape into the street; but, remarkable as it may appear, that is the very evil which Dr. Carpenter himself would produce by ventilating the sewers; and I am surprised that a man of Dr. Carpenter's experience and position should advocate the adoption of such a system.

The evil of the modern system of drainage is to be found in the fact, that the drains and sewers are rendered foul and filthy by the solid human excreta which they contain, thereby converting them (the drains in particular) into cesspools; and, as those cesspools communicate with the interior of the houses, through the various water-closets, lavatories, sinks, and waste-pipes, the foul gas generated therein escapes through those connections into the interior of the houses; this Dr. Carpenter proposes to overcome by ventilating shafts.

Now, the three factors of decomposition are air, heat, and moisture; and the more any of those factors are admitted to an offensive material, surely the more it will smell; the greater the amount of decomposition in the drains, the greater will be the amount of sulphuretted and phosphuretted hydrogen and ammoniacal gases generated. If solid human excreta were not exposed to atmospheric influence at all, the decomposition would be reduced to a minimum, and it might even be deprived for the time being of its offensive odour altogether, as my late esteemed and distinguished friend Dr. Parkes has shown, while referring to my views in his great work on Practical Hygiene, page 122. The evil of sewer-ventilation is, that atmospheric currents are so capricious, that it is impossible to regulate them, at all events to any reliable extent; they will sometimes be upwards and sometimes downwards. The flow of sewerage through the sewers usually draws the air down the ventilators into the sewer; and the additional foul gas which is generated thereby, with the sewer-gas which previously existed in the drains and sewers, is forced by the atmospheric pressure down the ventilators through the various connections, as I said before, into the interior of the houses, producing there the very effect which Dr. Carpenter says, the objectors of ventilation wish to produce.

At the Parkes Museum meeting, a few months ago, Sir William Jenner said the sewers of London were filled with the poison of contagion; and, referring to some mansion, Sir William said that, if it had escaped the effect of the contagion, it could only have been by accident. At the present moment, the lamentable fact exists, that something like four thousand miles of drains choked with fæcal matter are to be found under the houses and streets in London; and they constitute the vilest cesspools imaginable, and they are the sure source and origin of all diseases of the zymotic class; and in them also Dr. Carpenter will find the origin of London fogs, quite as much as in the smoke. If he were to consume the whole of the latter, which he advocates, the fogs of the metropolis would not be deprived to any material extent of their yellow-brown appearance, and of but little, if any, of their unsanitary effect; in fact, I am not sure, so long as these underground cesspools are permitted to continue, that the unconsumed carbon may not have a disinfecting effect on the foul emanations which, in certain atmospheric conditions, rise from the filthy drains of the metropolis.

In your article on the outbreak of diphtheria at the Great Ormond Street Hospital for Sick Children, it is said that both wings were attacked simultaneously, and that Mr. Power finds it necessary to close his report without having arrived at any definite answer how the disease was produced in the hospital. If Mr. Power, after a few dry days, will have the drains into which the various water-closet soil-pipes of the building discharge their contents opened and examined, he will not have to go far for a solution of the problem he desires to solve.

At Clovelly, where you record an outbreak of diphtheria in your Journal of December 18th, the medical officer of health, Dr. Ash, says "there is nothing to be complained of in the sanitary arrangements of the school, or in the system of disinfection adopted". The drainage is, I expect, of the modern type, pure! wholesome! and perfect! in fact, a true specimen of the underground cesspool system, of which, as I have pointed out, there is such a superabundance in London, Birmingham, and other towns.

I recollect Sir Robert Christison, at the Social Science meeting at Edinburgh, saying there was a new disease in that city—a disease which, he told his audience, was called enteric or typhoid fever; and, said Sir R. Christison, the fever does not attack the houses of the poor, where the drainage and ventilation are imperfect, but it attacks the houses of the rich, where the drainage and ventilation are excellent.

The evils which Dr. Carpenter wishes to overcome, viz., such as arise from the generation of sewer-gas, surely would be better overcome by intercepting the solid excreta, as well as other offensive solid matter, at the fountain-head, before it has been placed under the influence of the rainfall, and retaining it in sealed receptacles, thereby preventing decomposition altogether, and freeing the drains and sewers, as well as the rivers, from pollution to a remarkable extent; but, if the foul state of the drains and sewers is to be continued, and the underground cesspool system to be promoted, I would suggest, instead of admitting atmospheric air into the sewers, that it should be excluded to the utmost possible extent.—I am, sir, yours truly,

E. Chesshire, F.R.C.S.

COMPULSORY POOR-LAW SUPERANNUATION.

Sir,—In the Journal of February 5th, 1881, you express yourself as opposed to the fourth resolution on Poor-law medical superannuation, adopted by the Irish Medical Association, on the ground that it might excite opposition to the general scheme of compulsory superannuation. I have no doubt this resolution was carefully considered by those who are practically interested in this subject; and, as it seems to me one of the most valuable resolutions in the Bill, I regret you have furnished those who may oppose it, not with arguments, but with the weight of the Journal. Without this clause, thirty years' services will not so frequently be attained as with it; for medical officers under the Poor-law, like others, change their appointments. Presuming that, after my eleven years' Poor-law service, I accepted a better position under the Poor-law at Birmingham or Leeds, I should consider it a great disadvantage that my eleven years' service at Halifax should not count towards superannuation. I am strongly of opinion that our service should be cumulative.

In the army and navy, a retiring allowance is granted to an officer, independent of the time he has been attached to one regiment or vessel. It is not unreasonable to apply the same principle to a service of equal importance. The Poor-law medical officers of England are the persons interested; and I have no doubt, if the English service could be polled to-morrow as to "whether they were in favour of the fourth resolution", you would receive an almost but unanimous affirmative. Your observations will, I think, have disappointed other Poor-law medical officers besides yours faithfully. Th. M. Dolan, Medical Officer Halifax Union Infirmary, Member of Council West Riding Branch British Medical Association.

Horton House, Feb. 11th, 1881.

*** We regret that our correspondent, in his otherwise able letter, should have failed to see the advantages of the policy advocated. We are fully alive to the desirability of converting a merely permissive enactment into a compulsory one; and it is because we are desirous that the Act should be amended in this direction that we question the policy of raising the vexed subject of cumulative services, which, if it forms one of the clauses of the proposed Bill, will probably excite such opposition as may shipwreck the whole scheme. Nor is our correspondent particularly happy in his reference to the army and navy. Those services get their pay and pensions from Imperial sources; whilst Poor-law officers, so far as one-half their salaries are concerned, are paid from rates; and when the Superannuation Bill was in Committee, it was distinctly provided that no portion of such grant should come out of the Exchequer. If our correspondent had taken part in the labours of those who secured the permissive Act, he would have learned how great were the efforts needed, and what caution was required in bringing the subject before the House. The thing to be first done is to get the Act amended, the other matters will follow in due course—the sooner, probably, if national, as opposed to local, rating be introduced.

EARLY VACCINATION OF INFANTS IN WORKHOUSES.

Sir,—Having, during the last twelve years, always vaccinated the infants born in this workhouse (unless ill), at ages varying from seven to fourteen days, I can state that I have not only never seen any bad results therefrom; but, on the contrary, owing, as I believe, to the child at that age not moving its arm so much as it does afterwards, there has been much less inflammation and swelling of the arm, whilst the cicatrix has been equally well marked. This practice has been adopted to prevent any child leaving the house unvaccinated. I receive the usual fees of one shilling and sixpence and one shilling for cases of vaccination and revaccination; and this workhouse is recognised by the Local Government Board as being a separate vaccination district.—I am, sir, yours faithfully,

John Woodman, F.R.C.S. (by Exam.),
Medical Officer City of Exeter Workhouse.

2, Chichester Place, Southernhay, Exeter, February 14th, 1881.

Birmingham.—In the last quarter of 1880, there was a much smaller mortality at Birmingham than in the corresponding quarters of 1878 and 1879. Dr. Hill says that the very considerable and satisfactory decrease in the death-rate is due partly to a large reduction in the mortality from zymotic diseases, and partly to a decline in the death-rate from local diseases generally, but more especially from diseases of the respiratory organs—in consequence, probably, of the mild weather which prevailed during December. The average age at death was 27 years, against 22 years and ten months in the corresponding quarter of 1879. The deaths from zymotic diseases numbered only 199, as compared with 368 in the same period of 1879. This marked reduction was owing to the fewer deaths from each of the seven principal zymotics, except diarrhœa. The infectious hospital, disinfecting apparatus, and mortuaries continued to be of much service during the quarter.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentleman passed his Examination in the Science and Practice of Medicine, and received a certificate to practise, on Thursday, February 17th, 1881.

Dobrashian, Gabriel Sukias, Constantinople.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced :—

*BRAINTREE UNION—Medical Officer and Public Vaccinator. Salary, £80 per annum, with extra fees. Applications, with testimonials, to be sent on or before Friday, the 4th March next.

*BRIGHTON AND HOVE LYING-IN INSTITUTION—A fourth Honorary Surgeon. Applications, with testimonials and copies of registration, to the Secretary, by the 1st of March.

ESSEX AND COLCHESTER HOSPITAL—Matron. Salary, £60 per annum, with board, lodging, and laundress. Candidates must be single women or widows without encumbrance. Applications, on or before Wednesday, March 23rd, to the Committee, not later than twelve o'clock.

JESSOP HOSPITAL FOR WOMEN, Sheffield.—Medical Officer. Must be a registered practitioner possessed of a medical and surgical degree of Great Britain or Ireland. Applications, with proof of qualifications, on or before Monday, the 28th instant.

*KENT AND CANTERBURY HOSPITAL—House-Surgeon. Salary, £80 per annum, to be raised to £90 per annum after six months' service, and to £100 per annum after twelve months' service, with board, lodging, and washing. Applications, with testimonials, to be sent on Friday, March 25th, by 12 o'clock noon.

LUDLOW UNION, Munslow District—Medical Officer. Salary, £90 per annum.

ONGAR UNION, Essex—Medical Officer and Public Vaccinator for the Fourth District, comprising the parishes of Lambourne and Stapleford Abbott. Applications, not later than February 27th, to Charles Smith, Clerk, Town Hall, Chipping-Ongar, from whom further particulars may be obtained.

*PAROCHIAL BOARD OF STRATHMIGLO, Fife.—Medical Officer. Salary, £30. Applications to James Somers, Inspector of Poor.

REIGATE UNION, Fourth District—Medical Officer. Salary, £40 per annum.

*ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL—House-Surgeon. Salary, £100 per annum, with board and residence. Applications, with testimonials, etc., to be addressed to the Chairman of the Committee, Vicarage, Portsmouth, on or before Monday, the 28th instant.

ROYAL UNITED HOSPITAL, Bath.—Resident Medical Officer. Salary, £100 per annum, with board and lodging. Applications, with diplomas and testimonials, to be forwarded to the Secretary, on or before March 11th.

STOCKPORT INFIRMARY—Matron. Salary to commence at £40, with board and rooms. Applications in own handwriting, to be accompanied with good testimonials, to S. W. Wilkinson, Honorary Secretary, Greek Street, on or before March 5th, 1881, from whom any information may be had.

SUFFOLK COUNTY ASYLUM—Assistant Medical Officer. Salary, £100 per annum, with board, lodging, and washing, increasing £10 a year to £150. Candidates must be single, fully qualified, and registered according to the Medical Act. Applications to the Resident Physician, County Asylum, Melton, Woodbridge, Suffolk.

UNIVERSITY OF GLASGOW—Examiners in Medicine, vacant April 1st; viz., 1. Physiology and Pathology; 2. Medicine and Clinical Medicine; 3. Surgery and Clinical Surgery. Annual fee of each examiner, £40; term of office, four years. Applicants resident in Glasgow not expected to give in testimonials; those resident elsewhere are requested not to present more than four. Applications, on or before March 15th, to Dr. Anderson Kirkwood, 145, West George Street, Glasgow.

WARNEFORD HOSPITAL AND NURSING INSTITUTION, Leamington—Matron; must be able to keep accounts and superintend the nursing and cooking departments. Salary, £70 per annum, with board, lodging, and washing. Applications, with testimonials, under sealed cover, to the Secretary, on or before Saturday, March 12th.

WEST NORFOLK AND LYNN HOSPITAL—House-Surgeon and Secretary, who must possess a medical and surgical qualification. Salary, £100 per annum, with board, lodging, and washing. Applications, with copies of testimonials, to be sent to the Weekly Board not later than midday of March 4th. Selected candidates, to whom notice will be given, are to be in attendance, and whose railway fares will be paid. The successful candidate to enter upon his duties at once.

YORK FRIENDLY SOCIETIES' MEDICAL ASSOCIATION—Resident Medical Officer. Salary, at the rate of £200 per annum. Applications, with testimonials, on or before March 5th, to J. Brown, 1, Park Street, Grives, York.

MEDICAL APPOINTMENTS.

ADLAND, T. D., M.B., appointed House-Physician to St. Thomas's Hospital.

BUTLER, H. P., M.R.C.S., appointed House-Surgeon to St. Thomas's Hospital.

CARPENTER, A. B., M.R.C.S., appointed House Surgeon to St. Thomas's Hospital.

COHEN, Abraham, B.A., M.B., appointed Senior House-Surgeon to the Metropolitan Free Hospital, *vice* W. S. Byrne, B.A., M.B., resigned.

HUTTON, H. R., M.B., appointed House-Physician to St. Thomas's Hospital.

LUNN, J. R., M.R.C.S., appointed Resident Accoucheur to St. Thomas's Hospital.

SMITH, R. P., M.B., B.S., appointed Demonstrator of Practical Physiology in the Medical School of St. Thomas's Hospital.

SWEET, H., M.R.C.S., appointed Junior Assistant House-Physician to St. Thomas's Hospital.

WALTERS, T. R., M.R.C.S., appointed Senior Assistant House Physician to St. Thomas's Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

MARRIAGE.

GREEN—GRANT.—On the 22nd inst., at the Parish Church, Kendal, by the Venerable Archdeacon Cooper, assisted by the Rev. F. Langbridge, Thomas Beaufoy Green, Esq., to Emily, youngest daughter of the late George Grant, Esq., of London.

DEATH.

BROOKFIELD.—On the 21st instant, at No. 2, Devonshire Villas, Brondesbury, N.W., Ethel Blanche, aged 8, only child of John Storrs Brookfield, M.D.

PUBLIC HEALTH.—The annual rate of mortality last week, being the seventh week of this year, in twenty of the largest English towns, averaged 22.4 per 1,000 of their aggregate population. The rates of mortality in the several towns, ranged in order from the lowest, were as follow: Newcastle-on-Tyne 17, Birmingham 18, Bradford 18, Portsmouth 18, Leicester 19, Wolverhampton 19, Sheffield 20, Brighton 20, London 22, Plymouth 22, Salford 22, Hull 22, Norwich 22, Bristol 23, Oldham 24, Nottingham 24,, Leeds 25, Liverpool 25, Manchester 28, and Sunderland 28. Scarlet fever showed the largest proportional fatality in Bristol, and whooping-cough in Leeds. Of the 14 deaths referred to diphtheria in the twenty towns, 10 occurred in London. The death-rate from fever (principally enteric) was highest in Sunderland and Liverpool. Small-pox caused 56 more deaths in London and its suburban districts, and one in Manchester, but not one in any of the eighteen other large provincial towns. In London, 1,564 deaths were registered, which were 258 below the average, and gave an annual death-rate of 22.0. The 1,564 deaths included 55 from small-pox, 23 from measles, 36 from scarlet fever, 10 from diphtheria, 26 from whooping-cough, 14 from enteric fever, 6 from ill-defined forms of continued fever, 11 from diarrhœa, and not one either from typhus, dysentery, or simple cholera; thus, 181 deaths were referred to these diseases, being 68 below the average. The deaths referred to diseases of the respiratory organs, which had been 702, 606, and 408 in the three preceding weeks, further declined last week to 364, and were no fewer than 135 below the average; 211 were attributed to bronchitis, and 94 to pneumonia. Different forms of violence caused 48 deaths; 39 were the result of negligence or accident, including 16 from fractures and contusions, 5 from burns and scalds, 4 from drowning, and 11 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 38.0°, and 0.9° below the average. The general direction of the wind was easterly, and the horizontal movement of the air averaged 7.1 miles per hour, which was 5.4 below the average. Rain fell on three days of the week, to the aggregate amount of 0.51 of an inch. The duration of registered bright sunshine in the week was the fifth of an hour (against 10.2 hours at Glynde Place, Lewes), and was, therefore, equal to 0.3 per cent. of its possible duration. The recorded amount of ozone showed an excess on Sunday, Monday, and Saturday.

THE METROPOLITAN WATER SUPPLY.—Dr. Frankland reports, as the result of his analyses of the waters supplied to the Metropolis during January, that taking the average amount of organic purity in a given volume of the Kent Company's water, during the nine years ending December 1876, te represent unity, the proportional amount of impurity in an equal volume of water supplied by each of the other Companies, and by the Tottenham Local Board, was:—Colne Valley 1.5, Kent 1.9, Tottenham 2.7, New River 4.5, Lambeth 4.6, Grand Junction 4.7, East London 5.3, Southwark 5.8, West Middlesex 5.9, and Chelsea 6.8. The Thames water delivered by the Lambeth, Grand Junction, and West Middlesex Companies was of considerably better quality than that supplied during the preceding month; that distributed by the Southwark Company was not quite so good; while that supplied by the Chelsea Company was inferior to any sent out during the whole of last year. The Thames waters supplied during the month, except that delivered by the Chelsea Company, were all efficiently filtered before delivery. The Lea water delivered by the New River Company was of inferior quality, and contained moving organisms; while that sent by the East London Company was superior to the supply in the previous month. The New River Company's water was better than Thames water, and that of the East London Company equal to the average of the Thames waters. The deep-well waters supplied by the Kent and Colne Valley Companies and by the Tottenham Local Board were of their usual excellent quality. Dr. Hill, the Medical Officer of Health for Birmingham, reports that the water supplied to that town was "bright and of a faint yellow colour, the proportion of 'organic matter being exceptionally small'." The Loch Katrine water supplied to Glasgow is reported by Dr. Mills to have been "very light brown in colour", and to have "contained little suspended matter".

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. Thomas Bryant will show the Patient from whom, in November last, he removed the Head, Neck, and half the Shaft of the Femur, for Acute Necrosis, and in whom New Bone and Joint have been reformed. Dr. Heron will show a Case with Ataxic Symptoms and marked Knee Phenomenon. Dr. Woakes: On the Treatment of Goitre by Fluoric Acid.

TUESDAY.—Royal Medical and Chirurgical Society, 8 P.M. Annual meeting. Address of the President.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Specimens will be exhibited by Dr. Godson and others. The President, Dr. Matthews Duncan, will deliver his Inaugural Address. Dr. Robert Barnes: On so-called Missed Labour; with a Case in illustration.—Epidemiological Society of London, 8 P.M. Surgeon-General John Murray: On the Influence of Fairs, Floods, Famines, and Seasons, on the Development and Diffusion of Cholera in India.

THURSDAY.—Pathological Society of London, 8.30 P.M. Mr. Barwell: Unilateral Hypertrophy of Head and Face. Dr. Whipham: Tumour of Spinal Cord. Mr. Macnamara: Sacral Tumour containing Fœtal Structures. Mr. Shattock: Congenital Sacral Tumour (card). Dr. Norman Moore: 1. Syphilitic Disease of Skull; 2. Malformation of Heart; 3. Cancer of Prostate. Mr. Davies Colley: Epithelioma of Bladder. Mr. F. Treves: Vesical Calculus from a Dog (card). Mr. Brailey: Cranium and Brain of Hydrocephalic Adult (card). Mr. Startin: Case of Leucoderma (living specimen).

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE CASE OF MR. S. F. SCARNELL.

SIR,—Will you oblige me by inserting an appeal in your paper for my father, S. F. Scarnell? You have kindly done so on two former occasions. He practised as surgeon nineteen years in St. Osyth, Essex, and twenty-five years in the Vassall Road, Brixton, S.E., where he was taken dangerously ill in 1865. Since that time he has been unable to follow his profession, and has been bedridden for six years and five months. Since my brother's (Captain Scarnell, R.N.) death, he has had no means of support but from the Medical Benevolent Fund, who are allowing him thirty shillings per month till next May. Had my husband been more fortunate, I should not ask the favour; but he has been out of engagement twelve months. Household duties (keeping no servant) and attendance on my dear father make it impossible for me to earn anything. Any assistance now would be doubly useful, as the landlord is very pressing, though we have lived here eleven years. My father was born in Woodbridge, Suffolk, in 1795. Trusting you will oblige me, I am, yours respectfully, E. D. BAUER.

77, Edward Street, Penton Place, S.E., Feb. 8th, 1881.

* If any extra help be sent in reply to this appeal, beyond the 7s. 6d. or 10s. a week of the Medical Benevolent Fund (and, in a case of this special character, possibly some further help may be), Dr. Jonson, the indefatigable chairman of the Fund, will, we believe, personally undertake to supervise its distribution.

THE ENGLISH UNIVERSITIES.

DR. R. L. RUTHERFORD (Exminster) has not, we fear, read carefully the article in the JOURNAL to which he refers. In that article the following sentence occurs: "There is no alternative examination open to intending candidates unless they have entered at or graduated at an university." As a matter of fact, none of the English universities whose extraprofessional examinations are practicable (with the exception of the University of London) admit candidates to their examinations who do not intend to pursue their studies at the university to which they go to be examined. The preliminary examination for the membership of the College of Physicians is shut up in a similar manner. We hear with great satisfaction, however, that all difficulty appears to be now removed, as the Senate of the Durham University are, since the date of our article, apparently placing matters on a very satisfactory basis, details of which will be published very shortly.

WOOLSORTERS' DISEASE.

SIR,—If Dr. Tibbits will consult the last volume issued by the Sydenham Society (Koch on *Infective Traumatic Diseases*), he will find some very good plates showing anthrax bacilli; also septicæmic bacilli. The book contains much valuable information, especially bearing upon the subject of Dr. Tibbits' investigations.—Yours truly, LEONARD CANE, M.D. and B.S.Lond.

Peterborough, Feb. 19th, 1881.

KOUMISS. We are asked to state that the koumiss mentioned in Dr. Sutherland's paper at the Clinical Society was announced by him, in reply to a query from the President, to have been supplied by Messrs. E. Chapman and Co., 10, Duke Street, Portland Place.

TRISMUS INFANTUM.

SIR,—I beg to communicate a case of trismus infantum, which occurred in my practice about a fortnight ago. I attended the mother in her confinement (her second one) which was remarkably easy and natural; and the child—a male—seemed strong and well-developed. The mother was strong, and had plenty of milk, and made an excellent recovery. Her first child, which was three or four years old, was alive and very healthy. Everything went well, the baby taking the breast nicely, till the sixth day, when in the evening the mother found that the child would not take the breast. Next day, there was an urgent message to me to see the child, as they thought its tongue had swollen so much that it could not suck, and it seemed in risk of choking. When I arrived, I found the *risus sardonicus* well marked, the angles of the mouth drawn back, and the lips pursed up, and the jaws immovably fixed about half an inch apart, any attempt at separating them bringing on a spasm all over the body, the arms and legs being rigidly flexed and the head slightly drawn back, while the face turned livid, and froth escaped between the lips. This state of things continued till next morning—the rigidity remaining, with convulsion after convulsion, till it died.

The labour, as above mentioned, was easy and natural, so that there could have been no injury to the head, or displacement of the cranial bones. The umbilical cord had separated quite properly a day or two before, leaving a healthy cicatrix, so that it does not seem to have been due to phlebitis of the umbilical vein. The drainage I believe to be fairly satisfactory. The lying-in room, though small, was kept well ventilated, and had a good fire in it always when I called, the weather being intensely cold at the time. But I think the probable cause may have been sudden alternations of temperature, the bedroom being at one time overheated, and at another chilled, either by inattention to the fire, or by the undue proximity of the bedroom door to the outer back door, through which everyone came and went; thus favouring the admission of draughts of cold frosty air from without. No *post mortem* examination was suggested, as it would only have been refused.—Yours truly, M.B.

February 9th, 1881.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

THE INTERNATIONAL MEDICAL CONGRESS.

SIR,—In an annotation under the above head, in your issue of the 8th current, the writer mentions, as one of the subjects to be discussed in the section for Military Surgery and Medicine in the forthcoming meeting, "The Prevalence and Prevention of Typhoid Fever among Young Soldiers in India". I am glad to have seen this announcement, at a juncture when the subject is drawing considerable attention in this country. As a member of the British Medical Association, might I beg to solicit our brethren of the Army Medical Department to publish the details, clinical as well as hygienic, of cases of interest that come under their care? The climate and surroundings of India would appear to be adverse to literary labour, and our brethren for the major part are disinclined to take up the pen; but if only a part of their time devoted to sports and the like were spent on meditation over cases which have been under treatment, much good would likely to be the result. I also trust that those of our brethren who are in administrative appointments will kindly place at the disposal of medical journals, either for publication *in extenso*, or for texts for leading articles, such reports and returns as are likely to aid in throwing light upon the subject of abdominal typhus fever, *alias* enteric or typhoid fever.—I am, etc., JOHN C. LUCAS.

India, January, 1881.

WE mentioned last week the name of Mr. R. H. S. Carpenter as Honorary Secretary of the Medical Defence Association, and referred to him a correspondent who complained of the danger to the public arising from the proceedings of unqualified persons in his neighbourhood. Mr. George Brown, of 3, Gibson Square, writes to us that he is Honorary Secretary of the Medical Defence Association, Mr. Carpenter being an active officer of the Medical Alliance Association.

ATTENDANCE ON SERVANTS.

SIR,—I am "unqualified", but have acted as assistant and locum tenens for a long time. Last summer, I acted as locum tenens, my remuneration being a certain sum and the fees. Being called to a case of explosion of dynamite, the patient being the daughter of a shepherd (a poor man), in the employ of a large landed proprietor, I was asked by the shepherd to see his daughter. I had to amputate fingers on two different occasions. In all, I paid six visits, for which I charged £10 10s. On my third visit, this landed proprietor told me that, instead of sending in my account to his shepherd, I was to send it in to him. I may mention that the accident happened through the laird's servants' negligence. The patient was distant from me about fifteen miles by land, and three by sea. Upon presenting my account to the laird, he said it was extravagant, and that he would not pay. Kindly inform me, through your JOURNAL: 1. Was the charge extravagant? 2. Is the laird legally bound to pay? 3. Can I sue him at law? or is it the principal, my employer, who must follow him up for me?—I am, yours, etc., LOCUM TENENS.

**** 1. Under the circumstances named, we consider that the claim is a fair one. 2. The laird's liability cannot be successfully disputed, notably if his promise be provable. Apart from that, he is bound to meet the pecuniary consequences if it can be shown that the accident was due to the default of his *employés*. 3. We doubt whether our correspondent, being "unqualified", could legally sue in person; we therefore advise that his principal should make application for the debt; if refused, he could then take action, and call our correspondent as a witness, he having been his *employé*.

A FEW QUESTIONS FOR OBSTETRICIANS.

SIR,—Two cases of septicæmia which have recently occurred in this neighbourhood, both proving fatal, were respectively the wife of a foreman brewer and the daughter of a yeast merchant (in whose house she continued to reside). The death of the former occurred a month, that of the latter seven days, after delivery. Is there any probable connection between the disease and the occupation in these cases? And has contact with vegetable fermentation, under the circumstances mentioned, any tendency to cause, or at least to aggravate, a similar process in animal tissues or fluids?

The former of the two cases was not my own patient; and I cannot give any further particulars regarding her; but the latter had suffered from diabetes for six years. Has this anything to do with the occupation? Or, again, is a diabetic patient peculiarly liable to septicæmia after delivery?

I ask these questions because, out of eight hundred midwifery cases that I have personally attended, this is the first that I have lost from any such cause. Prevention being invariably better than cure, I make it a rule to have Condy's fluid and water injected if there be the slightest unusual odour about the discharge. In the present case, I gave the order on the third day, but was kept in ignorance of its not being carried out until twenty-four hours had elapsed. The nurse and mother deemed it unnecessary, as no other symptom of mischief was then present. Of course, my indignation was considerable, and another nurse was at once called in; but all subsequent efforts were unavailing to prevent a fatal issue.

There is one other question which I should like to ask, and that is: Whether it is wrong, when threatening occurs during the early months of pregnancy, to try to prevent miscarriage? I have done so successfully on many occasions, and the patient have gone to the full time; but one such patient, who was delivered of a fully developed, but stillborn, child, showed symptoms of diabetes some months afterward, and was told by a London physician that this was in some measure due to my stopping the miscarriage.—I am, sir, your obedient servant, D. B

P.S. Since writing the above, I have casually learnt that another case of puerperal septicæmia has occurred here, in the wife of a baker (who no doubt would have passed out in that case, the patient recovered, although the temperature at one time reached 105°.

MEDICAL CERTIFICATES AND UNQUALIFIED ASSISTANTS.

A CORRESPONDENT asks, "What penalties a medical practitioner incurs who is in the habit of signing death certificates of patients seen by his unqualified assistant, but never attended by himself personally?" If a medical practitioner gives a medical certificate of the cause of death of a person he has not seen during illness, and certifies that he "attended" such person, a penalty is incurred under the Births and Deaths Registration Act of 1874, for issuing a "false certificate for the purposes of this Act". Any person who commits this offence is "liable, on summary conviction, to a penalty not exceeding ten pounds; and, on conviction on indictment, to fine or imprisonment, with or without hard labour, for a term not exceeding two years, or to penal servitude for a term not exceeding seven years".

B.—We have no information on the subject.

OPIUM AND ALCOHOL.

If we may believe the *Manchester Evening News*, says an evening contemporary, modern civilised mankind, living as it does at chronic high pressure, cannot possibly dispense with some sort of stimulant to keep it up to the mark. Thus those exemplary persons who voluntarily pledge themselves to total abstinence from spirituous liquors are compelled to steady their nerves by indulgence in a substitute for alcohol even more baneful than that slow and agreeable poison. In the so-called Temperance States of the Union, this fact is made apparent by an extraordinary increase in the consumption of opium, morphia, and other narcotics within the last quarter of a century, utterly disproportionate to the augmentation of the population. Taking Albany itself, a temperance city, as an example of the rapidly growing indulgence in opiates provoked by strict observance of Father Mathew's prohibitions, it appears that twenty-five years ago, the population then numbering fifty-seven thousand, three hundred and fifty pounds of opium, and three hundred and seventy-five ounces of morphia were consumed within twelve months. The population, according to the recent census, is now about ninety thousand, and its last years' consumption of opium exceeded three thousand five hundred pounds, of morphia five thousand five hundred ounces. While the increment, therefore, of the population within that period may be roughly estimated at fifty-nine per cent., that of the consumption of opium and morphia amounts to respectively nine and eleven hundred per cent. The morphia is chiefly taken in the form of pills, but the opium, for the most part, is retailed as imported—a fact from which we may infer that it is consumed in great quantities by opium-eaters and smokers, over four-fifths of whom are stated to be females.

M. M.—The usual fees for a hospital surgeon under such circumstances, calculated on a reasonable scale, would be 100 guineas for the journey, 20 guineas a day during attendance in Scotland, and 3 guineas a day during the subsequent attendance in London.

R. T. C.—We could not promise publication for some time to come.

COMMUNICATIONS, LETTERS, etc., have been received from:—

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CLINICAL REMARKS
ON THE
DIAGNOSIS AND TREATMENT OF PRURITUS VULVÆ.

Delivered at St. Mary's Hospital.

By ALFRED WILTSHIRE, M.D., F.R.C.P.,
Joint-Lecturer on Obstetric Medicine at the Hospital.

GENTLEMEN,—The patient, an elderly woman, who is now before you, has brought this specimen of her urine at my request; our object in procuring it being the demonstration to you that it contains sugar. Its specific gravity is high—1040; and, on applying Fehling's test, with heat, you may observe that a copious precipitate of suboxide of copper is thrown down. We conclude, therefore, that it contains sugar—the influence of any other reducing agent, *e.g.*, uric acid, being excluded.

Looking at the patient, probably few of you would suspect that she is diabetic: she is neither notably thin, nor has she had, until recently, either thirst or a large appetite; moreover, the amount of urine voided when she first attended was not remarkable; now it averages seven or eight pints in the twenty-four hours. We were led to suspect the presence of sugar in the urine from her complaint of itching of the private parts, the symptom for which she sought relief; and at each visit we have found it to be loaded with sugar. The vulvar itching was at once greatly relieved by a borax lotion; and, although there is no abatement of the glycosuria, yet the itching has scarcely troubled her again; in fact, she now makes no complaint of it.

I have availed myself of this case as illustrating an important form of pruritus vulvæ due to a general disease of great gravity, the first clue to which is sometimes obtainable through the symptom of vulvar itching long before the manifestations of diabetes commonly regarded as classical—*e. g.*, wasting, thirst, voracious appetite, polyuria, etc.—have declared themselves. This symptom of pudendal itching—for males, though in a less degree, are subject to it—has repeatedly led me to the discovery of glycosuria. Observe that I use the word glycosuria rather than diabetes; for not all the patients whose urine contains sugar are diabetics, that is, they do not all have an excessive flow of urine, polyuria being manifested later, if at all. Clinically, it is important to recognise that glycosuria occurs in stout as well as in thin folk; otherwise, the malady may be long overlooked. The symptom of pudendal itching will direct your attention to the state of the urine, and may thus lead to the early detection of sugar. Before dismissing the patient, I will ask you to observe her teeth, and note the injection of the capillaries of her cheeks. Her teeth are being shed without decay, as the teeth of elderly diabetics sometimes are, apparently from shrinking of the sockets, the alveolar processes wasting. In some cases, the teeth become brittle and crumbly. The tendency to injection of the facial vessels seems to be part of a general proclivity to capillary erethism, for flushing of other regions of her skin is easily excited. Here is a photograph of another patient who was tormented with vulvar pruritus, a stout gouty diabetic; and, as the local condition in her case was typical, I will describe it.

The separated vulva looked pale, rough, granular, thickened, and sodden—in texture like the rind of a Seville orange, only dead white. Mark the absence of pigment: it is diminished or absent in many cases, just as in pruritus ani. This change I regard as neurosal. Very rarely there is increased pigmentation, a slaty hue overspreading the parts; or there may be suffused dusky redness, or a glazy redness, especially in the aged, mostly arising from acrid uterine discharges.

But the glycosuric or diabetic is only one of many forms of pruritus vulvæ; and, as the symptom may arise from a variety of causes, we must review these together, in order that you may acquire a comprehensive knowledge of them. Broadly, they may be divided into two chief classes: the *local* and the *general;* but in some instances these overlap.

Local Causes.—These are as follows.

a. Animal and vegetable parasites may infest the vulva, and excite itching. Among the former are pediculi, acari, and ascarides. Pediculi and ascarides are easily recognised, but the itch-insect may be overlooked. Ascarides are more common in girls than in women, but are by no means unfrequent in the latter. They crawl from the anus over the vulva, and thus annoy; sometimes provoking leucorrhœa also. (The same may be said of tænia, joints of tapeworm escaping *per anum* and exciting irritation in the adjacent parts; but this very rarely happens.) The vegetable parasites are of interest; for the itching appears in many cases immediately to depend upon the presence of certain low varieties, not only in the glycosuric cases, but also, it appears to me, in other instances, in which loss of pigment points to neurosal impairment. The *oïdium albicans* (the thrush-fungus) has been met with, and also other low forms of vegetable life, as Friedreich, Hausmann, and others have observed. Sugary urine obviously supplies a most favourable pabulum for the development of lowly organised fungi. It is interesting in this connection to note that most of the successful remedies are parasiticides, as we shall we see when discussing treatment. Parts whose innervation are impaired afford, as you are aware, a favourable nidus for the development of low forms of parasitic life, both animal and vegetable; and the flourishing of such organisms in the parts in question may be regarded as evidence of neurosal impairment, indicated, furthermore, by the occasional presence of leucoderma.

Among local causes, we have, further, several important affections, *e.g.*—

b. Diseases of the vulva (as vulvitis, abscess, carcinoma, oozing tumour, lupus, elephantiasis, etc.);

c. Diseases of the urinary system (urethra, bladder, and kidneys);

d. Vaginitis—gonorrhœal and other.

e. Diseases of the uterus (metritis, endometritis, senile catarrh, cancer, fibroids, polypi; acrid discharges arising from some of the foregoing, or occurring mainly in association with menstruation);

f. Ovarian and other tumours, and pelvic effusions;

g. Skin-affections—eczema, ecthyma, herpes, urticaria, acne, etc.

As regards the latter, eczema may be associated with diabetes, producing terrible suffering; while urticaria suggests ovarian disease. Ecthymatous spots, with ashen-grey bases, may indicate grave cachexy (? syphilitic); while the herpetic vesicles are prone to crop out periodically in females of gouty parentage just before each menstrual period. The French attribute this to the herpetic diathesis. A pustular form of acne is sometimes accompanied by troublesome itching.

It is perhaps true, as a broad generalisation, that syphilitic eruptions are not prone to itch; but I have met with marked exceptions to this in some syphilitic affections of the vulva, as in the patient of whom I show you a photograph illustrating elephantiasis of the clitoris and vulva, from whom I removed an hypertrophied clitoris weighing a pound and a quarter. Venereal warts may excite itching.

Malignant disease of the uterus and upper part of the vagina may provoke itching in two ways: first, by acrid discharges; and, secondly, reflexly—the latter uncommonly. The same may be said of fibroids, polypi, sarcomata, etc. I have known pruritus to exist for a long time apparently as a consequence of pelvic effusions—*e.g.*, hæmatocele, cellulitis, partly perhaps from venous obstruction, and partly from implication of nervous structures. Some discharges from the interior of the womb are virulently acrid, and excite excoriation of the parts over which they flow. These are revealed by the speculum.

Urethral and vesical affections—*e.g.*, vascular growths, stone, incontinence, etc.—are sometimes complicated by vulvar itching. Careful local investigation, therefore, is obviously necessary in all such instances; and even when the predisposing cause is general, as in diabetes, the local condition may be significant and important, yielding, as has already been pointed out, valuable information.

General Causes.—Among the general causes of pruritus vulvæ, we find: (*a*) diabetes (glycosuria), (*b*) pregnancy, (*c*) gout (or lithiasis), (*d*) syphilis, (*e*) prurigo senilis, and perhaps (*f*) the dartrous diathesis of the French. (Diphtheria must be mentioned as an extremely rare cause.)

a. The patient whom you have seen is now a type of the diabetic cases. Such are not uncommon; but they usually escape detection until other symptoms obtrude themselves. I have shown you and met with many such; although usually among the middle-aged or elderly, yet also in patients under twenty, as in the case of a young woman who was under my care some years ago. She consulted me for severe pruritus vulvæ; and, on examination, I found extensive eczema. I at once examined her urine, and found sugar. She had then no other symptom indicative of diabetes, nor did she present any for many months; but she ultimately died of it; and I believe her brain is figured in Dr. Dickinson's able work on diabetes. We have had other cases here, as you know, notably one in which diabetes came on rapidly after severe mental trouble; the vulvar pruritus alone leading to its detection.

b. Pregnant women are liable to a severe form of pruritus vulvæ. It is usually accompanied by an irritating discharge—whitish, creamy, or yellow in colour, and occasionally very abundant. Sometimes aphthæ and erosions are seen upon the turgid labia or cervix, or there may be vaginitis granulosa. Most of the cases that I have seen have been accompanied by extreme venous turgescence. The distress experienced

by some sufferers appears to be painfully augmented by the exalted nervous tension attending pregnancy. Parturient women seldom make complaint of pruritus; but I have seen a few instances in which it occurred, and it has then been associated with hydroa or herpes gestationis.

c. The gouty form is not uncommon, but, fortunately it is seldom intense or obstinate unless complicated with glycosuria. It may be seen in plethoric women, even when young, recurring before menstruation, when the urine is apt to be loaded with lithates. Sedentary habits, beer, and strong wines, aggravate it. Stout gouty women at the change of life are prone to suffer from vulvar irritation; some, doubtless, are examples of gouty glycosuria, in whom climacteric disturbance intensifies the mischief. Ordinarily indulgence in the pleasures of the table provokes itching, while abstinence alleviates. Obese elderly women are liable to vulvar irritation, the secretions of the parts apparently possessing very irritating properties; but you will be amply repaid for your trouble by systematically examining their urine for sugar, for thus you may be enabled to detect latent diabetes.

d. As regards syphilis, it is seldom that the early or acuter manifestations of the disease excite itching. It is associated rather with later phenomena, as in the case of elephantiasis already mentioned; but chancres and venereal warts may provoke much irritation.

e. Sometimes intractable pruritus vulvæ appears to be part of a general affection, the so-called prurigo senilis, and is associated with general cutaneous hyperæsthesia. Klob says that there are little elevations of the skin, like goose-flesh, consisting of growths analogous to tubercular formations, and giving rise to violent itching. These cases are grave. Some are amenable to the bromides, which are advocated by Gueneau de Mussy, in the form of lotion or ointment, as well as internally. Arsenic and cod-liver oil are also indicated. Such cases are not to be confounded with senile pruritus arising, as commonly happens, from phtheiriasis.

f. A tendency to pudendal itching seems to prevail in those who have what the French call the dartrous diathesis. In them, fissuring of the affected parts is often observed, the skin presenting a glazy, cracked appearance. Renal disorder, notably oxaluria and inadequacy, may be associated with this condition.

All forms of pruritus vulvæ are subject to periodical exacerbation. Some patients suffer only at night, after becoming warm in bed, experiencing comparative freedom during the day. All who menstruate are conscious of aggravation at that time. Stimulants, as a rule, exert an injurious effect. Sedentary occupations aggravate pruritus: governesses and seamstresses, for instance, suffering much, as also do those who work treadle sewing-machines. Piles and hepatic disorders generally are conspicuous.

Treatment.—While in many cases vulvar itching readily yields to treatment, in others it proves obstinate and intractable, taxing our therapeutical resources to the utmost. Here, as in other affections, a clear diagnosis as regards causation is generally essential for successful treatment. It is obvious that a symptom owning so many and varied causes cannot be appropriately treated in a routine manner; search must be made into the origin of each case, and treatment based upon the knowledge thus acquired.

Attention to cleanliness will often do much to allay irritation, and should always be enjoined. Demulcent washes are preferable to soap, unless carbolic or coal-tar soap be used, and usually even these are inadmissible. Almond-meal, strong bran-water, decoction of rice, marsh-mallow, slippery elm, or fine oatmeal, are suitable, especially the first, which, if pure, yields during use a marked odour of hydrocyanic acid, and appears to sooth materially.* The prohibition of friction may be required, some afflicted sufferers finding transient relief only during scratching, which may be indulged in to an extent involving serious consequences. Relief may be so frequently sought in this manner, as to exclude sufferers from society, and even from the family circle; while other regretable results, moral as well as physical, may ensue.

When pruritus is due to acari or pediculi, ointment of sulphur, white precipitate, or stavesacre speedily cures, by destroying the insects and their ova. If nits persist about the pubic hairs, a lotion containing bichloride of mercury and acetic acid will dissolve them. Ascarides are destroyed by a carbolic lotion (1 in 60); but general, rather than local, treatment should be relied upon for their eradication iron, quinine, cod-liver oil, together with enemata of hamamelis, lime-water, iron, etc.

The vegetable parasites are very efficiently treated by unirritating parasiticides, *e.g.*, borax, boracic acid, sulphurous acid, etc. Here I would again emphasise the fact that most of the favourite remedies for vulvar pruritus are parasiticides. It suggests that—whether from the sugary pabulum provided by diabetic urine, or from alteration in the nutrition of the parts from neurosal impairment, or from a combination of the two, when coincident—the immediate exciting cause of pruritus is, in numerous instances, the growth upon the implicated parts of low forms of vegetable growth.

Friedreich (Virchow's *Archiv*, Band 30, p. 476) alleges that the pruritus is due to the development of fungous organisms, and my own observations are certainly confirmatory of this view. It is a curious clinical fact, that patients are often freed for days from itching by a single application of a parasiticide; I have observed this repeatedly in glycosuric cases, after the use of a strong borax lotion. It is best to use such remedies in a fluid form, for, when necessary, powerful combinations may thus be made in the unhappily intractable cases. In my experience, fatty preparations of drugs do not suit so well for local application as non-fatty; and yet great relief may be afforded by some ointments, as we shall see presently.

Many cases of pruritus vulvæ are promptly relieved by a borax lotion, and it is well to use this simple and efficacious remedy where not contra-indicated. A drachm to five ounces of warm water is a good standard strength, but a stronger solution is usually needed, seldom a weaker. Hydrocyanic acid may be added—say ℥j of the dilute acid to ℥x, or morphia (gr. ij), atropia (gr. ½), aconitia (gr. ½), or veratria (gr. ½). Infusion of tobacco (half an ounce to the pint) alone relieves some cases, and forms a good vehicle for borax or boracic acid. It is not well to use glycerine with the borax as a rule, as it is apt, owing to its affinity for water, to aggravate the irritation. Some find relief from chloral lotions, but the drug has not always suited. Strong decoction of poppy is a soothing vehicle for borax, etc. Ice alone will relieve some; while others can get relief only from the use of very hot water. In excessively severe cases, the ether-spray might be tried.

Boracic acid is an excellent remedy; but, being much less soluble in water than borax, it is not so handy as a lotion. It may be combined with hydrocyanic acid, morphia, atropia, aconitia, veratria, etc. In the form of ointment, where fats do not disagreee, it often soothes greatly. A non-rancid fat should alone be employed as the vehicle, *e.g.*, freshly made spermaceti cerate, vaseline, fossiline, or purified benzoated lard, etc.

Lotions of iodine occasionally answer, *e.g.*, two drachms of iodine in ten ounces of elder-flower water. Electricity may afford relief in neurosal cases. Probably faradism would be the preferable form.

In simple vulvitis, lead, borax, or carbolic lotions relieve. An ointment of calomel or bismuth is also good. Malignant affection of the parts call for appropriate treatment, such as ablation, where practicable; but sedative applications (conium, opium, belladonna) alone are often all that we can employ.

Urethral caruncles should be removed; and urethritis, gonorrhœal or other, treated *in loco*. Cystitis, stone, and kindred vesical affections and renal diseases, must be treated according to their several indications. Success is unattainable if they be overlooked. Vaginitis, gonorrhœal or otherwise, demands thorough treatment. The packing of the upper part of the vagina with a tampon soaked in glycerine, with carbolic acid, lead, tannin, chloride of zinc, or borax, seems the most prompt method of cure; but injections of these agents may suffice, and may be preferable. When the itching is associated with chronic metritis, iodised tampons are useful; and so are copious irrigations of the parts with warm water.

When vulvar irritation arises from acrid discharges proceeding from the uterine cervix or cavity, the use of a tampon filling the top of the vagina is most efficient. Cotton-wool, iodised or carbolised, answers well. As glycerine is apt to excite a watery flux, it is not always admissible, but may now and then be required. Absorbent wool, dusted with iodoform, boracic acid, morphia, tannin, camphor, chloral, and such like, may be packed against the cervix uteri, so as to arrest and disinfect virulent discharges; the choice of drug being guided by the form of disease present. It is necessary to attach a string to each tampon to facilitate its withdrawal. Vaginal and pudendal pruritus, arising from acrid uterine discharge, is mostly seen in elderly women, and may be accompanied merely by glazy redness around the ostium vaginæ. Search for uterine discharge may, therefore, be necessary. I have seen it in cancer of the fundus uteri, as well as in senile catarrh.

Local treatment by the tampon may be demanded in malignant disease of the uterus, and also in fibroids and polypi when accompanied by irritating discharge, *e.g.*, in disintegrating calcified growths. Removal of the diseased structures is preferable where practicable; and the same may be said of cases dependent upon ovarian growths. Urticarious itching is the form of pudendal irritation mostly seen in association with ovarian tumours. A lotion of bicarbonate of soda, or one of borax with hydrocyanic acid, generally relieves. Magnesia internally is useful.

* Experiment has proved that hydrocyanic acid is evolved.

When there is previous turgescence of the vessels of the part, as may be seen from stasis in some pelvic effusions, relief is afforded by the watery flux provoked by the presence of a well-soaked glycerine tampon; and a mercurial and saline purge is helpful when portal congestion is present. Eczema—often symptomatic of glycosuria, remember—may be very obstinate. Dusting freely with fine oxide of zinc answers well when ichorous weeping is abundant. If fissure be present, a poultice formed of the clot resulting from the addition of two drachms of liquor plumbi to ten ounces of new milk is most useful. Sometimes calomel ointment will alone relieve, as in certain instances of anal mischief; or bismuth may answer, dry or otherwise. Mercurial ointment suits certain cases excellently.

Angry ecthymatous spots appear to yield only to calomel, either dry, or in the form of ointment or of black wash. Opium is a valuable adjunct, both internally as well as externally.

Herpetic eruptions are benefited by a small mercurial dose followed by a saline purge, as the effervescent sulphate of soda, and the local use of borax lotion. If they be very severe, hydrocyanic acid and other local sedatives may be necessary; but it must be borne in mind that these herpetic manifestations generally run a definite course, the vesicles dying away completely. They are often accompanied by lithiasis, and may excite preputial herpes in the male.

It is unnecessary for me to dilate further on the importance of recognising diabetes as a cause of pruritus vulvæ. When the parent disease is discovered, those restraints upon diet, drink, etc., which observation and experience have taught us to be necessary, should be strictly enjoined. Unhappily, we have no cure for confirmed diabetes, but much may be done by judicious treatment and management, alike for those who are threatened with glycosuria, as for advanced cases. Immense comfort may be secured by the habitual use of cleansing ablutions, and of borax or boracic acid.

Gouty diabetics may experience much benefit from a course of the Bath waters and baths, or from those of Carlsbad, as I have seen there; but I doubt whether confirmed and advanced diabetics are so relieved. The insomnia of diabetic pruritus vulvæ sometimes shows a gratifying amenability to codeia, in the form of one-grain doses in pill. The bromides are also useful as hypnotics.

The distress that pregnant women sometimes experience, especially towards the latter months, may be terrible. When associated with aphthous ulceration, and the oidium albicans is present, nothing relieves more quickly than a lotion of sulphurous acid. Some prefer the hyposulphites, and in either case prolonged use is undesirable. As sulphurous acid is very volatile, it is best to mix a tablespoonful of the pharmacopœial solution with half a pint of warm water, barley-water, or almond emulsion, freshly for each occasion. Another very useful lotion is formed by two drachms of bicarbonate of potash in half a pint of water. This should also be injected into the vagina; it checks the discharge, often alkaline, which seems to excite irritation. Borax is again a valuable agent, and so is lead.

In some cases, relief is only obtained after treating the cervix uteri; as when aphthous ulceration is seen around the os. Nitrate of silver, lightly used, suffices. Bromide of ammonium internally is highly serviceable. Attention should be paid to the state of the bowels, and to the hepatic and renal secretions, for in many cases elimination is defective. Turkish or hot-air baths exert a better effect over some of these cases than any ordinary treatment; and the same remark applies to certain other varieties of pruritus vulvæ, *e.g.*, those seen in the obese, gouty, and (senile) pruriginous. Jaborandi may prove very helpful under similar circumstances, by producing profuse diaphoresis. Diuretics—juniper, broom, potash, lithia, etc.—are often beneficial, as in gouty cases, especially when combined with colchicum. Restrictions as regards meat, beer, and wines, should be imposed on the subjects of lithiasis.

When vulvar pruritus appears to be part of a general prurigo senilis, besides the local applications already indicated, a lotion of bromide of potassium may afford ease, as has been shown by Dr. Gueneau de Mussy. The same drug given internally is helpful, the affection appearing to be part of a general nervous erethism. Arsenic exerts a controlling effect in some instances of senile prurigo, as well as in those due, as the French allege, to the dartrous diathesis.

Arsenic may be said to be indicated in the neurosal forms, and especially when there is marked loss of flesh. It has appeared to me to benefit most those who are the subjects of leucoderma.

It remains only to remark that, in the intractable cases, frequent changes of remedies may be inevitable for the relief of torment. Chloroform locally applied answers occasionally; it may be used in the form of vapour, liniment, ointment, or lotion. Bichloride of mercury, also a parasiticide, gives relief to some in the form of a lotion, but it requires caution in its use. Used in the proportion of gr. i to gr. v to ℥viij of mistura amygdalæ, it may afford great relief.

I have no experience of section of the pudic nerve in inveterate cases, nor am I aware that it has ever been practised; but Sir J. Simpson mentions that he once severed the skin from the subjacent structures, with considerable benefit.

ABSTRACT OF LECTURES
ON THE
STRUCTURE OF THE SKELETON IN THE SAUROPSIDA.

Delivered at the Royal College of Surgeons of England.

By W. K. PARKER, F.R.S.,
Hunterian Professor of Anatomy in the College.

Lecture III.—The Lizard.

Though some of these animals have a soft covering of integument, in the majority there is to be found an epidermic exoskeleton, composed of horny plates, tubercles, or spines, or overlapping scales. In a few, there is an ossification of the skin below the bony scales, and the body has a complete covering of bony scutes corresponding in form with the scales. The dermal ossifications of the head may coalesce with the subjacent bones; but this union of the dermal bones with subjacent parts does not occur in other parts of the body. The spinal column is always of some length; and the tail is, as a rule, long. Those lizards which possess hind limbs have a sacrum, composed generally of two vertebræ. The cervical region is curtailed in the now existing forms, in comparison with what is to be found in extinct animals of this group; in the former, it is composed of never more than nine vertebræ, and rarely so many. The atlas is composed of three pieces. Sometimes a separate ossification is to be met with under the spinal column, at the junction of the vertebræ, especially between the odontoid bone and the body of the second vertebra. The centres of the vertebræ are procœlous or amphicœlous. The sacral vertebræ are not ankylosed together, but are usually connected by a firm ball-and-socket joint, controlled by strong ligaments. In many of the lizards, there is a peculiar arrangement in the caudal vertebræ, which enables the creature, when laid hold of by the tail, to break it, leaving the portion in its would-be captor's hand. This consists of a thin membrane, passing transversely through the centre of the body of the vertebra, and forming a septum. The skull does not possess alisphenoids; and the presphenoidal and orbitosphenoidal portions are not ossified. An unossified space, called the parietal foramen, usually remains in its roof, in the course of the sagital suture. A columella extends from the parietal to the pterygoid, on each side, in close contact with the membranous or cartilaginous wall of the skull. The side walls, in many of the lizards, are produced into two broad and long parotic processes; to the outer end of one of these the quadrate bone is articulated. The parietal bones are only united with the surrounding bones by fibrous tissue. This allows them a certain amount of play—so that, when the head of the animal is crushed, the bones yield or bend; and, as the brain is small, compared to the size of the interior of the box in which it lies, it is uninjured by weight, which, had there not been this arrangement, must inevitably have entirely crushed the animal's head, and killed it. The rami of the lower jaw are each composed of five separate ossifications. The limbs are in some instances developed completely, but in others there may be one pair only, or they may be absent altogether. When present, they are mere styliform rudiments, and do not form pillars of support for the weight of the body, as they do (for example) in the horse. When the pectoral arch is present, it consists of a suprascapula, scapula, coracoid, and two clavicles, united by an interclavicle, which lies in the groove of the sternum. When the hind limbs are developed, there is a complete pelvis; and the anterior margin of the pubic bone usually gives off a strong curved process. The manus usually possesses five digits; and, when this is the case, the carpus generally contains eight bones. The foot also possesses five digits. All the lizards possess teeth, which are usually simple in structure. A gland is developed in the septum of the nose, corresponding to that in some water-birds and in mammals, and has its representative in man probably in Jacobson's organ, though this is not quite certain, and would afford an excellent subject for any one willing to work it out as a thesis.

Lecture IV.—Snakes.

All the snakes possess an epidermic covering composed of flat scales, which generally overlap. They all possess a large number of vertebræ, amounting in the larger forms to over four hundred. The spinal column is divisable into caudal and precaudal vertebræ; there is no

sacrum, nor any distinction between the cervical, dorsal, and lumbar vertebræ. The amount of movement between each pair of vertebræ is extremely small, but, when taken together, is considerable. The ribs are always free at their inferior extremities. The floor of the cranium is nearly flat, and the vertical height of its cavity diminishes gradually in front, so that it remains spacious between the eyes; the presphenoidal region is not elevated, as in the lizards. The bones constituting the brain-case are firmly united together and ossified. The nasal section is less completely ossified. The premaxillaries are usually represented by a single small bone, connected to the maxillæ only by fibrous tissue. The palatine bones never unite with the vomer or with the base of the skull, but are usually united with the maxillæ by transverse bones, and by the pterygoids with the quadrate bone. The rami of the mandible are only united by ligamentous fibres, which are often very lax. In some respects, the skull of the snake departs from that of all other vertebrates; thus the sphenoid passes in front of the sella turcica into a great rostrum, which extends forwards to the ethmoid region. The postfrontals are usually well developed; and there are large membrane bones in front of the orbit which lie on the cartilaginous nasal chambers. Snakes are divided into two groups—the non-venomous and the venomous snakes. Of the former, the python is a good example; and, of the latter, the rattlesnake. In the former, the maxillaries give attachment to a long series of recurved teeth. The squamosal bones are long, and adhere to the skull; and to their posterior ends the quadrate bones are attached. The rami of the mandible are loosely connected, so as to admit of being widely separated. The squamosal and quadrate bones form a kind of jointed lever, which, when straightened, causes separation of the mandibles from the base of the skull. Those arrangements in conjunction allow immense distension of the throat, and enable the animal to swallow large prey. In the rattlesnakes, the premaxillæ are small and toothless; the maxillæ are short. When the mouth is shut, the axis of the quadrate bone is inclined downwards and backwards. The poison-fangs, which are attached to the palatine face of the maxillæ, are directed backwards, and lie concealed along the roof of the mouth. When the animal opens its mouth for the purpose of striking its prey, the digastric muscle pulls up the angle of the mandible and at the same time pushes the distal end of the quadrate bone forwards. This causes the pterygoid to be pushed forward, and also causes the bending of the palatine joint of that bone, and the partial rotation of the maxillary bone upon its lacrymal joint, the hinder edge of the maxilla being thrust forwards and downwards. As a result of this motion, the dentary surface of the maxilla looks downwards and a little forwards, and the fangs are brought into a vertical position. The animal now strikes its prey; and, by the contraction of a muscle extending over part of the poison-gland, the contents of the latter are forced out through the canal in the fang into the wound. The fang being withdrawn, the movements of the various parts take place in the reverse order, and the parts return to their former condition.

KENSINGTON.—Dr. Dudfield's monthly reports for 1880, now collected together in one volume, need no commendation at our hands. Nor is it necessary to do more than refer to the special report which he has presented to his Vestry on the compulsory notification of infectious diseases, because the facts he gives have already appeared in these columns. It may be well, however, in anticipation of the detailed annual report which the Health Officer will doubtless submit later on, to give a brief summary of the vital statistics of Kensington for last year. Dr. Dudfield says that the state of the public health in 1880 was, in all respects save one, more favourable than 1879, and considerably better than the decennial average. It is hardly satisfactory, however, to read that this exception was the excessive prevalence of certain diseases of the zymotic class, though it is true the deaths from the principal diseases of this class were below the average. The birth-rate (29 per 1,000) was considerably below that obtaining for the metropolis generally; and the same remark applies to the death-rate, which was 18 per 1,000. The deaths of young children were equal to 42 per cent. of the total deaths, and 26.3 per cent. of registered births. Zymotic diseases caused 467 deaths, against 339, 573, and 547 in the three preceding years. Scarlatina was the most serious epidemic of the year, 466 cases (with 105 deaths) being recorded. This, however, by no means represents the actual amount of prevalence in the district: for many of the cases, especially in the north part of the district, were concealed. Of small-pox, there were 50 cases and 11 deaths, eight of which occurred in the Fulham Hospital. Diseases of the respiratory organs were fatal to 880 persons, or about 200 less than in 1879. Heart-diseases were fatal in 144 cases—a number below the average. The violent deaths were 60; and 172 deaths formed the subject of inquiry by the coroner. The number of uncertified deaths was 27, the majority of these being infants, whose deaths were registered on the information of midwives.

ON THE AFFECTION OF BONES AND JOINTS IN LOCOMOTOR ATAXY, AND ITS ASSOCIATION WITH GASTRIC CRISES.*

By THOMAS BUZZARD, M.D., F.R.C.P.,
Physician to the National Hospital for the Paralysed and Epileptic.

IN February 1880, I submitted tot he Pathological Society of London† three patients suffering from osseous and articular lesions in the course of tabes dorsalis; and I referred to another case published by me in the *Lancet*, August 22nd, 1874. In one of these four cases, the right hip-joint was completely disorganised (the head and neck of the femur having entirely disappeared). In a second, there was disorganisation of the left knee-joint, with enormous swelling of the limb. In a third, a female, there had been spontaneous fracture of both femora in succession through their necks, with atrophic changes of the bones. The fourth case, also a female, was one in which there was complete disorganisation of both knee-joints, which had taken place without pain, and some recent swelling and crepitation of the right shoulder-joint. These patients were all well-marked examples of locomotor ataxy. Two of them—the two female patients shown to the Pathological Society—suffered from most characteristic attacks of the *crises gastriques* of Charcot; attacks in which there is pain in the stomach and chest, with spontaneous retching and vomiting, occurring at irregular intervals, and leaving the patient free from gastric derangement between the seizures.

I was much struck by the fact of two ataxic patients, the subject of osseous changes, being likewise affected with gastric crises. Both conditions are very exceptional in tabes; and their coincidence, therefore, in two cases, suggested to me the idea of investigating whether there were not grounds for believing the association to be something more than an accidental one. I found that, in a certain list of fifty-six cases of tabes in my own practice, I had only met with gastric symptoms eight times, and in only four of these could the attacks be called typical gastric crises. On the other hand, when I came to search recorded examples of osseous and articular changes of this kind in the French journals, it appeared to me that gastric crises were extraordinarily frequent in cases of arthropathy. They occurred in the only case of spontaneous fracture in a tabetic patient which Vulpian had witnessed; and, in a list of sixteen other French cases of arthropathy, gastric crises were present in no fewer than six. In the discussion which followed the reading of my paper, the President (Mr. Hutchinson) related a case of arthropathy with gastric crises; and Dr. Sturge referred to another in which the same association was to be found. Since that date, four more cases of tabetic arthropathy have come under my observation, and I propose to read notes of them today. It will be seen that in three out of four there is again the association of typical gastric crises with affection of the joints or bones.

As a matter of statistics, it now comes to this: out of seventy cases of tabes which have occurred under my own observation, I have found gastric symptoms in twelve; but in only eight of these did they amount to the characteristic *crises gastriques* of Charcot. On the other hand, out of thirty cases of affections of bones and joints in tabes that I have collected from various sources (including my own), no fewer than fourteen, or nearly half, were affected with typical *crises gastriques*. I have no doubt that there are many more cases published; but I have not had leisure to seek for them. Whilst searching the French journals for data upon this point, I found that Professor Ball, in his papers upon the subject published in the *Gazette des Hôpitaux* (1868-69), refers to the frequency of "visceral lesions" in the cases of arthropathy which he relates.

The following cases are now brought forward for the first time.

CASE I.—J. R. P., aged 60, was admitted into the National Hospital for the Paralysed and Epileptic on July 2nd, 1880, under my care. The following notes were taken by Dr. Beevor, resident medical officer. For fourteen years he had suffered from characteristic lightning-pains in the legs, and for two years his gait had been ataxic. Cutaneous sensibility was greatly impaired in his feet, and a pin-prick was felt only after a delay of two or three seconds. Patellar tendon-reflex was absent.

* Read in the Section of Pathology at the Annual Meeting of the British Medical Association in Cambridge, August 1880.

† *Transactions of the Pathological Society of London*, vol. xxxi, p. 193.

The pupils were small (No. 0 Hutchinson); they contracted during accommodation, but not to light. There was delay with the bladder.

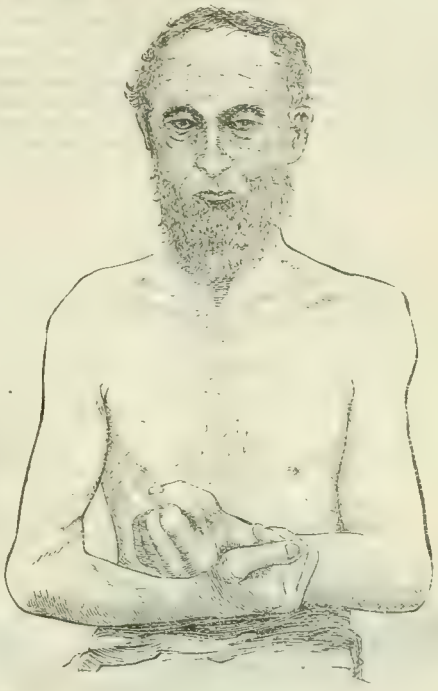
Between July and November 1879, the left lower extremity became greatly swollen from above the knee to the ankle, without any pain. Last February, the swelling went down, and the knee-joint was found to be loose, as it is now. The joint remained enlarged; it tapered upwards, and was rounded abruptly below. Its circumference was fifteen inches and a half, against thirteen inches and a half, the measurement of the right knee. The joint was semi-elastic on palpation; and the capsule appeared to be much thickened, especially in front. Grating was felt when the patella, which floated, was rubbed upon the end of the femur, and when the tibia was rubbed against the femur. The joint was very loose, the tibia being capable of abduction so as to form an angle of 150° with the femur. The



Case I.

left thigh lying flat on the bed, the tibia could be over-extended, so that the heel could be elevated nine inches; and it could be rotated freely. The left vastus internus muscle contracted at its motor point to the lowest strength of induced current required to cause contraction of the right vastus internus.

CASE II.—Henry H., aged 62, was an inmate of the Kensington Workhouse, for the opportunity of examining whom I am indebted to the kindness of Dr. Whitmore, resident medical superintendent. About ten years ago, the patient suffered from epigastric pain, retching, and vomiting, which lasted for nine months, not always equally severe, but so bad that he never left his room, and but rarely his bed. The retching occurred independently of any food being swallowed, and the pain was so severe that he rolled about. His symptoms gradually subsided; and he returned to his employment (cab-driving), but was still subject at times to return of pain and retching. At the end of a year, he had another prolonged attack, lasting on this occasion three months; and he has had in all half-a-dozen attacks of the same kind since the first. They would last about six or seven weeks, during which he had been obliged to keep his bed. For three or four years he had been liable to sharp momentary pains—in the legs at first, and eventually in all parts of the body; an attack of these pains lasting from twelve to twenty-four hours. At the present time, he scarcely ever goes a day without them. He is a spare, not unhealthy-looking man, who, if he takes his time, can walk ten miles. (He is now employed as a messenger.) There is no ataxy; but he is lame in the left leg from localised paralysis of the tibialis anticus group of muscles, which give no response to electrical currents. Electrical currents cause no sense of pain, though he recognises the very lightest touch. Patellar tendon-reflex is absent. The quadriceps extensor muscles act normally to the induced current. The skin-reflex of his soles is slightly in excess. His pupils do not contract to light, nor during accommodation. The left shoulder-joint is enlarged, and apparently contains fluid. It is abnormally movable; and there is much crepitus when the humerus is rotated, which it can be with quite unnatural freedom. The head of the bone has apparently disappeared; and the limb can be pushed upwards so that the left upper arm becomes more than an inch shorter than the right. The shoulder began to swell nearly three years ago, the swelling extending down the whole upper arm to the elbow, where it pointed and matter was discharged. At the same time, he says, the left side of his chest was also swollen.



Case II.

CASE III.—Matilda H., aged 50, was a patient in the National Hospital, under the care of my colleague Dr. Radcliffe, to whose courtesy I am indebted for the opportunity of including the case. Notes were taken by Dr. Beevor. Ten years ago, she had a slight attack of left hemiplegia, from which she recovered entirely in a week. For fifteen years she has suffered from so-called "rheumatic pains" in the arms and legs, and for the last five years she has been ataxic. Eighteen months ago, her left hip-joint gave way with a snap as she was stooping down, but without any pain; and she found she could not stand on the left leg. Directly afterwards, she noticed a swelling in the left groin; and, a few months later, the left leg was noticed to be shorter than the right; and it has continued, she says, to grow shorter.

Momentary shooting-pains have existed for two years. They come on suddenly, and she feels as though her joints were being "screwed into". They have been apt to attack the outer malleoli, the legs, and the hams; but they have never occurred in either of her hip-joints. They are very sharp, "like flashes of lightning", and make her cry out. Cutaneous sensibility is somewhat impaired in the legs, and there is a little delay in appreciating pricks with a pin. There is marked hyperalgesia to hot metal in the legs; but there is a delay of three seconds before she can feel the heat, which is then described as intolerable. Patellar tendon-reflex is absent. The vastus internus muscle of each thigh reacts normally to induced currents. The pupils are equal (size of No. 3 Hutchinson). They contract during accommodation, but not to light.

For seventeen years, the patient has been subject to attacks of vomiting, which at first would occur about once in a year, and last from ten to twelve days. For the last two years, these attacks have been much more frequent, and she will have one (lasting a week or more) every three or four weeks. There is nausea, vomiting, and cramp-like pain in the epigastrium, which makes her "twist about". She brings up a great deal of flatus, and there is much empty retching. The presence or absence of food in the stomach appears to have no influence on the vomiting. Her left lower extremity is shorter than the right, measuring thirty-one inches from the anterior superior iliac spine to the inner malleolus, against thirty-two inches and a half, the measurement on the right side. The left trochanter major is four inches below the anterior superior iliac spine, and half an inch outside a line drawn vertically downwards from that spine. The right trochanter, on the

other hand, is four inches outside a corresponding line. The right femur rotates in an arc of a circle of which the head of the bone is the centre, whereas the left rotates around its own shaft as a centre. The left leg can be drawn down nearly two inches. There is no sign of the head of the left femur being present. The patient can flex, extend, and rotate her left lower extremity fairly well, although with less power than the right. Both thighs, five inches above the patella, measure fifteen inches and a quarter in circumference. The left lower extremity can be rotated and moved into perfectly abnormal positions, as shown in the accompanying woodcut, which is taken from a photograph, for which, as for that of Case I, I am indebted to Dr. Gowers. She cannot stand without help, and then, on closing her eyes, she reels.



Case III.

The following case was under my care six years ago, affected with tabes and exhibiting joint affection with gastric crises.

CASE IV.—John C., aged 43, a butler, had suffered for five years from shooting pains, chiefly in the calves, occurring at intervals of from six to eight days, and lasting several hours. When he applied at the hospital in February 1875, the pains had gradually become much less severe and frequent. There was divergence of the optic axes. His pupils were contracted; his gait was ataxic, and he could not stand in the dark with his eyes shut. There was occasional leakage of the bladder. He described having had violent attacks of vomiting, occurring perhaps two or three times a year, and lasting a day or two. But besides this, he had had a gnawing and sinking sensation at the pit of the stomach almost daily, with a sickness and aversion from food. This was especially as regards anything which required mastication. He also complained of a frequent feeling as though he wanted to evacuate his bowels. Sometimes, he said, he felt as though there were a cannon-ball in his stomach. I found both his knee-joints much enlarged, and he told me that they had been twice as big. A month later his right knee-joint had still further enlarged, and evidently contained fluid. Not long after this I lost sight of the patient.

As I mentioned in my former paper, the expectations which were at first formed by Charcot, that the cause of these lesions of bones and joints would be discovered in atrophy of the anterior cornua of the spinal cord, have not been realised. The idea was founded upon the fact that in these cases there was usually more or less coincident muscular wasting. But in three recent necropsies (according to Talamon, *Revue Mensuelle*, 1878, vol. ii) no muscular atrophy existed, and the anterior cornua were normal. On the other hand, I may remark that cases of advanced progressive muscular atrophy are of not uncommon occurrence, in which microscopical examination shows extensive destruction of cells in the anterior cornua, and in which there have been during life no changes whatever in the joints or bones. It is true, that this is not quite without exception. I have met with one case, a female, suffering from protopathic amyotrophy, in whom the finger-joints and elbows were the seat of marked changes. But these changes were precisely of the kind which is met with in arthritis deformans, and were very distinct from those characteristic of tabes. So, also, it is true that perhaps more often than not, in infantile paralysis, not only are the constituent parts of a joint relaxed so that the limb dangles, but the bones of the affected extremity cease to grow, and more or less deformity occurs. But here, again, the pathological condition is widely different from that which obtains in tabes. Spontaneous fracture, again, forms no part of the history of infantile paralysis, nor of progressive muscular atrophy; and in neither of these diseases do we ever see sudden painless and enormous swelling, involving not only the joint, but the whole extremity, followed by a rapid disappearance by absorption of an entire epiphysis and of bone beyond it, such as occurred in two of the cases related. No doubt the partial check to the growth of bones which occurs in infantile paralysis shows that the integrity of the anterior cornua is in some way necessary for the due development of osseous tissue; whether directly or indirectly, is another question. But in the arthropathy of tabes there would seem to be a destructive process at work different from any seen in other conditions, and implying, therefore, lesion of some portion of the nervous centres distinct from the anterior cornua of the cord, the effects of lesions of which are well recognised.

In one of the female patients, M., whom I showed at the Pathological Society, the two knee-joints were so hopelessly disorganised, that the patient had to use crutches, and to make great exertions with her arms, as she could not support herself on her legs. As a result, the muscles of her arms were developed like those of a labourer. Yet it was one of her shoulder-joints, bordered by these large muscles, which had begun to show signs of the same kind of affection as that in her knees. There had been great effusion, both in the joint and under the muscles of the shoulder and arm down to the elbow, and there was crepitation on movement. Such an association of muscular hypertrophy with joint-affection appears to be absolutely conclusive against disease of the anterior cornua being the cause of the latter. In the three cases of which I have to-day presented notes, I carefully tested electrically the muscles in the neighbourhood of the affected joint. In the case of P., whose left knee-joint was the seat of disease, the vastus internus muscle of that thigh responded to the lowest strength of induced current, which caused contraction in the corresponding muscle in the right limb. In Matilda H., whose left hip-joint is the seat of change, the muscles of the thigh respond to a normal strength of induced current—to the same strength as causes contraction in those of the right thigh. In the case of Henry H. alone, I found a slight reduction of faradaic excitability in the deltoid of the affected shoulder. This muscle was wanting in thickness, and was flabby. It had been exposed to a good deal of pressure from the large quantity of fluid which had occupied the joint, but which had recently greatly decreased, and it was disused. In the circumstances, I think this was sufficient to explain the slight diminution of excitability. In the case of S., whose left knee-joint was disorganised (*Lancet*, 1874), I found the muscles of the affected thigh actually more excitable to faradaism than those of the opposite side.

This preservation of faradaic excitability in muscles in the neighbourhood of disorganised joints affords manifestly a strong presumption against the view that disease of the anterior cornua is the cause of the arthropathy and absorption of bone. The fact, too, that my patient W., whose right hip-joint was completely disorganised (the head and neck of the femur being absorbed), was still able to walk some miles without crutches bears strongly in the same direction.

With still less probability can we attribute the cause of the affection of bones and joints to the disease of the posterior roots of spinal nerves, which is the essential lesion in tabes. For it is notorious that the most extensive changes in the posterior root-zones are perfectly compatible with complete preservation of the integrity of the joints. These peculiar affections of joints and bones only occur in a very moderate percentage of cases of tabes.* Moreover, although it is certainly common for the patient to have suffered severely from lightning-pains in the limb which afterwards becomes the seat of arthropathy, this is not universally the case, as it would probably be were the joint-affection connected with the disease of the posterior root-fibres. I questioned Matilda H. very carefully upon this point, and she told me distinctly that, although she had suffered severely from shooting-pains about the malleoli, legs, and popliteal spaces, she had *never* had pains in either of her hip-joints. So,

* It is impossible to say what the percentage really is. In conversation upon the subject with Professor Charcot a year or two ago, I told him that we rarely met with cases of tabetic arthropathy in England. He said: "You will find them in the workhouse infirmaries and in the surgical wards of hospitals." He was right. Two of my cases I discovered in workhouse infirmaries. Another was very nearly having the operation of excision of the knee-joint performed in a surgical ward of a hospital; two others, who had been inmates of surgical wards, had each been exhibited to candidates for a diploma at one of the examining boards as examples of rheumatoid arthritis. It is not, therefore, in the medical wards of hospitals, nor at a special hospital for paralysis, that one is likely to find many examples of these conditions. In most of those which I have published, the nature of the underlying disease had never been suspected.

again, P., whose lightning-pains had affected both knees and ankles, had not suffered more in the left than the right knee; and for a year before any signs of mischief presented themselves in the knee-joint he had experienced much less of the pains than before. On the other hand, Henry H. told me that the pains had been exceedingly severe in the left shoulder-joint, which was the seat of the changes. Another of my patients also (Worcester) described the occurrence of an unusually severe shock of pain in the affected limb immediately before the joint-changes began.

Now the gastric crises appear strongly to point to irritation of the roots of the vagus nerve in the medulla oblongata. The character of the retching, vomiting, and pain resembles remarkably that of the symptoms of this class which I have seen to occur in hydrophobia. In that disease (as far as it is possible to prove it), as we know by the microscopical observations of Coats and Gowers, vascular changes are often found affecting the pneumogastric nuclei. The lightning-pains of tabes, which depend upon irritative lesions of the posterior root-zones of the cord, are paroxysmal in character. We cannot explain the reason of this. All we know is, that they tend, after a few hours, days, or weeks, to pass off, and leave the patient absolutely free till another attack occurs. The *crises gastriques* are ordinarily characterised by a precisely similar tendency, and we have only to imagine the inflammatory changes of the posterior root-zones of the cord extending upwards into the medulla oblongata, and irritating the roots of the vagi, to see a complete explanation of the peculiarities of the gastric crises. Such an invasion of the roots of the vagi has not, so far as I know, been demonstrated; indeed, it has probably never been looked for. It is not easy to see any other reasonable explanation of the mode of origin of the gastric crises.

Supposing, then, that this be the cause, I suggest that the frequency of the coincidence of gastric crises with the osseous lesions gives reasonable ground for the hypothesis that the latter may depend upon an invasion of a part of the medulla oblongata closely adjacent to the roots of the vagi. It is only as a working hypothesis that I make the suggestion. Is there something which we may call provisionally a trophic centre for the osseous and articulatory system in the immediate neighbourhood of the roots of the vagi?

As I have suggested on a previous occasion, the discovery of such a centre would materially help us to explain the remarkable association of cardiac complications with the joint-affection of acute rheumatism, as well as the sweating characteristic of this disease, and the occasional hyperpyrexia which occurs in it. And it might also help to throw light upon the obscure pathology of arthritis deformans.

ON THE USE OF OPTOMETERS FOR THE EXAMINATION OF SOLDIERS AND WORKMEN EMPLOYED ON THE RAILROAD.

By E. WARLOMONT, M.D., Brussels.

I.—Soldiers.

1. In order that a man may be fitted to discharge all the duties inherent to the profession of a soldier, he must possess certain physical qualities. For example, as regards the faculty of sight, he must at least be able to distinguish at a distance a battalion of infantry from a troop of cavalry; to occupy the position of patrol, vedette, or scout; to penetrate through a fog or through the darkness of the night, etc. For these purposes, his degree of visual acuteness must be at least a third in proportion to his normal acuteness, and his refraction must not exceed five diopters of myopia (one-seventh of the old reckoning) in the right eye, the accommodation being paralysed, or six diopters of hypermetropia (one-sixth of the old reckoning), apart from all element of accommodation by the use of mydriatics.

These are the limits prescribed by the ophthalmological department of the Medical Congress of Brussels in 1875,* in armies where the use of spectacles is permitted. In other cases, the degree of myopia must not exceed three diopters (one-twelfth to one-thirteenth of the old reckoning); and, in the case of hypermetropia, six metrical diopters. The Congress of 1875 went no further; it committed to future Congresses the task of giving an opinion on the formation of committees of medical examination, and the manner in which they were to exercise their functions.

Since 1875, this question has made a step in advance; the use of spectacles has been authorised in several countries, and amongst others in Belgium, and the result of investigation appears to have been in favour of the extension of instrumental means for determining ametropic defects and those of visual acuteness. Was this extension to be desired? and is the preference given to optical instruments over direct observation to be approved? In a scientific point of view, the answer would certainly be in the negative; in a practical sense (considering that the persons appointed to examine these questions are often wanting in sufficient experience to fit them for being accredited organs of objective science), the opposite conclusion may be formed. It may be objected, perhaps, that optometers are passive instruments, from which no absolute judgment can be obtained; but it must be borne in mind that the mathematical precision indispensable in scientific laboratories is not of such great importance in the councils of conscription, in which an approximate calculation, by means of a good optometer, will be sufficient. One thing is certain: the use of the optometer has found favour in several countries, Belgium included, where it has been adopted by the Government for the examination of volunteers, conscripts, and their substitutes. In accordance with a proposition made by a commission over which I had the honour to preside, this Government has adopted the Loiseau optometer (special model). This instrument, adapted to special and limited purposes, is the same we presented to the Academy of Medicine in Belgium, in the name of the inventor, in the meeting of the 25th January, 1879 (see *Annals of Ophthalmology*, January, February, 1879, page 40), but simplified by him, on account of the limited degree of services required in the commissions of conscription and medical examination.

The instrument consists of a single copper tube, three centimètres and a half in diameter, and eleven centimètres long (Fig. 1), having at its

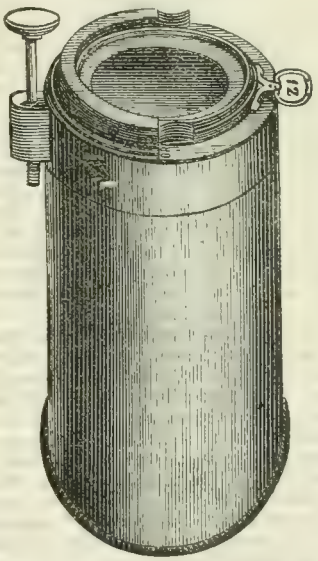


Fig. 1.

front end a spring catch for the introduction of the lens, and a rod terminated by a blunt knob, which, coming into contact with the inferior orbital region, fixes the position of the eye observed at thirteen millimètres from the lens. At one centimètre from the other extremity of the tube—viz., ten centimètres distant from the lens—is a board or

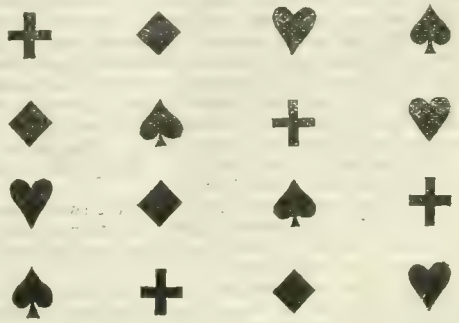


Fig. 2.

* With the exception of a very small fraction, the Congress of Brussels admitted, as a rule, provisionally, an acuteness varying from one-fourth to two-fifths.

tablet on which are represented four rows of signs like those on playing-cards—crosses, diamonds, hearts, and spades: they are placed horizontally and vertically. These signs have been chosen, as being universally known even to the most ignorant. They are measured according to a scale of $\frac{1}{5}$ of acuteness. The subject must be able to read these characters without the least hesitation in following the four transverse series, and then the four vertical ones, naming those signs indicated at random by the examiner, such, for example, as the first and third of either row, vertical or horizontal. During the examination, the expert holds in his hand a specimen-sheet of the board, on which he inscribes notes of the answers which cannot be committed to memory. Twelve glasses accompany the instrument—viz., a plane-glass corresponding to 0, and eleven convex spherical ones corresponding to the metrical numbers 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, and a duplicate of No. 10.

The theory of the Loiseau optometer is explained in a work published in the *Annals of Ophthalmology* in 1878 (July, August, p. 6). We will mention briefly the following principles established by it. *When the sign-board is at ten centimètres (3.9 inches) distance from the eye-piece, it transmits rays which, after having passed through the eye-piece, intersect each other on the retina—(1) if this eye-piece is a convex lens of 10 D. (2) if it is placed in* φ*—viz., thirteen millimètres (0.5 inch) in front of the cornea; (3) if the accommodation is in a state of complete rest; and (4) if the inspected eye is emmetropical.*

The eye, being thus strengthened, is in possession of a refractive power derived from the natural refraction of the eye and the addition of 10 D. But if, under these conditions, it is necessary to add ten diopters to the refraction of the *emmetropic* eye, the same is not necessary to the *myopic* eye, of which the intrinsic refraction is superior to that of the emmetropic eye. One or several diopters less will be required; that is to say, the myopic eye will distinguish the sign-board, placed at ten centimètres (3.9 inches) distant, with an eye-piece of 9, 8, or 7 D 1, for example; this eye will vary in its degree of myopia from 10 − 9 = 1, 10 − 8 = 2, 10 − 7 = 3 D, etc. Its character will thus be determined; and it will require for its amelioration a negative glass of 1, 2, 3 diopters, which will have the effect of neutralising an equal number of diopters in excess. In hypermetropia, the case is different.

These preliminary observations will suffice to throw a light on the following remarks concerning the application of the Loiseau optometer in the councils of conscription and medical examination.

1. *Myopia.*—In the case of volunteers or substitutes desirous of proving their aptitude for service, it is unnecessary to paralyse their accommodation by the instillation of atropine. The subject being placed in the light of a window, and holding in his hand the optometer-tube, must place the knob of the terminal rod in contact with the inferior orbital region, and look through the various glasses that will be placed before him. His degree of aptitude will be decided by his answers. In the case of conscripts who are, on the contrary, interested in exaggerating their defects of sight, which they can do by means of their accommodation, this resource must be paralysed, and the medical man must instil into the eye, previous to applying the test, by aid of a drop-glass, three or four drops of a solution of atropine (five centigrammes to fifteen grammes of distilled water), and defer the examination to the end of the meeting, and *after having remarked a considerable dilatation in the pupil of the eye.*

2. *Hypermetropia.*—This defect must attain to six metrical diopters to authorise an exemption from service. Now, as there can only be a question of *total* hypermetropia, it must be isolated from all elements of accommodation, in order to determine its degree; and one must begin, therefore, by the mydriatic instillation. Without this preliminary operation, the man would not be fairly dealt with, being unable to prove the whole extent of his ametropia. In the cases of volunteers and substitutes, the paralysis of the accommodation is also useful; for, without it, the subjects would dissimulate, voluntarily or involuntarily, a part of their ametropia; and, should they become tired of the service afterwards, could make it a plea for being invalided.

It now remains to indicate the different tests. They are as follows, according to the instructions furnished with the optometer placed by Government at the disposal of the Council.

Test A.—The medical man introduces one of the two glasses No. 10 into the spring catch of the optometer. He adds in turn to this glass the eleven other glasses, which *he takes care beforehand to dispose without reference to any order in their numbers.*

Conclusions.—1. From the moment the subject can read the signs on the board with the aid of one of the following combinations—10 and 10, 10 and 9, 10 and 8, 10 and 7, 10 and 6—there is reason to pronounce his definitive exemption, on account of hypermetropia of at least six metrical diopters. 2. If the subject, being incapable of reading with the aid of any of the above-mentioned combinations, can succeed by means of the following ones—10 and 5, 10 and 4, 10 and 3, 10 and 2, 10 and 1, 10 and 0—he will be judged fit for service. He is hypermetropic, but in a degree inferior to that which is necessary to warrant an exemption; or he is emmetropic. 3. Should he be unable to read according to either one or the other of these combinations, the Test B must be resorted to.

Test B.—The glass No. 10 must be removed from the lyre, and replaced in turn by the Nos. 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9, chosen, not in their order, but at random.

Conclusions.—1. If the subject can read the sign-board with the help of one of these glasses, 9, 8, 7, 6, 5, he will be considered apt for service; his myopia is not six diopters. 2. If he cannot read with the help of the preceding glasses, but can do so with one of the glasses 4, 3, 2, 1, 0, his decided exemption must be pronounced for myopia reaching at least six metrical diopters. The above-mentioned tests, although subjective, answer to every requisite, provided that those who are examined are sincere. In cases where they are desirous to prove themselves capable (volunteers or substitutes), there can be no doubt of their good faith, as it is necessary to their success. With regard to conscripts, this may be doubted; but all deception may be easily baffled. Truth must be either spoken or disguised. In the former case, the glass or combination of glasses by means of which he is to decipher the characters on the board will give the measure of his ametropia. There is but one resource that remains to him—that of protesting his inability to see through any of them. Such subjects, as well as those who oppose themselves to mydriatic instillations, must be treated like the worst sort of deaf people—those who will not hear; they will be declared efficient. They may resist, and will then be sent before the councils of revision, and from them handed over to the military ophthalmic institution, to be watched, and to be submitted to all the means of objective investigation which science affords—ophthalmoscopes, refracting ophthalmoscopes, ophthalmoscoptometers, perimeters, and the like—and where their fate will be decided after a thorough appreciation of their case.

It will probably be objected that, in seeking to determine the degree of myopia, one may be led into error, as formerly, though less so, by the previous overtaxing of the accommodaton, which may not have been entirely conquered. There may be some truth in this supposition; but, if one considers that the experiments are made monocularly and through convex glasses (which are, for the most part, sufficient in themselves, and without having recourse to mydriatics, to neutralise the accommodating power), it will be quickly seen that errors of this nature can never be of sufficient moment to have any sensible influence on the results.

Let us add that the discovery of new and more active agents, such as, for example, the quite recent one of homatropin, may do away with this objection. It appears clearly proved that a watery solution of one per cent. of this new production occasions a pupillary dilatation and a maximum paralysis of accommodation, which begin both to diminish after several hours, and cease completely at the expiration of twenty-four hours.

3. *Visual Acuteness.*—The Congress of Brussels had admitted, as necessary for men entering the army, a visual acuteness comprised between $\frac{1}{4}$ and $\frac{2}{3}$. The Belgian Commission has fixed the minimum limit of $\frac{1}{3}$ of normal acuteness for the right eye, admitting a lesser degree for the left.

This measure is easily determined. The ametropia, if necessary, being corrected by an appropriate glass, the subject, be he conscript, volunteer, or substitute, must be able to read the signs on the board of the Loiseau optometer, measured according to this scale. If he cannot do so, then his acuteness is a third below par. But, as the good faith of the conscript (we do not speak either of volunteer or of substitute whose invalidity has been already proved) is at least doubtful, the conscript, thus provisionally judged, must be sent to the ophthalmic military institution, like those doubtful subjects already mentioned, to undergo a close examination.

The method I have now explained, and which, ratified by the royal decree of January 11th, is actually in force, is suited to every necessity. In a preliminary test, before the councils of militia, no subject can be sent away or invalided if he has not proved his disability, as regards his faculties of sight, by a positive test. This test is decisive. Whether myopic or hypermetropic, he has deciphered characters that a person myopic or hypermetropic of six diopters or more can only recognise by means of glasses which have been imposed upon him. Should there be either doubt or dissimulation in the case, the rights of science must be invoked, as well also as the interests of society. The deceiver must undergo, at the hospital of observation, the tests borrowed from objectivity, from which he can never come forth with honour. Thus the desire expressed at the congress that no exemption

on the score of defective sight should be pronounced but after the investigations of special and competent medical men (and which it seemed impossible to satisfy but on the condition of the presence of an oculist in every council of militia or revision—a thing impossible), is now accomplished.

OPHTHALMOSCOPTOMETER.—The Military Ophthalmic Institution, which is installed in the outhouses of the Military Hospital at Louvain, and which admits subjects for the purpose of serious examination, is placed under the direction of Dr. Loiseau. All the men who are sent there for observation undergo the ordinary inspection by objective optometry, to which is added that by ophthalmoscoptometry, by means of the instrument which we have devised together, and which may be thus described.

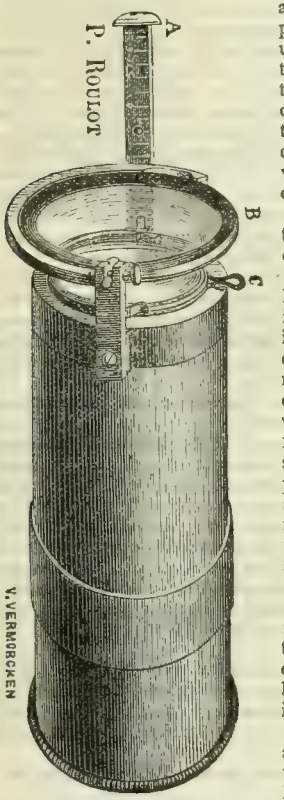


Fig. 3.

The ophthalmoscoptometer consists of two copper tubes, sliding one upon the other very easily.

The external tube is 15 centimètres long; it is 4 centimètres in diameter; its hinder opening is free; the front one is closed by a lens, C, having focal length of 71 millimètres (square = ½ centimètre) or 14 D. From the anterior part of the tube arise two rods, between which is suspended a concave meniscus, B, of which the two faces have the same radius of curvation, *i.e.*, they are parallel, and which can be inclined so as to act as a reflecting mirror. Its radius of curvation measures 14 centimètres, and 21 centimètres in diameter; and it is placed 1½ centimètres in front of the lens, so as to be capable of a sufficient inclination. One of the two rods passes only 22 millimètres beyond the level of the lens; the second, 9 centimètres long, and exceeding in length by 7 centimètres the plane of the lens, is terminated by an ivory button, A.

The inner tube, of the same length, and a little less in diameter, as it is intended to slide into the outer one, is, like that one, open behind. The front aperture is half closed by a rough glass in the form of a half-moon. This tube is furnished with a graduation in half centimètres, which acts in the same way as that of a thermometer. The O is determined by aiming at a distant object, sending out parallel rays (emmetropia), and in sliding the interior tube from behind to the front, until the object is represented clearly on the screen (photography), which is then at 7 centimètres' distance from the lens. One may also mark the O by placing it simply on the point of the tube corresponding to the distance. These two means control each other. From zero, the graduation progresses in the two directions by half centimètres, representing each 1D hypermetropic; O towards the lens, myopic in the other direction.

To determine more easily the Point of Contact of the Image on the rough Glass. This glass occupies only one-half of the interior movable tube; it is a screen in the form of a half-moon. This disposition permitting a direct view of the image through the half-moon, which remains free of all diaphragm, one is assured by this means that it is represented correctly, and that one does not run the risk of looking in the mirror for an object that is not yet reflected in the tube.

This disposition permits one also, as soon as the image of the papilla is formed in the tube, to direct the rough screen towards it, instead of seeking to bring towards the screen by changing the direction of the eye, which would certainly be more difficult. To obtain this, the inner tube must be moved in the outer one with a slight friction from the back to the front, as if round its axis.

Method of Employment.—Things are disposed as for an ordinary ophthalmoscopic examination, where the object is reversed. The observing party seated a little higher than the person observed, the lamp being at the side and level with the eye, and holding the apparatus in the left hand, places the terminal button of the long rod, which extends beyond the front of the outer tube, against the inferior orbital region, and projects the reflecting meniscus so as to give light to the back of the eye; he then looks into the tube, moving, with the right hand, the inner tube, until the half-moon encounters a clearly-defined image of the papilla. There remains now only to consult the graduating scale, which, indicating exactly the distance of the image from the lens, gives the correct measure of the refraction.

The state of refraction of the eye of the observer has nothing to do with this method of investigation any more than his accommodation. All that is required of him is to place himself near enough to be able to distinguish clearly the details of the object represented; for this purpose, the myopic eye of from four to five diopters is the most favourable. The observer, whatever may be his sight, has only to make choice of an appropriate glass to enable him to arrive at this degree of myopia. This contrivance will prevent the observer from being obliged to extend too much the arm which holds the instrument, thus sparing him unnecessary fatigue.

The use of this instrument does away with all the difficulties inherent to such decisions as may be obtained by refracting ophthalmoscopes; the relaxation of the accommodation which is often difficult, the necessity on the part of the observer to make allowances for the refraction of his own eye, and the distance which separates him from the observer's eye—all these being impediments to favourable results from the ophthalmoscope. It gives, in short, the most absolute and decidedly objective results, with an incontestable mathematical accuracy. This apparatus, in order to be properly managed, requires naturally an apprenticeship from which no other system of ophthalmoscopic examination can be exempted. The management of it once acquired, it will answer every expectation. Perhaps, in order to render its management more easy, the instrument might be mounted on a stand. Of this we shall make a trial.

The ophthalmoscoptometer must not have the pretension of superseding refracting ophthalmoscopes. One must not omit remarking, however, that indications furnished by means of these instruments are open to dispute. If the measures employed are objective, as regards the subject under observation, they are subjective on the part of the observer. He is obliged to relax his accommodation, and sometimes, only succeeding partly, has only subjective means at his command, of which he is not himself certain. The ophthalmoscoptometer will at least be a means of control that is not to be neglected.

The measures I have indicated as necessary for securing at the same time the interests of the army and of society, in countries where conscription is in practice, are by no means indispensable where armies are only composed of volunteers. These minute details concern only those who wish to elude the law, men who pretend defects in sight in order to be rejected. But, in the case of volunteers, we must also be guarded against another kind of dissimulation; they are apt to conceal their infirmities, so as not to be excluded from the profession.

This must be the case in England. We will not now inquire into the system employed there to discover whether a volunteer possesses the necessary visual powers. We suppose only that a perfect sight, that is, a normal visual acuteness (S = 1), and a physiological refraction, are not to be exacted. There must exist a certain degree of tolerance, and in that case also many abuses enter the door left open to them. We are of opinion that, if recruiting officers were supplied with the optometer of Loiseau, it would greatly facilitate their mission, and furnish them with the means of obtaining an absolute precision. It would suffice to possess a signboard, with characters according to the scale of regulation acuteness (½ or ¾ per cent.), the conditions perhaps being severer in armies composed of volunteers than in those recruited by conscription, and accompanied by glasses answering to the degree of myopia or hypermetropia admitted. The characters on the board may be placed in a manner to preclude their being studied, which is very easy; one has only to make choice of a square, and make use only of signs which have the same shape, in whatever sense they may be turned—circles, crosses, stars, etc.; in placing certain lines of these signs sometimes up, sometimes down, or right and left, they cease to preserve the same relative position, and all deceit becomes impossible.

II.—PERSONS EMPLOYED ON THE RAILROAD.

In most countries, the attention has been long called to the accidents resulting from mistaking the signals, owing to the defect of sight known by the name of Daltonism. We do not intend alluding to this subject at present, for it has already been treated of here, except as regards its connection with the faculty of sight in general.

The power of distinguishing colours (chromatopsical acuteness) is neither independent nor absolute; it is connected with visual acuteness and the state of refraction. It does not follow, therefore, that, when a subject has successfully stood the classical wool-test, he should be judged *ipso facto* competent to occupy functions where coloured signals

are to be distinguished at a great distance; he must for that purpose possess a good visual acuteness, and be neither myopic nor hypermetropic, since an imperfect one or an ametropic defect may prevent him from distinguishing with the naked eye (and the use of correcting glasses must be interdicted in the case of a certain class of workmen, such as engine-men and stokers) the colours of the signals, except at distances less than those prescribed as necessary.

This truth has been admitted by the Medical Congress at Amsterdam, in the Ophthalmological Department, where the first article of their regulations is thus worded: "1. The experiments made on this subject on the lines of the railroad, prove that, to distinguish signals at the required distance, it is necessary to possess a sight perfectly normal."

The concomitant examination of the refraction and of the acuteness of sight is, therefore, indispensable; and the commission recently appointed by the Belgian Government, called "Committee of Daltonism", has not hesitated in considering it as the necessary complement to that of chromatopsical acuteness. This double experiment can easily be made by means of the Loiseau optometer, which has been already mentioned.

There are two classes of subjects to be thus examined: the one including men actually in the service, and desirous of being maintained; the other class is that of subjects wishing to enter the service. Both are equally interested in concealing their imperfections, and, in certain cases, pretend to qualities they do not possess. The Loiseau optometer (special model), modified according to the questions that are to be asked, and the conditions required in different administrations, will in certain cases be found of the greatest utility.

I did not intend to enter now on the question of Daltonism. It may, however, be useful to say a few words of the centric scotoma, which affects the eye for the most part when under the influence of intoxication, whether alcoholic or any other. The relative centric scotoma, so named because it surrounds the point of fixation (central), and because it often happens that the visual sensation is only altered in its relative chromatic properties (Nuel) with reference to the direct sight, may not be sufficiently proved by the wool-test; these may, however, be seen by the peripheral parts of the retina, which may still be healthy, in passing in front of them before exciting the direct point of vision. When subjects so affected look at a distance straight before them, it is the central point of the retina which must perceive the observed signals, and that point is exactly the one whose chromatopsic unfitness has been shown. Thence arises the danger of confusion in the interpretation of signals. To avoid this cause of error, we have adapted to the Loiseau optometer a system of discs in coloured glass. These can be slided in front of the apparatus in the place of the sign-board, which must be previously removed. Instead of the ocular lens, there is placed a thick opaque diaphragm perforated by a stenopaic aperture. The subject should be able to distinguish the colours of the disc in looking through that opening of the size of a pin's head, thus admitting only the intervention of the central vision.

BENZOATE OF SODA IN THE TREATMENT OF ACUTE RHEUMATISM.

By DAVID MACEWAN, M.D.,
Surgeon to the Dundee Royal Infirmary.

BENZOIC acid is closely related to salicylic acid in chemical composition, and its physiological effects are in some respects similar; it is, therefore, a reasonable question for investigation, whether, like the latter, it possesses antirheumatic virtues. With the view of determining this point, I commenced to prescribe it nearly a year ago, in the form of benzoate of soda, for the treatment of acute rheumatism. On the first occasion on which I employed it, the relief of pain and subsidence of fever were so immediate, and the recovery was so rapid and complete, that I had no hesitation in adopting the same treatment in subsequent cases. The results have been favourable, as the following brief notes of some cases will show. The temperatures given were taken either about midday or early in the afternoon.

CASE I.—Jane S., aged 19. I saw her on May 19th, 1879, and was told that she had been suffering from slight pains in the joints for four or five days, but was able to go about till the 18th, when she had a rigor, and had to take to bed. The joints affected were the right shoulder, wrists, knees, and ankles. Pulse 120; temperature 102°. The tongue was coated. She was perspiring freely. The cardiac sounds were normal. She was ordered to have fifteen grains of benzoate of soda every three hours.

May 20th. She had passed an uneasy night. The pain in the shoulder was gone; the right elbow had become affected. Pulse 108; temperature 100.8°.

May 21st. She felt greatly relieved. Both wrists and one knee were still slightly affected; the other joints were free from pain, but somewhat stiff. Pulse 96; temperature 99°.

May 22nd. She had no pain except in one knee. Pulse 74; temperature 99°.

May 23rd. She was completely free from pain. The pulse and temperature were normal. She made a good recovery.

CASE II.—Jane T., aged 21. I saw her for the first time on December 10th, 1879. Four years ago, she had an attack of rheumatic fever, which continued three months. She had had shifting pains in her joints for the past five days. She became worse yesterday, and had to keep her bed. The joints affected were the left shoulder, wrists, elbows, ankles, the left knee, and some of the metacarpal joints of the left hand. Pulse 104; temperature 101.2°. There was a loud systolic *bruit*, clearly due to chronic mitral disease. She was ordered fifteen grains of benzoate of soda every three hours.

December 11th. The condition of the joints was much the same. Pulse 96; temperature 100.6°. She was perspiring very freely.

December 12th. The pains were gone from the wrists and elbows; the other joints were still swollen and very painful. Pulse 96; temperature 103°. She did not complain of præcordial pain or uneasiness. She was ordered to have twenty grains of the medicine every three hours.

December 13th. The joints were nearly free from pain. Pulse 78; temperature 99°.

December 14th. There was no pain. The pulse and temperature were normal. Recovery was uninterrupted.

CASE III.—Wm. H. became ill about the beginning of January 1880, and was treated for a fortnight by salicylate of soda, but without much benefit. On January 14th, the elbows, shoulders, and knees were very painful and swollen. The tongue was coated with a white fur. He had profuse perspiration. Pulse 102; temperature 102.8°. The cardiac sounds were normal. He was ordered twenty grains of benzoate of soda every two hours. For three days the temperature ranged from 101° to 102°, and the joints continued more or less affected; the symptoms then gradually subsided; and in about a week from the commencement of the treatment he felt quite well, and was able to be out of bed.

CASE IV.—Ann H., aged 27, had been ill for five days when first seen on January 24th. The wrists, knees, and ankles were painful, tender, and swollen; pulse 108; temperature 101.2°. The heart sounds were normal. She was ordered twenty grains of benzoate of soda every three hours.

January 25th. Pulse 108; temperature 101°. The state of the joints was not much altered.

January 26th. The joints were not so painful; the pain in the ankles was quite gone; pulse 96; temperature 99.2°.

January 27th. Pulse 84; temperature 100°. The painful state of the knees was gone; the wrists were still affected.

January 28th. Pulse 88; temperature 100°. She still had pain in the wrists.

January 29th. The joints were free from pain. Pulse 88; temperature, 99°.

January 30th. She was quite well.

CASE V.—Mrs. F., aged 50, was laid up with rheumatic fever for three months, thirteen years ago. The present attack began on February 13th. When seen for the first time on February 16th, she complained of pains in both hips, in one knee, and both ankles; the slightest movement caused great pain. Pulse 104; temperature 101.8°. There was mitral disease of old standing. She was ordered twenty grains of benzoate of soda every two hours.

February 17th. Pulse 96; temperature 100°. The pains were greatly relieved.

February 18th. Pulse 96; temperature 99°. She had no pain except in the left knee, which was still slightly swollen.

February 19th. She was quite well. The medicine was stopped.

She continued well till February 21st, when she was seized with pain and swelling in the left wrist; pulse 100; temperature 100°. The medicine was resumed in the former doses, and next day the painful state of the joint had subsided, and her pulse and temperature were normal. She made a good recovery.

In addition to the above, I have treated several other cases, of which I have no notes, in the same way, and with equally good results.

The cases here narrated, are, of course, too few in number to warrant any confident conclusions; but they are sufficient to show that there is a strong probability of benzoate of soda being a remedy of considerable efficacy in the treatment of rheumatic fever. In all of them, the symptoms passed off in periods varying from three

days to a week after the commencement of the medicine; in none did cardiac complications arise during the course of the treatment; and, I think, the convalescence was more rapid than in cases I have seen treated by the salicylate of soda.

In Case V, there was a slight relapse, probably owing to the medicine having been too early discontinued; for, on its being resumed, the pain and fever speedily subsided.

Benzoate of soda possesses this advantage, that it does not give rise to the nausea and depression, or the unpleasant head phenomena, which the salicylate frequently produces. It is most convenient to prescribe it in the form of a mixture, and it may be given in doses of fifteen or twenty grains every two or three hours. It should also be continued in diminished doses for twenty-four or forty-eight hours after the rheumatic symptoms have disappeared.

DELIRIUM FOLLOWING THE TREATMENT OF ACUTE RHEUMATISM BY SALICYLIC ACID.

By T. D. ACLAND, M.B.Oxon.

In the BRITISH MEDICAL JOURNAL for January 29th, there are reports of six cases of acute rheumatism treated with salicylic acid and accompanied by delirium. In his remarks on one of these cases, Dr. Bastian put before his hearers the most recent views which have been expressed as to the causation of the delirium; and gave, as his opinion, that Dr. Murchison was probably wrong in attributing the symptoms to uræmia. In the year 1877, through the kindness of Drs. Bristowe and Ord, the opportunity was given me of making some observations on this point, which incline me to believe that, when the delirium is the result of the treatment, and not a natural sequence of the disease, uræmia may play an active part in its causation.

The method in which the inquiry was conducted was as follows: The urine of patients who were being treated with salicylate of soda was collected for each successive period of twenty-four hours. The percentage of urea was estimated from a sample of the whole (the mean of three observations being, as a rule, taken); and then, by a simple calculation, the total amount of urea excreted in the day was determined. The result of these inquiries made in four cases—one of which lasted for twenty-one days—was to lead me to the following conclusions.

1. As a rule, the treatment was followed by a decline in the temperature.

2. The decline in the temperature was generally coincident with or followed by a marked diminution in the excretion of nitrogen, which, except in very minute quantities, is wholly excreted as urea (Dr. S. H. West, *Proc. Roy. Soc.*, 1880).

3. The lowering of the temperature, diminution of pain, and lessened excretion of urea, were nearly coincident.

In two of the cases, these results were well marked; in the one, treatment was discontinued twice, with the result each time of increased pain, pyrexia, and total amount of urea excreted *per diem;* in the other, in which it was unfortunately impossible to obtain accurate observations, treatment was discontinued five times, with the result, on each occasion, of similar changes in the temperature and urea excretion. In both cases, as soon as the salicylic treatment was resumed, the pain was relieved, the temperature fell, and the amount of urea passed in the twenty-four hours was much lessened. Do the facts justify a supposition that, supposing the temperature had not fallen and the salicylic acid had still been continued, delirium would have resulted? Further researches alone can decide; and the difficulty of obtaining all the urine which is passed when a patient is unconscious is so great that as yet my efforts to do so have failed.

Five cases in which albuminuria has been present have come under my notice. In all of them it has passed away during the continuance of the salicylic treatment; though, in one case, there was a very considerable amount of albumen present when treatment was commenced. Should these statements be borne out by further inquiries, they may have an important bearing on the vexed question of the causation of delirium by salicylic acid; since, if they are true, there may possibly be uræmia due to lessened discharge, or perhaps lessened formation of soluble nitrogenous excreta, without the occurrence of nephritis; and it would seem probable that, in most cases, the albuminuria is only a part of the febrile process, and not due to the drug.

The results which have been observed in the treatment of enteric fever with salicylic acid seem to favour the above views; since the drug, in many recorded cases, has precipitated the appearance of the "typhoid" symptoms, which are generally ascribed to uræmia.

From the nature of the investigation, it has been difficult to obtain complete records of any large number of cases. Some accident has, in many of them, broken the chain of observations, and made them incomplete; but those which have been recorded (*St. Thomas's Hospital Reports*, 1878), may, I venture to hope, lead others interested in the subject to continue the inquiry.

ACUTE PULMONARY TUBERCULOSIS.

By J. P. H. BOILEAU, M.D.,
Assistant Professor of Pathology, Army Medical School, Netley.

The rarity with which this disease is followed by recovery is very clearly evidenced by the remarks of Dr. McCall Anderson, in the BRITISH MEDICAL JOURNAL of February 19th. I have treated two cases of this disease. In the first, all doubts as to diagnosis were cleared up by a *post mortem* examination; in the second, recovery took place, and it is now more than nine years since my patient was attacked. The following extract is from my case-book.

CASE I.—A. B., aged 29 (service eleven years), consulted me at Barbadoes on July 20th, 1871. He was suffering from pulmonary distress, cough, and hæmoptysis. He was placed on the sick-list; and I found that, although the cough had not been severe until very lately, he had been annoyed by it for several weeks past, and that it became aggravated after a hard ride into the country, which he took on the 14th instant.

There appears to have been an hereditary tendency to phthisis in his family. In the autumn of 1865, at Malta, I attended him for hæmoptysis, of which he had several attacks. He was not, however, then on the sick-list; and, during the six years that had since elapsed, he had enjoyed excellent health.

On examination, I found pulse (lying) 88; respiration 24; temperature (axillary) 101. He complained of wandering pain and heaviness about the front of the chest, headache, dyspnœa, and constipation. I found the respiratory sounds very feeble throughout the lungs, a general slight dulness, but no positive stethescopic sign of pleurisy, pneumonia, or bronchitis. In the evening, his temperature had risen to 103°; pulse 100; respirations 25.

Subsequent examinations gave the following results.

	Morning Observations.			*Evening Observations.*		
	Temp.	Pulse (lying).	Resp.	Temp.	Pulse (lying).	Resp.
July 23	101	90	28	103°	88	28
,, 24	100	84	28	100.2	100	30
,, 25	99.5	84	28	101	93	31
,, 26	101	88	28	100.5	96	30
,, 27	100	88	28	100	93	30
,, 28	100	84	28	100.8	84	28
,, 29	100.6	84	28	—	—	—
,, 30	100.1	84	30	101	—	—
,, 31	100	96	30			
Average from 22nd inclusive..	100.3	87	28	Average from 22nd inclusive..	100.9	93	29

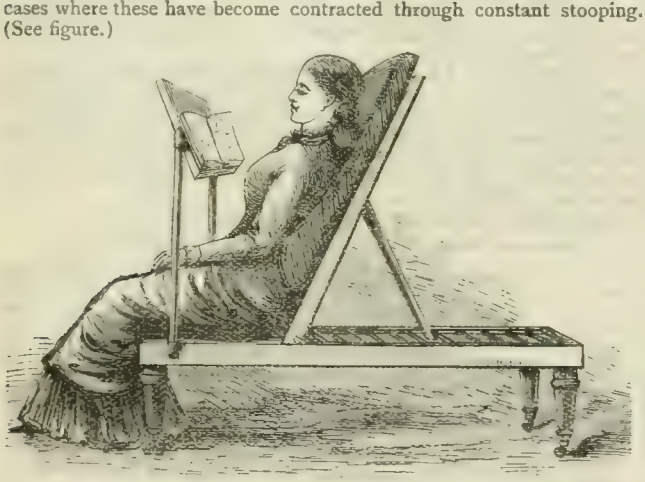
The sputa were scanty, and viscid, yellowish, and opalescent; latterly presenting milky-white spots and bloody streaks; no rust or frost. The cough was, therefore, more or less dry; it was often paroxysmal, and easily excited. The skin, which was delicate, emitted a peculiar odour; it was always moist. He became subject to flushes of heat, which could be seen in his face. I noticed an obscure crepitus at the base of the right lung; this gradually increased in loudness and extent. Three days after my first examination, I found dry crepitation, anteriorly and superiorly in the same lung; this became exceedingly well marked towards the apex, with dulness; vocal resonance and fremitus being morbidly increased. He lost flesh daily, and gradually became weaker. There came to be a difference of 30 between his standing and his lying pulse. Having made up my mind that he was the subject of acute tuberculosis, I submitted his case to the principal medical officer of the station, and recommended that he should be sent away from the island as speedily as possible. He embarked for England on August 10th, in a very unpromising state; but he gradually got better and stronger, he resumed his military duties, and he has done many a hard day's work since. He is now again serving abroad. I believe that the sea-voyage home, taken during the onset of the disease, saved his life; and I felt at the time that every hour he continued in the island was militating dreadfully against his recovery, so we got him out of the place with all possible speed.

We understand that the Director-General of the Army Medical Department will not vacate his appointment on the expiration of his term of office in April next, and that he will continue to occupy his present position for another year.

CLINICAL MEMORANDA.

BACKACHE.

MR. W. SQUARE, quoting Dr. C. L. Taylor of New York, in the JOURNAL of February 12th, advocates the use of a small pillow at night to relieve backache in "many patients, especially weak-looking girls", and says "the relief is at once apparent". I have found, by inquiry in a large number of cases where there was more or less constant backache (backache I would define as a chronic sense of pain or intense aching in the erectores spinæ, quite distinct from lumbago or muscular rheumatism), that the patient hardly ever goes to sleep on the back, being generally curled up on one side, with the spine flexed, and the thighs drawn up. I find that it is very difficult, and often impossible, to induce patients to sleep on the back, especially if a small pillow be thus employed. I therefore content myself with ordering a moderately hard mattrass, with a small pillow for the head, as far as night is concerned, considering it most important that a good position should be maintained during the day when reading, writing, etc. For this purpose I employ a chair with a movable back, which can be fixed at different angles, generally at one of about 45° for reading. A wedge-shaped cushion, with the thin edge uppermost, extends from the upper margin of the pelvis to the back of the patient's head, the thick end fitting the lumbar hollow, while a small cylindrical pillow, three inches in diameter, fills the hollow at the nape of the neck. This position at first is sometimes irksome to the patient, as it causes the chest to expand, and puts the abdominal muscles on the stretch in cases where these have become contracted through constant stooping. (See figure.)



This good position alone, however, is not sufficient; the erectores spinæ and other muscles of the back must be brought into regular and methodical exercise, which is done by means of localised muscular exercise (medical gymnastics, Ling's movements). I will give one example of this. Let the patient lie prone on the floor, and while the feet are fixed by means of a weight or an assistant, she is told to raise the head and upper part of the trunk as high as possible from the ground, without moving the pelvis, the elbows being extended, and the hands on the floor. This position should be retained for a few seconds, while the support of the arm is removed by the hands being raised sideways. During the movement, the erectores spinæ can be felt very strongly contracted. The exercise can be made stronger by requesting the patient to raise herself slowly, without the aid of the arms; and stronger still by applying the surgeon's hand to the back of the patient's head, and slightly resisting the raising of the trunk. If the patient's back be too weak or painful for this movement, the same muscles can be brought into action in another way. The patient, still lying prone, is told slowly to raise one leg from the floor (extension of the hip), when the erectores spinæ, especially that of the same side, are brought into action by fixing the pelvis and giving a *point d'appui* to the gluteal muscles. If a finger be placed on the muscle on a level with the middle lumbar vertebræ, it can be felt hard and contracted as soon as the leg is raised.

By carrying out the above method of treatment, I have relieved and removed backache after many years of suffering which has resisted all other treatment.

BERNARD ROTH, F.R.C.S., 18, Grand Parade, Brighton.

THE CONTAGIOUSNESS OF TYPHOID FEVER.

THERE cannot, I am sure, be any subject on which it is more necessary that there should be a general agreement amongst the profession, than the degree of communicability of typhoid fever. At this time, I have under observation a group of cases which, to my mind, clearly illustrates the contagiousness of this disease. I shall be most happy to give anyone who may feel inclined an opportunity of viewing the locality and examining them for himself.

Last year I published my views (together with the opinions of others) as to the contagiousness of this fever. It was, therefore, with satisfaction I perused the numerous papers in the JOURNAL of November 6th on this subject, more especially when I find, in a leading article, in reference to an epidemic recently inquired into by Dr. Franklin Parsons, the remark that "these cases seem to strengthen the argument of those who contend that this fever is, in fact, contagious". After this, I hope I may be excused for again bringing before the profession my conclusions. There is no proof that the semina of infection reside solely in the intestinal excreta. Typhoid fever spreads by contagion like other zymotic diseases, being transmitted into the body by inhalation into the lungs, by being swallowed with the drink or food, or by dust. The poison may not be so volatile as that of scarlet fever, and therefore requires a carrier or vehicle (currents of air are sufficient); and, when the patient is susceptible, it proves a highly contagious poison. The means to be employed to prevent its spread should be promptly and rigidly carried out. They consist of immediate isolation; thorough disinfection of excreta; procuring pure water; thorough disinfection of clothing by hot air at a temperature of 300°, or their destruction by fire; preventing children from going to school or other public resorts from an infected house without thorough disinfection, and not until it has been ascertained that the child is free from infection. There is risk in any susceptible person visiting the infected house. As rigid precautions should be employed as in cases of scarlet fever, substituting the disinfection of the discharges on their very issue from the body for the oiling of the skin to prevent the spread of scarlet fever from the surface of the body. The practice of admitting typhoid fever patients into the wards of general hospitals is to be condemned. Nurses should be selected from those who are protected by a previous attack.

W. SINCLAIR THOMSON, M.D., F.R.C.S.E.,
Medical Officer of Health, Peterborough.

THERAPEUTIC MEMORANDA.

CONIUM IN BRONCHIAL CATARRH.

BEING dissatisfied with the results obtained from the ordinary routine remedies for this complaint, so prevalent during our inclement and variable English winters, it seemed to me that, from what had been investigated of the properties of conium maculatum, that drug presented a feasible inducement for trial in this complaint. Conium is by no means a new therapeutic agent in bronchial catarrh, as it is mentioned in connection with affections of the "arteria trachea" by Galen, who himself also quotes from Andromachus and Criton. In modern times, its properties have been exhaustively investigated by Guttmann, Kölliker, Harley, and others. It has been used extensively, with more or less success, in the treatment of chorea.

It has been especially pointed out that the succus is the only preparation of constant properties, and, therefore, the only reliable criterion for reference as to its action. It may not seem altogether superfluous to explain here, inasmuch as the term catarrh is somewhat ambiguous, that simple excessive activity of function of the mucous membrane is here spoken of, and not those structural changes denoted by the term bronchitis.

I have administered the succus in small doses, from fifteen to twenty minims, every four hours or oftener, according to the age, sex, etc., in forty or fifty instances; in all, save two, the treatment was entirely successful, about two days of treatment usually effecting a cure. The cases in question were those in which irritation of the tracheo-bronchial mucous membrane was the one salient feature following the antecedent exposure to cold or draught; for, where pyrexia and general malaise obtained, conium did not seem to be of much service for colds. In a few cases of chronic bronchitis, associated with emphysema, where it was administered, conium did not appear to be of any appreciable utility in diminishing cough.

Conium probably acts in these cases through the sedative action on the nervous centres, in connection with the respiratory tract, of one of its derivatives, methylconia.

J. J. FREDERIC BARNES, M.R.C.P., F.R.C.S.E.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

CASE OF LOCOMOTOR ATAXY IN A WOMAN: CEPHALIC SYMPTOMS: INEFFICACY OF VARIOUS DRUGS AGAINST THE LIGHTNING PAINS.

(Under the care of Dr. BUZZARD.)

FOR the notes of the following case we are indebted to C. E. BEEVOR, M.B., Resident Medical Officer.

M. A. F., aged 46, a married woman, was admitted into the hospital on September 24th, 1880. Her grandfather had paraplegia; but there was no other neurosis in her family. She had not had rheumatic fever, and gave no history of syphilis. She had been married twenty-five years, and had had three children; no miscarriages. Nine years ago, three months before her youngest child was born, she began to have lightning-pains in the knees and ankles, and afterwards in the whole of the legs. Seven months later, she stamped her feet in walking; she thought she did not stagger, but her legs gave way at the knees. Eight years ago, she had diplopia, lasting two months; she had had it again for the last six weeks. Seven years ago, she began to lose sensation in the legs and lower part of the trunk (which lasted two years, and then improved); a little later, she was unable to walk. Three years ago, she had pains, sharp and sudden, along her ribs, shooting back to the spine; and, a year ago, they came on in her arms, shooting from the fingers upwards. Eight weeks ago, she had numbness in the left side of her face, in the gums and roof of the mouth on the left side, and left half of the tongue, and ptosis of the left eyelid. For the last six months, she had been unable to use her fingers in sewing. All the upper front teeth, except three, had broken away with decay in the last seven years. She never had attacks of vomiting.

On admission, the patient was rather thin. She complained of sharp shooting pains all over her body, and especially about the arms and shoulders; the legs had not troubled her much for the previous eight months. The muscles of the face, of the eyeballs, and of mastication were not affected; there was slight ptosis of the left eyelid. The pupils were small, the right rather larger than the left; they reacted to accommodation, but not to light. The arms were not wasted; there was no loss of power; some inco-ordination, especially of the left hand. The lower limbs were slightly wasted; there was some loss of power. She could not stand with the legs closed; she walked with assistance, but not alone, and was very ataxic. The patellar reflex was absent on both sides, but the muscles reacted to direct percussion; there was no ankle-clonus; cutaneous reflex of the sole of the foot was readily produced. The sensibility of the face was lost over the parts supplied by the left supra-orbital nerve. The left side of the tongue, and the inside of the mouth on the left side, felt numb; the legs and arms felt numb, but there was no actual loss of sensibility—no delay in transmission of sensations in them. Sight was pretty good; she had diplopia, but recognised colours exactly. Hearing was good. Taste was not affected. She said she felt hot tea better on the right than on the left side of the tongue. There was no cardiac disorder. The urine did not contain albumen. She did not feel when she wanted to pass excreta, but said she could judge about the right time for defæcation, and did not pass them under her.

While in the hospital, she suffered very severely from pains in the back of the legs and arms, and for a week felt them in the head, like a sharp knife cutting her from the top of her head round the left eye to the left cheek. Some of her pains began in the lumbar region, and spread over her back like "sheet-lightning"; while the other pains were like "forked lightning". She had also heavy, dull "cuirasse-like" pains, lasting a whole week continuously. She took twenty grains of sodium salicylate, three times daily, for a week, without any relief; for another week, she took a drachm of "tonga" thrice daily. Hypodermic injections of three minims of a ten per cent. solution of pilocarpine was tried; but nothing gave her any relief except a fourth of a grain of morphia hypodermically; thirty minims of liquor morphiæ by the mouth had no effect on the pains.

On November 22nd, she began to have ptosis of the right eyelid and paralysis of the muscles supplied by the right third nerve; this lasted about ten days, and became complete, but gradually got better. The diplopia was increased during the external strabismus. She had felt sick several times, and two or three times had had attacks of vomiting. She had one attack of vomiting without feeling sick; it lasted for an hour.

For the last month, she took three minims of liquor arsenicalis three times a day, and one-fourth of a grain of morphia hypodermically, when the pains were severe.

She was discharged December 23rd.

REMARKS BY DR. BUZZARD.—Dr. Buzzard remarked that the case derived some interest from occurring in a female. Out of seventy-two cases of tabes dorsalis which had been under his care, and of which he had notes, only eight occurred in women. That is to say, there were eight times as many men as women in his list.

It was interesting, also, as adding another to the many which he had seen with marked cephalic symptoms in the course of tabes, shown in the present instance by anæsthesia in the region of the fifth nerve, and characteristic cutting pains in the head. The salicylate of soda—the trial of which was suggested to him by Dr. Ferrier, and which, in another case, was thought by the patient to be of some temporary service against lightning pains—completely failed here to give relief, as did tonga. Nor was the profuse sweating, produced by the hypodermic injection of one-third of a grain of pilocarpin, of any greater service.

We may add that this case will be read with especial interest, in conjunction with Mr. Hutchinson's case at the London Hospital.

LONDON HOSPITAL.

CLINICAL REMARKS ON A CASE OF AMAUROSIS, AND OTHER MARKED CEPHALIC SYMPTOMS, IN LOCOMOTOR ATAXY.

(Under the care of Mr. HUTCHINSON.)

THE subject of the case was a man aged 45, who had been under observation for several years. Mr. Hutchinson made the following remarks, in which he embodied the history of the patient's illness.

The man before us is an example of ataxy, which has developed itself in a somewhat peculiar manner. Strictly speaking, there is no ataxy; the man can walk well, although he is blind, and is quite firm on his legs. His patellar reflex, or knee-jerk, is good. He has never had any symptoms in the leg excepting, quite recently, stabbing pains in the right calf. His sexual vigour is, he says, good; and he has had no bladder-symptoms. Yet, in spite of this absence of some of the more characteristic symptoms, I feel no doubt that the malady is of the same nature as ataxy; and I expect that it will develope in the well-known direction. As you have seen, he is blind; and his pupils, of moderate size (No. 3), are quite motionless. Three years ago, he had ptosis and paralysis of the third nerve on the right side, but this has now quite disappeared. His amaurosis was not symmetrical at the beginning; his right eye taking precedence of the left. At the present time, both discs are blue-white. He was under my care at Moorfields three years ago; and we then made note of his amaurosis and ptosis, and the entire absence of other symptoms of nerve-disorder. He looked then, as now, quite well; and, excepting curious pain across his nose, had no other symptoms. He had then not experienced any pain in the legs; but, during the last few months, he has been liable (he tells us) to sharp stabs of pain in the joints and flesh, and has sometimes been stopped in the street by them. If we speculate as to the cause of the nerve-lesions in this instance, we shall find but little to guide us. The man is married, and has been accustomed to hard work and considerable exposure; but, as you see, he is not in any way reduced in general strength. Nor did the disease, as is usual in such cases, first show itself in the lower extremities. Next we must note that, nearly twenty years ago, he had syphilis—at any rate he had a chancre, and took mercury for some months. One of his sons, who comes with him, has teeth and physiognomy very suggestive of inherited taint; I should think, therefore, that it is probable that syphilis had predisposed the nerve-tissue to chronic change. As an exciting cause, it is very possible, although he does not admit it, that sexual excesses in married life, aided by hard work and exposure, may have taken a share.

I have seen several remarkable examples of ataxy beginning at the head, and having amaurosis for its first symptom. In such cases as the present one illustrates, it is often for a long time difficult to establish the diagnosis.

Let me ask your attention to the remarkable clinical fact that, when the optic nerves are affected in ataxy, they seldom, or perhaps never, recover; whereas, when the third nerves are attacked, they almost always do so. We see plenty of ataxic patients quite blind, but none with permanent ptosis. Yet, in many, there is the history, as in this case, of a temporary ptosis, which has wholly passed off. In fact, so common is this history that, when we hear of a ptosis which has passed away spontaneously, we at once guess that the patient is ataxic. Affec-

tions of the third nerve due to syphilis will get well if treated by specifics, but not often without; whilst those of ataxy recover spontaneously. In the present instance, the man took only small doses of nux vomica, which probably had little or no share in the result. I scarcely recollect to have ever seen the amaurosis of ataxy cured, or even materially improved. Usually, as in this instance, it advances from bad to worse. In illustration of the disappearance of paralysis of the third nerve, I may briefly mention to you a case which I recently saw with Dr. Sutro. It was one of locomotor ataxy, in an advanced stage. I had not an opportunity of going fully into the history, but the following facts were elicited. He was a tall, spare, dark-complexioned man, with, I believe, a remote and doubtful history of syphilis. Three years ago, he had consulted Mr. Bowman for ptosis on the left side. Subsequently, his lower extremities had become weak; and, during the cold weather of the present winter, they had failed to such an extent that he was quite unable to stand. I found his pupils motionless on exposure to light, but acting in convergence (the "Argyll Robertson pupil"). In the left eye, there was paresis of accommodation and some amblyopia; and in most directions, when it was uncovered, he had diplopia. The evidence of ptosis had, however, long disappeared, nor could I appreciate any strabismus.

Whilst I am on this subject of the spontaneous recovery of some nerve-lesions, and the help thus sometimes given to diagnosis, let me mention another case which occurred to me quite recently. An intelligent gentleman, well informed in medical matters, consulted me for an eruption, which, he said, was venereal. He attributed it to a chancre from which he had suffered sixteen years ago. I proceeded to investigate the history, and was assured that, after the chancre, he had a bad sore-throat, of which he almost died; and, after that, "locomotor ataxy", from which he quite recovered. For nearly six months, he used, he said, to drag his legs, and could but just manage to walk about. I asked for details; and was told, that, after some time in bed with the sore-throat, he was sent to Brighton to recruit; and that there one day, whilst out walking, he found one leg dragged; almost immediately afterwards, the other became feeble, and he had much to do to go home. From this time, for several weeks, both lower extremities were weak, and dragged; but he was never confined to his couch. It was six months before the weakness passed quite away; but, when it did so, the recovery was perfect, and there was never any relapse. You will see that this is not an usual history of syphilitic paraplegia, which seldom or never is quite recovered from, and frequently advances to a higher point. But another clinical fact was now remembered by our patient, which helped to the conclusion which had suggested itself to my mind. "Soon after my legs failed", said he, "I became partly blind. I was one day writing a letter, when suddenly I could not see, and I remained for many weeks unable to see to read or write." The defect of sight did not involve distant vision, and was clearly a failure of accommodation. From it, as well as from the partial paraplegia, the recovery had been complete, and without relapse. Now, putting these facts together—a sore-throat, attended by severe constitutional symptoms, and followed during convalescence by partial paraplegia and loss of ocular accommodation—I felt no hesitation in saying that the disease must have been diphtheria. The facts fitted exactly. Further inquiry made it seem probable, in a high degree, that our patient had had only an abortive chancre, and that his system had never suffered from syphilis. It was a mere coincidence that his diphtheritic throat had followed a few months after the sore, and whilst he still had some venereal warts, and that the conclusion had been a hasty and erroneous one which assigned the throat to syphilis. As you well know, it is an almost invariable feature of diphtheritic paralysis that its symptoms wholly disappear of themselves after a few weeks' duration: a very peculiar feature, too, it undoubtedly is, well worthy our wonder and careful scrutiny.

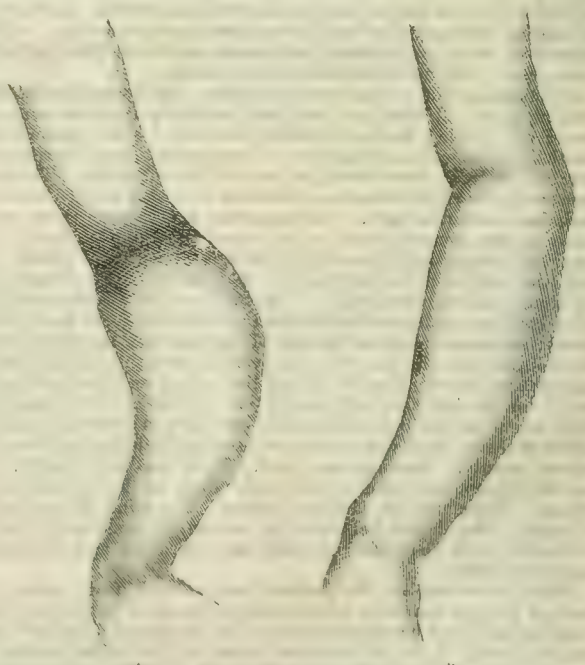
VICTORIA HOSPITAL FOR CHILDREN, CHELSEA.

CASE OF DEFORMITY ARISING FROM OVERGROWTH OF THE ULNA: OPERATION: REMARKS.

(Under the care of Mr. WALTER PYE.)

A. J., aged 12, was admitted on February 11th, 1880, with the following history. About two years before, he had been an in-patient of the hospital for a short time, in order that a pedunculated exostosis from the upper part of the left humerus might be removed. This was done by Mr. Cowell; and he was discharged shortly afterwards, well. Soon after his discharge, it was noticed that his left arm was not quite straight; and from that time until the date of his second admission, that arm steadily grew more and more bent. His health during the whole time was very good, and no deformity of other limbs was manifested. His intellect was somewhat above the average. No habitual malposition of the limb existed to account for the deformity. Family history and infantile history very good.

On admission, he was a well-grown healthy-looking lad. No rachitic signs in head, wrists, ankles, or elsewhere. On the posterior surface of the radius of the right arm, there was a small exostosis, about the size of a pea, causing no inconvenience. On the anterior surface of the left humerus, there was the mark of a small incision (by which the exostosis mentioned above was removed). The left forearm was curved in a somewhat peculiar fashion; the ulna appeared to be thickened and at the same time considerably longer than the radius, and both bones were bent, so that they formed segments of two circles, one within the other, the posterior border of the ulna being the most curved part. There was no pain in the arm, but the ulna was unduly tender on firm pressure. In consequence of the deformity, the wrist had become more and more helpless, apparently owing partly to a mechanical strain on the lateral ligaments, partly to the carpal muscles acting at a disadvantage, so that he was unable to hold a fork in the usual way, and, indeed, had a kind of wrist-drop. There was no paralysis of any muscle of the arm. The upper arm was rather wasted from partial disuse. Compared with the opposite side, the posterior border of the left ulna was about three-eighths of an inch longer than the right; but the limb, as a whole, was shorter in consequence of the curvature. For more than a month, an attempt was made by means of splints to reduce the curvature; but it was found that the pressure was very ill borne, and that no good resulted from it. Accordingly, on the 19th of March, both bones of the forearm were sawn through subcutaneously, with antiseptic precautions. The radius was cut straight across the ulna obliquely, so that a wedge-shaped piece might be taken out if necessary. The ulna was much thicker and very much harder than usual, and it took some time to divide it; the consistence of the bone of the radius seemed quite normal. The bones having been divided, the obliquely cut ends of the ulna slipped over each other sufficiently to make the arm very nearly straight, and it was accordingly put up in that position on an angular splint.



A. B.

There was no constitutional disturbance afterwards, the boy not being confined to bed even on the day of the operation. The wounds healed without any discharge. There was very fair union at the end of three weeks, and complete union at the end of five weeks. No difficulty was found in maintaining the position of the limb; and the action of the muscles was not apparently hampered by the osteotomy. He was discharged at the end of April.

The woodcut A represents the condition before, B the condition after, the operation.

On May 31st, the arm continued in good position, and its usefulness was much greater than before. There was especially improvement in

the action and strength of the wrist, so that the boy fed himself, and handled things in the ordinary fashion.

REMARKS BY MR. PYE.—The interest of this case consists chiefly in the diagnosis of the cause of the deformity; and this seems somewhat obscure. The age of the patient and his general constitutional condition negative the idea that it was in any way allied to rickets, even if the osseous malnutrition of rachitis is ever found confined to one bone of one limb, which is unlikely. Neither is the case severe enough to resemble at all any form of mollities ossium; and it certainly is not any form of acute or subacute inflammation. Mechanically, the curvature seems to be due to a general overgrowth of the whole of the ulna, and of the ulna alone, so that the radius being unaffected has acted as a stay, and thus, since the arm could not increase in length, the ulna has been forced outwards in a curve. On the whole, the case appears to correspond most nearly with those recorded by Sir James Paget under the name of chronic osteitis deformans (*Medico-Chirurgical Transactions*, vol. lx, p. 37), that is, of chronic inflammation with overgrowth of bone. In the cases cited by him, however, the disease appears to have been always developed in the latter years of life; to have affected several bones; and to have been especially connected with a steady enlargement of the cranium. In the present case, the ulna appeared to be the only bone affected. With regard to the size of the head, it must be borne in mind that the patient is a growing intelligent lad. A member of a well known firm of hatters, who has given great attention to the subject, tells me that in boys of about twelve, as a rule, the head increases in size at the rate of about half an inch a year. The patient's head, in the beginning of October 1879, measured twenty inches round; and on May 12th, 1880, twenty-one and a half inches—a rate of growth, therefore, much above the average, which, if maintained for a few years, will certainly be abnormal. Apparently, however, a sudden increase of cranial measurement not rarely takes place at about the age of this lad during complete health. The tendency to bony growth was, it will have been observed, also manifested in this case, in another direction, by the formation of two exostoses, both being of small size. With regard to the operation, the chief point to be noticed is the impunity with which it was done; whether the good results will be at all permanent appears, at any rate, doubtful; but it is possible either that the operation itself may alter for the better the condition of the nutrition of the bone, or that the deformity may not continue to have the same progressive character as hitherto, although the change may not be due to the operation.

POSTSCRIPT, Feb. 5th, 1881.—Since the above note was written, the lad has shown himself at the hospital from time to time. The curvature of the arm is again slowly increasing; but it is at this date very much less than before the operation, and the action of the wrist regained at that time has not become at all embarrassed. The circumference of the head has increased half an inch in the last six months—a rate somewhat above the normal, but a less rapid growth than heretofore.

LIVERPOOL ROYAL INFIRMARY.

LIGATURE OF LEFT SUBCLAVIAN ARTERY FOR ANEURYSM.

(Under the care of Mr. RUSHTON PARKER.)

[From Notes by Mr. SEARANCKE, then Dresser.]

MICHAEL MCMAHON, aged 36, a dock-labourer, applied in the last week in April 1880 on account of a small swelling below the left clavicle. Only five days previously, on awaking, he felt "something contrary with his shoulder"; and, on putting his hand there, he discovered the lump, which had not pained him either then or since. About eighteen months previously, he had felt rheumatic pains, as he called them, in the situation of the lump; but they disappeared in about a week. His work for the last three years had been among cargoes of corn, of which he had to carry heavy sacks; and, although one arm, commonly the left, was elevated to grip the top of the sack in this severe labour, there was nothing which drew attention to special strain in his case upon the affected blood-vessel, unless it were that from disease it was the less fitted to withstand extra pressure.

He admitted having had a chancre ten years before, with enlarged inguinal glands and falling of the hair, but no rash or sore-throat. Before that time, also, he drank heavily, but said that he had since been sober and free from disease. Under the clavicle was a distensile pulsating swelling, of the size of a small hen's egg, soft, compressible, ceasing to pulsate, but not collapsing, on pressing the subclavian artery, and revealing a *bruit* on auscultation over it. The corresponding radial pulse was feebler than the right, and somewhat delayed.

On April 27th, under ether, the left subclavian artery was tied above the clavicle with a medium-sized ligature of carbolised catgut; the wound in the integuments being made with a knife, and those in the fasciæ with a pointed but blunt steel instrument, aided by dissecting forceps. In this way, after reaching the first fascia, both it and the succeeding layers were easily divided; while the external jugular and other veins were as easily left unwounded and pulled aside. The aperture in each fascia in turn was laid open, as soon as made, with two pairs of artery-forceps, by Mr. Bickersteth, who kindly acted as principal assistant. The aneurysm-needle was passed unarmed; then threaded and withdrawn to give place to the ligature. In this way, bleeding was avoided, and accordingly sponging was not required. No incidental obstacles were encountered, and none were created; so the operation was shorn of all difficulty. Lister's arrangements were adopted in the steam-spray and carbolised gauze; the drain being a wisp of horsehair. The dressings were changed on the third, fourth, and tenth days; on the last occasion, boracic lint was used, as a superficial strip of granulations alone remained to be healed. The drain of horsehair had escaped before the third dressing, when it was found convenient to substitute a short piece of tubing. This having escaped before the fourth dressing, six days later, and, being then obviously no longer of any use, was no longer employed.

Pulsation ceased in the aneurysm at the operation, and never returned. In the corresponding radial artery, no pulse could be detected till after ten days, and then only feebly; and thus it has continued ever since. The limb did not become cold or painful, and no wrappings of any kind were used. The discharge was slight throughout, consisting of bloody serum, followed later by serum; no pus or lymph.

The temperature rose to 102° on the evening of the third day, having been 101° on the second, and 99° on that of the operation. It had previously been normal, and subsequently reached 100° on ten successive evenings. But the patient was never ill, or in any way inconvenienced, beyond a feeling of numbness in the limb. After five weeks, he was sent to a convalescent hospital outside the town, and returned in a few days somewhat ill, having exposed himself to a chill, and having a great arterial throbbing, especially in the lower limbs, the vessels of which seemed of immense size and painfully distended. Tincture of opium was given in frequent small doses for a day or two; and he was kept to bed, and fed lightly. He soon recovered, and went again to the convalescent hospital. Throughout the summer he took care of himself, and got a few light jobs to do. In October, he was working hard again as a dock-porter, and reported himself occasionally. All this time the aneurysm remained soft, and but little reduced in size, being still visible. In December, he reported himself better than ever, and working regularly without discomfort. The swelling had now very nearly gone, though it could be felt as a small knob, seven months after the ligature.

MEXBOROUGH.—The death-rate of this district was unusually high during 1880, and there are certain figures in the mortality statistics that are far from satisfactory. Thus, 83 out of the 128 deaths were those of children under five years, and 51 (or nearly two-fifths) those of infants under one year. The birth-rate was certainly high; but the infantile mortality cannot but be considered as very excessive. There was a slight increase in the number of deaths from diseases of the respiratory organs, and a great increase in the deaths from diseases of the nervous system. From scarlatina, 7 deaths (the same number as in 1879) occurred, and from whooping-cough 2 deaths, against 9 in 1879. Four deaths were registered from typhoid fever, two of these occurring in the course of a somewhat considerable outbreak, attacking 45 persons living in a group of 30 houses. The system of excrement disposal in this neighbourhood was extremely bad; and, though Dr. Sykes does not state definitely what the cause of the outbreak was, it appears to have been due to the drinking of water from a well polluted by privy soakage. The sanitary circumstances of the town generally, especially as regards excrement disposal, seem to admit of considerable improvement. We are glad to see that the excellent plan of giving medical men half-a-crown for cases of infectious disease reported to the sanitary authority, has been adopted at Mexborough.

LONGTOWN RURAL DISTRICT.—The report on this scattered district necessarily contains but few particulars of interest. The total number of deaths was 153, equal to a death-rate of 18.5 per 1,000, against 17.3 in 1879. Of these, 21 were under one year of age, and 68 over the age of sixty years—22 of the latter being registered as dying of old age, without any actual disease. The greatest age registered was ninety-two years. Six deaths occurred from zymotic disease; 3 of these being from typhoid, of which five outbreaks (some of them of untraceable origin) are reported. Much of the water-supply of the district seems to be polluted. Mr. Walker observes that "few are aware of the great danger incurred in drinking polluted water, and still fewer consider it worth while to trouble themselves about it".

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEBRUARY 22ND, 1881.

JOHN ERIC ERICHSEN, F.R.C.S., F.R.S., President, in the Chair.

TWO HUNDRED ADDITIONAL CASES, COMPLETING ONE THOUSAND CASES OF OVARIOTOMY: WITH REMARKS ON RECENT IMPROVEMENTS IN THE OPERATION.

BY T. SPENCER WELLS, F.R.C.S.

THE author presented in a table (similar in form to those in which he had brought before the Society all his cases of ovariotomy up to the eight hundredth) the particulars of 200 additional cases. The mortality per cent. of the ninth series was 17; of the tenth, 11. Among the 1,000 patients, 231 had died, and 769 recovered; but the mortality per cent. had steadily diminished from 34 in the first 100 to 11 in the last. Since the 888th case, all the operations had been in private practice, and all had been done antiseptically; the result being a mortality of 10.6 per cent. The author inquired how far this lessened mortality was due to antiseptic precautions, or to other recent improvements in the mode of operating; describing in detail various modifications in each step of the operation.

The PRESIDENT said that the thanks, not only of the Society, but of the medical profession and the public, were due to Mr. Spencer Wells. No other surgeon had yet recorded a thousand cases of so great an operation with so small a mortality. Nothing redounded more to the credit of the science and art of surgery than the great results obtained by Mr. Wells. He (the President) could remember the obloquy that attended the operation of ovariotomy thirty or forty years ago. He had never shared in that feeling, and had, years ago, performed the operation himself. The subsequent epoch had seen ovariotomy not only survive that obloquy, but become one of the most successful of all the great operations of surgery. Surgery in general was more indebted than surgeons were disposed to admit to obstetricians, for great improvements which had tended to diminish mortality after operations.—Mr. WILLETT asked Mr. Spencer Wells whether he had modified his after-treatment—especially with regard to placing the patients in a warm room and promoting perspiration. At St. Bartholomew's Hospital, he usually found a rise of temperature (102° to 104°) to follow the completed operation within the first twelve hours; but in another twelve hours the temperature had fallen below 100°. He had not found the increased temperature at all deleterious to the patients. He had performed twenty operations of ovariotomy in twelve months, with three deaths.—Mr. SPENCER WELLS said that for several years he had doubted the necessity of keeping the patient's room so warm as he did at first; and for the last two or three years he had only kept the room comfortably warm, and the skin moderately moist. Several operators had noticed a rise of temperature after ovariotomy; but all agreed that it did no harm. He thanked the President for his remarks.

ON THE DEVELOPMENT OF A LAYER OF ELASTIC FIBRES IN DUCT-CANCER OF THE BREAST. BY GEORGE THIN, M.D.

The paper gave a summary of the results of an examination into the nature of a layer of elastic substance, described by the author in a paper read before the Society last session as surrounding epithelial masses in duct-cancer. The layer was analogous to the elastic layer described by Henle as surrounding the lactiferous ducts; it was composed of interlacing minute elastic fibres; contained no white fibrous tissue, although a few capillary blood-vessels and leucocytes were found in it; and was separated from the cell-mass by a membrana propria. Its significance was to be found in its association with a new epithelial growth, which took its origin in duct-epithelium, and in the illustration it afforded of the retention by a cancerous epithelium of one of the distinctive attributes of the special epithelium from which the morbid growth sprang; and, further, in the unexplained connection between the development of epithelium and of elastic fibres. A nucleated membrana propria was described as being present around some cell-masses. It was of secondary formation, the nuclei on its surface having the characteristic flat elongated form. An outer and an inner line of these nuclei were sometimes detected.

A SECOND CASE OF TREPHINING FOR EPILEPSY.

BY JAMES F. WEST, L.R.C.S.

(Communicated by the PRESIDENT.)

The author called attention to the fact that the patient on whom he had performed the operation two years previously, and whose case was narrated at the Society's meeting of November 25th, 1879, remained in perfect health, and had since been perfectly free from epileptic attacks. He then brought forward the case of a young woman aged 25, whom he trephined on March 25th, 1880. The operation had proved unsuccessful. Epilepsy began when she was five years old, but was not serious until she was nine, when she sustained a severe cut on the forehead, the cicatrix of which was seen a little to the right of the middle line. The operation was performed at the site of the injury, with antiseptic precautions; and was followed by little, if any, constitutional disturbance. No fits occurred for ten days after the operation; but they then recurred, though less frequently than before the operation. She became, after a few months, dangerous, and in October 1880 was placed in an asylum.

The PRESIDENT thought that the disrepute into which trephining had fallen was due to its being almost exclusively practised for injury of the skull. It was formerly much practised for epilepsy and other affections of the brain, and was then less fatal. He thought that it might, perhaps, be applied to non-traumatic cases of epilepsy.—Mr. HOLMES said that it was evident that Mr. West's second case was scarcely comparable with the first. The first was distinctly traumatic, while the traumatic origin of the second was very doubtful. He had no doubt that trephining for epilepsy ought to be confined to cases in which the disease could be traced definitely to injury; otherwise the skull might be trephined all over, without any rational indication. He had seen a few cases of epilepsy which were believed to be traumatic. There was reason to believe that the cure in Mr. West's first case was permanent. Another point worthy of remark was the effect of antiseptic dressing. He was not a very enthusiastic believer in the details of antiseptic surgery, or in the germ-theory; but there was no doubt that Mr. Lister's method of dressing led in many cases to great success—due, no doubt, in a great measure, to the cleanliness imposed, and to drainage. He had seen a striking instance of the innocuity of an apparently grave injury when the wound was kept clean, in a case in which a man was thrown on an iron railing, and received a small punctured fracture of the skull, through which some brain escaped. The patient was free from any symptoms of importance, and Mr. Holmes did not think it right to trephine. He therefore merely washed away the loose portions of brain with carbolised water, united the wound by suture, and applied antiseptic dressing and a drainage-tube (which, however, were thrown off by the patient). The man recovered, the opening gradually diminishing. He had not seen much mortality after trephining in simple cases. In two fatal cases which he had seen, death had resulted in one from opening the dura mater; and in the other, in which the external table alone was perforated, from diffuse inflammation. Cleanliness and free drainage should be carried out in all cases of trephining.—Dr. SILVER asked what was the exact spot of injury in the case related by Mr. Holmes.—Mr. HOLMES said that, as far as he remembered, it was on the right side of the middle line, a little above the temporal ridge, and behind the level of the ear.

CLINICAL SOCIETY OF LONDON.

FRIDAY, FEBRUARY 25TH, 1881.

JULIUS ALTHAUS, M.D., Vice-President, in the Chair.

A Case of Paralysis due to Partial Disease of the Nuclei of the Motor Roots of the Fifth Nerves.—Dr. HILTON FAGGE read notes of this case. The patient was W. B., aged 41, who was admitted into Guy's Hospital on October 18th, 1880, on account of inability to close the jaw. He said that, three months before, he had begun to experience difficulty in holding anything tightly between his teeth, and that afterwards he could not bite his food well. The loss of power gradually increased until, three months ago, he became quite unable to bring his teeth together. He also had difficulty in swallowing, and liquids returned through the nose. The drop of the jaw was still slowly becoming more marked. He was a strong, healthy-looking man; but his expression was vacant, and his features had lost much of their play. This, however, was not due to any defect of the seventh nerves (for he could whistle a tune perfectly well), but to separation of the jaws. When he tried to bring the upper and the lower teeth together, he could not do it; the temporal muscles could, in fact, be scarcely felt to contract; and the masseters acted very slightly. The excitability of these muscles to the continuous current was much impaired, and they were obviously wasted. Yet the lateral movements of the lower jaws, performed by the external pterygoid muscles, were normal. On inspection of the fauces, the soft palate was seen to move symmetrically during respiration; but the left side of the palatine arch was dropped, and narrower than the right side. It appeared clear, therefore, that the case, which (so far as Dr. Fagge knew) was unique, was one of a

partial lesion of the motor nuclei of the fifth nerves, comparable with bulbar paralysis, and with Mr. Hutchinson's *ophthalmoplegia externa*. And, as in the last named disease, the cause was possibly one of syphilis, for the man had twenty years previously had gonorrhœa and a bubo; and his wife, to whom he had been married nineteen years, was never pregnant. Another interesting symptom was the presence of sugar, to the amount of 54.7 grains per ounce, in the urine, which was of specific gravity 1049. He also complained of slight occasional diplopia; and the muscles of the arms and the extensor muscles of the forearms were found to have a diminished capability of resisting, both to continuous and to faradaic currents. He was ordered to take 1-12 grains of bichloride of mercury, and 10 grains of iodide of potassium, three times a day. Under this treatment, he rapidly improved; and he refused to stay in the hospital after November 6th.—Dr. ALTHAUS said that the cases were very rare in which only one portion of the nerves was affected. He recalled a case in which all the fifth pair had undergone paralysis, no localisation in the motor roots being exhibited. There was considerable tinnitus aurium, and the soft palate underwent displacement. Had tinnitus aurium occurred in Dr. Fagge's patient? and had the condition of the eyes been investigated? The physiology of the eye might be much advanced by careful observation of such cases as that recorded.—Dr. DOWSE suggested that the disease was not limited to the fifth, but implicated also the glosso-pharyngeal and vagus nerves; the latter, he thought, was proved to be affected by the vomiting. The paralysis was extending downwards, as shown by the loss of power in the upper limb. He thought the case might either be allied to pachymeningitis, or might be one of extreme bulbar paralysis.—Dr. POORE, from examination of the patient, concluded that there was a deviation of the tongue on the right side. He inquired if the masseter responded to galvanism.—Mr. GODLEE remarked that it was interesting to note the ability with which the buccinator muscle acted.—Dr. FAGGE said he had been unable to make out any increased susceptibility of the affected parts of the current. There had been no tinnitus. No ophthalmoscopic examination was made. The vomiting was easily explained as due to the state of the palate, and not to the affection of the vagus. The hypothesis of bulbar paralysis was more tenable than that of pachymeningitis.—Dr. ALTHAUS suggested that the patient should be kept under observation; and Dr. FAGGE promised to bear the advisability of this in mind.

Quiescent Scirrhus.—Mr. T. W. TEALE (Scarborough) described the case, which was still under his care. A lady aged 53, a widow, noticed eleven years ago a small, hard, painful lump in the left breast. The surgeon whom she consulted advised its removal; and Mr. Teale, who saw her soon afterwards, considered it malignant, and gave the same advice. All idea of operation was declined. The tumour gradually increased, becoming adherent to the ribs; the nipple was retracted, and then obliterated. Pain, which was often excruciating, was relieved by morphia, taken up to four grains daily; and sleep obtained by chloral, in increasing doses up to sixty grains. She became emaciated, feeble, bedridden, and apparently at death's door, living for two years on milk only. Eventually, the chloral having been discontinued, owing to the distressing nervous symptoms to which it gave rise, a gradual change in the symptoms took place. The bodily health began slowly to improve; whilst the tumour began to shrivel, the discharge ceased, and the pain gradually diminished. Mr. Teale reported that during the last five years the patient had remained well and fairly strong, and able to walk some miles daily. She had gradually resumed ordinary diet and modes of living, and took less than a quarter of a grain of morphia daily; whilst the present condition of the shrivelled breast-tumour was shown by a photograph recently taken, which Mr. Teale exhibited to the members.—Dr. ALTHAUS said that instances of quiescent cancer occurred, and had been termed "retrogressive". The diagnosis was always important in such cases; and it would be well if direct examination of a portion of the tumour could be made in every instance of doubt.—Dr. T. WILLIAMS considered the experience obtained with chloral gave the case additional interest. He was inclined to question the accuracy of ascribing the symptoms which left the patient, when chloral was discontinued, as being entirely induced by that drug. Chloral had been given in much larger doses (fifty grains) without such symptoms; and in this case it was combined with large doses of morphia. Might not the symptoms here have been as much due to the morphia as the chloral? Dr. Williams cited examples of tolerance of chloral exhibited by patients. In a case described to the Chloral Committee, an old gentleman with large heart and brain-disease, accompanied by sleeplessness, had taken half a drachm every night for six months, with occasionally ten or fifteen extra grains. He always had a good night when the drug had been taken, and a bad night if it had been omitted. There was in his case no bad result of any kind. In another case, a man took ten-grain doses every four hours for several days, on account of asthma. The spasms were reduced, and a purpuric rash was the only ill effect produced. This had ceased when the drug was omitted.—Dr. ALTHAUS thought it astonishing what large doses patients would take. One patient had taken 120 to 180 grains in twenty-four hours. It had destroyed his appetite, and given him a black tongue. The drug was then at once stopped without bad effect; and in two days the appetite had returned.—Dr. BARKER inquired if the case was, beyond all doubt, one of scirrhus. In a case so unusual, it would be satisfactory to know that there could be no doubt at all as to its diagnosis.—Dr. FAGGE remarked on the difficulty of distinguishing characteristic cells in chronic carcinomatous tumours. Correct diagnosis of hard cancer demanded the utmost carefulness, and he had seen cases of chronic carcinoma of the breast in which the malignant nature of the growth could be decided only after the most elaborate examinations. The same had often occurred in regard to many internal malignant growths, with secondary carcinomatous deposits in the viscera. What was really cancerous tissue was often described as a fibrous structure; and hence, where this was found as the result of the affection of a part in which cancer was commonly found, it ought to be at least suspected that its real description might be that proper to malignant deposits.—Mr. GODLEE asked if the axillary glands had undergone any recent changes.—Mr. HAWARD agreed with Dr. Fagge that the fibrous condition of the growth by no means removed it from the possibility of carcinoma. Proof that the conditions might be allied was to be found not unfrequently in the diseased rectum. The inquiry naturally arose, What led to the arrest of active, destructive, tissue changes, consequent on the disease? This must have an important influence in determining whether to feed a patient suffering from cancer freely or sparely. He thought himself that the growth of the tumour would be stimulated by over-nutrition of the patient. He knew a lady affected with scirrhus for years; she indulged in morphia, had no appetite, took little food, was very low, and had scarcely any pulse. The cancer ulcerated, and left an open wound, which continued to discharge thin offensive matter for two to three years. Five years from the first attack, a growth occurred in the other, the right breast, and grew slowly for a year. In addition to morphia, which had been used all along, the patient now drank much brandy. The right cancer grew rapidly on this food, and nodules occurred in the lungs, with which she died. There was good reason for assuming that the change of diet and the copious indulgence in brandy hastened the end. Mr. Haward strongly inclined to recommend starvation to patients affected with malignant disease.—Mr. TEALE said his patient continued to use morphia throughout; but, as all the ill-symptoms described (nervous depression and bloated appearance of the features) left her when the chloral was given up, he naturally ascribed their presence to the effect produced by the chloral. He only recorded the fact, however, and in no way desired to urge it as a cause. The axillary glands had remained in much the same condition for five or six years, slightly enlarged and indurated, no progressive changes occurring in them. Mr. T. Pridgin Teale of Leeds had seen the case also, and concurred in the diagnosis of it; he did not doubt the malignant nature of the growth.

Erythema, or Herpes Iris.—Dr. RADCLIFFE CROCKER described four cases of this disease, one of which had been shown to the Society at a previous meeting, and another was brought to the present meeting to show the scars which sometimes resulted from this affection. A wax model of a typical case was also exhibited. W. G., aged 23, a butcher, had suffered from three attacks; and, though there was no evidence to show what led to the first attack, which occurred during a voyage to the Cape, subsequently errors in diet aggravated or determined an outbreak. His general health was good, except a tendency to constipation. The eruption appeared most abundantly upon the hands and face, especially the fingers and toes, but other parts of the limbs, and even the lower parts of the trunk, were sometimes affected; the lesions were symmetrical, though often one patch was nearly well before the corresponding one on the other limb appeared. Each began as a flat red papule about one-sixteenth of an inch in diameter, with a red areola about half-an-inch across; sometimes a pustule appeared on the papule, which ruptured, and a brownish-pink zone appeared round it, and outside that a white one, and the patch increased by the formation of fresh rings, varying from white to pink or bluish-red tints, and reaching to about the size of a florin; the rings then broke up, and the patch gradually faded, leaving a purplish-red stain, which lasted for some time. The eruption was attended with burning and itching, but the general health was unaffected. Dr. Crocker alluded to the other varieties of this affection. Thus, in some, no central vesicle or pustule was formed, but only a flat papule, which became depressed in the centre, and concentric rings spread from that; on the other hand, there might be a large vesicle or even bulla in the centre, with concentric rings of vesicles, which gave rise to the name herpes iris. The tint of the rings in all

varied from white to various pink and bluish shades of red. These variations depended mainly upon the quality of the fluid effused into the tissues. In the child that attended the meeting, the eruption began as rings of erythema, an inch in diameter; in a few days, these disappeared simultaneously with an outbreak of bullæ of large size, round which came a ring of vesicles, and the contents became purulent, and dried into scabs, which left the deep disfiguring scars now visible. Speaking generally, the noticeable features of the affection were its tendencies, firstly to recur, especially in the spring and autumn, and often in the same month in any one case; secondly, to attack children and young adults of either sex; thirdly, to develope symmetrically, the hands and feet being especially attacked, though in rare instances it was universal; and, finally, to run its course in a few weeks, apparently uninfluenced by treatment.

Erythema and Herpes Iris.—Dr. F. TAYLOR also read notes of some cases of this affection. The first was a man, aged 40, who had had good health previously. He was seized one day, while at work, with violent sneezing and watering of the eyes, and in the evening found his gums and palate becoming swollen, and could only open his mouth with difficulty. These symptoms subsided in two days, and an eruption appeared. It commenced on the left thigh, in the form of blisters, to the number of twelve or more, about the size of a shilling-piece, containing a watery fluid. The following day, it appeared on both legs and arms; and he had, at the same time, a burning sensation in his feet, and pains in the joints. The eruption then spread to the head, face, and trunk, the abdomen being the only part spared. When seen on the eighth day of its appearance, the eruption consisted of vesicles and bullæ of various sizes, and for the most part arranged in a circular manner, so as to include an area of comparatively healthy skin in a ring of blister. Some such rings were formed of six to eight isolated small vesicles, with clear contents; others of one continuous bulla of crescentic or completely circular form, the contents being then mostly deep pink or purple. In many places the circles had run together, and formed irregular figures; and some circles and patches measured as much as two inches in diameter. The bullæ were upon a slightly inflamed base. The face was much swollen in the early stage of the eruption. There was no itching, but only a burning sensation, on its first appearance. He began rapidly to improve without special treatment. After becoming full of dark sanguineous fluid, the bullæ burst, the secretion drying into an ulcer; these ulcers were slow in healing, and had left several scars reproducing more or less accurately the crescentic and ring-shape of the original bullæ. They were numerous on the arms, forearms, thighs, and legs. The duration of the bullous stage was about three weeks, but the healing of the ulcers took much longer. Two years had now elapsed, and he had had no recurrence. The second case was in a child, aged 5 months, who had been recently vaccinated. Ten days after the operation, the eruption began as pimples on a red surface, completely surrounding the vaccination-crests; and subsequently, spots appeared on the arms, chest, abdomen, and back. The spots or patches were oval or circular, touching each other by their borders, but not running freely together; of bright pink colour, with deeper red, very narrow, more prominent margin. In the centre of many was a bright red spot, or pimple; and vesicles formed both in the central papule, and at the margin of the patch. The child was seen on three successive days, on the last of which the patches were fading. The third case was a boy, aged nine years, who was generally delicate, and had suffered from cough and weakness for three months. He presented an eruption on the chest, abdomen, neck, back, and lower extremities, consisting of patches of about half an inch in diameter, with a central yellow crust; around this an elevated ring, and upon this, again, small vesicles. The vesicles dried up into crusts, and around these formed fresh rings of redness, with new vesicles upon them; and their contents, at first serous, became purulent, and then discharged and formed scabs. When the crusts separated, the skin beneath them had a brownish stain. The eruption lasted about six weeks.—Dr. TAYLOR remarked that these might be regarded as three different forms of the disease known as erythema iris, herpes iris, or hydroa, and further defined by Mr. Hutchinson as a vesicular form of erythema multiforme. In the case of the infant, it was distinctly an erythema papulatum, or circinatum, vesicatum; in the boy, the vesicular characters were more marked; in the adult (Case 1), the vesicles appeared before the redness—a feature characteristic of hydroa, according to Bazin. In the sudden outbreak, spontaneous disappearance, symmetrical distribution, and in the co-existing inflammatory disturbance of the joints, it also resembled cases described as hydroa. The large size of the bullæ would have suggested the name pemphigus, as p. circinatus seu serpiginosus.—Dr. STURGE related the history of a boy, aged 6, who, when admitted to the hospital, had been already ailing for six days, and had a temperature of 102° Fahr., and disease remained for six days quiescent. At the end of this time, papules appeared on the legs and vesicated, the spots being composed of a red base, on the circumference of which appeared the herpetic bullæ. Some were regular bullæ, others were only vesicles. There was coincidently a crop of herpes on the lips; and pleurisy of the left side without effusion occurred, but yielded readily to treatment. In three weeks, the patient left hospital, well of all complaints.—Dr. THEODORE WILLIAMS remarked that, in one case of Dr. Taylor's, the disease originated soon after vaccination. Was there any connection between them?—Dr. B. O'CONNOR said that, in cases of the kind, there were not usually many constitutional symptoms. As regarded the distribution, when it was on the limbs it was generally unilateral; whereas, when found on the trunk, its distribution was bilateral and symmetrical. He had found French cucumber-ointment, or oxide of zinc and vaseline, act well in curing cases under his care. He had only met with one case of herpes iris on the trunk, it being very rare in this situation. In Nelligan's *Atlas of Skin-Diseases*, there was a good illustration of herpes iris. He would like to know what Dr. Taylor's experience had been with arsenic in pemphigus, and what preparation of the drug he had used. He once attended a child after vaccination for well-marked pemphigus, and it was peculiar, because all the members of the family, viz., father, uncle, and cousin, had measles, the child alone excepted, and it developed pemphigus.—Dr. T. COLCOTT FOX said Hebra had made a real advance when he arrayed varying phases of erythema under the single heading *erythema multiforme*. The formation of fluid in bullæ was an uncommon occurrence in erythema; but, in true bullous eruptions, an aborted stage might be made out, so that there was reason for retaining an intermediate class, such as *herpes iris* constituted. In all true instances of the disease, it is characterised by the site of its appearance, on the back of the hands, the knees, etc., always combined with herpes of the face, mouth, or nose. It recurred once or twice a-year, especially in the spring and autumn. The disease altogether was very characteristic, and he thought it would be a pity to submerge this really distinctive disease under the common heading *erythema multiforme*.—Dr. CROCKER said symmetry was delayed in some cases, but it always happened that corresponding parts were affected in succession. No treatment influenced the course of the disease. Feverishness was a common accompaniment of erythema, especially in children. The quantity of fluid poured out varied and caused herpes, or, when there was more of it, bullæ, vesicles, etc.—Dr. TAYLOR said vaccination did not directly influence the attack; it helped to determine the site at which it appeared. He commonly used Fowler's solution of arsenic in pemphigus. The extent of injury to the skin set up in erythema would be dependent as much on the depth of skin affected, as on the nature of the inflammation.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, FEBRUARY 2ND, 1881.

EDWARD LUND, F.R.C.S., President, in the Chair.

Excision of the Knee and Hip-joints.—Dr. WRIGHT showed two cases of excision of the knee by the method described some months ago, in which the patella and ligamentum patellæ were preserved, and the articular surface of the patella removed; a slice of bone was then taken from the front of the femur and tibia, and the cut surface of the patella fitted upon them, the object being to provide an anterior bony splint, to diminish the tendency to atrophy of the exterior by preserving their attachment, and to maintain the shape of the limb. The cases were treated antiseptically, and in neither did the temperature rise above 100°. The patients were respectively aged 13 and 9½ years. The third case was one of excision of the hip in a child 13 months old. In this case the joint was destroyed by the condition described more particularly by Mr. Thomas Smith, and known as acute suppurative arthritis; the abscess was opened antiseptically, but the child failed to show sufficient power of repair, and the upper end of the bone from which the head had almost entirely disappeared, was removed; the case rapidly recovered, and had been for some weeks firmly healed, with shortening to the extent, at present, of only a fourth of an inch, and good power over the limb.

Arrest of Mental Development in a Girl.—Dr. WAHLTUCH showed Edith B., aged 4½ years, who up to the age of six months was a healthy child, and at that time could sit alone and play. In her second and third years she had frequent attacks of convulsions, but none during the last eighteen months. She never walked, nor talked, nor expressed any wish for anything. There were slight bilateral choreiform movements; sleep was restless. The muscles of the lower limbs were atrophied; appetite and digestion were good; all the organs of sense were healthy. The intellectual faculties had never developed since her sixth month of age. There was no history of syphilis. Both

parents were healthy, her sister and brothers were all physically and mentally developed.

Persistent Giddiness after Gunshot Wound of Head.—Dr. WAHLTUCH mentioned a case of persistent giddiness, aggravated by changes of temperature, in a discharged soldier, aged 22, who received a gunshot wound in the back of the head, at the battle of Ulundi, in Zululand, on July 4th, 1879. The shot was extracted, and the wound healed two months after he was shot.

Extraction of a Tracheotomy-tube from the Trachea.—Mr. WALTER WHITEHEAD referred to the recovery of a tracheotomy-cannula which had become detached from the neck-plate, and passed into the right bronchus of a patient who had had tracheotomy performed three years previously on account of syphilitic laryngitis. The man had been in the habit of following out the instructions he had received when he left the hospital where the operation was performed, and had replaced the tube with a new one at stated intervals; but during the past year, owing to straitened means, he had been compelled to retain an old tube. Three days previously to his admission into the Manchester Infirmary, the neck-plate was found loose, and the tube slipped down the trachea. Beyond alarm, the patient did not appear to experience any marked inconvenience from the presence of the tube in its new situation. A long pair of laryngeal forceps was passed through the wound and down the trachea two or three times before the tube could be found, and when found, its exact position defined; when, however, it was ascertained to be in the right bronchus, no difficulty was experienced in obtaining a firm hold of the tube, and bringing it to the contracted opening in the trachea, which, however, had to be enlarged for the complete removal of the tube. The tracheotomy-tube was shown to be a plated silver one; and it was evident that the neck-plate had been soldered on to the tube, showing that it was one of the most unfortunate forms of instrument that could possibly have been worn under the circumstances.

Ophthalmia Neonatorum.—Dr. EMRYS-JONES gave the details of 420 cases presented for treatment at the Royal Eye Hospital, a large proportion of which had been under previous treatment. In 72, or nearly 18 per cent., the cornea was affected; in 38, both corneæ were affected; in 34, one cornea was affected; in 16, both eyes were lost; in 21, one eye was lost; making a total of 53 eyes lost, or nearly 6¼ per cent. In 26 cases there were ulcers of the cornea; in 14 cases there was perforation, 6 with prolapse of the iris; in 16, there were large opacities; in 5, there were ulcers with lead deposits; in 4, there were ulcers with deposits of nitrate of silver. Dr. Emrys-Jones stated that he had never seen a single case of uncomplicated ophthalmia neonatorum lost where proper treatment was adopted early. He further pointed out that, after inquiry into the cause of blindness, in 72 cases examined for admission to Henshaw's Blind Asylum, 24 of them were found to be due to this disease in infancy, and that 75 per cent. of all the blindness in this large asylum were due to preventable causes. After referring to Dr. de Wecker's method of treatment with 2 per cent. solution of carbolic acid, he detailed the method he found most efficacious, viz: brushing the palpebral conjunctiva over with weak solutions of nitrate of silver, 10, 15, or 20 grains to the ounce of water, by means of a camel's-hair brush, and washing off the superabundant nitrate with a solution of salt and water.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS IN IRELAND.

WEDNESDAY, FEBRUARY 2ND, 1881.

W. G. SMITH, M.D., Vice-President, in the Chair.

Thoughts on Typhoid Fever.—Dr. HENRY KENNEDY read a paper, in which he had embodied thoughts arising from the perusal of Sir William Jenner's latest essay on Typhoid Fever. In the course of the paper, he asked: 1. Has the constitution of individuals in whom typhoid fever occurs been sufficiently recognised? 2. Do we sufficiently recognise the differences which obtain in the morbid anatomy of this form of fever? The second portion of the paper was devoted to the question of treatment; and, in conclusion, the author threw into the following series of propositions the chief points brought forward in his communication. 1. The constitution in which typhoid fever occurs is very generally tainted with struma. 2. A consideration of the morbid states found in the abdomen, not only in typhoid but in other fevers, accounts most satisfactorily for the varied phases which typhoid presents. 3. As we have a distinct morbid lesion to contend with, our treatment should be regulated accordingly. 4. Wine, or other stimulant, should constitute a part of the treatment of typhoid fever. 5. The use of milk in the treatment always demands special consideration. 6. Both leeches and blisters may be used with decided advantage, for either the abdominal or chest symptoms of typhoid. 7. At an advanced stage of the disease aperients are frequently of much benefit.—The CHAIRMAN said that Dr. Kennedy stated that relapses had been unfrequent in his treatment. That was worth bearing in mind in reference to the question of the treatment of typhoid by cold baths. According to the recent investigations of an experienced London physician, the frequency of relapses was doubled by the treatment by cold bath.—Dr. PATTON, in confirmation of what Dr. Kennedy had stated as to the relations between the strumous diathesis and typhoid fever, detailed the case of a coachman who died of severe typhoid at the end of a fortnight. His appearance was very strumous.—Dr. DOYLE observed that milk has been recognised as a means of conveying this disease. Within the last two months three cases of typhoid fever had been under his care, and it was found that one of the men who milked the cows from which milk was supplied was suffering from syphilis. The question of the possible connection between diseases of the genital organs and typhoid fever should be investigated. On two or three occasions, having had to deal with epistaxis, on taking the temperature, he was able to diagnosticate typhoid fever. The administration of stimulants would, to some extent, depend on the social circumstances of the patients.—Dr. J. W. MOORE remarked that Dr. Kennedy, in his argument as to the relation of this form of continued fever with the strumous diathesis, had mentioned that typhoid fever was often preceded by "bronchitis", and often complicated by "*catarrhal* pneumonia". In his experience, the form of pneumonia which complicated typhoid fever was more frequently croupous than catarrhal. Dr. Kennedy laid stress on the use of stimulants; but the quantities he advocated were so small that their use could hardly be called a treatment by stimulants. The experience of the physicians at Cork Street Fever Hospital was that typhoid did better without stimulants than typhus. The knowledge of the condition of the organs in typhoid fully justified the anticipation that a bland nourishing food like milk would be more readily assimilated than almost any other article of food. The management of the bowels in typhoid, and particularly in its later stages, was a very delicate question. To counteract constipation, a teaspoonful of castor-oil, or less, might be given occasionally, and a simple enema every second or third day. The speaker's experience of the use of cold baths was limited to two cases, in which there was hyperpyrexia; and in one of these cases the patient was so much relieved by it, that she asked when she would get another cold bath. That case, however, proved fatal. There could be no question that harm had been done by the indiscriminate use of cold baths. Many so-called cases of relapse typhoid were not such, properly speaking, at all; but secondary fevers, arising from some error in diet. In true relapse, there would be recrudescence of the eruption and reappearance of the rose-spots. Dr. Moore was at a loss to know what Dr. Kennedy meant by a "mixed" case of typhus and typhoid. There was no hybrid of the two diseases.—Dr. LALOR asked Dr. Kennedy whether the finding in the ileum the characteristic ulcers excluded the idea that the fever of which the patient died might have been typhus? He (Dr. Lalor) believed that he had frequently seen ulcers of the ileum and colon in typhus, and in other forms of fever.—Dr. HAWTREY BENSON said that for many years his practice had been, when the temperature of a patient rose to 106° or 105.5°, to give a large dose of quinine; and he had found great benefit to result from it. By giving a large dose every forty-eight hours, the organs are placed in the best condition for recovering their functions. It was true that in some cases these large doses of quinine disagreed with the patient. To avoid this, he ordered the medicine to be given dissolved in a minimal quantity of sulphuric acid, with a little water.—Dr. KENNEDY, in reply, said that he had found stimulants of far more value than quinine. The effect of their use, at the proper time, and with due discretion, was to lower both the pulse and the temperature. He usually commenced with a teaspoonful of wine, and advanced the quantity up to a reasonable amount in one or two days. The speaker's experience of the use of pure milk was that it was either not borne at all, or that it was converted into a curd in the stomach, and thrown up after a time. Pneumonia was as frequent in one form of fever as another. The relapses that he had seen were characterised by the recurrence of the spots, and of the high temperature, and frequently by vomiting. In reply to Dr. Lalor's question, Dr. Kennedy stated his belief that at times typhus and typhoid fevers were mixed. The external symptoms were those of typhus, but a *post mortem* examination disclosed ulcers in the ileum.

Remarkable Case of Injury of the Spinal Cord, rapidly recovered from.—Dr. A. W. FOOT detailed the clinical history of a boy, aged 8, who, on October 20th, 1880, fell headforemost down a flight of stone-steps, leading to the playground of the school to which he went. He got up without assistance, and was not stunned, cut, or bruised. When examined, forty-eight hours after the accident, there was incomplete motor paralysis of both legs and both arms; at every attempt to swal-

low, even his saliva, choking fits ensued, from the fluids entering the larynx; his respiration was wholly diaphragmatic; and his head was peculiarly loose on his neck, falling backwards, forwards, or to either side, when he was held up, just as the head of a corpse does when rigor mortis has vanished. He was quite unable to attempt to stand, nor could he raise himself in bed, or change his posture in any degree. Sensation was unaltered in his body and limbs; there was no paralysis of either bladder or rectum, nor any increase of reflex action. He complained bitterly of pain in his back and in his neck. The spinal cord had evidently sustained an injury, which was plainly between the third and the fifth, or perhaps sixth, cervical vertebræ. It should be below the third, as the phrenic nerve was uninjured; and it should be above the sixth, as the spinal accessory nerve was paralysed, which rises from the lateral tract of the spinal cord as low down as the fifth or sixth cervical vertebra. The temporary compression of the cord injured it sufficiently to interfere with its functions for a short time, and was fortunately repaired without myelitis, or any other consequence which might have ensued, setting in. In reference to the total absence of paralysis of sensation, it appeared a general rule that motor power was more subject to be damaged by itself than sensation. The explanation of this probably resided in the more superficial implantation of the motor roots of the spinal nerves in their appropriate column, whereas the posterior sensitive roots plunged suddenly into the interior of the cord. At all events, it must be deduced, from these anatomical considerations, that the column of motion which sent off the anterior roots was injured by violence inflicted generally on the cord more readily than the column of sensation, which gave off the posterior roots. The difficulty of swallowing, which was so prominent a symptom, and which necessitated the child's being fed by the rectum, had light thrown on it by a consideration of the influence of the internal branch of the spinal accessory nerve upon deglutition. The first improvement appeared in the power of swallowing, and this was soon followed by return of tone to the sterno-mastoids and the trapezii muscles. His cough then became stronger; he began to be able to make a secondary expiratory effort, instead of the single jerky puff he used; the leaden colour and the puffiness left his face—so that his complexion and appearance underwent a marked change; his face seemed to have got quite thin, though bright. He was able to put one hand to his mouth on October 30th (ten days after the fall). On November 4th, he was able to raise his head off his pillow; on the 6th, he could drink as well as any other child, and stand with his hands holding on to a table or person, but not without some such support. On November 10th, he was ordered a tonic; and he left hospital on November 15th, twenty-six days after the accident, able to breathe naturally and use his limbs, but still unsteady in rapid movements of the legs, and having some trouble in rising off a low seat without assistance. Independently of the clinical interest of this case, Dr. Foot considered that it had some physiological value, as corroborative of Claude Bernard's ingenious experiments on the influence of the spinal accessory nerves upon deglutition.—A short discussion ensued, after which the Society adjourned.

OBSTETRICAL SOCIETY OF DUBLIN.

SATURDAY, FEBRUARY 5TH, 1881.

JOHN DENHAM, M.D., in the Chair.

Case of Arrested Development.—Dr. PUREFOY read the notes of a case which had lately come under his observation. A farmer's wife gave birth by natural labour, and at full time, to a large male infant, possessing the following peculiarities. The right auricle was entirely wanting; its position, which was completely hidden by the thick black hair which covered the head, was only discernable by a slight depression where the external ear ought to be. The right eye also was represented only by a depression, the eyelids of the left one being adherent along their margins. There were double hare-lip and cleft palate. The tongue was absent, its position being marked by a depression. The genital organs were perfect. From the scapula hung, suspended by skin, the remnant of a hand, with the fingers webbed. The toes of the lower extremities were also webbed. The child was born alive, but survived for only a few hours. The cause assigned by the woman and her friends for this malformation was, that when she was three or four months pregnant, a cow belonging to them gave birth to a calf, whose two fore-legs and right ear were entirely absent. This calf the woman watched for months, tending it constantly.—Dr. KIDD remarked, that in the case just related, the connection between the cause stated and its result was much more intimate than was usual in such accounts. There was a difficulty in all these cases—viz., the fact that at the time of receiving the materna impression the fœtus was usually so far developed that it would be difficult to imagine such malformations as possible from such causes.—Dr. MADDEN stated that, in every single case of monstrosity which had come under his observation, there was an idea in the mother's mind of something having occurred to produce it. One case which he particularly remembered, was that of an officer's wife, who was driving with her husband one day early in her pregnancy; a beggar, without hands or feet, importuned them for alms. The officer made a lash at him with his whip, which deeply grieved his wife, who could not banish the thought of it from her mind all day. When the child was born, it had no arms, its palate was cleft, and it had a malformed eye.—Dr. DOYLE said he knew of a curious instance of the subject under discussion. A gentleman, suffering from talipes equino-varus, whose wife had given birth to two perfectly formed children, suspected her of unfaithfulness, and said to her, when pregnant of her third child, "If the child you are carrying now have not the same deformity that I have, it is not my child." The child was born with talipes equino-varus.—Dr. H. KENNEDY and the Chairman also took part in the debate.

Auscultation as a Means of Diagnosis in Uterine Tumours.—Dr. NEVILLE read a paper on this subject. The presence of a vascular souffle, in some cases of uterine tumours, had long been recognised by gynæcologists, though they were not agreed as to its value in differential diagnosis. Most authorities had stated that a similar souffle may rarely be met with in ovarian tumours. This souffle had generally been described as being of the same general characters as the uterine ("placental") *bruit* of pregnancy. Sir J. Simpson, Dr. McClintock, and Dr. Routh had each dwelt on and described this auscultatory sign. The latter noted also the occasional existence of a "tubular" murmur, caused by pressure of the tumour on the aorta, in uterine tumours. All agreed that the souffle was undistinguishable from that met with during pregnancy, and that it was most frequently heard in the interstitial form of fibroids. Dr. Neville then read notes of a case of interstitial uterine fibroid occurring in a patient under Dr. Kidd's care, in the Coombe Hospital. Details as to the patient's history and that of the tumour were given. The tumour was a large one, occupying the greater part of the abdominal cavity, and closely simulating an ovarian tumour. It presented two distinct auscultatory signs. The first of these was a blowing, systolic souffle, of a booming character; almost continuous, never abrupt or musical; shortened and intensified by slight, and obliterated by more decided pressure of the stethoscope; unaffected by movements either of patient or of tumour. It was absent during the great part of an intermenstrual period, preceding the menstrual flow in its appearance by about three days, and fading away again as this ceased. This peculiarity of the souffle, not previously recorded, was noticed during three menstrual and intermenstrual periods, the time during which the patient remained under observation. The second auscultatory sign consisted in an abrupt, sharply defined whiff, puffing, and at times whistling in character, heard only over the central apical portion of the tumour. It was accompanied by a heaving impulse. It was found that this murmur could be produced at will by altering the position of the tumour. Often it was present without any manipulation. It was of a remarkably come-and-go character, imperceptible movements doing away with it, and was thus evidently due to pressure on the aorta. Dr. Neville had never heard either of these sounds in ovarian tumours, nor could he understand the mechanism of their production in such. The former one, more especially if it was found to be markedly accentuated, as in this case, during a menstrual period, he would regard as almost conclusive evidence that a tumour was uterine rather than ovarian in its nature. The latter or pressure murmur, he thought, could only be developed by a solid and, therefore, generally uterine tumour. Another auscultatory sign which he thought might make a point in diagnosis, was, that the gurgling sounds of intestinal flatus would be more likely to be distinctly conveyed all over a more or less solid uterine, than through a cystic tumour of the ovary.—Dr. ATTHILL had never once heard a well-marked murmur in an ovarian tumour. When it did occur, he thought it must be due to causes outside the tumour. In one case, in which he had heard the murmur, there were two tumours, one ovarian, and the other uterine, and it was in the uterine that the murmur was heard.—Dr. KIDD had never heard the murmur in any case in which the tumour had been proved to be ovarian, nor did he know of any case having ever been placed on record in which it had, either by operation or *post mortem* examination, been proved to exist. Each day made him attach more importance to it as a means of diagnosing uterine tumours. Its presence he considered an almost positive sign of uterine tumour, but its absence did not by any means indicate that it was not uterine. He had a case at present under observation in which he believed that there were two tumours, an uterine and an ovarian; there was a murmur in one, but not in the other.—Dr. H. KENNEDY suggested that the murmur in

such cases might be conveyed from the iliac artery. The texture and density of the tumour, due to the degree of blood-engorgement, would very materially alter the intensity of the murmur.

SURGICAL SOCIETY OF IRELAND.

FRIDAY, FEBRUARY 18TH, 1881.

E. S. O'GRADY, F.R.C.S.I., in the Chair.

Recent Specimen.—Mr. W. I. WHEELER exhibited a portion of a man's tongue, which he removed by means of the thermal scissors, for epithelioma of the anterior portion and left side. The instrument worked very well, he thought, being a decided improvement on the thermal knife. The patient was fifty-three years of age, and the disease was of only six weeks' duration; there were no glands enlarged, nor was the posterior portion of the tongue thickened. A drawing was exhibited, showing the condition of the tongue before operation.

A Case of Paracentesis of the Bladder.—Mr. F. J. B. QUINLAN, after briefly alluding to the recent melancholy death of Dr. Peele, in company with whom he saw the patient, and performed the operation described in his communication, read the notes of a case which had come under his care in St. Vincent's Hospital. An elderly man, grey-haired, had for many years suffered from stricture of the urethra, at intervals more or less protracted. A few days before Mr. Quinlan saw him, he was again attacked, and on that occasion he purchased a quantity of whiskey, and drank himself free from pain. On recovering consciousness, his agony was excruciating; and, when Mr. Quinlan saw him, he was roaring with the pain. The bladder could be felt hard and bulging, like a large water-melon, in the abdomen. The resident medical officer in the hospital had tried to relieve him by every means: baths, stupes, opiates, etc., but without success. The catheter could not be passed beyond the bulb, where a cartilaginous stricture could be felt. Mr. Quinlan also tried to pass the catheter, but with no other effect than the production of copious hæmorrhage. The case being urgent, and the man's cries for relief undiminished by the previous treatment, Mr. Quinlan passed a large trocar and cannula into the bladder, through the linea alba, two inches above the pubes; and this drew off a large quantity of urine, giving immediate relief. There was no suction used in evacuating the contents of the bladder; but, as much as could be pressed out through the cannula having been drawn off, the cannula was removed, the man put to bed with hot jars to his feet, and given one-half grain of acetate of morphia. Next day, the patient expressed himself as quite comfortable, and in a warm bath evacuated his bladder *per vias naturales*; and, in a fortnight, left the hospital—able to micturate, to use his own expression, "as well as in his best days". The stricture in this case was, he considered, a mixed one—partly organic, and partly spasmodic. He had not employed suction in emptying the bladder, as cystitis might be produced by the mucous membrane of the bladder being sucked into the tube. Nor did he approve of the method of leaving the cannula in for any lengthened period; but preferred repeated paracentesis, if necessary.—The CHAIRMAN had that day seen a case in which repeated tappings had been resorted to with the most satisfactory result, after a couple of months' treatment.—Mr. ORMSBY had some time ago tapped a man through the rectum, for spasmodic stricture of the urethra, which resisted all other treatment. The next day, he could with ease pass in a No. 5 catheter. This man had been tapped above the pubes, six years before, for a similar attack; but had no attack in the interval, or since the last operation.—Mr. A. CORLEY had seen a case some years ago, in company with the chairman, in which an elderly surgeon had endeavoured to tap his own bladder for retention of urine, with unsatisfactory results—insomuch that he (Mr. Corley) had to do it also, and the patient subsequently died. Dr. Adams had said that the proudest epitaph a surgeon could have on his grave was: "I never tapped a bladder". With this Mr. Corley did not agree.—Mr. W. I. WHEELER preferred the suprapubic operation to that *per rectum*. In one case which he had had of contusion stricture, caused by a kick of a horse in the perinæum, the man was tapped fourteen times, and the urethra gradually dilated up to a No. 8 catheter. In another case, where there was true traumatic stricture, the man had been tapped twenty times, *per rectum*, before Mr. Wheeler saw him; and also afterwards, over the pubes, by Mr. Wheeler, previously to performing Cook's operation.—Dr. Frazer, Dr. Doyle, Dr. Cranny, and Mr. Warren also took part in the discussion.

Incised Wound on the Forehead of a Child, with Escape of Cerebral Substance and Arachnoid Fluid: Recovery.—Mr. ALLEN E. DOUGLAS communicated the notes of a case, which, in his absence, were read by the Secretary. In January 1880, a child (six months old) fell down stairs, and received an incised wound, two inches long, on its forehead. There was a welt of cerebral substance, of the size of a man's little finger, protruding through this, with a free escape of arachnoid fluid. There was no unconsciousness, or any symptom of brain-lesion, and the child was perfectly quiet. The edges of the wound could not be brought together, owing to the mass of pulsating brain-substance protruding. The child was simply put to bed, with cold-water dressings to its forehead, and some James' powder administered. Next day, he heard that the child had passed a good night, without pain. The protruding mass of brain was now partially removed, and the wound closed with sutures. The stools were green from the mercury administered. For several days there was no change; when the sutures were removed, the pulsating wound was still visible, but the child seemed perfectly well; and, on the twenty-second day, was pronounced convalescent—never having lost one hour's sleep during the whole time, nor exhibited a single symptom indicative of cerebral injury.—Mr. TUFNELL mentioned several cases, which had come under his observation, of grave injuries to the brain, with loss of its substance, in which the injury seemed to cause no annoyance whatever to the patient. One was that of a boy who received a kick from a horse, producing compound fracture of the skull, with protrusion of brain-substance, which was removed without the boy appearing to take any notice. Another case was that of a boy, a patient of the late Dr. Geoghegan, through whose skull and brain a musket-bullet had passed. The brain was bulging out through the holes in his skull, and was stripped off, but he took no notice. Another case was a blasting accident, in which a similar carelessness on the part of the patient was evinced.—Mr. FRAZER had seen a boy who received an injury to one side of his head, with loss of brain-substance. In that case the boy was in a state of stupor for some time. The boy's character seemed to undergo a change; he became very cross and testy; and the opposite side of his body ceased to develope.—Dr. DOYLE thought that it would be interesting in such cases to notice if special functions would be impaired by such losses of brain. Would the child's power of speech be in any way interfered with?—Mr. STORY said that, as the child in the case reported was so young, it would have time to educate the other side of its brain; so that, even if the portion of brain in which the power of speech was usually situated were injured, it would not suffer the penalty in the way an adult would. He thought the cases mentioned were specially interesting from a psychological point of view, with respect to the perfectability of the human race. It seemed that most people had far more brains than they used. As the race advanced to perfection, these tracts of waste land might be, so to speak, reclaimed.—Mr. WHEELER considered that the prognosis in such cases must be greatly influenced by the age of the patient. The younger the patient, the greater the injury they could suffer with impunity. He only remembered seeing two cases of severe brain-injury in adults recover.—The Chairman, Dr. H. Kennedy, and Mr. Quinlan also took part in the debate.

NOTES ON BOOKS.

WE may again speak with commendation of Carlyle's *Duplicate Prescription-Book*, which enables the physician to retain a bound copy of every prescription which he writes. They are published by Mr. C. Carlyle, Waterloo Buildings, Liverpool, and are simple and effective.

The Irish Medical Directory for 1881. Dublin: Offices of the *Medical Press and Circular*; London: Baillière, Tindall, and Cox.—The issue of this directory for the current year fully sustains the high character gained by former issues. The portion comprising the Acts of Parliament specially affecting the medical profession in Ireland has been extended; and the directory is altogether a valuable and almost indispensable reference record for Irish practitioners.

THE *Classified Directory of Medical Charities for 1881* (Longmans) is a shilling directory of great use. It answers many questions of frequent recurrence in the practice of medical men.

TESTIMONIAL.—A testimonial was presented, on the 23rd of February, to Mr. Edward Charles Cripps of Cirencester, by the officials and patients of the Highgate Infirmary, on his resigning the post of assistant medical officer, which he held for a period of two years. It consisted of a handsome clock and salver, the clock bearing the following inscription: "This clock, with a salver, was presented to Mr. Edward Charles Cripps by the officers, nurses, servants, and patients of the Highgate Infirmary, as a token of their esteem, on the occasion of his resigning the post of assistant medical officer of that institution, Feb. 23rd, 1881."

BY the death of Dr. George Burn, M.D., C.B., a good service pension of £100 a year for a retired inspector-general of the Navy is vacant.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MARCH 5TH, 1881.

ST. THOMAS'S HOSPITAL HOME FOR PAYING PATIENTS.

ON Tuesday, the 1st instant, St. Thomas's Home for Paying Patients was formally opened for the reception of those who can afford to pay a minimum sum of eight shillings *per diem* for their treatment there. Two wards have been appropriated for the purpose in No. 2 block, which are distinct from the other portions of the hospital, and which are approached by a separate entrance. These two wards have been furnished and fitted up expressly for the purpose to which they are about to be devoted. The ward on the ground-floor, having accommodation for sixteen patients, is intended for females; and that on the floor above, with twenty-four beds, for males. Each ward has a large sitting-room, furnished partly as a dining-room, which is distinct from the ward, and is first entered. On the ground-floor, there are two small rooms with single beds; and, on the floor above, is one other room containing two beds. The charge for these rooms will depend upon the requirements and needs of the patients who occupy them. Each of the large wards is divided up into compartments by means of curtains made of thick striped linen. Each compartment is furnished as a bedroom, and contains every needful requisite; and each has a separate window. Hot and cold baths are provided, and the large wards have open fires, and are warmed by hot water coils. The furniture is plain, and has been tastefully selected, the fibre carpets are well chosen, and the general appearance of the wards is cheerful and comfortable. The furniture has been specially made for the purpose, and there seems little to desire in this respect. The patients will be under the professional charge of a resident officer, who is a Doctor of Medicine, and also a Fellow of the Royal College of Surgeons. This gentleman will have the exclusive charge and treatment of all the paying patients; but every inmate of the home will have the option of employing, at his or her expense, any legally qualified medical practitioner in consultation with the resident medical officer. The nursing arrangements are, subject to the supervision of Mrs. Wardroper, under the control of Miss Alexander, who has had considerable experience in nursing and domestic management.

The rules for the regulation of the patients are simple, and seem likely to work well in practice. As far as possible, all applicants must apply personally to the resident medical officer, at the home, at 12 o'clock, on any day except Sunday. When personal application is not possible, the application must be accompanied by a certificate from the patient's medical attendant, stating fully the nature and facts of the case. Patients are held responsible for the *orderly and proper behaviour (sic)* of all persons—whether *medical practitioners* or friends—who visit them; and power is reserved to remove or exclude any such person who does not conform to the rules and to the directions of the officers. Patients may be visited by their friends every day between 3 and 5 P.M.; and in the event of a case of an infectious nature arising, the resident medical officer shall transfer the patient to the portion of the hospital set apart for the treatment of such cases. No smoking will be permitted in St. Thomas's Home. Suitable forms of application and certificates may be obtained on application to the resident medical officer.

We shall watch this experiment with real interest. If it succeeds, it may end by revolutionising the present system of hospital management in England. That it promises to lessen the abuse of hospitals, seems proved by the knowledge that more than one patient has already been removed from a free bed to be placed in one of the paying wards, because he confessed his means would allow him to pay adequately for the hospital treatment he requires. It is, at present, doubtful if the curtained compartments in the large wards will ever be popular; as it is evident that there can be little real privacy under such an arrangement, especially during the visits of friends. This objection proved fatal to the success of the four-bedded ward in the home hospital at Fitzroy House, Fitzroy Square, where now single-bedded rooms are alone provided, and are, we believe, always full.

RECENT STUDIES IN THERAPEUTICS.
IX.—CHLORAL IN INSOMNIA.

DR. KANE has recently published, in the *New York Medical Record*, a series of interesting papers on the use of chloral-hydrate in simple insomnia, and in the insomnia of delirium tremens and insanity. Chloral is the typical hypnotic; above all its other actions stands forth its power of producing sleep, both in health and in disease. It is especially suited to the sleeplessness of children, and it is found that they bear proportionately larger doses than adults. It is highly commended in doses varying from four to twelve grains, given in syrup of tolu, for the night-terrors of children, which, if allowed to continue unchecked, may end in epilepsy. Dr. Kane uses it largely in overcoming the fretfulness of infants and children, and finds that it produces a quiet natural sleep, and that it is free from the dangers attending the use of opium. A single dose at bedtime will often give quiet rest for several nights in succession. Although it is undoubtedly a bad plan to habitually dose children with strong drugs intended to produce sleep, there are cases in which a quieting medicine may avert positive disease as yet undeveloped; and to such cases this drug is especially suited.

The literature of the subject is filled with testimony regarding the value of chloral as a hypnotic. It was given experimentally to a large number of patients suffering from consumption; and, in almost every case, deep and healthy sleep was produced by a dose of from twenty to thirty grains at bedtime. The relief to the cough was marked, and neither head-troubles nor digestive disturbances were seen—a great advantage over opium and morphia. As sleeplessness is frequently a symptom of nervous disease, and as patients of this class are prone to contract the so-called chloral, opium, and morphia habits, great care should be exercised in using the drug. A prescription which allows the patient to obtain and use the drug at his pleasure should never be given. Where possible, the doctor should administer it himself, and the patient should be kept from a knowledge of what he is taking.

While it is the typical hypnotic in simple insomnia, chloral-hydrate does not act so well in cases where the sleeplessness is caused by pain. Dr. Bartholow advises, in these cases, the combination of chloral with atropia, or with atropia and morphia. Chloral exerts no chemical action on atropia when the two are held together in solution; for dilatation of the pupil in the cat takes place when the combined solution is instilled into the eye. Dilatation of the pupil also takes place when they are administered together hypodermically. Morphia intensifies in every way the effects of the chloral. Many of the unpleasant effects of morphia are modified as regards the wakefulness caused by the latter, but are not modified as regards the subsequent nausea, vomiting, headache, vertigo, and constipation. When the two agents are administered conjointly, a much smaller quantity of chloral is required in order to produce sleep. Chloral, atropia, and morphia, act much more favourably when administered simultaneously; the chloral causes sleep, the morphia relieves pain, and the atropia prevents or lessens the depression of the respiratory or cardiac centres caused by the other two, whilst it contributes to their cerebral effects. This combination of chloral, morphia, and atropia is adapted to cases of insomnia due to pain, or where chloral or morphia alone increases the cerebral excitement, as in

hypochondriasis, puerperal mania, etc. This combination is also indicated in cases of fatty and irritable heart. It is found that the local administration—that is, the insertion of the medicament at the site of pain—is more effective than the merely systemic impression. This is especially the case in tic douloureux, sciatica, and coccygodynia, which are most effectively treated by injections made in the neighbourhood of the nerves which are the seat of pain. In cases of spasmodic asthma, hay-fever, and muscular spasm generally, excellent results have been obtained from the combined use of chloral, morphia, and atropia; and the efficacy of these agents in the cramps of cholera is undoubted.

Chloral is occasionally used as a substitute for chloroform when patients have to be conveyed long distances by train; and it has been suggested that it might be employed in time of war, to facilitate the removal of the wounded.

In connection with the use of chloral as a sedative, it may be mentioned that there is reason to suppose that it is sometimes given by coachmen to their horses, to render them less spirited and more easy to drive. In a case which recently occurred at Bordeaux, the plan answered its end admirably; for very fiery horses, which formerly could hardly be kept in hand, became, after a few days of this calming regimen, quite gentle and quiet. However well this suited the coachmen, their masters were not a little surprised at the change; and one of them called in an experienced veterinary surgeon, who found the animals exhibiting a tendency to sleep, but failed to detect the cause, until one day, by accident, he discovered, in the stable, a bottle half full of solution of chloral. The coachman confessed to having administered a portion of this every morning; and it appeared that it was the custom of the degenerate Jehus of the neighbourhood to follow the same practice.

In delirium tremens, chloral has been often used, sometimes with good, and at others with bad, results; probably due to the fact that, in many instances, a routine treatment is pursued without any reference to the state of the patient. When the patient is utterly exhausted, and in an anæmic condition, with weakened heart-action, stimulants, capsicum, digitalis, and quiet are called for. When the patient is noisy, with flushed face, reddened conjunctivæ, and strong cardiac action, a good purgative, followed by one or two doses of chloral, will induce the much needed sleep, and, in many instances, save the patient's life. In still other cases, where there is danger of apoplexy, a good bleeding, followed by a single dose of chloral—say thirty grains—by the rectum, will work marvellously.

On the first introduction of chloral as a therapeutic agent, it found much favour in the eyes of those who have the medical care of the insane. As time has passed on, and experience in this field has accumulated, the tide of opinion seems to have set directly against its use, save in certain cases and under certain conditions. Dr. Maudsley says: "I use chloral in melancholia; seldom in mania, and then only when subacute, as an occasional thing. I believe it prolongs mania, and makes it worse, but I do not know that it causes it."

In the insomnia and delirium of the various fevers, chloral in small doses has proved an excellent remedy. Exceptionally good results are obtained in inflammatory and febrile conditions attended by delirium.

It must be borne in mind, that chloral is not a drug to be used lightly and without due consideration. Dr. Kane gives a detailed account of nearly thirty cases of poisoning by chloral; and says that, to one unacquainted with the literature of the subject, the number of recorded deaths from chloral-hydrate is as astonishing as it is deplorable, the majority of instances occurring either from ignorance or from carelessness on the part of the doctor or the chemist. It has been asserted that susceptibility to the poisonous effects of chloral is in direct ratio to the cerebral development of the individual; but of this there is no absolute proof.

NERVES OF THE HEART.

THE innervation of the heart is a question surrounded by much obscurity; and although the influence of the nervous system on that organ is still obscurely defined, yet the physiology of the heart has made great progress in the hands of physiological observers of late years. The most recent results are summed up in the recent thesis of Dr. Regnier, reported in the *Journal des Connaissances Médicales*. Dr. Regnier observes that we know now very imperfectly the influence of the nervous centres and the opposite action of the two classes of nerves which arise from them; and if the mode of action of these nerves is still under discussion, it must be confessed that sensible progress is being made towards a knowledge of the facts. The most obscure part of the question is the influence of the extracardiac system. But if this question of the moderating action of the glands be left aside, the discussion appears almost as much on words as on facts. One result of great importance may be noted standing out among modern researches: this is independence of the rhythm of the cardiac contraction in relation to the nervous system. Taking into account all the data and all discussions, an idea may be formed now of the relations of the nervous system with the heart; in this way, the heart finds in the intracardiac nervous system and its ganglia the necessary excitation for exciting contraction. The extracardiac system itself receives excitation from various sources: first, from the heart itself, through the medium of nervous filaments passing between the walls of that organ and the ganglion; secondly, from the nervous centres, by means of two orders of nerves, the inhibitory and the acceleratory; thirdly, from the periphery, by a reflex act, which has impressed the nervous centres and been reflected upon the heart by one of the two lines which unite it to that centre; fourthly, on the internal surface of the heart, by similar reflex phenomena in regard to the cardiac muscle and intermediary centre, which, in a state of habitual tonus, excites the contraction of the heart without giving it its rhythmic character. Moreover, from the nervous centres, the ganglion receives, at intervals, orders proceeding often from the periphery, and destined to modify the pulsations of the heart, either by arresting or accelerating them. It becomes thus the regulator and the distributor of healthy excitation, which it transmits to the muscles. As to the habitual cause which maintains this ganglion tonus, everything seems to prove that it is the blood; this does not act only on the ganglion, but upon the whole of the cardiac nervous system, a part of which contributes a greater or less share to the activity of the organ. It is necessary, indeed, as MM. Chauveau and Arloing have remarked, to distrust the tendency to localise too much in any special part of the nervous system this influence on the heart. It was an error with ancient authors; instructed by their examples, we must guard against the faults to which this tendency may give rise.

THE OFFICIAL POSITION IN RELATION TO EPIDEMIC SMALL-POX IN THE METROPOLIS.

FOR the last three months small-pox has been steadily increasing, and now the metropolis is face to face with an epidemic of grave dimensions; while the accommodation in the hands of the Metropolitan Asylums Board is practically used up. Not only, does it appear, is the Board prevented from providing further accommodation pending the decision of the House of Lords in the case of Hampstead, it is also accused of spreading small-pox by the very means it has taken to isolate that disease. The small-pox hospitals, it is alleged, become new centres of infection, and "the increase in the malady is chiefly in the districts where hospitals are planted". These hospitals *necessarily*, it is said, involve danger to the neighbourhood in which they are situated. Whether there be any truth in these allegations—and, if so, how the danger is best to be minimised—becomes a question deserving serious consideration.

Danger, if there be any, must arise in one or more of the following ways. The poison may be carried by atmospheric agency from the hospital wards to the outside; it may be conveyed by officials of the hos-

pital, or by tradesmen whose business calls them within its gates; it may be brought into the neighbourhood by visitors, or it may be disseminated in the transit of patients to the hospital.

That the contagion may be carried from the hospital by the atmosphere is, of course, conceivable; but it seems tolerably certain that the distance through which the poison can be carried is very small. In the case of the Fulham Hospital, this source of infection is altogether out of the question. The hospital is bounded on the north and south by the Lillie Bridge Grounds and the Athletic Club Grounds respectively; along the east wall two railways run, separating it from the Brompton Cemetery; while, in front of the west wall, lies an open space. There are no houses within some hundred feet, and if the poison did not spread from the wards of the Homerton Fever Hospital, fully occupied by small-pox patients, to the opposite wards of the London Infirmary, distant rather less than one hundred feet, as pointed out by Dr. Collie, we cannot suppose that it would spread further in the case of Fulham, which lies in a much more open district.

It is further possible that the disease might be spread by the officials of the hospital, but the precautions taken seem to negative this possibility; while any risk arising from the journey of tradesmen to and from the hospital might easily, and ought certainly to be obviated by placing the steward's department outside the hospital walls.

The possible source of infection from the influx of visitors, and from the conveyance of patients is less easily disposed of, and, together with the danger incurred by patients in a long journey, forms a very strong objection to the placing of infectious hospitals without the city bounds. It has been pointed out by competent authorities that infectious hospitals should be placed on the spot where infection generally breaks out. But in London, we believe, this policy could not be fully carried out; suitable sites would be unattainable in most of these localities, and the middle course remains to be taken. The present hospitals of the Metropolitan Asylums Board are fairly conveniently situated; and, were there an additional hospital nearer the East-end of London, the service would be tolerably complete. To minimise the risk of the poison being brought into the neighbourhood by visitors, while it would act advantageously in other respects, the plan of isolating, for a suitable time, the *whole* of a household in which the disease had appeared, might be adopted. A well regulated system of conveyance, and properly constructed ambulances, should render *nil* any fear of infection in the transit of patients.

Whether the district of Fulham has suffered from the presence of the Small-pox Hospital is very problematic. The mere presence of cases of the disease, in the vicinity of the hospital, does not necessarily imply that the cause lies in the hospital. At any rate, it does not seem clear that Mr. Firth was quite accurate in saying that "the disease had left Hampstead, and, in proportion, had invaded Fulham"; for not only is St. Pancras, near whose border lies the Hampstead Hospital, at present afflicted, but cases have, to our knowledge, recently appeared in Hampstead itself, within a few yards of the unoccupied hospital.

But, even granting that the hospital is not quite free from danger, we may point out to the good people of Fulham, that it is possible easily to render themselves proof against this danger—by vaccination and re-vaccination—and it were well, therefore, that they availed themselves at once of this protection, instead of making complaints which have more foundation in their imagination than in solid fact.

THE Baroness Burdett-Coutts has contributed £50 to the funds of the Parkes Museum of Hygiene.

DURING the past eight weeks of the current quarter, the metropolitan death-rate has averaged only 24.5 per 1,000, against 26.1 and 30.5 in the corresponding periods of 1879 and 1880.

TWO deaths in London were last week referred to chloroform, one to chloral, and one (of an infant aged six months) to the administration of small doses of paregoric.

THE widow of a hawker died in the City of London Workhouse on February 17th, whose age was stated to be 102 years. She was a camp-follower at the battle of Waterloo, and had a son in the same workhouse, whose age is said to be eighty years.

AT the meeting of the Ophthalmological Society on the 10th inst., the discussion on the relation between optic neuritis and intracranial disease, of which notice has been given, will take place. Dr. Hughlings Jackson will introduce the subject. The names of several expected speakers are given in the Notices for the week.

THE *Balmoral Castle* takes out to the Cape the following medical officers of the Dutch Red Cross Society, who are going out to attend upon the sick and wounded: Drs. Philip W. Beaudet, C. P. Burger, J. C. Schirfgownds, Zeeman, and B. Van Nas. Meantime, people are asking what the British Red Cross Society is doing with its reserve funds.

THE report presented to the annual meeting of the Middlesex Hospital stated that the Board viewed with increasing alarm the serious inroads made annually on the capital account, and had reluctantly come to the conclusion, unless the coming year showed a more even balance-sheet, to recommend to the governors that one male and one female ward should be temporarily closed.

THE balance-sheet of the Murchison Memorial Fund at St. Thomas's Hospital shows receipts (including interest) amounting to £282 13s. 8d. The expenditure has been, for a bust and pedestal, £148; for printing, postage, and other expenses, £8 3s. 3d.; leaving a balance of £126 10s. 5d., which has been handed over to the Treasurer of the London Murchison Memorial Fund, to aid in the foundation of a scholarship in clinical medicine.

MM. GORNIL and Ranvier have just published in French the first volume of the new edition of their *Manual of Pathological Histology*. This classic treatise, of which the first edition had been exhausted and had passed in some measure out of date, has of late years been recognised as the best existing treatise of the kind. It is now completely revised and rewritten; and, with the authority of the authors, a translation is being prepared for publication by Messrs. Smith, Elder, and Co.

M. PERRIER read, at a recent meeting of the French Society of Surgery, the case of a patient on whom he had performed laparotomy and enterotomy. Less fortunate than M. Kœberlé, whose successful resection of the intestine we lately reported, M. Perrier saw his patient die thirty-two hours after the operation. Nevertheless, some interesting conclusions may be deduced from the report of the case. Among others, it was found that the two parts of the intestine brought into apposition had very quickly united; and, in the portion which he showed to the Society, the adhesion was already complete.

M. KRISHABER communicated, at the same sitting of the Society, a note of a case in which a cannula passed into the œsophagus through the nasal fossa was left *in situ* during forty-six days. From this fact, M. Krishaber concludes that it would be possible to introduce into the treatment of stricture of the œsophagus the plan of leaving cannulæ in position for lengthened periods, in the same way as in the treatment of urethral stricture.

THE United States National Board of Health have undertaken a most useful and important investigation, in directing a careful study to be made of the chief methods in use for the chemical examination of potable water, so far as organic matter is concerned. The inferences which chemists adduce from the quantity of this or that constituent of waters examined by them are often so much at variance with the physical surroundings of the wells from which the water is derived, that the institution of any investigation which reveals the defects of the existing methods of analysis must command very general approval.

THE ACCIDENT TO MR. GLADSTONE.

We understand that, on Mr. Gladstone's return home, on the evening of the accident, he asked his servant, before getting out of his brougham, if it were slippery or not. On being answered in the negative, he stepped quickly out, and slipped on a piece of ice. He at once got up and walked in, although bleeding freely. Mr. Blake was sent for, and, soon afterwards, Dr. Andrew Clark. Mr. Blake dressed the wound, which was an oblique cut across the occiput, between two and three inches in length, and reached down to the bone. The next morning Dr. Andrew Clark met Sir James Paget in consultation; but, as the wound appeared to be healing by first intention, the dressing was not interfered with. It has since rapidly healed, and there has been no constitutional disturbance of any kind attending it. Mr. Gladstone, in fact, slept well through the first night, and was asleep in the morning at ten o'clock, when Dr. Andrew Clark and Sir James Paget arrived to see him.

DENTAL PROCEEDINGS OF THE GENERAL MEDICAL COUNCIL.

We have received a copy of the Medical Council's *Dental Proceedings*, which sets forth, in a compact volume, the whole history of registration, and other matters arising from the Dentists' Act, so far as it relates to the Medical Council and its Executive and Dental Committees. This volume, for which Mr. Miller deserves great credit, is edited and arranged in as convenient a form as possible, and supplies information often sought, and of especial interest just now. Such information is found with difficulty amidst the mass of other subjects in the Council's minutes. It may be had either at the General Medical Council's Office, 315, Oxford Street; or of the publishers to the Council, Messrs. Spottiswoode, Parliament Street.

INSANITY AND AGRICULTURAL DEPRESSION.

Of seventy-five patients admitted into the East Riding Asylum at Beverley during last year, seven, belonging to the farming class, had become insane in consequence of business-troubles. Dr. Whitcombe, the medical superintendent of the asylum, thinks that this fact gives evidence of the distress which has been widely and severely felt, but quietly borne, in the purely agricultural district from which the population of the asylum is drawn.

CYPRUS.

The public interest in this recently acquired and much debated accession to our British dependencies has faded before the more pressing and urgent circumstances of other annexed territories and possessions. We are glad to learn, however, that active steps are being taken, under the sanitary commissioner lately despatched to Cyprus, Dr. Barry, to improve the conditions as regards health. The Turkish sanitary law, which is in some respects stringent enough, but has been in abeyance, is being put in force. Four meteorological stations, completely equipped, have been established, where daily observations are being taken; so that our knowledge of climatic conditions will rest upon a secure basis. The island has been infested by ignorant quacks, whose pernicious practices are being repressed.

THE METROPOLITAN SMALL-POX HOSPITALS.

Statements deserving attention are being brought forward in support of the accusation against the hospitals of the Metropolitan Asylums Board, of spreading small-pox in their vicinity. At the meeting of the Lambeth Vestry, on the 24th ult., the chairman said that, out of the cases coming to the Stockwell Hospital, a fourth were living within a quarter of a mile of the hospital itself. Dr. Tripe, at the last meeting of the Society of Medical Officers of Health, brought forward figures that indicated the incidence of small-pox around the Homerton Hospital; and there appears to be some ground for the assertion that the recent opening of the Fulham Hospital has been followed by a noticeable increase of small-pox in the neighbourhood. Whilst the careful inquiry of Dr. Thorne Thorne and Mr. Power is yet incomplete, it would be rash to generalise from these statements; but they certainly add immensely to the present difficulties in dealing with the epidemic. Mr. Dodson was no doubt right in declining to receive a deputation which desired to urge upon him the undesirableness of patients not in the borough of Chelsea being received into the Fulham Hospital, since the views of the deputation were evidently based on a misconception of the powers and functions of the Metropolitan Asylums Board. At the same time, it cannot be denied that the whole question is now in a most unsatisfactory position; and that some definite action must be taken by the Local Government Board before long, is becoming increasingly evident. Panic, in consequence of the allegations that have been made, is strongly to be deprecated and discountenanced; but it would certainly conduce to general satisfaction and comfort if the real facts as to these hospitals could be officially promulgated without delay.

NEPHRECTOMY.

For some months, there has been, under the care of Dr. Baxter, at the Evelina Hospital for Children, a female child, about eight years of age, who presented symptoms indicating pyelitis. Three months ago, Mr. Morrant Baker performed nephrectomy upon her, cutting down upon the kidney, and introducing a drainage-tube; this measure was followed by very partial relief, and the general condition of the child soon began to deteriorate. Mr. Baker, therefore, determined to excise the kidney. Nephrectomy was done on February 22nd; the patient rallied well from the operation, and now, a week later, is progressing most favourably.

THE GERMAN SURGICAL CONGRESS.

The tenth congress of the Association of German Surgeons will meet in Berlin from the 6th to the 9th of April. The members assemble at 8 o'clock on April 5th, in the Hôtel du Nord, for introduction; and the scientific sittings will be held on April 6th from 12.30 to 4 o'clock, and on the other days from 2 to 4, in the Hall of the University; the morning sittings devoted to the demonstration of preparations and the exhibition of patients, from 10 to 1 o'clock, in the wards of the University Clinic and the Charité Hospital. The patients brought from a distance for exhibition at the morning sittings may be received in the Royal Clinic; and preparations and bandages are likewise to be sent there. Notice of the operative demonstrations proposed should be given as early as possible for the afternoon sittings, in order that the necessary material may be made ready. Early notice with regard to lectures should also be given to the President, Professor von Langenbeck.

OPERATION FOR CANCER OF THE STOMACH.

The health of the patient on whom Professor Billroth performed the operation of removal of a carcinomatous portion of the stomach, is satisfactory. The wound is perfectly healed, and the sutures were removed at the end of last week. The patient takes milk and wine, only complaining of constipation, which is relieved by enemata, and of a bedsore on the sacrum, which was caused by her depressed condition. All experiments with semifluid food have failed, and the nourishment has been confined to milk.

MORTALITY AT ASHTON-UNDER-LYNE.

The Local Government Board have thought proper, on the intervention of Mr. Hugh Mason, M.P., to direct an official inquiry into the causes of the apparently persistently high rate of mortality at Ashton-under-Lyne. There is certainly justification for Mr. Mason's question of the 24th ultimo, in the House of Commons, to be found in the last quarterly return of the Registrar-General, who, in speaking of the death-rates of the fifty large town-districts, observes that the highest rates were 25.1 in Stockport, 25.4 in Preston, 25.8 in Wigan, and 30.5 (the highest of all) in Ashton-under-Lyne. During last year, the deaths in the subdistrict that virtually represents the borough numbered 1,102, which would be at the rate of 35.1 per 1000 of the census population. It is true that there has to be deducted from this number a certain proportion for the deaths occurring in the workhouse, which serves a population of seventy thousand persons, in addition to Ashton-under-Lyne. The correction that has to

be thus made cannot be exactly estimated; but even allowing 5 per 1000, the death-rate is still left at the high figure of 30 per 1000. We suspect this rate is by no means unknown in other manufacturing towns, whose mortality figures have not had the fierce light of Parliamentary inquiry brought to bear upon them; but it is sufficiently serious to demand inquiry by the Government. For the last four weeks for which returns have been published, it would seem as if affairs had gone from bad to worse, since 133 deaths occurred in Ashton during that period, against only 109 births. If this state of things were to continue, the borough would, in due course, be improved off the face of the earth. It may be hoped that the Government inspector will be able to assign a cause, and to point out a remedy, for a mortality that, if continued throughout the year, would be equal to a death-rate of more than 60 per 1000.

NOTIFICATION OF INFECTIOUS DISEASE.

AT the last meeting of the Kensington Vestry, it was resolved, upon the strength of the valuable reports of Dr. Dudfield, to give directions to the Special Purposes Committee to take the necessary steps for holding a conference of delegates of vestries and district-boards of the metropolis, with the view of legislating to secure compulsory intimation to the public health authority of cases of infectious disease. We trust that a happier fate may befall this conference than the previous one convened by the Kensington Vestry, to deal with the non-pauper hospital question: a matter which is still in as unsatisfactory a state as before.

THE INTERNATIONAL MEDICAL CONGRESS.

THE idiosyncrasies of individuals often show themselves in unexpected ways. The approaching meeting of the International Medical Congress in London has afforded not a few amusing proofs of this fact. Several members of the profession in England, possibly with the view of rubbing up their knowledge of foreign tongues, have adopted the practice of addressing the secretaries in various languages. One gentleman, who has had occasion to write three letters, has availed himself of the opportunity thus afforded to show his acquaintance with Italian, German, and French. This system is not without its advantages, as it has benefited a worthy interpreter, who, we believe, has been permanently engaged to meet this unforeseen emergency.

NERVE-STRETCHING FOR SCIATICA.

DR. LANGE recently narrated a case of sciatica at a meeting of the New York Medical Society, which had been treated in a great variety of ways without benefit, and the patient came to him for an opinion with reference to the operation of nerve-stretching. For purposes of diagnosis, he resorted to forced flexion of the thigh upon the trunk, while the leg was fully extended upon the thigh and the foot flexed upon the leg. The manipulation gave the patient excruciating pain, which was described "as if a bullet had been shot from the sole of the foot through the limb to the hip". It was decided to resort to the operation of nerve-stretching, but the pain in the limb began to subside soon after the forced movement, and the patient was soon well. Dr. Lange thought that a kind of nerve-stretching had been thus effected.

CERTIFICATION OF CAUSES OF DEATH.

THE Registrar-General in his last quarterly return calls particular attention to the increase of uncertified deaths throughout England and Wales. He says the causes of 113,978, or 90.4 per cent. of the 126,126 deaths last quarter were certified by registered medical practitioners, and 6,811 or 5.4 per cent. by coroners in inquest cases. The causes of the remaining 5,337 or 4.2 per cent. of the deaths were not certified either by a registered medical practitioner or by a coroner; in these cases the causes of death were entered in the register from information supplied by unregistered or unqualified medical practitioners, or by the ordinary informant of the death, usually a relative of the deceased. The proportion of uncertified deaths showed a slight increase upon that which prevailed in the preceding quarter; in the metropolis it did not exceed 1.3 per cent., whereas it averaged 4.8 per cent. in the rest of England and Wales. The highest percentages of uncertified deaths were 6.1 in Herefordshire, 6.2 in Cumberland, 6.3 in Derbyshire, 8.0 in Cornwall, 8.5. in Durham and Westmorland, 10.1 in South Wales, and 11.5 in North Wales. In the twenty large English towns the proportion of uncertified deaths averaged 2.4 per cent.; it was 1.3 in London, and averaged 3.5 in the nineteen provincial towns. The percentages in the nineteen towns ranged from 0.5 in Portsmouth, and 1.3 both in Plymouth and Nottingham, to 6.2 and 7.0 per cent. respectively in Wolverhampton and Sunderland. The proportions of uncertified cases in many of the towns showed last quarter a considerable increase compared with those that prevailed in the preceding three months. The percentage rose in Sunderland from 2.2 to 7.0, in Shefield from 3.4 to 5.7, and in Salford from 2.9 to 5.0. These large proportions of uncertified causes of death call for the consideration of the medical officers of health and the co-operation of the coroners.

COMPULSORY VACCINATION IN FRANCE.

THE Commission of the French Chamber of Deputies to which was referred the Bill of Dr. Liouville proposing to make vaccination compulsory in France (see vol. i, 1880, p. 563), has agreed upon its adoption; subject, however, to certain important modifications. Under the Bill as amended, vaccination is made compulsory in the first year after birth—in times of epidemic, in the first six months after birth. Every person in whose house a case of small-pox occurs is bound to report it to the mayor of the district, by whom information as to the case will be transmitted to the administrative authority. Revaccination is compulsory for both sexes before the age of twenty-one years. At the registration of the birth of a child, a vaccination-form will be given to the declarants, upon which are to be inscribed the date and the results of the primary vaccination and of subsequent revaccinations. This must be produced whenever asked for by authorised persons. If the bulletin cannot be produced, it may be substituted by a certificate from a medical man, attesting that the person brought to him bears the cicatrices of good vaccination. Parents, guardians, and persons having the legal charge of children, are, for infraction of these regulations, liable to a penalty of from one to five francs; and, in case of a continued offence, to a penalty of from six to fifteen francs. The judge may also order that the names of the defaulters shall be affixed, at their own expense, to the door of the town-hall of their dwelling-place. The presentation of the bulletin of vaccination and revaccination will be compulsory for entrance into primary and secondary schools, into the army, and into every Government appointment. The Bill is to come into force for the whole of the Republic and its colonies a year after its passing. In its present form, the Bill is an improvement on the original draft. But a year is certainly too long an interval before the performance of vaccination can be enforced. Six months, at the outside, should, except under special circumstances, be the maximum period allowed. Moreover, it is the opinion of the best authorities that revaccination becomes necessary at the age of puberty; and it would seem better, therefore, to substitute the age of sixteen or eighteen years for twenty-one, as proposed by the Bill. The compulsory notification of every case of small-pox that occurs is certainly a step in the right direction.

SANITARY WORK IN SOUTH AUSTRALIA.

THE sixth report of the Central Board of Health for South Australia, is, in many respects, a very interesting document. It seems that districts where a local board has not been established (and there are only 25 local boards in the colony) are under the direct supervision of the central board, whose inspector made 1,559 visits in the year ended the 31st March last. The Board appear to be making a raid on ill-kept slaughter-houses, and they recommend that every township should be provided with public abattoirs, where the slaughtering and inspection of the meat can be kept under proper control. As to the health of the province, the Board report that it was on the whole favourable, especially when the long continued and excessive drought and heat of January, February, and March 1880 are taken into account. The death-rate from zymotic diseases rose from 3.20 per 1,000 to 3.46, but even this is a considerable

improvement on the rate of a few years ago. The months in which zymotic diseases are most prevalent in the province, are the first four months in the year. There were no deaths from small-pox or measles, "these diseases having been successfully excluded for the year, by the operation of the Quarantine Act". Typhoid fever was in most instances of a mild type, and infantile diseases were less fatal than in previous years, and would have shown even a more favourable result, but for the extreme heat of the latter part of the summer. The infantile mortality, however, was still extremely high, the deaths of children under five years constituting no less than 47.48 per cent. of the total mortality. Out of the 1,761 deaths amongst such children, 642, or 36.4 per cent. were due to zymotic causes, apparently chiefly diarrhœal in nature. In the city of Adelaide, of the deaths of children under five years of age, which numbered 385, those due to zymotic diseases amounted to 155, or 40.2 per cent. Adelaide, as the capital and chief place, receives much attention in the report. Its population is estimated at 37,500, and in 1879-80 there were 1,397 births, and 858 deaths in it. These figures are equal to rates of 37.26 and 22.88 per 1,000, both in excess of the rates of the previous year. Zymotic diseases caused 227 deaths, or 26.45 per cent. of the total number; scarlet fever being credited with 21 deaths, diphtheria and croup with 15, whooping-cough with 5, typhoid fever with 29, and diarrhœal diseases with 85. The sewerage of the city is reported as making satisfactory progress, but there are many arrears in sanitary work to be made good, before the town can be regarded as healthily circumstanced.

HIGH MAGNIFYING POWER.

PROFESSOR F. G. FAIRFIELD of New York, has, according to Gaillard's *Medical Journal*, invented a new objective, giving an increased magnifying power of forty-nine per cent. It multiplies the power of the microscope by seven in diameter and by forty-nine in area. The visualising power of the microscope had heretofore been reckoned to be equal to the showing of an object 1-180,000 of an inch in diameter. That was the limit to which Helmholtz attained. With Tolles' 1-75 inch exhibited in the New York Academy of Science two years ago, it was shown that there could be discerned an object about 1-2,500,000 of an inch in diameter. "With his one-eighth inch objective or lens," said the lecturer, "I am able to discern an object 1-3,000,000 of an inch in diameter; and if I were to apply the same principle to a 1-75 inch lens I should be able to discern an object, making allowance for proper diffusion of light, as minute as 1-15,000,000 of an inch in diameter. At that power it would be possible, unless the molecule of albumen be much smaller than it is supposed to be, to discover and demonstrate the molecular constitution of living matter." The objective invented by Professor Fairfield is composed of three minute lenses in succession. After the rays have passed through the three lenses, formed their image and crossed, they are then taken up in a field-glass, through a second powerful lens, cross a second time, and a second image is formed from the first. The alleged result is that the penetrating power is very much improved as compared with the ordinary lens, whose magnifying power is actually multiplied by more than forty-nine per cent. The lens is so minute as to be capable of being used only by the aid of the electric light.

RARE FORM OF INTRAVENTRICULAR COMMUNICATION.

At a recent meeting of the Vienna "Medizinisch Doktoren-Collegium", Dr. Chiari described a rare form of communication between the ventricles of the heart, which he had found in a female child aged one year, who had died of tuberculosis. During life, there were observed enlargement of the area of cardiac dulness, systolic and diastolic murmur over the origin of the pulmonary artery, and occasional cyanosis. At the necropsy, the right half of the heart was found to be in a state of excentric hypertrophy; the orifice of the pulmonary artery was narrowed; the pulmonary valves were contracted, and partially adherent. The ventricular septum presented the usual arrangement of trabeculæ, but the intratrabecular spaces appeared unusually deep; and, on closer examination, it was found that, in several of them, there was a direct communication between the ventricles. Altogether, five such orifices were found, the largest being about one-ninth of an inch wide; all were lined with a delicate endocardium. Dr. Chiari believed that this defect was to be regarded as due to arrest of development, the intratrabecular apertures which exist in the septum in embryonic life not having become filled up. Hitherto, but little reference has been made to this kind of malformation.

THE THERAPEUTICS OF OVARIAN COMPRESSION.

M. BOURNEVILLE (*Le Progrès Médical*, No. 2, p. 22) records the following case. He was called to see a young married lady, aged 22, who had suffered from hysteria for some years, but latterly the attacks had been of daily occurrence. After one of these, which occurred on December 21st, she became paralysed on the right side, with hemianæsthesia of the same side. During the night of the 30th, spasmodic contraction of the lower jaw supervened. On December 31st, M. Bourneville found the following symptoms: right hemiplegia and hemianæsthesia, with stiffness of the joints; double ovarian hyperæsthesia; contraction of the jaw. After practising ovarian compression for some minutes, the spasm of the jaw relaxed, and the patient could put out her tongue; but, when the compression ceased, the spasm reappeared. After a short interval, he again compressed the right ovarian region, with a similar result; and, when compelled to desist, from fatigue, he discovered that the spasm of the jaw did not recur, that sensibility had returned to the right side, and that the patient could move her right arm and leg. A further compression resulted in the complete disappearance of all the symptoms, so that the patient got up and walked. M. Bourneville remarks that such astonishing results may be obtained, if the medical attendant will employ ovarian compression for a sufficient length of time, and repeat it frequently at short intervals.

CALCIFICATION OF THE SPINAL DURA MATER.

PROFESSORS Heschl and Ludwig of Vienna have described a pathological (or rather senile) condition of the dura mater of the spinal cord, which has hitherto been very rarely if ever noticed. The discovery was made during the *post mortem* examination of an insane and paralysed female, aged 65. The brain was small, especially the left hemisphere, and the convolutions were very narrow. In the spinal cord, especially the lumbar region, the ganglion-cells of the anterior cornua were much reduced in number and in size; and indications of chronic poliomyelitis were present. No history of the subject—whose death was sudden—could be obtained. The spinal dura mater presented, along the whole length of the posterior aspect of its dorsal portion, a peculiar fine yellow dotting, arranged in rhomboidal figures, with their long axes lying in the direction of the longitudinal axis of the spine. The series began in the lower cervical region with an isolated group of yellow dots, four-sided, but with rounded angles, and about six-tenths of an inch in diameter. Immediately below this was a second group, rather larger, which was connected by a narrow bridge with a third. From this point, the groups became gradually closer, and the yellow dots more thickly arranged; until the series ended in the lumbar region somewhat more abruptly than at its beginning. The groups were largest between the sixth and tenth dorsal vertebræ; and this part presented the appearance of a ribbon with symmetrically dentated borders, each pair of dentations corresponding to a vertebra. Subsequent investigation showed that each dental projection corresponded to an arch of a vertebra. Here and there the dentations were prolonged on the lateral, and partly on the anterior, surface of the dura mater; but Dr. Heschl never found them forming complete rings. Subsequently to making the observation above described (in November 1880), Professor Heschl has had examinations of the spinal meninges made in a number of subjects of both sexes, of ages varying from twenty-one to ninety-three. He finds that no extensive calcareous change of the kind described is to be met with before the sixtieth year; while a few limited and imperfectly defined spots may be observed before that age. The change is most conspicuously marked between the ages of sixty-five and seventy-five; beyond this, he has as yet met with only one

case, in a person aged upwards of ninety. Microscopic examination of the spots showed an assemblage of minute points, dark, or with sharp dark out-lines, in many places producing complete opacity; there was also the ordinary network of fibres of connective tissue. It was further found that, while the epithelioid lining and the innermost layer of the dura mater were unaffected, it was the inner third or inner half of the membrane which contained the calcareous granules, both in and between the fibres. A careful chemical examination of the deposit was made by Professor Ludwig. On analysis, it was found to have the same composition as bone-earth; *i.e.*, to be composed of three molecules of phosphate with one of carbonate of lime ($Ca\,CO_3 + 3\,Ca_3\,P_2\,O_8$). In the deposits in the dura mater, the lime was replaced to a small amount by magnesia. From a consideration of the conditions in which the calcareous deposit was found in the several subjects examined, Professor Heschl concludes that it is a senile change, and not necessarily connected with any pathological condition of the nervous centres; and that hence it can only be called "pathological" so far as the term is applied to other changes incident to old age. It is, he says, remarkable that it has been overlooked, or at least not noticed in their writings, by such eminent anatomists and pathologists as Morgagni, Voigtel, Meckel, Andral, Cruveilhier, Rokitansky, Förster, R. Mayer, Birch-Hirschfeld, Schwann, Henle, Vogel, Kölliker, Key and Retzius, Frey, Cornil, Rindfleisch, or by any other author to whose works he has access.

ITALIAN SUICIDES.

THE Italian Statistical Bureau has just issued a report upon the deaths by suicide in the kingdom of Italy during the three years 1876, 1877, and 1878, which is analysed in the *Echo*. The total number of suicides in that period amounted to 3,321; and of these, 2,689 were males, and 632 females. The local distribution gives the following results: Lombardy, 521; the Grand Duchies, 483; Venetia, 474; Tuscany, 395; Piedmont, 393; Rome, 122. Under the rubric of age, we find that 22 had not reached their fifteenth year, whilst 18 had passed their eightieth. The "manner of death" chosen by the self-slain records a comparatively small use of the characteristic instruments of Italian history and romance—poison and the knife. The three most frequent means of exit from life were by drowning, 937; by hanging and strangling, 536; and by lying in the front of railway trains, 81. The reasons of suicide left by the victims are not extant in all cases; but 214 declared that hunger and want drove them to self-destruction, while 253 laid the blame on the tormenting sickness of pellagra.

GOITRE AND DRINKING WATER.

A VIENNA correspondent of the *Cincinnati Lancet and Clinic* mentions that of late years, according to the testimony of various authorities, goitre is markedly on the increase in Vienna, and the question as to its cause is troubling the minds of the medical profession. Dr. Hofmokl, in the course of some remarks upon this topic, stated that, though for seven years prior to 1873 he had in charge a large clinic, numbering no fewer than six thousand out-patient cases yearly, it was the rare exception for him to meet with a case of goitre in one born and raised in Vienna, those cases met with being usually from one of the neighbouring districts; but, at present, at the surgical department of the "Polyclinic," it is not an uncommon thing to meet with three or four such cases within one week. The disease occurs most frequently in young women, but males and even children are not exempt. The question of the cause of this increase of goitre is naturally exciting some comment; and it is universally conceded that in all probability it has some direct dependence upon the drinking-water. Previously to 1873 the drinking-water used in Vienna was drawn, partly from wells, but mostly from the Danube, from which it was derived in a filtered condition. It could not, however, furnish, even though filtered, the required purity of drinking water. It was decided to obtain pure water for the city. It was thought that a distant snow-clad mountain could furnish the required article; and, at an enormous expenditure of money and labour, the melted snow from Kaiserbrunn in Styria was led to Vienna through many miles of aqueducts. Styria, the region whence the water comes, is noted as one where goitre is particularly prevalent. Since 1873 this water has been used, and, as already mentioned, from that period to the present a gradual increase of goitre has been noticed; hence more and more the suspicion has been gaining ground, that the now sparkling and delicious drinking-water is the agent to blame in its production. The etiology of goitre has never been well understood. Its strict confinement to certain localities lends colour to the view of Billroth, that it is a chronic miasmatic affection, endemic in certain places; and if the phenomenon of the increase of goitre in Vienna since 1873 be proved to be due to the use of drinking-water derived from a district which is preeminently disposed to its prevalence, it adds another link to the chain of evidence upholding this view. It is to be hoped that public sentiment in Vienna will demand an investigation of the matter, and that light will be shed upon the obscurity that still surrounds the subject.

FOOD-PRESERVING SOLUTIONS.

SALICYLIC acid has been largely used in France (probably here, also) to preserve unchanged by decomposition perishable articles of food. The French Minister of Commerce has, however, just issued a circular to the prefects, instructing them to forbid the sale of any article of food, solid or liquid, containing salicylic acid or any compound of it. The attention of the sanitary authorities had been called to the danger to public health arising from the use made of this substance for the preservation of food; and M. Tirard has had a thorough analysis of its properties made by the Consultative Committee of Hygiene. The result of the examination is that the acid is injurious to health, not only on account of its direct effects on the system, but also indirectly by permitting the fraudulent introduction into food of other "deleterious, or at least unwholesome, substances".

THE CEYLON MEDICAL SCHOOL.

THE prizes gained by the pupils of this school were publicly distributed by His Excellency the Governor, Sir J. R. Longden, on November 29th. Dr. Vanderstraaten, principal of the medical school, read the report for the tenth session, beginning on May 1st, 1879, and ending on March 24th, 1880. Of sixteen candidates for the primary class, only six passed the necessary examination; and, there being five vacancies in the secondary stipendiary class, five persons were selected from twenty-seven candidates. The summer session commenced on May 1st, with 64 students; and three new students joined the school in the winter session. Of the latter, one was an English student who had attended two winter sessions at St. Mary's Hospital in London, but intended to complete his medical studies in Ceylon, where his parents were resident; and two were "casual students", who intended to complete their studies in England. The annual examinations for prizes and for the licence was held on March 15th and following days. In the junior class, who were examined in the elementary subjects, three candidates passed and three were rejected; in the senior class, two passed, and three were unsuccessful; and in the "secondary class" (examined in the elements of anatomy, physiology, and materia medica, clinical medicine and surgery, and practical pharmacy), fourteen out of fifteen candidates passed, and were declared eligible as hospital assistants for the civil hospitals or for coffee-districts. Dr. Vanderstraaten reported that the primary class examinations were conducted up to the standard of the English examining boards, and that the two senior students who passed, and obtained the licence to practise, acquitted themselves most creditably. Seven natives of Jaffna, graduates of the American Mission Medical School there, had been admitted with the view of passing the examination for the licence of the Ceylon Medical School after two years' study. They had previously studied in the Jaffna school for three years. An interesting addition to the ordinary ceremony was the opening of a clock-tower in memorial of Dr. Koch, late principal of the Medical School, and Surgeon of the General Hospital in Colombo, who died, in consequence of an accident, in December 1877. Dr. Kynsey, principal civil medical officer, stated that, shortly after Dr. Koch's death, the members of the civil

medical department raised among themselves the amount of 1000 rupees, for the purpose of establishing a memorial in the form of prizes for operative surgery. The prize, however, was provided from another source (*i.e.*, by Dr. Kynsey himself); and it was then decided to appropriate the sum of 1000 rupees (supplemented afterwards by collection among the general public, which made up the amount to 3000 rupees) to the erection of a clock-tower, sixty feet high. After Dr. Kynsey's explanation, the Governor (who had generously presented a large illuminated clock with three bells) declared the tower open. In doing so, he said that it would be a lasting proof of the esteem in which Dr. Koch was held, not only by his colleagues in the profession, but by the general public. A native gentleman, Mr. Sampson Rajapakse, has promised an ornamental drinking fountain, to be placed in the vicinity of the clock-tower for the use of the public.

DENGUE FEVER IN EGYPT.

DR. MACKIE, Surgeon to Her Majesty's Consulate, sends us an interesting account of the epidemic of dengue which has prevailed recently in Egypt. It seems first to have appeared in that country in 1877, when an outbreak occurred in Ismailia. In that year, so many of the inhabitants of the town were attacked, that the tribunals and commercial offices were temporarily closed. It occurred again in Ismailia in the autumn of 1878 and 1879, and also to a slight extent in the autumn of 1880. The disease subsequently invaded every town and village from Alexandria to those situated in Upper Egypt. It visited Alexandria in the beginning of October; and it was in this town that Dr. Mackie and Dr. Murison had the opportunity of observing it. Dr. Mackie tells us that the disease commences, in mild cases, with slight pains and malaise; in severe cases, with slight shivering, followed by high fever, severe pain in the head, redness, smarting, and suffusion of the eyes. The most characteristic symptom, however, is pain in the back and in the muscles and joints of the limbs. With these symptoms, the temperature of the body is increased to 104° and 105° Fahr. Dr. Mackie noticed that, in comparison with the increase of temperature, the pulse is slow, a temperature of 104° often being accompanied by a pulse of 84 or 90, although it may range between 84 and 130. The pain is special in character, and differs from that of rheumatism or neuralgia. Dr. Mackie compares it to what might be produced by a red-hot iron applied to the affected joint. The tongue is coated with white or yellow fur, and the bowels are constipated. The urine is high coloured, sometimes albuminous, rarely bloody. The skin is hot, and usually dry; the face flushed, and the throat sometimes dry, congested, and painful. In cases of ordinary severity, the fever declines about the third day, and a rash, sometimes resembling that of measles, but more frequently that of scarlatina, appears on the neck, upper part of chest, large joints, and sometimes extends over the whole body. The rash may, however, appear earlier, while its duration is usually limited to four or five days; it is not followed by desquamation, as in scarlatina, but, where it is well developed, is occasionally followed by the shedding of fine furfuraceous scales. Convalescence is very slow, the patient remaining weak and prostrate, often troubled with sleeplessness. Children suffer less severely than adults, and usually have a rash which more resembles measles. They convalesce more rapidly than adults. In childhood, the attack is often ushered in by convulsions; whilst, at a later age, a mild delirium is often an early symptom. Although adults suffer from confusion of ideas, and see strange people, birds, insects, etc., in their room, they are usually conscious that these figures are delusions. In mild cases, the symptoms are much less marked, and the patient is able to continue to attend to his duties, although he has much difficulty in so doing. The rash, also, is a much less prominent feature, but, in Dr. Mackie's experience, is never altogether absent. The disease is undoubtedly contagious; if one member of a family is attacked, the whole household are almost certain to suffer. With regard to treatment, Dr. Mackie and Dr. Murison both found that the administration, at the commencement of the disease, of two or three half-drachm doses of salicylate of soda gave immediate relief to the pain, and reduced the temperature. During convalescence, beef-tea and wine for food, with suitable treatment for special symptoms, such as sleeplessness, have been found sufficient. Quinine, in Dr. Mackie's hands, has not proved successful as a remedy. Fortunately, the disease never kills; although one attack will not always protect a patient from subsequent ones, it does not leave him permanently damaged, troublesome boils being the worst sequelæ observed by Dr. Mackie.

HEALTH OF THE INDIAN ARMY.

TAKING the report issued till the end of 1878, the state of health of our army in India affords no matter for congratulation; but, on the contrary, shows a condition of things the reverse of satisfactory. The death-rate, which had reached 21.46, had at no time been so high since the year of the cholera epidemic in 1872; the daily sick reached an average of 67 per 1,000, which was an increase of 11 over the previous year. The *Echo*, discussing these facts, observes:—This state of things was not peculiar to any Presidency, but was general throughout our great dependency; nor was it due to the virulence of any single disease, but all diseases showed increases upon the previous year; cholera from 84 to 4.0 deaths per 1000; small-pox from 44 cases to 72; and enteric fever from 92 to 206. The number of teetotallers had decreased, but there was also a marked diminution in the reported cases of drunkenness. The invaliding of the army resulted in a loss of 44.98 per 1000. Bad as is the foregoing, the condition of the native army is even worse. The death-rate was 25.2 per 1000 in 1878, against 13.4 in 1877. This is attributed to the prevalence of fevers (upon which it is stated that nearly the entire strength of the native army passed through the hospital) and of respiratory diseases. This unhappy condition of things is no mystery as to its cause; and we owe it to our Indian fellow-subjects that that cause shall be removed. The dwelling-house of the Sepoy is said to be "unhealthy from top to bottom". The huts are of the most primitive kind; the floors are damp; they are badly drained, greatly overcrowded, and ill-ventilated. The young Sepoy goes into debt in order to get married, and then deprives himself of the necessary food in order to supply his family. The structural defects of the soldier's housing are surely matters that could be remedied; and, as life is involved in the reform, no time should be lost in accomplishing it.

THE THERMOGRAPH.

DR. A. WELLINGTON ADAMS, of Colorado Springs, gives a very elaborate description, and makes very strong claims for a new instrument, invented by himself, and called the Thermograph. A condensed description is given in the *New York Medical Record* from the *Rocky Mountains Medical Review* for November 1880. This instrument will, says the author, give a continuous curve denoting the constant febrile condition of the subject. It has already demoastrated a minor heat-curve for typhoid fever. It will also give, at the same time and on the the same strip of paper, a sphygmographic and a respiratory curve. The instrument is expected to be of great value to meteorological science The following is a brief description of its mechanism and principles. A coiled spring is made of two lamellæ of brass and steel, the brass forming the outer part of the coil. This spring is fixed at the centre, but the free end presses gently against the contents of a short vulcanite tube. As the temperature of the apparatus rises the metal coil expands, and the pressure exerted by the free end varies, and always corresponds to the temperature. The vulcanite tube is filled with a powder composed of plumbago, gas-carbon, and silver, in a finely divided condition. The electrical conductivity of this mixture changes with the pressure to which it is subjected. Wires from an electric battery are connected so that the current passes through the powder, and it will therefore be understood that with the rise and fall of the temperature, and the consequent changes in the pressure of the coil upon the powder, the intensity of the current will vary. It is now only necessary to arrange a means of recording these alterations in the current, and this has been done in a very ingenious manner. A wire helix, of special construction, forms part of

the circuit, and into this a soft iron core is passed, free to move up or down. The position of the core is governed by the strength of the current, and as the core rises and falls, it communicates motion to an index, which records its position continuously upon a moving strip of paper. The battery and the recording part of the instrument are placed in a neat cast iron case, while the coil is enclosed in a German silver case, about an inch and a quarter in diameter. To use the thermograph it is only necessary to place the little ease in the axilla of the patient, and a continuous record of the temperature is thus obtained. The cost is estimated to be not over fifty dollars.

CHROMIC CATGUT LIGATURES.

IT seems a pity that, by the introduction of two kinds of catgut, additional complications—those recommended by Mr. Lister, and those advocated by Dr. Macewen, who claims a certain priority in a document with which he has favoured us—should be added to the antiseptic system. As far as we can gather from Mr. Lister's paper, he has already tried combinations of chromic acid with glycerine; but the results have not been the best attainable. Before leaving Edinburgh, it was rumoured that Mr. Lister had, by a combination of this kind, obtained a satisfactory article; but he has, apparently, since that time, found objections to it. It would be interesting, with the view of deciding as to which is to be the catgut of the future, if Mr. Lister would give some details of his experiments with chromic acid and glycerine, etc., with his reasons for abandoning it, and adopting, in preference, the mixture recommended at the meeting of the Clinical Society.

INFANT MORTALITY IN NOTTINGHAM.

LEICESTER and Nottingham have for some years been conspicuous for their high rates of infant mortality; and in 1880, their unenviable reputation was fully maintained. In the 52 weeks of 1880, it appears, from the returns of the Registrar-General, that the rate of infant mortality, or rather the proportion of deaths under one year to births registered, averaged 169 per 1000 in twenty of the largest English towns; whereas this proportion was equal to 219 and 202 per 1000 respectively in Leicester and Nottingham. When we note that in Liverpool and Manchester the rate of infant mortality did not exceed 191 and 179 per 1000, the larger excess in Leicester and Nottingham appears the more remarkable. Last year was marked by an exceptional fatality of infantile diarrhœa; but it is certain that the excess of infant mortality in Leicester and Nottingham is only partially explained by the fatal incidence of summer diarrhœa. With one exception, in 1871, the rate of infant mortality in Nottingham was higher last year than in any of preceding ten years; the rate averaged 189 per 1000 in the five years 1870-4, and declined to 174 in the following five years 1875-9, whereas it was equal to 202 in 1880. It is very satisfactory to know that this excess of infant mortality is now attracting considerable local attention; and the borough coroner, in a recent letter to the town clerk, says: "The rate of infant mortality in Nottingham has reached a point which calls for the careful attention of all persons interested in the well-being of our town". In this letter, the coroner especially dwelt upon the increasing number of very young children found lying dead in bed, by the side of their mothers, and expressed his conviction that "not a few of the mothers are exceedingly careless as to the way their children are mismanaged; and that, in many instances, the mothers deem the death of the child a relief from a burden they are too glad to escape from". In a large proportion of these cases, the coroner informs the mayor that, with a view to spare the feelings of interested parties, he has not ordered a *post mortem* examination, without which satisfactory evidence of the cause of death cannot be obtained; in such cases, the verdict is frequently "Natural causes", or "Found dead in bed by the side of his or her mother". Convinced that this laxity has to some extent contributed to the increasing number of such cases, the coroner announces his intention to order *post mortem* examinations more frequently, and appeals to the town council for their approval and support in his efforts to save infant life. The matter has been referred to the Watch Committee, and there is every reason to believe that it will receive the full consideration of the town council, and that they will be disposed to strengthen the hands of the borough coroner, as well as of the medical officer of health, in any attempts to reduce the excessive local rate of infant mortality. We can only hope that their efforts in this direction may be as successful as those, a year or two since, intended to decrease the proportion of uncertified causes of death in Nottingham. From a statistical point of view, moreover, such verdicts as "Natural causes" and "Found dead in bed" are eminently unsatisfactory, since one of the most important functions of the inquest, to find the cause of death, is not fulfilled. We might suggest that there is one question which should invariably be asked at inquests, especially at those upon infants; Was the deceased insured?

NEW OBSERVATIONS ON AN ORGANISM IN DIPHTHERITIC MEMBRANES.

M. TALAMON communicated last month to the Société Anatomique a description of an organism which he considers to be the determining cause of diphtheria. His paper appears *in extenso* in the *Progrès Médical* for February 12th. He obtained, by the cultivation of false membranes taken from eight undoubted cases of the disease, a fungus which consisted of long-jointed mycelial rods, and spores of two kinds: the one oval or round, and giving rise, by a process of gradual elongation, to the mycelium; the others rectangular, and showing, after a short time, minute brilliant specks in their interior, about the size of an ordinary micrococcus. These rectangular bodies he considers to be conidia; and the micrococcus-like specks which subsequently develop in them, are, he thinks, the "veritable germs of the fungus". Rabbits, guinea-pigs, frogs, and pigeons inoculated with the fluid in which this fungus had been cultivated, all, with two exceptions, died; and, in all cases, he obtained from some of the fluids of the body the conidia considered to be characteristic. One rabbit died with an enormous swelling of the throat, comparable to the œdema which occurs in some cases of diphtheria. In four pigeons, he succeeded in producing false membranes; the inoculation, effected by scraping the mucous surface with a bistoury, and then dabbing the bared surface with the fluid in which the fungus had been cultivated, was followed by the appearance of a false membrane, which covered the inner surface of the cheeks, the tongue, the velum palati, and the upper part of the pharynx; this membrane consisted, as in the case of membranes obtained from man, of epithelial cells, fat-granules, micrococci, and bacteria, and yielded, on cultivation, the characteristic organism. In the case of the frogs, the stomach was the organ which underwent a diphtheritic inflammation. Three frogs were inoculated, and died in from eight to twelve days, their tissues "stuffed" with the organism. A fourth was then placed in the water in which the other three had lived and died; after ten days, he also succumbed; and, on examination, the stomach was found intensely inflamed, and covered with false membranes, which were also seen on the peritoneum. The author points out that, in this reproduction of false membranes, his experiments differ from those of Letzerich and Klebs, who have also described organisms as existing in diphtheritic membranes; but the fluid obtained by cultivation by these observers, though fatal to rabbits, did not produce false membranes, and killed with such rapidity, that the deaths are, with much probability, attributed to septicæmia. Undoubtedly, this reproduction of false membranes, by inoculating birds with material obtained by cultivation of diphtheritic membranes, is of great interest, and lends a definiteness to the results of M. Talamon which has been wanting in the case of other observers; knowing, however, the difficulties which surround the mode of investigation adopted, and, unfortunately, it appears to be the only one at our disposal, we shall hesitate to accept his results in their entirety. The whole subject of diphtheria, and its relation to other forms of angina, is one which urgently calls for elucidation; and we shall await with interest the further facts promised to us by M. Talamon at the conclusion of his labours.

SCOTLAND.

THE FELLOWSHIP OF THE ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

THE Royal College of Surgeons of Edinburgh has refused to follow the example of the Physicians, having thrown out, at its last quarterly meeting, a resolution "that the time had come when a change in the manner of admission to the Fellowship was desirable". Had Dr. Andrew Wood survived a few weeks longer, it is more than probable that the result would have been different; for, strong Conservative as he was in college as well as in general politics, he held that reform was necessary; and had actually framed a report, which had been adopted by a special committee of that College, the basis of which was examination of candidates. No one knew better than he that, in whatever other directions future legislation bearing on medical matters might take effect, it would most certainly render all honorary titles unregistrable. And thus the Edinburgh College has lost the opportunity of doing gracefully *ex proprio motu*, what it will be sooner or later compelled to do by Act of Parliament. The sale of titles is an anachronism. The manufacture of Fellows at £25 per head is a vicious proceeding, which, directly and indirectly, affects the value of all Scotch qualifications. The general public cannot be expected to discriminate very nicely between honorary titles and qualifications to practise; and it therefore cannot be wondered at that it should, in its ignorance, extend a feeling of suspicion to all the institutions of a country, one of whose principal medical corporations disposes of its honours for so much money. Should a Royal Commission be appointed, many of the hard facts which were stated during the discussion will appear in black and white; and no amount of special pleading will be able to wipe away the obloquy which must and will appertain. The arguments adduced in favour of maintaining the present state of things took almost entirely the commercial line: the College could not afford to throw away a great source of revenue, and so on; but we are thankful to know that there is a strong and rapidly increasing party which deprecates this tradesmanlike view of the question, and is strongly adverse to the continuance of such short-sighted policy. The motion was lost by only two votes; and we may therefore hope that, when the subject is again mooted, as it will assuredly be next year, the party of progress will be able to assert itself, and remove a stain which sullies the reputation of a corporation which has done, and is doing, good work.

EDINBURGH UNIVERSITY COURT.

THE Edinburgh University Court, at its meeting on Monday, appointed two Curators of Patronage of the University for three years (to the Court of Curators will fall the duty of electing a Professor of Pathology shortly). The Court recognised C. R. C. Tichborne, Ph.D., teacher of Practical Chemistry; H. A. Auchinleck, L.R.C.P.&S.E., lecturer on Medical Jurisprudence; and W. R. McNab, M.D., lecturer on Botany, and all of Carmichael College, Dublin, as teachers whose course of instruction would qualify for graduation in Edinburgh University.

ROYAL EDINBURGH ASYLUM FOR THE INSANE.

THE annual meeting of the Corporation of the Royal Edinburgh Asylum, Morningside, was held on Monday; the Lord Provost of Edinburgh in the chair. Several gentlemen were elected members of the Asylum Board, and a Charity Committee was also appointed. From the report submitted by the Secretary, it appears that, in the better class portion of the asylum, the average daily number of patients during the year was 123, this being an increase of 11 over the previous year; while the daily average at the West House was an increase of 16. The ordinary income amounted to £41,406, and the ordinary expenditure to £38,419. The various changes and improvements proposed by the managers were entered into in the report, and explanations given of the increment in the charge for pauper patients, in connection with which it is stated that the maintenance of this class of patients is less in the Edinburgh Asylum than in any district asylum in Scotland. The Charity Committee reported that the number on the roll at the end of the year was 33; the number of patients relieved, 48; the ordinary income for the year, £426; the expenditure, £514; and the total fund, £9,399. The annual report by Dr. Clouston, the Medical Superintendent, as usual, contained much valuable information; it shows that, during the year, 1,168 patients were treated. The admissions were 160 men and 187 women. The discharges were 132 men and 143 women; while there were 72 deaths, 26 being men, and 46 women. The number of pauper patients sent to the asylum was never before so great, and had almost stopped the admission of private patients at the lower rates of board. Dr. Clouston expresses the opinion that, of all the methods suggested for meeting the latter difficulty, the most suitable is to be found in the building of an economical auxiliary asylum for incurables. One hundred and thirty-four of the admissions were sent during the first month of their illness; and of these 102 recovered, amounting to 62 per cent. of the entire recoveries. As usual, the patients were middle-aged (of 1,000 admissions, only a fifteenth were under twenty years of age). Most fresh cases occur between thirty and forty; but there are more insane people alive between the ages of thirty-five and forty-five than any other period of life. In alluding to the various exciting causes that led to the admission of patients, Dr. Clouston observes that he has not admitted any case that could be ascribed to the intense political excitement that existed early in the year; and contrasted this with the fifty-seven cases admitted owing to business and social and religious impressions. He also contrasted the expenditure in this country on the care of the insane with that in America, where much heavier charges are extant, and where also the responsibility of those in charge of the insane is so defective, as compared with our system.

THOMAS CARLYLE AND EDINBURGH UNIVERSITY.

THE late Thomas Carlyle has shown the interest he felt in the university, of which he had been Lord Rector, by bequeathing to it the estate of Craigenputtock, in the county of Dumfries. The estate is about eight-hundred acres in extent, and of the annual value of £300. Ten bursaries are to be founded, and are to be in custody of the Senatus Academicus; they are to be called the "John Welsh Bursaries." They are to be given to students the "worthiest" after competitive examination, five on the subject of classics, and five on mathematics. We could have wished that some of them had come to the medical faculty, but we trust they may help to give a thorough arts training to some who will afterwards enter the profession. The bequest is thoroughly Carlyle-like in its wording, and finishes thus "and so may a little trace of help to the young heroic soul struggling for what is highest, spring from this poor arrangement and bequest; may it run for ever if it can, as a thread of pure water from the Scottish rocks, trickling into its little basin by the thirsty wayside, for those who it veritably belongs to. Amen."

MORTUARIES IN GLASGOW.

IN his last report to the Sanitary Committee of Glasgow, Dr. Russell reverts to his recent report of the disastrous consequences attending upon a wake, and the circumstances surrounding that special wake, which we have published in these columns. He wishes to direct the attention of the Committee to two practical procedures arising out of these circumstances. 1. The provision of mortuaries under the powers conferred by the forty-third section of the Public Health Act. He points out that, so far back as 1876, Mr. Macleod submitted, in his Report on the Burial Grounds in Glasgow, all the information necessary as to the nature, cost, and uses of district mortuaries collected from other cities. Nothing, however, has been done, although 75 per cent. of the inhabited houses in Glasgow consist either of one or of two apartments, and there must be a crying necessity for such assistance to keep the infectious dead from the living. 2. The providing of stamped envelopes and printed forms for the use of such medical men as desire to convey to the sanitary department information of cases of infectious disease

Dr. Russell remarks that there are very few practitioners—not half a dozen—who habitually send in such information; although there is a very general desire to facilitate the work of the department. So long as there is no universal compulsion, it is obviously a delicate matter for individual members of the profession to voluntarily undertake, and there must be the strictest secrecy and confidence in the communications. He submitted, on the same occasion, a blank form, which he purposes to forward to those gentlemen who have sent occasional notices, or others who may desire them, with postal envelopes addressed to Dr. Russell.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

THE discussion on the pathology of phthisis pulmonalis was resumed on February 25th. A large number of members and visitors listened with great interest to the addresses delivered by Dr. Foulis, Dr. Hamilton of Edinburgh, and Dr. Gairdner. The series of specimens exhibited, especially the microscopic specimens, excited much attention; in answer to a request, they were left on view the whole of the following day, and were inspected by a large number of the profession who called for the purpose. As various other members desired to speak on the subject, the discussion was again adjourned to Tuesday, March 8th, at 8 P.M., in the Faculty Hall, when Dr. Finlayson will open the debate. Those interested in the subject are invited to the meeting.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ended February 19th, it appears that the death-rate in the eight principal towns was 23.9 per 1000 of estimated population. This rate is 0.7 above that for the corresponding week of last year, and 0.4 below that for the previous week of the present year. The lowest mortality was recorded in Perth—viz., 13.6 per 1000; and the highest in Paisley —viz., 29.7 per 1000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.4 per 1000, being 0.1 below that for last week. Acute diseases of the chest caused 193 deaths, or rather fewer than last week. The mean temperature was 35.4°, being 1.0° above that for the week immediately preceding, and 3.9° below that for the corresponding week of last year.

LARBERT INSTITUTION FOR IMBECILE CHILDREN.

THE annual meeting of the supporters of the above institution was held on February 22nd. From the report of the medical superintendent, Dr. Ireland, it appears that there are at present in the establishment 78 males and 46 females. During the past year, the admissions had been 27, while the discharges were 16, and the deaths 1. In the course of a lengthy and very interesting report, Dr. Ireland dwells on the importance of making the most of all educational means at their disposal; and he thinks that efforts should be made to teach even the least hopeful cases. He speaks favourably of the Kindergarten system of teaching, and he states that, since visiting America, he has given increased attention to the education of the muscular system, through the cultivation of the senses and gymnastics. Financially, the institution seems prosperous, but the secretary's report contains the unwelcome intelligence that Dr. Ireland has resigned his post, after ten years of good and earnest work amid considerable difficulties.

GLASGOW SCIENCE LECTURES.

THE last of the series of the Glasgow Science Lectures for the present season was delivered on the evening of February 24th to a large audience, by the Rev. Dr. Haughton, F.R.S. The subject of the lecture was "The Perfection of the Mechanical Structure of Animals, and its Cause". In the first part of his lecture, Dr. Haughton, putting aside entirely the question of the moral perfection of the world, proceeded to show that, at any rate, as far as regards the mechanical structure of men and animals, this was the best and most perfect of all possible worlds. Several interesting illustrations were given in support of this proposition, and then the lecturer passed to the second part of his subject, namely, the cause of the perfection of the mechanical structure of animals; the conclusion arrived at being, that the final results of the combined study of anatomy and geometry, as brought to bear on the structure of the frame of men and animals, showed conclusively that the arrangements met with had not occurred by some kind of adaptation, but were the product of a contriving mind. A hearty vote of thanks was awarded to the lecturer.

THE HEALTH OF GLASGOW.

FROM the medical officer's report, it appears that, during the fortnight ending February 19th, there were 607 deaths registered, as compared with 851 in the fortnight preceding, being a decrease of 244, representing a death-rate of 26½ in place of 37. The mean temperature during the fortnight was 31.1° Fahr. The death-rate in the first week of the fortnight was 28, and in the second week 25. The number of deaths from pulmonary diseases was 274 in place of 445, a decrease of 171. The number of deaths from fever was 10 in place of 8—viz., 6 from enteric fever, 2 from typhus, and 2 undefined. The effects of the low temperature at the end of January seem to have almost worked themselves out, there being a fall of 39 per cent. in the deaths from pulmonary diseases, and of 33 per cent. in the deaths of aged persons. Infectious diseases also are in abeyance. Scarlet fever has not touched such a low point of fatality since September last, when the epidemic commenced; while the fevers are still very slightly fatal. The hospital contains 21 fewer cases of infectious diseases than at this time last year. There are at present in the hospital, Belvidere, 85 cases of scarlet fever, 60 of enteric fever, 18 of measles, 15 of typhus, and 7 of whooping-cough—in all 185, as compared with 199 this day fortnight.

IRELAND.

HEALTH OF DUBLIN: ANNUAL REPORT.

DURING the past year, there were registered in the Dublin Registration District 10,060 births, a number equal to 1 in 31, or 32 in every 1,000 of the population. The average annual number of births for the preceding ten years was 9,027, or 29 per 1,000. The deaths amounted to 11,308, being equal to 1 in 28. or 35.9 per 1,000 inhabitants; as compared with an average death-rate of 27.6 per 1,000 for the previous ten years. The number of registered deaths during the past year, it may be remarked, was the highest ever recorded in any one year since registration commenced. Omitting 300 deaths, being those of persons admitted into public institutions from localities outside the district, the death-rate for 1880 was 35.0 per 1,000. The deaths from zymotic diseases numbered 2,723, being an increase of 520 on the previous year, and 930 above the average number registered during the ten years 1870-79. Omitting 40 deaths of hospital patients admitted from places outside the Dublin Registration District, the deaths from the seven principal zymotic diseases amounted to 2,269, equivalent to a rate of 7.2 per 1,000. Small-pox caused 266 deaths, showing a considerable decrease in the mortality from this disease as compared with 1879; measles, 271 deaths, as compared with an average of 153 for the past ten years; and diphtheria 36, against 49 in the preceding year. Scarlatina was very prevalent, and caused 544 deaths against 392 in 1879, being the highest number registered since registration commenced, except in 1874, when 834 deaths were recorded. Whooping-cough was also very fatal, producing 376 deaths against 98 in the previous year; fever, 392 deaths; whilst diarrhœa was unusually fatal, and produced 424 deaths, against 167 in 1879, being the highest number recorded in the Dublin district in any one year. Phthisis caused 1,137 deaths, and, in combination with other diseases of the respiratory organs, a total of 3,197 deaths was produced, being a decrease of 597 as compared with the previous year. This diminution of deaths from chest-affections is mainly attributed to the less severe weather in the first quarter of 1880 as compared with that of the corresponding period of 1879. To convulsions, 1,071 deaths of children were ascribed, against 909 in the year preceding. There were 476 deaths from diseases of the heart and circulatory organs registered, while 93

deaths were due to cephalitis; 119 to apoplexy; 209 to paralysis; 48 to insanity; 41 to epilepsy; 181 to brain-disease unspecified; 146 to liver-disease; 62 to Bright's disease; and 72 to kidney-disease unspecified. Cancer caused 160 deaths; mesenteric disease, 250; scrofula, 88; and hydrocephalus, 235. One hundred and ninety deaths were the result of accident or negligence; which number included 82 from fractures and contusions, 42 from burns and scalds, and 41 from drowning; while 10 deaths were homicidal, and 12 suicidal. In 100 instances, the cause of death was either unspecified or ill-defined.

ZYMOTIC DISEASES IN PROVINCIAL TOWN-DISTRICTS DURING 1880.

DURING last year, measles was prevalent in Belfast for the first half, and caused 70 deaths; in Cork during the first and last quarters, causing 73 deaths; while 42 were registered in Waterford, and 24 in Drogheda, from the same disease. Scarlatina was very prevalent and fatal in Cork, 204 deaths—a number equal to 2.2 per 1000 of the population—having been recorded; in Waterford, 72; Drogheda, 71; and Limerick, 55. For the past two years, whooping-cough has prevailed to a considerable extent in Belfast: and the deaths registered in that town from this affection came to 252, a decrease of only 6 as compared with the preceding year; in Cork, 47 deaths were recorded, and a similar number in Londonderry. Fever caused 160 deaths in Belfast, and 120 in Cork (or at the rate of 1.3 per 1000); while only 8 deaths were due to small-pox, of which 5 took place in Belfast, and one each in Newry, Londonderry, and Sligo. Diarrhœa was very fatal in Waterford, causing 149 deaths; in Belfast, 302; Cork, 86; and Limerick, 53. The death-rate represented by the deaths from the seven principal zymotic diseases in the provincial town-districts was lowest in Kilkenny, being there 1.0, whilst in Waterford it amounted to 9.6. The high zymotic death-rate in Waterford was mainly due to the prevalence of diarrhœa in the third and fourth quarters, and of scarlatina and measles in the fourth. For example, of 1,053 deaths from all causes registered in Waterford during 1880, 149 were caused by diarrhœa, 72 by scarlatina, and 42 by measles.

CORK FEVER HOSPITAL.

THE seventy-ninth annual meeting of the subscribers to this hospital was held at the Royal Cork Institution last week, presided over by the Mayor of Cork. From the annual report for the past year, which was adopted, we learn that there was a considerable increase in the number of patients as compared with 1879, the number of cases treated for the preceding year having been 500, while that for 1880 has been 784, including 34 in hospital on January 1st, 1880, an increase of no less than 284 patients. This may partly be attributed to the great increase of typhus patients admitted—347 against 179, 77 typhoid against 54, and of scarlatina 175, as compared with 84 of the previous year. Of the 784 cases treated, 683 were discharged cured, 65 died, and 36 remained in hospital on December 31st, 1880, being an average mortality in all diseases, including chest-affections, of about 9 per cent.; and of 14 per cent. in typhus fever; but, if we deduct 7 cases hopeless on admission, an actual mortality of only 11 per cent. in this formidable disease took place; and it is probable that the death-rate would have been less were the patients removed from their overcrowded and ill-ventilated habitations at an earlier period, the returns showing that the average period of sickness of the 41 deaths from typhus previous to removal to hospital was ten days. There were 77 cases of typhoid with a fatal result in 4 instances, 164 cases of scarlatina with a mortality of 12 deaths, and 105 patients with continued fever, and but one death. There were also 22 cases of measles, all of whom recovered; 13 of erysipelas, with a similar result; 10 of rheumatic fever, with no death; 2 of puerperal fever, both of which succumbed; and 3 cases of small-pox, which recovered. The scarlatina cases were of a very malignant type, the eruption being suppressed, and accompanied by dropsical sequelæ in most of the cases; yet the mortality averaged only 7 per cent., and, deducting 4 hopeless cases, but 5 per cent. The returns show that the mortality in typhus fever is greatest as age advances, the mortality at 80 being 66 per cent.; at 70, 61 per cent.; and at 60, 37 per cent.; while the death-rate from 10 to 50 years of age varies rom 3 to 35 per cent. There was an increased expenditure during the past year as compared with 1879, not only in consequence of the additional number of persons treated, but by the large number of scarlatina cases, a disease which incurs considerable expense, owing to the necessarily protracted stay in hospital during convalescence, in consequence of the tedious process of desquamation, during which as much danger of contagion exists as in the primary attack, and the patient's life as much, if not more, endangered; so that they cannot be discharged with safety to themselves or the public, so long as even a roughness of the skin exists. The total expenditure came to £2,144 5s. 1d., and the income to £1,622 9s., leaving a deficit at the end of the year of £754 3s. 3d., which includes a sum of £272 2s. 9d. which the charity owed at the commencement of 1880. The Committee, in their report, desired to record their appreciation of the manner in which the duties of the medical staff—William Beamish, M.D.; H. Macnaughton Jones, M.D.; and W. T. Budds, M.D.—as well as those of the recently appointed medical officer (Mr. Atkins), had been discharged. The physicians, officers, and committee having been re-elected, the proceedings terminated by a vote of thanks to the Mayor for presiding.

BELFAST ROYAL HOSPITAL.

A QUARTERLY meeting of the General Committee of the Belfast Royal Hospital was held on Monday last; and, from the report of the medical staff, we learn that, during the quarter ending 31st January last, 409 patients were treated in the wards, 38 operations being performed; while the attendance of patients at the extern department amounted to 2,634, necessitating 1,229 minor operations. The Committee reported that £1,073 12s. 11d. was obtained by the bazaar held in the Ulster Hall, which, with a sum of £14 0s. 8d. since received, made a total of £1,087 13s. 7d. Of this sum, £700 has been lodged on deposit, and the balance applied to current expenditure. The collections in houses of worship have so far amounted to £530 10s. 11d., showing a slight increase on last year; but the Board regrets that the Hospital Sunday collections in Belfast compared so unfavourably with similar collections in other towns, and that, in a considerable number of churches, no collections have been taken up. It is satisfactory to learn that all accounts have been discharged, and that the institution is now free from debt. A deficiency of about £1,500 a year is the estimate made by the Committee, being the difference between the expenditure, which cannot be lessened, and the income of the hospital; and they hope to supplement this sum by additional subscriptions.

THE SPREAD OF INFECTIOUS DISEASES IN DUBLIN.

THE Public Health Committee of the corporation, the sanitary authority for Dublin, has again had its attention drawn to the concealment of infectious disease that exists in the city, and the serious consequences of neglecting to call in medical aid until the illness is of several days, duration. A child recently took ill with fever in a tenement house in Church Street and no medical man was summoned to see the patient. Two grown persons have since contracted fever in the same room from the child, and they are now dangerously ill, so much so that the cases could not be removed with safety in the hospital cab, but had to be conveyed on a stretcher to the hospital. The two last cases were ten or eleven days ill before any medical man saw them, and if left in the room would probably have died, as no person in the house would attend to them. The fear of incurring the censure of the landlords of tenement-houses, in many instances, appears to be the chief reason for not seeking medical advice in time; with others the dread of removal to hospital is the motive. No stronger facts than the above could be quoted in favour of the compulsory notification of infectious diseases. Dr. Cameron, medical officer of health, in his report on the health of Dublin for the five weeks ended 29th January, states that the present epidemic of typhus is not extending, and that he has no apprehension of its assuming anything like the proportions of former outbreaks of this formidable disease.

FEES FOR REVACCINATION.

DR. DUNCAN, medical officer of Fintona dispensary district, Omagh Union, last week brought an action against the guardians of that union to recover fees for a number of cases of successful vaccination; and also for 581 fees for revaccination during the quarter ended 31st August last. The case came before the court on a motion by the defendants for particulars of the names of the persons who were revaccinated, and their addresses, in those cases in which the plaintiff alleged the operation was successful. The plaintiff contended that he was entitled to fess for revaccination, whether the operation was successful or the reverse; and that he was unable to give the particulars of the successful cases, inasmuch as he had no authority under the Act to compel the persons revaccinated to appear again for inspection. The court ruled that the statement of claim should be amended, so that the question of law might be raised on demurrer; but we believe that Dr. Duncan is incorrect in thinking that he is entitled to fees in revaccination cases where the operation is not successful: the reverse, if we mistake not, having been promulgated by the Local Government Board in a recent application of a similar kind.

PORK POISONING AT WELBECK: DESCRIPTION OF A NEW INFECTIVE ORGANISM IN HAMS.

AN official report by Dr. Ballard, Medical Inspector of the Local Government Board, on the remarkable outbreak of diarrhœal illness that occurred amongst the persons attending the sale at Welbeck Abbey, in June of last year, has just been issued by the Local Government Board. It proves to be a document of singular interest and importance, full of suggestion for future observers. It may be remembered that, at the death of the late Duke of Portland, there was an extensive sale of timber and machinery on his Welbeck estate. Partly for business, and partly to see a remarkable place, people from all parts of Nottinghamshire, and from Yorkshire, Lincolnshire, and Derbyshire, as well as from Bedfordshire, and probably even more distant localities, flocked to Welbeck in such numbers, that, on two days, it was estimated that from fifteen hundred to two thousand persons were present. For the accommodation of the visitors, refreshments were provided on the spot, and many persons partook of them. Of those who thus partook, a large number, residing over a very wide area, were subsequently taken ill, some slightly and some severely, and two of those attacked died. Some fragments of the food supplied at the sale were, moreover, taken away and distributed to five poor families; and members of these who had not been at the sale, were similarly attacked by illness, and two of them died. This in itself was tolerably strong proof that the outbreak was due to some article of food; and Dr. Ballard, by an exhaustive process of exclusion of other things, reduces this proof to a logical certainty, and shows that the disease must have been caused, in some way or other, by the ham consumed at the sale.

The number of persons attacked was ascertained to have been at least seventy-two, and there were assurances of similar illnesses having occurred in a considerable number of other persons who had taken refreshments at the sale—so that it is certain that these seventy-two were by no means all that suffered. Only seven of this number were females; the explanation being that the women who journeyed to the sale went for pleasure (usually in parties of several together), and in many instances took their own refreshments with them. The solid refreshments sold at Welbeck were mostly eaten by the men. All the seventy-two persons had partaken either of a meat luncheon or of sandwiches; forty-two of them had eaten luncheons, and thirty had eaten sandwiches—mostly only one sandwich. Of twenty-two persons who had not suffered after the refreshments, eleven had eaten luncheon and eleven only sandwiches. From these circumstances, especially taken in conjunction with the fact, that, on the whole, the number of persons who merely took a sandwich was far larger than the number who took lunch, the inference may be drawn that a larger (probably a much larger) proportion of those who ate largely of the provisions suffered subsequently than of those who ate sparingly.

The symptoms of the illness were sufficiently remarkable to merit particular notice. Dr. Ballard speaks of the attacks under the name of "diarrhœal illness", because diarrhœa was the most constant of all the symptoms observed; and the other symptoms were in some respects so peculiar, that he was indisposed to give to the disease any name otherwise generally recognised. As might have been anticipated, there were varieties in severity among the cases investigated; and symptoms strongly marked in some were slightly marked, or altogether wanting, in others. A period of incubation, usually from twelve to thirty-six hours, preceded the illness. In many cases, the first definite symptoms occurred suddenly and unexpectedly; but, in some cases, there were observed during the incubation more or less feeling of languor and ill health, loss of appetite, nausea, or fugitive griping pains in the belly. However the attack might have commenced, it was usually not long before pain in the abdomen, diarrhœa, and vomiting came on; diarrhœa being of more certain occurrence than vomiting. The pain was usually very severe, quickly producing prostration or faintness, with cold sweats. The diarrhœal discharges were in some cases quite unrestrainable, and were said to have been exceedingly offensive, and usually of a dark colour. Muscular weakness was an early and very remarkable symptom in nearly all cases. Headache, sometimes severe, was a common and early symptom; and in most cases there was thirst, often intense and most distressing. The tongue was described usually as thickly coated with a brown velvety fur, but red at the tip and edges. In the early stage, the skin was often cold to the touch; but afterwards some fever set in, the temperature rising in some cases to 101°, 103°, and 104°. The pulse in the height of the illness became quick, counting in some cases 100 to 128. In fatal cases, death was preceded by a collapse like that of cholera, and the debility of convalescence was, in nearly all cases, protracted to several weeks.

The facts adduced by the inquiry all tended to show that it was the ham consumed at the sale that had caused the mischief. Both the appearance and the flavour of the ham were a good deal complained of by those who partook of it. But as to the exact manner of its becoming invested with injurious qualities, no direct evidence was procurable. Dr. Ballard, therefore, set about a number of experiments, which had a very remarkable and unlooked-for result. He obtained the residue of a ham that had been used at the sale, and suspended half of this in the partially open manhole of a sewer on the Welbeck premises that had been suspected of causing the mischief. This, with the other half and part of an uncooked ham from the same consignment, a piece of the kidney of one of the fatal cases, and some other matters, were sent to Dr. Klein for microscopical examination and experiment. The results of these investigations were to establish the absence of trichinæ in the ham, which had been suspected by some of the medical attendants of the cases; but to demonstrate the presence in all three portions of ham—the raw ham and the cooked ham, both that which had been and that which had not been exposed to sewer-air—of a species of bacillus, with sporules of the same; the bacillus-threads and sporules being in connection with the muscular fibre and in the intermuscular tissue (Fig. 1). Bacillus-material from the raw ham

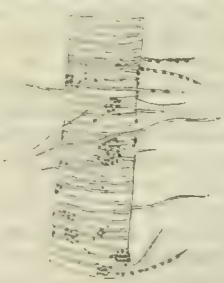


Fig. 1.—Isolated muscle-fibre of ham, with sporules and bacilli on its surface.

and from that portion of the cooked ham which had not been exposed to the sewer-air, was successfully cultivated in the incubator. Experiments upon animals, by feeding or inoculation, were made both with material from the hams and with the cultivated material. Those made with the portion of ham exposed to the sewer-air produced only negative results; but those made with the raw ham, and with the portion of cooked ham not so exposed, produced in all but a few instances positive and remarkable results—viz., disease in the animals experimented on. The morbid condition produced in the animals, and found on *post mortem* examination, was most uniformly pneumonia (in one instance, with pleuritis) or pulmonary hyperæmia. In the case of two dogs fed and inoculated with the cooked ham, and killed on the eighth day, evidence was found after death of severe desquamative hyperæmia or inflammation of the stomach and intestines, the contents of which contained bacilli and a few pus-corpuscles. In the kidney of one of the persons who had died of the disease were discovered evidences of parenchymatous inflammation; and the afferent arterioles and capillaries of

the Malpighian corpuscles were found plugged with emboli formed of masses of bacilli (Figs. 2 and 3).

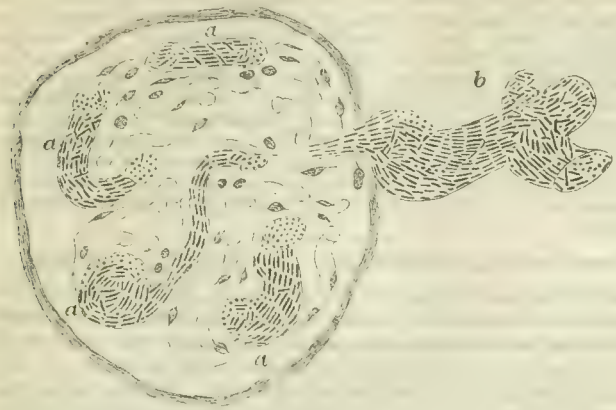


Fig. 2.—A Malpighian corpuscle of the kidney. *a*. Some of the capillaries of the glomerulus filled with, and distended by bacilli. *b*. The afferent vessel plugged by bacilli. The bacilli are viewed endwise and sideways. They are much more numerous in the vessels than is shown in the drawing.



Fig. 3.—Part of an arteriole plugged by bacilli.

In these observations and experiments Dr. Ballard finds a clue to the origin of the outbreak, which the ordinary methods of inquiry failed to furnish. In two hams taken indiscriminately out of the same consignment, there was found a living parasitic body, capable of spreading by its growth and reproduction through the material in which it was found, and capable of producing disease in animals into whose system it was introduced; capable also of growth and reproduction within the system of these animals. Taking into consideration the fact that a number of persons who ate of ham of the same consignment suffered from disease induced by such eating, and the further fact that, in the kidney of one of them, large numbers of bacilli (similar to those found in the hams experimented with) were found, it appears reasonable to infer that some of the hams of that consignment were similarly affected with the parasite; and that either the parasite itself, or some virus essentially associated with it, was the active agent in the production of the diseased condition observed in the human subjects of the epidemic, and in the animals which were experimented on by Dr. Klein. Dr. Ballard accounts for the powerlessness of the ham exposed to sewer-air to produce specific injury to animals by the hypothesis of Dr. Klein (which is in harmony with the view that assigns to the bacilli an essential share in the production of the disease), that the progress of common decomposition may have destroyed the specifically harmful quality of the meat, without altering the microscopic characters of the bacilli. These questions of reinfection and of ultimate destruction of infection during one and another stage of decomposition are, as Dr. Ballard correctly observes, of the greatest interest in zymotic pathology; and the occurrences at Welbeck, as interpreted in his report, shed a flood of new and important light upon a subject as to which there is evidently very much more to be learned.

PORK POISONING AT NOTTINGHAM: DISCOVERY OF THE SAME ORGANISM AS IN THE OUTBREAK AT WELBECK.

THE following particulars of a recent outbreak of pork *poisoning* (or probably more correctly *infection*), which has taken place at Nottingham, have been communicated to us. They are of great interest in connection with the similar occurrence at Welbeck, and with the investigations abroad. It came to the knowledge of Dr. Seaton of Nottingham, last Wednesday week, that a man had died from what was termed choleraic diarrhœa, and that the cause of it was attributed to his having eaten pork; for his wife had suffered from the same symptoms, and his children, who did not partake of it, escaped. Dr. Seaton, from whom we have obtained these particulars, informs us that he made inquiries, and found that not only had this man and his wife suffered, but that fourteen other persons had been made ill in the same way after eating pork bought at the same time from the same shop, the symptoms bearing a striking resemblance to some of the Welbeck cases that he had also the opportunity of inquiring into. It was quite clear that the pork was the cause of the mischief in these cases; and, knowing the results of the investigations there to have shown a special bacterial infection, he urged the coroner, with whom he was already in communication, to defer the inquest, and to order a careful *post mortem* examination to be made. Dr. Seaton had the advantage of Dr. Ballard's presence at the *post mortem* examination, and he also obtained the further advantage of his guidance and assistance in the prosecution of subsequent inquiries. After the *post mortem* examination, Dr. Seaton took up some blood and portions of the internal organs, etc., to London, to Dr. Klein, of St. Bartholomew's Hospital, who has since found bacilli of the same appearance as those in the Welbeck case, figured in the report of which we publish an abstract above. Dr. Klein has obtained highly interesting results with the blood and viscera. The blood and the juice of the lung of this case caused severe pneumonia and death in guinea-pigs and mice. The blood and exudations of these animals also contained the bacilli. So far, then, the evidence points to identity between the micro-organism which appears to have caused death and disease through the pork here, and that which caused death and disease of a similar kind through the hams at Welbeck. The only coarse appearances noticeable *post mortem* were the condition of the blood, which was very fluid; the condition of the lungs, which were very remarkable; and the condition of the mesenteric glands, which were much swollen and congested, also softened in texture. The lungs were congested in appearance throughout. It was evidently not hypostatic congestion. They were markedly firm and fleshy to the feel. At the same time, they cut spongily, and not like hepatised lung. Frothy serum, in small quantities, exuded on squeezing. Portions of the lung-substance were thrown into water, and found to float. The symptoms in the fifteen cases that have come to his knowledge, and into which he has inquired, closely resemble those that presented themselves in the Welbeck cases. In every case, an incubation period preceded the illness, varying from twelve to twenty-four or thirty hours. Shivering and a feeling of faintness or giddiness ushered in the symptoms, which, in the severe cases, consisted of vomiting, purging (with most offensive discharges, described as "brown treacly" in appearance), convulsive movements of the muscles, and great prostration. All the cases were recovering when Dr. Seaton saw them; but one girl, who had suffered severely, and who at the onset had been removed to a country village eight miles off, Dr. Seaton visited. She was found to be still suffering from a dry cough, which throughout had been a prominent symptom. It is greatly to be regretted that Dr. Seaton did not get to know of the illness of this man, and that he had not an opportunity of seeing any of the other cases during the acute stage of their illness. Examination of the blood during life would probably afford strong confirmatory evidence of Dr. Klein's observations *post mortem*. But now that the official report of the Welbeck cases is published, practitioners will recognise this class of cases, and will be alive to their importance medically.

The question is, how this pork became specifically infected. It would be premature to say anything on this head at present; but, as far as the evidence goes, there is nothing to show that the pig was otherwise than apparently healthy. It was one of a number bought by a first-rate pork-butcher at Liverpool the previous Monday in the open market, and they are said to have come from Ireland. They were slaughtered on the Tuesday. The man at the cook's shop bought some legs of this pork for roasting and cutting up; and it is to one of these legs that the mischief is ascribed. But we are in the dark in the matter as yet; and Dr. Seaton told the jury at the inquest that the organisms may, for all we know, have been imported from some extraneous source. In his evidence at the inquest, Dr. Seaton appears to have made a great point of stating that, if exposed to a sufficiently high temperature, the vitality of these bacilli would be destroyed. He did not believe that, assuming the germs to have been in the meat before roasting, they could have survived the process of thorough roasting; and he had very good grounds for the opinion thus stated.

MANCHESTER MEDICAL SOCIETY.—The following gentlemen have been appointed officers of the Microscopical Section of the Manchester Medical Society for 1881. *President*, Dr. Dreschfeld; *Committee*, J. Broadbent, Esq., Dr. Bury, Dr. Leech, Dr. Dixon Mann, A. H. Young, Esq.; *Treasurer and Secretary*, Dr. Ashby.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE annual meeting of this Society was held at 53, Berners Street, on Tuesday, March 1st, at 8 P.M. The President, Mr. Erichsen, F.R.S., occupied the chair, and fifty-eight Fellows of the Society were present.

The Report of the President and Council was read by Mr. HOLMES, honorary secretary. It did not contain many matters of importance, beyond those relating to the financial condition of the Society. It gave an analysis of the contents of the balance-sheet. The funds of the Society were not in so prosperous a condition as usual, but the deficiency of about £70 was accounted for by extraordinary but necessary expenditure on a new skylight for the meeting-room, a new carpet for the same, and the payment of a septennial insurance of the library, which together exceeded the deficiency by about £21. The number of deaths among the Fellows had been eleven, which was fewer than usual. The number of new Fellows elected was twenty-four, which was above the average; and the number of subscriptions received in the year exceeded those of the previous account by four. The library had been increased by 485 works, of which 218 were foreign, and 267 English; 276 of these having been presented, and 209 purchased by the Society; and several gifts of old books by Dr. Newton Heale, of Winchester, Mr. Hulke, Dr. Aveling, and Mr. John Couper were mentioned, as also some scarce portraits by Mr. John Marshall.

At the conclusion of the report its adoption was moved by Dr. CHOLMELEY, seconded by Mr. COWELL, and carried *nem. con.*

President's Address.—The PRESIDENT said that the professional and scientific condition of the Society was satisfactory. The number of Fellows was above the average; the papers read had been numerous and interesting; the new volume of *Transactions* would bear comparison with any of its predecessors; and the library promised to become one of the most important institutions of the kind connected with the medical profession. A further proof of the interest taken in the Society was the fact that office in it was regarded as one of the highest of professional distinctions. He could not, however, but think that the sphere of the Society's activity might be increased with benefit. It would, he thought, be advantageous to have an institution for the discussion of all great questions—apart from political and social subject—connected with medicine and surgery, and which the Government could consult on important matters, which were now decided by individuals, often on grounds of faith rather than of observation. The material for such an institution existed in the Society; and it had, indeed, to some extent entered on the course pursued in the practices of committees to investigate certain subjects. The relation of the Society to kindred societies demanded serious consideration. Could not unity of action and organisation between the Society and the others which met in the same room be brought about, in such a way as to economise the time and expense of all? As many knew, the subject was discussed in 1869, and an elaborate scheme was drawn up, which proposed the formation of a Royal Society of Medicine, with various sections. For reasons, however, which probably had by this time lost much force, the scheme then failed. The financial state of the Society required serious attention. The ordinary increase was sufficient for the ordinary expenditure, but was inadequate to meet any great strain. He suggested that payment of a moderate annual subscription might be required from non-resident Fellows of the Society elected in future. The remainder of the address was devoted to obituary notices and tributes to the memory of the Fellows of the Society who had died during the year. They comprised the names of Thomas Bell, F.R.S., Dental Surgeon, and Professor of Zoology at King's College (late of Selborne, Hants); Dr. John Deakin Heaton, Senior Physician to the Leeds General Infirmary; Dr. William Sharpey, F.R.S., late Professor of Anatomy and Physiology at University College, and Secretary of the Royal Society (to whose memory his tribute of praise was warm, and highly appreciative of the excellence of his character and talents); Dr. Daniel Whitaker Cohen, of Bideford, Devon; Dr. William O'Connor, Senior Physician to the Royal Free Hospital; Mr. Edward Amphlett, Assistant-Surgeon to Charing Cross Hospital; Dr. E. I. Sparks, late Physician for Skin-Diseases to Charing Cross Hospital; Dr. J. Pearson Irvine, M.D., Assistant-Physician to Charing Cross Hospital; Dr. Edward Goodeve, Surgeon-Major of H.M.'s Bengal Army, and Honorary Physician to the Queen; Dr. George Moore, of Hastings; and lastly, Sir Benjamin Collins Brodie, M.A., Bart., late Professor of Chemistry at Oxford, and an Honorary Fellow of the Society.

At the conclusion of the address, a vote of thanks to the retiring president for the able and efficient manner in which he had presided over the meetings and affairs of the Society, and for his excellent address, was moved by Mr. SPENCER WELLS, seconded by Mr. PICKERING PICK, and carried, with great applause. A vote of thanks to the retiring Vice-Presidents, Dr. Radcliffe, Mr. B. Holt, and Mr. John Birkett, and to the other retiring Members of Council, Dr. Langdon Down, Dr. S. Fenwick, Dr. John Harley, Dr. George Roper, and Mr. Christopher Heath, was moved by Mr. MACNAMARA, seconded by Dr. WHIPHAM, and carried unanimously; and one to the retiring officers of the Society, Dr. Wegg, treasurer; Mr. T. Holmes, secretary; and Dr. George Johnson, librarian, was proposed by Dr. SILVER, seconded by Mr. BERKELEY HILL, and carried with applause. —Mr. HOLMES thanked the Society in the name of the officers.

Officers and Council.—The proposed officers and council, whose names were given at page 312 of last week's JOURNAL, were declared elected.

THE ROYAL COMMISSION ON MEDICAL REFORM.

MR. MUNDELLA, in reply to a question put by Mr. Errington in the House of Commons on Tuesday evening, confirmed the statement which had been current for some weeks, that it is not the intention of the Government to reappoint a Select Committee of the House of Commons to complete the inquiry on medical reform. No one, we are disposed to believe, regrets this more than Mr. Mundella himself. If he had consulted his own views of what was advisable in the case, we believe that a Select Committee would have been reappointed. Several members of the House of Commons had been asked whether they were willing to act, and had given affirmative replies; and the general opinion in the House of Commons, among those members best qualified to judge, is, we have reason to know, in favour of the reappointment of such a Committee, with the view of completing the inquiry on which so much labour has been spent by two successive Select Committees, and of utilising in this way the evidence which has been given at the cost of time and labour by many persons. There are few precedents for thus cutting short an inquiry which had already nearly approached its conclusion, undertaken by two successive Committees at the request of the Government; and we repeat the conviction that the present course has been taken under pressure from persons who are opposed to direct representation, and who foresaw that the reappointment of a Select Committee would inevitably end in the recommendation by the Committee of the House of Commons of the adoption of direct representation as a necessary part of any scheme of medical reform. We express only an opinion which is very prevalent in the profession and in the House of Commons, that, in this matter, the Lord President of the Privy Council, Earl Spencer, is unconsciously acting under influences hostile to the general wish of the profession; and that he is misled by advisers who, however prominent in official position and earnest in the views they entertain, are not the friends of medical reform. That a Royal Commission appointed under such circumstances, and under such influences, will lead to any really satisfactory result, may be a matter of hope; but such hopes cannot at the present moment be considered either to be very bright or well-founded. The responsibility will rest with the Lord President and his advisers. The composition of the Royal Commission will certainly be narrowly scanned. It is well known that there are certain eminent political persons connected with the University of London and other similar bodies, who are supposed to be already strongly prepossessed against direct representation, and under the influence of medical persons hostile to this branch of reform, whose names are freely mentioned as being likely members of such a Royal Commission. Nominees of the Government are, under such circumstances, only too apt to reflect official prepossessions; but it is a rule, which, we doubt not, will be observed as far as imperfect information may allow, to make up the composition of such a Commission in such a manner that, if any one party are allowed to influence its composition, at least equal weight shall be given to the views of the profession at large, and of their elected representatives, in this matter. We trust, therefore, that the Lord President will see fit to consult in some measure, at the least, the great professional bodies who represent the masses of the profession in the matter; and that he will not be influenced exclusively or mainly by the personal representation of a few medical men who may have the advantage of more familiar and easy personal access to him. If this question is to be settled, it can only be settled on a generous, unprejudiced, and liberal inquiry. There is something even worse than democratic influences involving such a question. There are prejudice, officialism, and a narrow pride of place and love of power. These are influences against which the Liberal Ministry and the Liberal Government should, in dealing with the interests of a great profession, be carefully on their guard.

THE DENTISTS' ACT.

On Wednesday, January 26th, Mr. W. A. N. Cattlin, F.R.C.S., delivered an address before the Association of Surgeons Practising Dental Surgery, the subject being "The Imperfections of the Dentists' Act, with Suggestions for Protecting the Rights of Qualified Surgeons". The general election had checked all Parliamentary business with regard to three Medical Amendment Bills; in the meantime, medical reform had been much discussed in the medical journals, which had declared themselves, on the whole, in favour of the principles advocated by the Association of Surgeons Practising Dental Surgery. The whole profession might now calmly declare their opinion as to whether the new dental scheme did, or did not, trench on established rights; and whether licenses to practise special branches of medicine and surgery should still be granted to persons who were not sufficiently educated to entitle them to be placed on the *Medical Register*.

Mr. Cattlin reviewed at some length the existing Medical Act, and the nature and duties of the General Medical Council, which lacked thoroughly independent members, excepting the six nominated by the Crown. He strongly advocated the addition of six members to represent general practitioners. The Executive Committee of the Council were not in favour of this scheme, which was strongly advocated by the Reform Committee of the British Medical Association. Mr. Cattlin believed "that direct representation, in some form or other, cannot any longer be resisted. If the number of the members of the Medical Council be allowed to remain the same as it now is, and six members be taken from the corporations and given to support the interests of general practitioners, the Council might then be said fairly to represent all parties. The six members representing the whole body of the profession might be elected by direct representation every five years, each registered person having one vote. Frequent elections might be prevented by the whole Council having power to fill up any vacancy which might occur in the ranks of those representing the profession, until the time for a general election arrived again".

The penal clauses of the Medical Act should be enforced by some public prosecutor, it being beneath the dignity of the Medical Council, and contrary to the interests of private individuals, to undertake such work.

The dispute concerning the Dentists' Act had not been conducted in a satisfactory manner. Mr. Cattlin strongly disapproved of the dental licence granted by charter to the Royal College of Surgeons, in 1859; he objected still more to the *Dentists' Register*, "which the public may easily mistake for the *Medical Register*", and which "completely divorces that branch of surgery from the whole science. These are the wrongs of which we, as members of the College, complain". The *Register* is crowded with the names of ignorant pretenders, who have declared "that they were in practice as *bonâ fide* dentists when the Act became law". But, since there is no legal definition of the term "'*bonâ fide*' dentist", Mr. Cattlin foresaw difficulties in the way of expunging the names of such pretenders—a work then about to be attempted by the General Medical Council, at a meeting which has since been held, with what results we know only too well.

Mr. Cattlin commended the principles of the Oral Society of Boston, U.S., which consists of dentists, who must also be qualified medical practitioners, and who object to any special degree. The evils of a "special" or partial education are evident in any branch of medicine.

"The surprising effects which may result from even slight pressure or irritation of a very small branch of our complicated nervous system (producing serious disturbance in remote parts) can only be traced and understood by those who have a full and intelligent knowledge of its functions. The discoveries of Dr. Brown-Séquard have shown how necessary this knowledge is to the practice of dental surgery. What half-educated anatomist could trace the cause of deafness to irritation of the nerve of a tooth, unless he understood the great theory of reflex paralysis? And there are numerous complicated symptoms arising from diseased teeth (sometimes coupled with functional disturbance affecting the general health) which can only be skilfully treated by one who has a minute knowledge of all the resources of medical art.

"It is natural that some persons, after they have obtained a full knowledge of their profession, attested by diploma, should prefer to give special attention to some branch for which they have a particular choice or aptitude; and to this there can be no sort of objection, but a *special licence is not required*. The public are quick to discover and avail themselves of superior abilities, if they be made known to them, in the usual way, by published works."

Concerning the difficulties which the qualified surgeon encounters when he attempts dentistry as a speciality, Mr. Cattlin remarked, that special practice in delicate manipulations is as necessary in ophthalmic surgery and other branches as in dentistry; such manipulations often depend purely upon individual dexterity. "Gold-stopping is perhaps the only dental operation which requires considerable practice; but the necessity for the use of that particular metal has been greatly exaggerated.....It is trifling with common sense to deny that all the other operations in dental surgery can be well performed by the surgeon after a moderate term of experience.....It is a monstrous fact (that no longer should be tolerated) that, before the student is allowed to pursue his studies at the Dental Hospital of London, he is required to give a written undertaking that it is his intention to take out the dental licence."

The Association of Surgeons practising Dental Surgery should endeavour to convince its opponents that it holds its opinions solely because it believes them to be right; and, whilst showing polite deference for the opinions of others, should not give in and do what it believes to be wrong from dread of defeat or love of popularity. It should endeavour to obtain an amendment of the Dentists' Act preventing unqualified practitioners from being allowed to receive the dental licence, or to call themselves "*surgeon*-dentists", or, still worse, "surgeons"; and, purging the *Dentists' Register*, making it conspicuously dental. In justice to those who have already taken the dental licence alone, the way should be made specially easy for them to acquire the diploma of member. Mr. Cattlin regretted that the talented leader of the "triumphant majority" of dentists should have spoken of the Association as a society of "hysterical timid ladies", because it differs from him in opinion; but refused to recriminate, ending his address with a well-known quotation from Burns's "Address to the Unco' Guid".

HEALTH OF COLONIAL AND FOREIGN CITIES.

A summary of the weekly returns of the Registrar-General shows that the average annual death-rate during the fourth or autumn quarter of 1880 in twenty-nine colonial and foreign cities, having an aggregate population of nearly thirteen millions of persons was equal to 26.4 per 1,000. In the twenty European cities the average rate was 26.2 per 1,000, against 21.5 in twenty of theEnglish towns. The lowest death-rates in the twenty-nine colonial and foreign cities were 17.7 in Cincinnati, 18.8 in Philadelphia, 19.0 in Christiania, and 19.3 in Geneva; whereas the rate was equal to 36.1 in Madras, 37.5 in St. Petersburg, and 48.6 in Alexandria. The deaths from small-pox in Paris and St. Petersburg showed a further decline from the numbers returned in recent quarters; in Rome, however, no less than 331 deaths resulted from this disease, against 39 and 176 in the two preceding quarters. Small-pox also became severely epidemic in Philadelphia towards the end of the year, and caused 317 deaths during the quarter. Diphtheria showed increased prevalence in Berlin, Vienna, and Brooklyn; in the last-mentioned city no less than 575 deaths were referred to this disease, against but 193 in the previous quarter. The fatality of typhoid fever in Paris showed a further increase upon that which prevailed in the preceding quarter; 446 deaths resulted from this disease during the last three months of the year, equal to an annual rate of 0.90 per 1,000. whereas in London the death-rate from typhoid fever during the same period did not exceed 0.21 per 1,000. To diphtheria and croup 498 deaths were referred in Paris, which almost corresponded with the number in the previous quarter; the fatality of measles, and scarlet fever, however, showed a marked decline. Scarlet fever showed increased prevalence in Berlin, Stockholm, and Philadelphia. To diarrhœal diseases 842 deaths were referred in Paris, 1,003 in St. Petersburg, and 441 in Berlin.

THE TRICHINOSIS SCARE IN PARIS.

A correspondent writes to us from Paris:

I send you some details concerning the prohibition to import American pork into France which may, perhaps, interest you.

M. Leclerc, of Lyons, last December discovered that the pork sent from America was trichinous. This he made known to the Paris Prefect of Police, who immediately issued an order directing the meat-inspectors to examine all meat imported from America, on its arrival at our railway stations. Simultaneously with this order issued by the prefect, samples of meat sold by the pork-butchers here were examined at the laboratory of the corporation of Paris. These two methods of inspection were followed by the detection of an immense quantity of trichinous pork. The Prefect of Police immediately drew up a report on the subject, and forwarded it to the Minister of Public Affairs, who lost no time in issuing a circular warning the Parisian public of the danger lurking beneath the frills and bread-crumbs which here coquettishly dress up the "unclean animal". This step was not considered sufficiently energetic to stem the torrent of the invasion of American trichinous pork, which had not only arrived in greater abundance, but was more and more infected with trichinæ. There-

fore, the Minister of Public Affairs (de l'Interieur) followed the advice of the Conseil d'Hygiène, and adopted the summary method of prohibiting *in toto* the importation of American pork. About three weeks ago a considerable quantity of it was stored at the depôt of one of our railway-stations, awaiting its examination by our meat-inspectors. The pork-butchers of Paris, impatient at the delay, surreptitiously took possession of the meat, and conveyed it into Paris, passing through a gate where there was not an inspector armed with that terrible instrument, a microscope. One of the butchers thus inculpated has been arrested, and will soon be up for trial.

The Prefect of Police has issued an order decreeing that inspectors attached to the municipal laboratory of Paris are to examine the pork stored at the pork-depôts. A considerable quantity has in consequence been seized. A whole barrel of pork is destroyed, if a single joint in it is trichinous. This takes place at the Animal Charcoal Works, in the presence of officials. Happily, the threatened danger has not been followed by positive evil results. No case of trichinous infection has been detected among the population of Paris, but it remains an open question whether the affection engendered by this parasite has not been diagnosed as typhoid fever.

The excitement of the Paris population is intense and widespread, reaching all classes. The despair of the Parisian pork-butcher is in proportion, and his desertion is complete.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.—The next meeting of the above will be held on Thursday, March 10th, 1881, at the Queen's Hotel, Upper Norwood, S.E., at 4 P.M.; John H. Galton, M.D., in the chair. The following communications have been promised. 1. Dr. J. H. Galton: Note upon a Symptom of Impacted Gall-stone; 2. Dr. J. Wickham Legg: The early Symptoms and Treatment of Cirrhosis of the Liver; 3. Dr. W. A. Duncan: On the Value of Early and Repeated Tapping in the Ascites due to Cirrhosis of the Liver; 4. Dr. J. H. Stowers: Observations on Infantile Eczema. Dinner will be provided at 6 P.M. precisely; charge, 7s., exclusive of wine.—J. HERBERT STOWERS, M.D., Honorary Secretary, 23, Finsbury Circus, E.C.

WEST SOMERSET BRANCH.—The spring meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, March 17th, at 4 o'clock. The ordinary business and papers or cases will be taken before, and the question after, dinner. Dinner (3s. a head, exclusive of wine) will be served at 5.30 punctually. The question as settled by the Council for the meeting to discuss is: The Treatment of Neuralgia. Members having communications to bring before the meeting are requested to send notice of the titles on or before the 10th March.—W. M. KELLY, M.D., Honorary Secretary.—Taunton, February 16th.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting of this District will be held on Thursday, March 17th, at the Harp Hotel, Dover, at 3 P.M.; Ashby G. Osborn, Esq., in the chair. Dr. Parsons will move: "That, in future, the Honorary Secretary be relieved of the duty of providing wine at the dinners at the common cost, and every member be at liberty to provide wine for himself at his own charges." The following papers have been promised: 1. Mr. Garraway: Notions begotten of Attendance upon Two Thousand Labours. 2. Dr. T. Eastes: On Embolism. 3. Dr. Bowles: On Phlebitis. 4. Dr. Tyson: A Case, with Remarks on Treatment. Dinner will be provided at 5 P.M.; charge 6s. 6d., exclusive of wine.—T. WHITEHEAD REID, Honorary Secretary, 34, St. George's Place, Canterbury.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.—The next meeting will be held in the Board-room of the Lambeth Infirmary, Pleasant Place, S.E. (near Elephant and Castle), on Wednesday, March 9th, at 3 P.M.; Dr. J. W. J. Oswald in the chair, when the following business will be transacted. 1. A paper on The Diagnosis of the Fatty Heart, by J. Milner Fothergill, M.B. 2. Several cases of interest will be shown by Robert H. Lloyd, M.D. 3. A case of Spinal Curvature to which a Cocking's Paroplastic Jacket has been applied, and the mode of re application, will be shown. 4. Election of Secretary.—H. NELSON HARDY, Honorary Secretary.—The Grove, Dulwich, March 2nd, 1881.

SOUTHERN BRANCH: SOUTHAMPTON DISTRICT.—The next meeting of the District will be held at Dr. Trend's, Anglesea Place, Southampton, on Thursday, March 10th, at 3 P.M., when a paper entitled "Recollections: Service and Professional" will be read by Surgeon-Major Badeau, M.D.—THEOPH. W. TREND, Honorary Secretary.—March 1st, 1881.

SOUTH-EASTERN BRANCH: WEST SURREY DISTRICT.—The next meeting of the above will be held on Thursday, March 24th, at the County Hospital, Guildford, at 3.45 P.M.; Dr. Morton in the chair. The following communications have been promised: 1. Mr. W. Rose: On the Treatment of Fractures of the Patella and Knock-Knee by Operation. 2. Mr. Henry Taylor: Death from Gall-stones. 3. Mr. Butler: A Case of Compression of the Brain from Centre Comp. 4. Mr. Rosome: A Case of Cerebral Rheumatism. 5. Mr. C. J. Sells: A Case of Addison's Disease. Dinner will be provided at 6 P.M. precisely, at the White Lion Hotel; price 5s., exclusive of wine.—A. ARTHUR NAPPER, Honorary Secretary, Broad Oak, Cranleigh.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.—The sixth ordinary meeting of the session will be held in the Medical Institute, New Edmund Street, Birmingham, on Thursday, the 10th instant. The chair will be taken by the President, Mr. R. Prosser, at 3 P.M. Business: To ballot for the ten members of the Association for their election as members of the Branch. To receive reports of the Council: 1. On the Mode of Election of Officers, Council, and Representatives of the Branch in the General Council of the Association. 2. On the Resolution passed at the Ordinary Meeting of February 10th, relative to the Skin and Lock Hospital. To receive nominations for officers, Council, and representatives of the Branch in the General Council of the Association, for the ensuing year. Papers: Adjourned discussion on Mr. Bartleet's paper on Antiseptic Osteotomy. Dr. Savage: A series of twenty-five successful Oophorectomies. Dr. Chavasse: Case of Injury to the Cervical Sympathetic Trunk in removing Sarcoma. Members are invited to exhibit patients, pathological specimens, new drugs, instruments, or appliances, at the commencement of the meeting.—E. Malins, M.B., 8, Old Square; E. Rickards, M.B., 14, Newhall Street, Honorary Secretaries.—March 2nd, 1881.

CORRESPONDENCE.

THE DENTISTS AND THE COUNCIL.

SIR,—Owing to a partial examination and quotation of the Minutes of the Medical Council, the article under the above heading in last Saturday's JOURNAL attaches unmerited blame to Sir John Lubbock, the dentists, myself, and our legal advisers. In justification of the accused, I must beg you will allow me to extract the quotations from the Council's Minutes.

Antecedent to Dr. Quain's motion (printed in the article) to the effect that the Dentists' Bill should be made conformable with the dental section of the Government Medical Bill, the Council had passed the following resolution respecting the clause, for the omission of which in the Dentists' Act we are blamed.

"Moved by Dr. Rolleston, seconded by Mr. Bradford, and agreed to: 'That it is not desirable that the Medical Council should be required to undertake to originate a new scheme of examination rules——Section (1) of Clause 23—but that it should be entrusted with some such supervisory power as regards the educational details from time to time proposed by the medical authorities authorised in the Duke of Richmond's Bill as it already exercises with regard to other examinations.'" (Minutes of Medical Council, April 13th, 1878.)

When the Medical Bill reappeared before the Council in July, the dental section remained, but, having become a dead letter, was not rediscussed. The clause objected to in April had in the interval received an addition whereby other bodies or persons might propose "schemes" for the consideration of the Council; but all questions relating to registration were governed by Clause (6) of the section, and put beyond the reach of "schemes". The following extract from the Council's Minutes shows that the Government had determined to withdraw the dental section from the Medical, and to embody its provisions in the Dentists' Bill. In fact, the amendments necessary to its embodiment had been prepared by the Government draftsman before the Dentists' Bill passed through Committee in the Commons; and the Bill passed with the understanding that the amendments referred to by Lord Sandon on the second reading should be introduced in the Lords.

"July 1st, 1878.

"In answer to a question from Dr. Quain, the President stated, in reference to the Dental Bill, which had reached an advanced stage in the House of Lords, that it was the intention of the Lord President to propose such amendments as would render the Bill similar to the Clauses contained in the Bill introduced by His Grace, should that Bill not become law."

There was also read the following letter.

"Office of the Parliamentary Counsel; 18, Queen Anne's Gate,
"Westminster; July 1st, 1878.

"Dear Dr. Acland,—The amendments which are about to be made in the Dental Practitioners' Bill in the House of Lords are proposed by the Government for the purpose of bringing the Bill into conformity with the Government Medical Bill, so as to place the dentists in the same position as they would be in if the Government Bill passed with the Dentists' Clause in it, the principles of which have been approved by the General Medical Council.

"The chief points of the amendments are as follows.

"Penalties are imposed on a person taking a title he does not possess.

"The right of prosecution for taking the name of Dentist is restricted in the same manner as in the Medical Bill.

"A provision for the registration of colonial and foreign practitioners similar to that in the Medical Bill is inserted.

"The system of registration with local registrars as well as a central registrar, and the provisions for erasing a name from, and restoring a name to, the register, are assimilated to those of the Medical Bill.

"Power is given to the Privy Council, on the representation of the Medical Council, to prohibit an authority requiring the adoption of any particular theory.

"Provision is made for the examinations being under a joint board when established.

"Words respecting the application of the fees for public purposes, museums, etc., similar to those in the Medical Bill, are inserted.

(Signed) "H. JENKYNS."

Dr. Quain's motion was, therefore, superfluous; moreover, it was proposed just before the meeting of Council broke up, on the afternoon of the day on which the Dentists' Bill had passed through Committee. On the following day, it passed the Lords; having lost two and a half of its original ten pages and gained eight and a half by amendments, making its present complement of sixteen pages.

I need not go further to show that the accused cannot be held responsible for the alleged faulty registration clauses. I say alleged, because their inadequacy has not been determined by a court of law, but rests only on an opinion which is traversed by an opinion previously obtained by the British Dental Association. In respect to additional qualifications discussed in the article, it has been determined that medical qualifications, merely as such, are not registrable in the *Dentists' Register;* but whether a diploma given by a medical authority, when taken as an addition to a dental qualification, expresses or implies a degree of knowledge available in the practice of dental surgery higher than is expressed by the licentiateship held singly, can be determined only by a careful examination and comparison of the curricula, and examinations necessary to the acquisition of each qualification; and this has yet to be done. If it can be shown that the conjoint diplomas do express a higher knowledge than the licentiateship held singly, the right to the entry of the additional qualification will, as it appears to me, be established. That the added diploma gives other than dental rights, or that it would, when held singly, be incapable of registration in the *Dentists' Register*, does not, I think, affect the question.—I am, etc.,

Caterham, February 28th, 1881. JOHN TOMES.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Tuesday, March 1st.

Medical Relief in Scotland.—Captain MAXWELL-HERON asked the Secretary to the Treasury whether, in framing the estimates for the ensuing year, the Government had taken into consideration the advisability of granting to Scotland an amount of medical relief in proportion to that given to the rest of the United Kingdom.—Lord F. CAVENDISH said that Mr. Gladstone stated last year, in reply to a question from Dr. Cameron, that the Government was considering the subject of grants-in-aid at large with the view of devising, if possible, some better method of regulating the appropriation of public money for local purposes. It was impossible, in the present state of public business, to undertake that this subject should be dealt with in the present session; but the first opportunity for dealing with the question in Scotland would be sought. In the meantime, it had not been considered advisable to insert an additional sum in the estimates for medical relief.

Vaccination.—In reply to Mr. HOPWOOD, Mr. DODSON said that it was quite true that a practice of vaccinating children in the first week after birth had been adopted in some workhouses, and in some individual cases the operation had been performed earlier than the completion of the first half of the week; but, in the circular recently issued by the Local Government Board, it was pointed out that the children might, as a rule, be vaccinated when six days old, so that the result could be ascertained on the thirteenth day, and before the mothers left the workhouse, which was often at a very early period. If these children were not vaccinated in the workhouse, they would probably not be vaccinated at all. No complaints had reached him with regard to these early vaccinations. In many cases, the free consent of the mothers to the vaccination of the children had been specifically obtained. In others, where it had not been so asked for, acquiescence in the absence of objection had been assumed; but he was not aware of any instance where a child had been vaccinated after the refusal of the mother.

Small-pox and Revaccination.—In reply to Mr. FIRTH, Mr. DODSON said there was no doubt that, owing to the increase of small-pox in Western London, many persons were being revaccinated. It was very desirable that persons should be revaccinated; but it would have been much better if, instead of waiting for an epidemic of this kind, as had been done in too many instances, they had been revaccinated at the age at which the Board recommended it to be done. With regard to the supply of lymph, it must be borne in mind that the national vaccine establishments only undertook to supply stock, and did not supply lymph for the vaccination of every individual. He did not find, however, that any registered practitioner who had applied for lymph had yet been refused. Arrangements were in progress for providing a supply of calf-vaccine, but considerable difficulties had been experienced in organising the necessary establishment. He trusted, however, that these difficulties would shortly be surmounted.

Scotch Medical Distinctions.—Sir T. LAWRENCE asked the Vice-President of the Council whether he was aware that the highest qualification of the Royal College of Surgeons of Edinburgh—namely, the Fellowship, was to be had without examination, and even *in absentiâ*, by persons holding lower qualifications, on payment, and by a process of vote by ballot; whether he was aware that the highest qualification of the other two Scottish medical corporations—namely, the Royal College of Physicians, Edinburgh, and the Faculty of Physicians and Surgeons, Glasgow—was given on similar terms; and whether such a system had ever been the subject of representation or remonstrance by the General Medical Council.—Mr. MUNDELLA: I have reason to believe that as regards the Royal College of Surgeons of Edinburgh the Fellowship can be obtained by persons who are already members of the Colleges of Surgeons of England, Scotland, or Ireland, on the terms stated; but I understand the Fellowship is not a licence or qualification to practice, but is a distinction conferred by a three-fourths' vote of the college. As regards the Faculty of Physicians and Surgeons of Glasgow and the College of Physicians of Edinburgh, I have, as yet, been unable to obtain certain information. As regards the Medical Council, I understand that the question of the so-called "higher titles" was discussed by the Council in the year 1859, and it was then decided "that the General Medical Council were of opinion that for the future no licence or degree should be given by any of the bodies in Schedule A of the Medical Act without examination". And in the year 1870 the subject was again brought forward with reference to Clause 16 of Lord Ripon's Medical Act Amendment Bill; but, in consequence of the withdrawal of that Bill, and pending further legislation, the subject has not at present been renewed. The question of these higher titles will form part of the inquiry into the working of the Medical Acts which the Government propose to institute.

MILITARY AND NAVAL MEDICAL SERVICES.

THE MEDICAL OFFICERS AT KANDAHAR.

A correspondent has forwarded to us a copy of a letter from Major-General Phayre, C.B., Commanding Lines of Communication, bearing testimony to the services rendered by the Officers of the Medical Department, doing duty with the Second Division, Field Force, Kandahar. We publish it with pleasure, although we regret it did not form part of the despatch by that General, which has been already commented on by one of our contemporaries.

"*From Major-General Phayre, C.B., Commanding Lines of Communication, to the Adjutant-General in India, Calcutta.*

"Camp Sibi, January 3rd, 1881.

"Sir,—Referring to my despatch of the 16th October last, reporting the march of the Second Division, Kandahar Field Force, to the relief of Kandahar, I am sorry to find, that, through a mistake, the excellent services rendered on that occasion by Deputy Surgeon-General Bruce, of the Indian Medical Department, and his officers, were not specially brought to the notice of His Excellency the Commander-in-Chief in India. I regret this the more, because, owing to the inclemency of the season and other causes, the difficulties in the way of organising the base and field hospitals, and of making the medical arrangements of the division generally, were of no ordinary kind. These, however, were promptly and efficiently overcome by Dr. Bruce, who, aided by the able and zealous exertions of Surgeons-Major Cogan, Jagoe, and Keith, established hospitals at Nari-Bank, Peer Chowki, Quetta, and Kandahar, which, since August last, have proved so valuable to the large number of troops, followers, etc., passing from Sibi to Kandahar, and from the latter to India.—I have the honour to be, sir, your obedient servant,

"R. PHAYRE, Major-General,

"Commanding Lines of Communication."

THE ALEXANDER MEMORIAL PRIZE.

IT may be useful to remind our military readers that the triennial competition for the Alexander Memorial Prize will close during the present year; the essays having to be despatched so as to reach the President of the Memorial Fund Committee on or before December 31st, 1881. The subject is, "The Influence of Drinking-Water in Originating or Propagating Enteric Fever, Diarrhœa, Dysentery, and Cholera: to be illustrated as far as possible by instances under the personal observation of the author". The prize consists of £50 and a gold medal of the value of £10.

PARKES MEMORIAL PRIZE.

THE period during which essays had to be sent in for this prize terminated on December 31st, 1880. It is remarkable that only one essay has been received, although the prize consists of a handsome gold medal and a sum of £100, and it was open to all medical officers of the army, navy, and Indian services of executive rank to compete for it. The subject of this, the first triennial Parkes prize, too, was one on which many medical officers of each branch of the service must have had much personal experience, viz., the effects of hygienic measures in arresting the spread of cholera. The terms on which the prize was offered were published in our columns in 1878.

DOCTORS IN THE FIELD.

MEDICAL officers are playing an heroic part in the lamentable South African campaign. We read, in the official report concerning the last fight at Twefontein, in the operations about Mafeteng, enthusiastic reference to the heroic conduct of Dr. McCrea. A correspondent of the *Cape Argus* says: "Dr. McCrea was badly wounded in the first charge, but continued his duties in attending to the wounded in the most plucky manner, ably assisted by the Rev. Mr. Cotton. Dr. McCrea, though badly wounded in the chest in the early part of the engagement yesterday, behaved most heroically, attending the wounded all day, he being the only doctor in the field. His gallant conduct is the comment of the whole camp." Dr. McCrea is a Guernsey man, educated at Guy's Hospital. The deaths of Surgeon-Major Cornish and Surgeon Landon are reported among the disasters of the recent engagement at Majuba.

FIRST AID TO THE WOUNDED.

TWENTY-SEVEN thousand copies of the little handbook on *First Aid to Injured Persons*, prepared by the late Surgeon-Major P. Shepherd, of the Army Medical Department, for the Ambulance Committee of the Order of St. John, have been disposed of; and ten thousand copies of a revised edition have just been ordered by the Society.

ARMY MEDICAL SERVICE.—The following is a list of candidates who were successful for appointments as surgeons in Her Majesty's British Medical Service, at the competitive examination in London on the 14th February 1881.

	Marks.		Marks.
1. A. M. Davies	2320	21. G. H. Younge	1675
2. H. W. Hubbard	2290	22. W. G. Clements	1670
3. G. C. C. Fitzsimon	2090	23. W. Baltie	1625
4. T. E. Noding	2069	24. R. F. O'Brien	1620
5. J. R. Yourdi	1992	25. C. W. Thiele	1610
6. J. C. Culling	1770	26. F. G. Nichols	1580
7. R. J. D. Hackett	1955	27. T. Cox	1570
8. R. T. McGeagh	1930	28. Jno. McLaughlin	1570
9. G. T. Trewman	1910	29. Richd. Fowler	1560
10. H. H. Johnston	1900	30. S. H. Creagh	1510
11. E. M. Wilson	1900	31. F. J. Lambkin	1500
12. E. J. E. Risk	1875	32. W. L. Reade	1430
13. J. D. Davies	1850	33. H. J. Peard	1475
14. W. G. Birrell	1850	34. G. S. O'Grady	1455
15. M. Dundon	1840	35. S. J. Rennie	1425
16. T. R. Lingard	1830	36. Jno. Carmichael	1405
17. C. W. S. Magrath	1830	37. E. D. Farmer	1390
18. A. V. Lane	1780	38. G. W. B. Creagh	1370
19. J. W. Beatty	1740	39. F. T. Wilkinson	1370
20. G. E. Weston	1695	40. J. Semple	1345

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—Admitted Licentiates, March 1st, 1881.

Griffiths, Herbert Tyrrell, 38, Devonshire Place, W.
Holbert n, Henry Nelson, Hampton, Middlesex
James, Herbert Ellison Rhodes, Livermere Rectory, Bury St. Edmunds
James, James Thomas, Llwnjack, Llandovery
Jay, Melville Richard Hindmarsh, 20, Fentiman Road, S.W.
Mathews, Sidney Robert Harvey, Bickley
Milne, James Kershaw, Royal Infirmary, Manchester
Mouritz, Arthur Albert, 22, Richmond Street, S.E.
Nance, Henry Chester, St. Bartholomew's Hospital, E.C.
Shelswell, Oscar Berridge, 28, Trinity Square, S.E.
Sutton, Samuel Walter, 10, Richmond Terrace, S.W.
Thistle, Frederick Thomas, 1, Vincent Terrace, N.
Thomas, John, Ystalyfera, Swansea

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, February 24th, 1881.

Sicard, William Edgar, Trinidad.
Young, James Vance, Magharafelt, Ireland.

The following gentlemen also on the same day passed their Primary Professional Examination.

Davies, John, Guy's Hospital.
Dening, Arthur, Queen's Hospital, Birmingham.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced :—

ARDEE UNION—Medical Officer for Collon Dispensary District. Salary, £100 per annum, with £15 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 10th instant.

BATH ROYAL UNITED HOSPITAL—Resident Medical Officer. Salary, £100 per annum, with board and lodging. Applications, with diplomas and testimonials, to be forwarded to the Secretary, on or before March 11th.

*BRITISH LYING-IN HOSPITAL—Physician to the Out-Patient Department. Applications, with testimonials, to the Chairman of the Board of Management on or before April 9th.

*CHARING CROSS HOSPITAL, West Strand—Assistant Surgeon. Applications on or before Saturday, April 2nd, to the Committee.

*DENBIGHSHIRE INFIRMARY—House-Surgeon. Salary to commence at £85 per annum, with board, washing, and residence in the house. Applications, with testimonials, to be sent in by the 25th instant, addressed to the Chairman of the Committee of Management, under cover to W. Vaughan Jones, Secretary.

ESSEX AND COLCHESTER HOSPITAL—Matron. Salary, £60 per annum, with board, lodging, and laundress. Applications, on or before Wednesday, March 23rd, to the Committee, not later than twelve o'clock.

GUILDFORD UNION—Medical Officer of Health. Salary, £200 per annum, to include travelling and all expenses. Applications on or before March 9th. Applicants to attend on the 12th.

HALIFAX INFIRMARY AND DISPENSARY—Assistant House-Surgeon. Salary, £50 per annum. Applications, with testimonials, to the Senior Physician, on or before Wednesday, March 16th.

KENT AND CANTERBURY HOSPITAL—House-Surgeon. Salary, £80 per annum, with board, lodging, and washing. Applications, with testimonials, to be sent on Friday, March 25th, by 12 o'clock noon.

LEEDS AMALGAMATED FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION—Assistant Medical Officer. Salary, £140 per annum. Applications on or before March 7th, to the Secretary.

NEWPORT UNION—Medical Officer for Ballycarry portion of Achill Dispensary District. Salary, £100 per annum, with £10 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 8th instant.

PAROCHIAL BOARD OF STRATHMIGLO, Fife—Medical Officer. Salary, £30. Applications to James Somers, Inspector of poor.

*SEAMEN'S HOSPITAL, Greenwich—Visiting Surgeon. Applications, etc., to be sent on or before March 8th, to W. T. Evans, Secretary.

STOCKPORT INFIRMARY—Matron. Salary to commence at £40, with board and rooms. Applications in own handwriting, to be accompanied with good testimonials, to S. W. Wilkinson, Honorary Secretary, Greek Street, on or before March 5th, 1881, from whom any information may be had.

SUFFOLK COUNTY ASYLUM—Assistant Medical Officer. Salary, £100 per annum, with board, lodging, and washing, increasing £10 a year to £150. Candidates must be single, fully qualified, and registered according to the Medical Act. Applications to the Resident Physician, County Asylum, Melton, Woodbridge, Suffolk.

*THE GENERAL INFIRMARY, Hull—House-Surgeon. Salary, one hundred guineas per annum, with board and furnished apartments. Applications, with testimonials, to be sent in on or before the 21st March next, addressed to the Chairman of the House Committee.

UNIVERSITY OF GLASGOW—Examiners in Medicine, vacant April 1st; viz., 1. Physiology and Pathology; 2. Medicine and Clinical Medicine; 3. Surgery and Clinical Surgery. Annual fee of each examiner, £40; term of office, four years. Applications, on or before March 15th, to Dr. Anderson Kirkwood, 145, West George Street, Glasgow.

WARNEFORD HOSPITAL AND NURSING INSTITUTION, Leamington—Matron. Salary, £70 per annum, with board, lodging, and washing. Applications, with testimonials, under sealed cover, to the Secretary, on or before Saturday, March 12th.

*YORK FRIENDLY SOCIETIES' MEDICAL ASSOCIATION—Resident Medical Officer. Salary, at the rate of £200 per annum. Applications, with testimonials, on or before March 9th, to J. Brown, 1, Park Street, Grives, York.

MEDICAL APPOINTMENTS.

BOULTON, Percy, M.D., appointed Physician to the Out-Patients, Queen Charlotte's Lying-in Hospital.

COLLIER, M. P. M., M.R.C.S., appointed Assistant House-Surgeon to St. Thomas's Hospital.

HOWELL, T. Mark, F.R.C.S.Ed., appointed Surgeon to the Throat and Chest Hospital, Golden Square.

VISRAGE, Felix, M.R.C.S.E., appointed House-Surgeon to the Queen's Hospital, Birmingham, *vice* J. M. Moore, M.R.C.S.Eng., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

DEATH.

TALBOT.—On the 21st January, at his residence, St. Ann's Bay, Jamaica, Joseph Bindley Talbot, L.R.C.P.Lond., aged 29, District Medical Officer of the parish of St. Ann, late Resident Medical Assistant at the Queen's Hospital, Birmingham, and also at the Shrewsbury Asylum.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th. 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 7 P.M., General Meeting for the Election of Officers and Council. 8.30 P.M., Ordinary Meeting. Dr. C. Theodore Williams: The Pathology and Treatment of Diarrhœa in Phthisis. Mr. J. C. Wordsworth: Some Defects of Sight, said to be due to Railway Accidents.—Odontological Society of Great Britain, 8 P.M. Mr. Charters White: The Histology of the Gustatory Organs of the Tongue. Casual communications by Mr. James Parkinson and Mr. R. H. Woodhouse.

TUESDAY.—Royal Medical and Chirurgical Society, 8 P.M. Dr. Hilton Fagge: On a probable cause of Lead Colic. Mr. Barwell: Experience and Specimen of the Ox-Aorta Ligature, and some Remarks on the Variability of Catgut.

WEDNESDAY.—Hunterian Society, 7.30 P.M., Council Meeting. 8 P.M., Mr. R. Clement Lucas: Cases of Trephining. Dr. Herman: Prolapse of the Ovaries.—Royal Microscopical Society, 8 P.M. Mr. A. D. Michael: On a Species of Acarus believed to be unrecorded.

THURSDAY.—Ophthalmological Society of the United Kingdom, 8.30 P.M. Discussion on the Relation between Optic Neuritis and Intracranial Disease, to be opened by Dr. Hughlings Jackson. Dr. Stephen Mackenzie, Mr. Hutchinson, Dr. Buzzard, Dr. Greenfield, Mr. Walter Edmunds, Dr. Gowers, Dr. Brailey, and others, are expected to speak. Microscopical Specimens at 8 P.M.

FRIDAY.—Clinical Society of London, 8.30 P.M. Mr. Berkeley Hill: A Case of Fracture of the Spine, treated with Sayre's Jacket. Mr. Barwell: A Case of Excision of the whole Tongue by means of a small Suprahyoid Wound; with Remarks on the best Material for the Loop of Ecraseurs. Mr. Berkeley Hill: A Case of Round-Celled Sarcoma, in which no repetition of the Disease took place during the remainder of the Patient's Life, namely, for Six Years after the Operation. Dr. Radcliffe Crocker: A Case of General Bronzing of the Skin without Constitutional Symptoms. Mr. R. W. Parker will show (1) a Child with Pulsating Tumour on Forehead; (2) Three Brothers with Undescended Testicle.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE communications which have been addressed to the Editor concerning the list of members recently published have been handed to the General Secretary and Manager, to whom all communications on this subject, or on changes of address, or matters connected with publishing details, should be addressed.

SEPTIC FERMENTATION SET UP BY MIXING MILK.

SIR,—I had, till lately, been under the impression that the germs of typhoid fever were conveyed to the metropolis through the impure water with which the cans are supposed to be rinsed; but, as the result of a recent conversation with an intelligent cowkeeper, I have now come to a different conclusion, which is, that septic fermentation is set up by the simple admixture of the afternoon milkings of one day with the morning milkings of the next, whereby a putrefactive condition is produced, as evinced by the offensive odour of the fluid a few hours afterwards. My informant tells me that a very small quantity of "skim" milk added to good fresh milk will speedily contaminate the whole bulk.

Perhaps some of your readers may think it worth while to investigate this subject. If this theory be correct, it will explain why "the two milks" (as the nurses call the stale cow's and fresh human milks) disagree.

I would suggest that the morning and afternoon milkings should be sent in separate vessels; or better still (if traffic would permit) that there should be two deliveries *per diem*.—I am, etc., H. GUARD KNAGGS, M.D., F.L.S.

189, Camden Road, N.W., Feb. 25th, 1881.

*** The observation which our correspondent makes, that the addition of morning to the evening milk is mischievous and favours putrefactive change, is well know to all practical dairymen; and it is a rule with those of the highest class never to allow morning's and evening's milk to be mixed. Such a rule is, for instance, inserted in the contracts of the Aylesbury Dairy Company with their farmers, and enforced under heavy penalty. It is, however, a long step from this simple fact to the induction that specific germs are thus generated. Between the putrefaction of milk and the production of specific typhoid germs there is a gulf which our correspondent skips over lightly enough, but does nothing to bridge; nor does his observation suggest anything contrary to the accepted belief, that the production of typhoid fever by milk, in the cases of the various epidemics traced to that fluid, is due either to the contamination of the milk directly by typhoid discharges, or from the addition of water which has been so contaminated, and contains such specific germs—euphemistically, it is frequently spoken of as the use of impure water in washing out the cans.

C. H. H.—When the adjudication is communicated to us, we shall of course be happy to publish it.

M.R.C.S.—Without giving the name of the society and your own name, the communication will have no point.

UNIVERSITY OF DURHAM.

THE M.D. degree of the University of Durham is attainable by practitioners of fifteen years' standing, on their passing an examination in Arts akin to the registration examination (provided they did not pass such an examination before commencing their medical studies), and another on medicine, surgery, pathology, anatomy (medical and surgery), jurisprudence, toxicology, and therapeutics. The examination lasts for four days, and is partly written, partly clinical, and partly *viva voce*. The fee is fifty guineas. The examination is held twice in the year, in June and December. Full details are given in the prospectus of the University of Durham College of Medicine, which may be obtained on application to the Registrar or Secretary.

W. C. T.—The subject is not one for the consideration of the editor, but for the manager, to whom the letter has been handed.

SUPERANNUATION.

SIR, Will you please answer me the following questions? The first question is the one I particularly want answered. The second I put in in consequence of what I have seen in the JOURNAL of this week.

1. I have just resigned my union medical appointment, after thirty years' service, my age being fifty-four turned. Are superannuation grants ever made under sixty years of age? 2. What is meant by "members unattached"?—Yours truly,

February 27th, 1881. J. R. JENKINS.

*** 1. We cannot recall a case where an union medical officer under sixty years of age has been superannuated; but, after such a lengthened tenure of office, if our correspondent can show that he is disabled by infirmity of mind or body, and can induce the board of guardians to grant the same, we doubt not that the Local Government Board would confirm the allowance, if proper representation be made to it. 2. Gentlemen who are members of the Association, but not of the Branches within the limits of which they reside.

MR. M. C. H. PALMER.—Some notes on the treatment of nævus by electrolysis are contained in an article on Electrolysis, by Mr. John Duncan, in the BRITISH MEDICAL JOURNAL for June 3rd, 1876.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

IPECACUANHA IN DYSENTERY.

SIR,—In the Lettsomian Lectures lately given by Sir Joseph Fayrer, he stated that ipecacuanha in large doses was introduced by a surgeon in India, and was found so efficacious that it not only wonderfully reduced the mortality and proved a great boon to our soldiers and others so suffering, but an enormous saving to our Government. He also stated that our Government ultimately gave the sum of £4300 to the surgeon for its introduction.

In accidentally looking into Graham's *Domestic Medicine* the other day, I noticed the following: "Helvetius first made known its use (ipecacuanha) in dysentery, and was rewarded by Louis XIV with £1000 sterling for the discovery." If this be true, does it not seem strange that so valuable a remedy should have fallen out of use, and been so long lost sight of? It also contrasts the liberality of that period with our own.

I send this thinking it may be worthy your notice, as well as interesting to some of your readers.—Yours truly, C. J. H.

MR. STARTIN.—The difficulty is one of space. We have papers of an important character in hand, for some of which we have vainly endeavoured to find space during the last four months.

A CAUTION.

SIR,—Some time ago, an elderly man called on me, about dusk, to inquire what would be my fee for going to Worthing to examine a friend of his, a candidate for life-insurance. After a long discussion on the subject, he withdrew, promising to return the following day at 4 P.M., with final instructions. During our conversation he made careful notes in writing of various matters about which he appeared to be ignorant. While leaving my room, he suddenly remembered that his brother had gone off to the extreme end of the town with his purse; would I oblige him with two shillings to pay his cab fare? I gave him half a-crown, and, as in the case of your correspondent in the JOURNAL of February 5th, he has hitherto failed to "rectify the little debt".—Yours faithfully, H. MARCUS ALLEN.

38, Regency Square, Brighton.

M.B.—1. The Howard Memorial Medal is open for competition to anyone, provided the essay be written in the English language. The Council of the Statistical Society may, if they see fit, cause the successful essay, or an abridgment thereof, to be read at a meeting of the Society; and have the right of publishing the essay in their *Journal* one month before its appearance in any separate independent form. This right of publication continues till three months after the award of the prize. 2. Our correspondent should charge a fee of one guinea to the Insurance Company for a certificate of death.

A. P. will find very efficient assistance in preparing his young friend for the preliminary examination in Arts by applying to Mr. W. Moore, B.A., 19, Duncan Terrace, N.

THE ETIOLOGY OF DIPHTHERIA.

SIR,—In antithesis to the idea, favoured by some observers, as referred to in the article in the JOURNAL of February 19th, that diphtheria is common on clayey and wet soils, and especially on the lias clay, I may mention that a large portion of my district covers this formation, and that diphtheria is very rare in it. Indeed, in the eight years during which I have been attached to the district, only two outbreaks of this disease have occurred, both of them of very limited nature, not more than a dozen cases altogether; and these were in the highest part of the district, on the Cotswold plateau, where the surface-bed is porous lower oolite rock. Even sporadic cases of genuine diphtheria have been very rare, and in scarcely any case have I been able to trace the disease to any sanitary defect. My impressions as to the etiology of the disease very much lean to the theory of Dr. Airy. I am, etc., F. T. BOND, M.D.

Gloucester.

J. J. G.—1. Any really respectable surgeon is competent to advise and treat such a case. We never recommend individuals. 2. Paying wards are now open at St. Thomas's Hospital.

CUI BONO asks: Has thymol, or any preparation of it, been recommended for the treatment of ringworm on the scalp?

*** We do not remember that it has been so recommended.

HYPODERMIC DISCS.

SIR,—A well known London firm supplies, in a portable and reliable form, discs of different drugs for solution by heat and hypodermic injection. This method of carrying about a valuable stock of important remedies, I, for one, have found exceedingly useful. But there is just one fallacy in their use that requires to be guarded against with all care and caution. The discs, unless ordered in very small quantities, and constantly renewed, have a tendency to stick together after a time; and twice I have very nearly exhibited two discs for one, which involves the possibility of giving a dose which, in subcutaneous dosage, might be awkward. I observed, some time ago, that a correspondent in the JOURNAL asked how best to prepare a solution of morphia for hypodermic injection; and, if I remember rightly, Mr. Martindale answered his query. I cannot myself imagine a better way of having morphia constantly ready for use than in possessing and having in one's daily bag a few of these discs; the solution is soon obtained; so far as I have used them, they seem perfectly reliable; and, if ordered in small quantities, the risk I have alluded to will not occur. But, inasmuch as this risk is a possibility, it is, perhaps, as well that it should be thus far stated.—Your obedient servant,

Shanklin, Isle of Wight, February 23rd, 1881. GEORGE H. R. DABBS.

*** We heard of this complaint when the vulcanite cases were used, which were not quite air tight; but, since the small glass tubes have been adopted, similar to those in which the ophthalmic discs have always been supplied. Since they were first brought into use by Mr. Ernest Hart, there has not been, we are informed by Messrs. Savory and Moore, a single complaint.

SIR,—I am a candidate for the office of physician to an institution. A rule of the institution says: "That no physician be eligible who is not legally qualified to practise as a physician in England and Wales. Please say, in your next issue, if I am qualified according to the wording of the above quoted rule.—I am, sir, yours obediently, M.D. ABERD., F.R.C.S. LOND. (REGISTERED).

*** Certainly; every registered doctor of medicine is legally qualified to practise as a physician, and there is no other legal qualification to practise for gain than that conferred by registration under the Medical Act.

THE ANTIQUITY OF DRAINAGE-TUBES.

SIR,—If the gentleman who writes on this subject in the JOURNAL of December 25th will turn to the *Lancet* of May 3rd, 1879, p. 650, he will find the very identical passage about drainage tubes he quotes from the Memoirs of Captain Crichton reproduced by me, *tetidem verbis*, in this same connection. If he will read on further, he will further find that a drainage-tube, or something so like as to be indistinguishable from it, was used, three hundred years ago, by his physicians during the last illness of Philip the Second, King of Spain. The words describing this contrivance occur in a very rare book, entitled *De Felici Excessu Philippi Austriaci, Hispanarum Regis*....Scripsit Hispanice Cerverra Turrianus, Capell Reg., etc. They run as follows: "Deinceps ciendo puri quo Mane et Vespere Scutellæ duæ replebantur, ut testatur Garcias de Onante, *Chirurgiâ fistulâ opus erat, quæ exadmodum locis remotis saniem educeret*". This, being translated for the benefit of such as have forgotten, or never mastered, the intricacies of a dead language, stands thus (and I hope I will be excused for expressing a hope that no Irishman of the professional standing of your correspondent desires or deserves to be placed in either of these categories): "Subsequently, for the purpose of withdrawing the pus, with which two porringers were filled morning and evening, his (Philip's) attendants required or employed, as Onante testifies, a surgical-tube or pipe, which would convey the discharge from the remote parts." If the classic tongue of Cicero, and of Horace, of Thomas à Kempis, and Father Prout—a knowledge of which has ever been to me a source of pride and pleasure—has not altered its complexion since I was at school, these words mean a drainage-tube, and nothing else. Their etymology necessarily implies as much, especially so the words "ciendo" and "educeret", and that the pipe or tube they indicate was used with this view cannot be doubted. If this be so, as it unquestionably is, Why, I ask, all the fuss that is made in these days about its discovery? In my humble opinion, many, if not all, of the so-called surgical discoveries of modern times were known ages ago—before the great-great-grandmothers of their respective votaries were born.

Will you allow me to substitute the word "Bâber" for "baby" in the postscript of my note on Ancient Egyptian Dentistry, in the issue referred to above? This personage hunted the rhinoceros on the Nowarid plains of Peshawur about the year 1525, and subsequently founded the Mogul Empire. He played, in short, a greater part in the drama of Indian history than did either Frederick or Napoleon, Charles the Fifth, or Henry the Eighth in Europe, for he founded a far wider empire than either of these; and his influence on the civilisation and policy of his age endured even unto our own days. Had he not been rescued from the jaws of death in his cradle by the process mentioned by Ferishta, the world might have never heard of the East India Company, or of the Black Hole of Calcutta, of the Mutiny, or, *parva componere magnis*, of your humble servant,

Warrington. WM. CURRAN.

ANXIOUS INQUIRER will find a good deal of literature in recent works on Diet by Chambers, Pavy, and Fothergill on the subject of dietetic reduction of corpulence. Medical treatment is usually of little avail, but any respectable medical man will put "Inquirer" into the right path in this matter.

DR. T. B. MORIARTY (Cork).—The paragraph was inserted in the JOURNAL of February 19th.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. A. Smith, Gosport; Dr. Leonard Cave, Peterborough; Mr. F. W. Lowndes, Liverpool; Dr. Kelly, Taunton; Dr. A. Cohen, London; Mr. F. Marsh, Stafford; Mr. E. Walker, Eastbourne; Dr. T. Clark, Weston-super-Mare; Dr. W. Ewart, London; Dr. A. Becker, California; Dr. A. G. Laurence, Chepstow; Dr. J. M. Finny, Dublin; Mr. S. B. Mason, Monmouth; Dr. W. Hardwicke, London; Mr. C. Robertson, Bath; Dr. N. H. Kane, Kingston Hill; Dr. T. M. Lownds, Egham; Sainda; Mr. Shirley Murphy, London; Mr. A. W. Stirling, Melrose; Mr. F. Robinson, London; Dr. R. Garden, Aberdeen; Dr. C. D. H. Drury, London; Dr. J. Batty Tuke, Edinburgh; Dr. Henry Ashby, Manchester; Mr. Leigh Hunt, Perth; Mr. Nelson Hardy, London; Dr. H. G. Knaggs, London; Mr. John Priestley, Edinburgh; Mr. Henry Bird, Bath; Mr. Winterbottom, Salford; Mr. W. G. Tacey, Bradford; Mr. G. Eastes, London; M.B.; Mr. Vacher, Birkenhead; Dr. W. T. Fernie, Great Malvern; Mr. W. Berry, Wigan; Mr. H. C. Burdett, Greenwich; Dr. W. Pratt, Newtown; Mr. O. C. Maurice, Reading; Mr. C. L. Lock, London; Our Edinburgh Correspondent; Mr. A. C. Brock, Dorking: Dr. Wise, Geneva; Dr. Saundby, Birmingham; Dr. J. W. Lane, Bishops Castle; Dr. E. Tibbits, Bradford; Messrs. G. P. Putnam, New York; Dr. W. C. Rockcliffe, Hull; Mr. Rushton Parker, Liverpool; Mr. T. M. Hovell, London; Dr. Crichton Browne, London; Mr. E. Smith, London; C. J. H.; Mr. T. M. Dolan, Halifax; Mr. R. Hughes, Bala; Dr. G. S. Brady, Sunderland; Mr. Priestley Smith, Birmingham; Dr. Bottentait, Paris; T. J. G.; Mr. Sydney-Turner, Gloucester; Cui Bono; Dr. Ortille, Lille; Mr. G. M. Evans, Bridport; Dr. Hugh George, Horncastle; Anxious Inquirer; etc.

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REPORT
UPON
MICRO-ORGANISMS IN SURGICAL DISEASES.

*Presented to the Scientific Grants Committee of the British Medical Association.**

By ALEXANDER OGSTON, M.D.,
Surgeon to the Royal Infirmary, Aberdeen.

I.—Introduction.

The question, What is the cause of blood-poisoning?† is at present the most interesting and important in pathology. Many answers to it have been attempted, and we are gradually coming to surmise what the true one will be. A coincidence between the presence of microscopic organisms and blood-poisoning is becoming more and more evident; but mere accumulation of such evidence can never be satisfactory. A single negation destroys them all; and negative observations have not been wanting. Instead of multiplying examples of coincidence, the time has clearly come when we must go to the elements of the subject, and ask, What can these organisms be proved to do? Have they any connection with the simple as well as with the more complicated forms of disease? And what difference is there in the effects of the different forms of micro-organisms?

The present investigation was instituted to carry out this plan—to answer these questions. But the subject is large; and it was found necessary to limit it to one organism alone—the micrococcus. Ewart's investigations (*Proceedings of the Royal Society*, 1878) have shown that we must distinguish four forms of micro-organisms: 1. The spirillum, or corkscrew-shaped; 2. The bacillus, or rod-shaped; 3. The bacterium, sausage-shaped, like a short bacillus; and 4. The micrococcus, with a spherical or faintly oval outline. The micrococcus has been held to be the most potent factor in producing blood-poisoning (Billroth, Israel, Kocher, etc.), and has also been asserted (Watson Cheyne) to be an innocent organism. The most recent investigations, those of the Committee of the Pathological Society (*Transactions of the Pathological Society*, vol. xxx), leave this point still undecided.

In the present investigation, every means was taken to overcome the chief difficulty met with in such attempts; viz., how to recognise micrococci, and distinguish them from all other bodies *with absolute certainty*. Observation with high powers; the use of acids and alkalies to bring them out more distinctly; observations in fresh as well as in preserved tissues and fluids; cultivations; control experiments with every step; and utilising the applications of the Listerian system,—were all employed with the utmost minuteness and regularity. But the main dependence was placed on the methods recently introduced by Koch of Wollstein for the demonstration of micro-organisms. This observer has asserted (*Ætiologie der Wundinfectionskrankheiten*, 1878) that, by the use of aniline-staining, oil-immersion objectives, and certain arrangements of light, it is possible to ascertain the existence of micro-organisms in the tissues, etc., even when they exist in an isolated form. Save in regard to Koch's carbonate of potash process, which did not succeed in my hands, I am able to affirm the correctness of his assertions. His processes were employed in the following manner.

In observing tissues, the structures were, immediately on the death of the animal, placed for forty-eight hours in methylated spirit. They were then imbedded in paraffine whose melting temperature was 110° Fahr.; and sections were made with a hollow-ground razor. After being soaked for two hours in a solution of methyl-aniline-violet of the strength of half a grain to the fluid-ounce of water, they were placed for two minutes in dilute acetic acid, prepared by adding four minims of glacial acid to a fluid-ounce of water; then transferred for sixty seconds into methylated spirit; then for sixty seconds into pure alcohol; and finally for two minutes into oil of cloves; after which they were placed on a slide, and mounted in a drop of commercial Canada balsam. The liquids employed were themselves carefully examined for organisms, and found to contain nothing. All aniline solutions, even after filtration, contain minute floating particles of the dye, showing Brownian movements; but after a short time they sink to rest, and are then seen to be amorphous granules of the pigment. Many of the aniline dyes were found more or less useful. Eosine, fuchsine, and the browns, blues, and yellows, were tested in succession, but found inferior to the methyl-aniline-violet; and, even among the samples of the violet met with in commerce, some were found superior to others. It stains the sections of an uniform deep violet; but the colour becomes gradually fainter as they are passed through the other fluids, until at last they possess merely a pale violet tint, and, under the microscope, show only the nuclei, the granules of the cell-protoplasm, and the micrococci deeply stained. A prolonged sojourn in the alcohol or acetic acid removes all colour; and oil of cloves also extracts it, though less rapidly; so that it is of some consequence to use care in preparing the sections. Slight variations from the above procedure make little difference to the result—are, indeed, sometimes desirable, so as to leave the requisite depth of staining; and it is better to remove too little than too much of the dye. Canada balsam, prepared with turpentine or benzole, quickly extracts all colour; so do dammar mounting, glycerine-jelly, etc.; and the sections will not keep. Hence the balsam must be used pure.

In observing liquids of some thickness, such as pus, the thinnest possible film is spread with a needle on a slide, and immediately dried over a spirit-lamp. To tint it, the same aniline solution is employed (half a grain to an ounce). The slide is first heated so as to render the film more adherent, and a drop of the dye is placed upon it. It is left for sixty seconds; then washed off by a gentle stream of water; and the film, now deep violet, is again dried over the lamp. While still warm, a drop of Canada balsam is placed upon it; a warmed cover-glass is laid on, and held by a clip until the slide is cold and ready for examination.

Some liquids, such as blood and urine, dissolve off the slide, if left for sixty seconds exposed to the water of the dye. They require to be treated as follows. A thin film of them is prepared as before. After being warmed over a spirit-lamp, a drop of aniline solution, of the strength of two grains to the fluid-ounce, is quickly spread over the film by a thick glass rod or pipette; and it is instantly placed under a gentle stream of water, so that the dye is immediately washed off. The film thus treated does not dissolve, but remains on the slide, and is dried and mounted as before.

In objects so prepared, the micrococci are unmistakable. They are very deeply stained in comparison with the surrounding objects, and offer a marked contrast to them. With a good magnifying power of four hundred diameters, the organisms, especially those in liquids, are readily seen; those in the tissues often require more care, and may not be visible even with a good sixteenth of an inch water-immersion. The surest way of demonstrating them is to employ the methods of Koch. These were used by me as follows. The slides were examined by a microscope fitted with a one-eighteenth of an inch oil-immersion obtained from Zeiss of Jena; the tube of the microscope being 155 millimètres in length; and the eye-pieces employed being 2, 4, and 5 of Zeiss's manufacture. The substage condenser was that of Professor Abbe, without any diaphragm; the illumination was good gaslight, concentrated by a blue-tinted bull's-eye condenser on the flat side of the mirror. It is quite possible to overlook the micrococci in the tissues, even with the brilliant light so afforded. I am satisfied I have sometimes overlooked them when the staining had been rather faint, but usually a little care renders them as plainly visible as can be desired. One cause of difficulty is the apparently smaller size of the micrococci found in the tissues. This is probably due to the colour being extracted from their peripheral layers, and left only in the centre. Professor Cossar Ewart, an eminent authority in questions regarding micro-organisms, did me the favour to look over my preparations, and was satisfied that the bodies in question were what I had supposed them to be.

Wolff (*Centralblatt für Chirurgie*, 1879, No. 51) has recently stated, as an objection to Koch's methods, that there exist in the blood and tissues numerous granules, which, when stained with aniline, are indistinguishable from micro-organisms. It is undeniable that such bodies exist, but they do not occasion the smallest difficulty. Micro-organisms in disease do not exist in the form of scattered, isolated, haphazard bodies; they are growing, and that actively; and, as will be shown further on, they grow in such a definite recognisable form that their purpose, not to mention their existence, is quite plain; and it is impossible to confound them with any such granular bodies as those alluded to by Wolff. Indeed, micro-organisms, if found isolated in such a way as to leave a vestige of doubt as to what they are and what they are doing, are probably merely accidentally introduced, and it would be safe, even prudent, totally to disregard them.

It has been found impossible to give in this report a detailed protocol of individual experiments, etc.; it will be seen, as the separate branches

* With lithographic illustrations.

† Throughout the present paper, the term "blood-poisoning", though inapt, is used as including pyæmia, septicæmia, and other infective processes.

of the investigation are discussed, that they are too numerous to be so reported on without adding unduly to bulk at the expense of lucidity.

II.—Micrococci in Inflammation.

It is by no means easy to obtain any single form of organism pure from admixture of others. Micrococci are most readily obtained pure and unmixed in the pus which flows from an acute abscess on its being opened. One observation after another showed this to be the case; and as they accumulated, gave rise to a suspicion that this was due to something more significant than a mere coincidence. Kocher of Bern (*Zur Ætiologie der acuten Entzündungen; Arch. für Klin. Chir.* Band xxiii), in a paper upon Osteomyelitis and Strumitis, published in 1878, had drawn attention to the possibility of all acute inflammations being due to micro-organisms; and the confirmation given to his supposition, by the constant presence of micrococci in pus, led to the present investigation being in the first place directed towards determining the reasons of their existence there, and the connection which they have with it.

A series of abscesses were examined, eighty-two in number. Of these, thirteen were chronic typical "cold" abscesses, whose duration could be measured by months, proceeding from chronic carious disease of bone, scrofulous lymphatic glands, and such like. In none of them were any organisms found.

Four were somewhat chronic abscesses, whose duration could be measured by weeks; and which had followed diseases more or less allied to, or complicated with, forms of blood-poisoning and hectic—such as tonsilitis, phthisis, scarlatina, erysipelas, typhoid fever, and diphtheria. All of these contained micrococci, and were evidently the same as the next form.

Lastly, sixty-five were acute abscesses, whose duration could be measured by days, from all parts of the body. Everyone one of these contained micrococci.

All the abscesses had been hitherto unopened, and the pus was taken from them, by means of a needle or knife, while still flowing from the incision, spread out in a thin film upon the slide, immediately dried, and prepared as already mentioned. All abscesses that had been already opened, or that had spontaneously burst, were carefully excluded.

A large proportion of the abscesses came under my own personal observation. But in many of them the pus was obtained for me, and prepared according to printed directions by several medical friends, among whom I have especially to thank Drs. Hall, Jackson, Macquibban, Frank Ogston, Alex. Reith, Robertson, and Smith-Shand, of Aberdeen; Mr. Dalessert, of Aberdeen; and Drs. Craven, of Thurso; Collins of Bervie; Edmond of Stonehaven; Jamieson of Peterhead; Keith of Aboyne; Lyon of Peterculter; Milne of Cluny; Robb of Portsoy, and Shearer of Ballater.*

The acute abscesses were—

Of the Hand	18	Of Scalp	2
Mammary	8	Gluteal	1
Cervical	10	Perineal	1
Alveolar	8	Popliteal	1
Prepatellar	3	Of Abdominal Wall	1
Axillary	3	Temporal	1
Of Ankle	2	Of Arm	1
Post Aural	2	Not specified	3

The pyæmic—

In the Leg after Erysipelas	1
,, Neck after Tonsillitis	1
,, Thigh after Typhoid Fever	1
,, Axilla after Phthisis	1

The cold abscesses were—

Cervical	3	Of Elbow	1
Of Foot	2	Sternal	1
Of Thigh	2	Lumbar	1
Mammary	1	Chronic Pyothorax	1
Of Abdominal Wall	1		

It was impossible that micrococci in any numbers could have fallen into the pus in the few seconds required for transferring it to the slide, the fluids employed were not the source of these, and the inference seemed to be certain that micrococci had existed in the interior of all the the sixty-nine acute and pyæmic abscesses, and had been absent in all the "cold" abscesses. The forms in which the organisms showed themselves corroborated this. They had been growing. Sometimes they were seen as chains (Fig. 2), of from three or four cocci, up to much larger numbers. Generally five or six cocci were strung together; often ten to twenty were found; and in some specimens they existed as extremely long chains winding about or coiled up in the pus, and equivalent in their extent to twenty or thirty pus-corpuscles placed in a row. In one specimen, a chain consisting of 321 cocci was counted, and this was by no means the longest one observed. The chain-shape seemed to be the only form present in certain of the specimens—everything was in chains; and even where a group was visible it was seen to consist of chains interwoven with each other, and entangled into a mass (Fig. 6).

In other specimens, again, no chains were seen at all; the cocci were grouped, like the roe of fish, into clusters where there was neither beginning nor end (Figs. 1 and 5).

These arrangements were evidently due to the mode of growth. Both forms grew and multiplied by division of the coccus into two equal parts which separated, became themselves spheres, and again divided, and so on. In the chain-form, division occurred in only one direction, through a plane midway between two given poles, so that a pair of cocci growing formed a chain of four; this grew into a chain of eight, and so on, indications of this constant growth in one direction being evident (Fig. 2) wherever chains of any length existed. In the grouped form fission took place in any direction, a single coccus seemingly dividing into two, three, or four cocci, and a continuance of this forming the groups. Many of the masses had evidently been produced by pairs being first formed, each of which again formed pairs, and so on; but many were clearly, from the equal size and relative positions of the cocci, formed by a direct division into fours, or even, though more rarely, into threes (Figs. 1 and 5). The groups formed by this mode of division had no appearance of being built up of chains.

Micrococci present a capsule surrounding each ball, and binding them together into chains and groups. It appears as a glistening halo when they are unstained; but, after being stained and dried, it becomes invisible, and they present the appearance of being independent spheres. In some cases, however, in which it seemed that the cocci differed from the others by being unusually large, the groups, instead of showing transparent intervals between the cocci as in Fig. 5, the usual arrangement, had an amount of colour between them which depended either on their being piled up one behind another, or on the existence of a stainable interposed substance, giving them the aspect of grape-clusters (Fig. 1).

In some cases, unusually large oval cocci (Fig. 8) existed, chiefly in pairs.

For the most part these varieties existed in separate abscesses, but it frequently occurred that an abscess contained both chains and groups. Out of sixty-four abscesses where this point was specially noted, seventeen contained chains only, thirty-one groups only, and sixteen both forms or only pairs.

Sufficient evidence was not obtained to decide whether these different appearances indicated different species of micrococci; but the constancy with which chains produced only chains, and groups only groups, in the various experiments that fall to be detailed subsequently, rather favoured the suspicion of their being so. No difference could be noted in the characters of the abscesses that contained them.

Variations in the size of the cocci often existed in the same pus. Some were as large as 1-750th of a millimètre, or even more; some as small as 1-1480th of a millimètre, or even less.

They possessed spontaneous movements. Isolated cocci were agitated with oscillatory jerking motions on their own axis, with a slight tendency to be jerked out of the place they occupied; pairs showed a somewhat rhythmical movement around their bond of union, that could best be likened to the motions of a shillelagh; and the chains and groups were disturbed by similar slight movements which caused them to alter their position. The result was, that the cocci travelled. One chain of eleven cocci, for instance, when observed for twenty-five minutes, moved in that time three times its own length, working its way through a motionless mass of albumen. It moved chiefly endwise, and the rate of progress seemed uniform, as it took eight and a half minutes to move once its own length. No flagella could be discovered to explain the movements.

The numbers in which micrococci existed in pus varied greatly. It was possible to distinguish them from granules, so as to count them, only after they were dried and stained. The hæmacytometer was used to calculate the number of pus-cells. A limited number of specimens of pus unmixed with blood were selected for this purpose, as many samples coagulated so firmly that they could not be employed. Ten samples were taken of pus from acute abscesses, and five of pus from cold abscesses. Of each sample, forty estimations were made by

* The number of abscesses examined was subsequently increased to 100; the results, however, remaining the same. In addition to the gentlemen named above, my thanks are due to Dr. Mackenzie Booth, of Aberdeen; Dr. Walker, of Fraserburgh; Dr. Macconnachie, of Bervie; and Dr. Williams, of Tarland.

† These two forms are hereafter always classed together as "acute".

Hawksley's Gowers' instrument, constituting a total of 400 in the case of acute, and 200 in that of cold abscesses. The figures were—

Average Number of Pus-cells per Cubic Millimètre.

Acute.	Cold.
387,500	287,500
905,000	337,500
540,000	382,500
750,000	265,000
1,112,750	600,000
1,280,000	
737,500	
935,000	
1,425,000	
1,105,000	

The average was, therefore, 917,775 pus-corpuscles per cubic millimètre in the case of pus from acute, and 395,500 in pus from cold abscesses. Accordingly, 900,000 was assumed to be the average number present in each cubic millimètre of pus from acute abscesses; and from that it was easy to count the micrococci by finding out their numerical relation to the corpuscles. In the specimens where this was noted, it was found that

1	contained about	45,000,000	of micrococci	per cubic	millimètre.
2	,, ,,	18,000,000	,,	,,	,,
2	,, ,,	9,000,000	,,	,,	,,
3	,, ,,	4,500,000	,,	,,	,,
4	,, ,,	1,800,000	,,	,,	,,
1	,, ,,	1,200,000	,,	,,	,,
7	,, ,,	900,000	,,	,,	,,
1	,, ,,	818,000	,,	,,	,,
1	,, ,,	450,000	,,	,,	,,
1	,, ,,	337,000	,,	,,	,,
1	,, ,,	270,000	,,	,,	,,
3	,, ,,	180,000	,,	,,	,,
6	,, ,,	90,000	,,	,,	,,
3	,, ,,	60,000	,,	,,	,,
7	,, ,,	45,000	,,	,,	,,
1	,, ,,	30,000	,,	,,	,,
2	,, ,,	22,500	,,	,,	,,
5	,, ,,	18,000	,,	,,	,,
1	,, ,,	4,500	,,	,,	,,
1	,, ,,	1,500	,,	,,	,,
1	,, ,,	1,125	,,	,,	,,
2	,, ,,	900	,,	,,	,,

giving an average of 2,901,025 micrococci in each cubic millimètre.

The variations were enormous. It will be observed, for example, that one specimen contained forty-five millions, while two others contained only 900 per cubic millimètre. It seemed also to be the case, and possibly this may explain the variations, that they were not equally distributed throughout the pus. A drop taken from one part of the pus showed more, from another part fewer; they seemed more numerous in the lower than in the higher layers of the pus, but even there were not uniformly distributed. Still, even where there were comparatively few, in not a single instance did a slide of pus from an acute abscess, when examined with care, fail to show abundant evidence of their existence, while in most cases they formed as prominent an object as the pus-corpuscles themselves.

It now and then happened that other organisms co-existed with the micrococci. In three cases* bacilli; in two alveolar abscesses, bacilli, and bacteria; and in three alveolar abscesses, bacilli, bacteria, and spirilla were present, but the micrococci were the only constant organisms.

Micrococci in pus existed almost always in the serum between the cells (Figs. 5, 13, and 15), the chain-cocci especially so; but it occasionally happened that the grouped cocci were found in masses on (or possibly in) the cells (Figs. 3 and 14). Such inhabited cells were mostly large masses of protoplasm, without a nucleus (Fig. 14). The bacteria were mostly collected in or on cells (Fig. 13), more rarely intercellular (Fig. 15). The bacilli were generally intercellular (Fig. 14); and the spirilla (Fig. 15) were uniformly so.

In one case where cocci and bacilli co-existed, the latter were in larger numbers; 180,000 being present in each cubic millimètre, against 22,500 cocci.

The observations detailed above were found to point so distinctly to more than an accidental relation between micrococci and abscess, that it became desirable to ascertain whether the former could give rise to the latter. To ascertain the influence of pus alone, injections were first of all made with that from cold abscesses, which contained no organisms. It was collected Listerially (*sit venia verbo*) in flasks that had been heated for over three hours at a temperature above 260° Fahr. Introduced under spray into a pure subcutaneous syringe, quantities varying from one to ten minims were injected into the subcutaneous tissue of the back in chloroformed guinea-pigs, white mice, and wild mice. In all, twenty such injections were made, with the invariable result that no illness or abscess ensued; that the pus was, within a week, dried up into a film pervaded with living cells; and that within ten days this film had become totally absorbed, so that no trace of it remained when the animals were killed, and the site of the injection was undiscoverable. If they were killed about the fifth day, it was found as a dry film, without surrounding reaction, and so intimately united to the neighbouring tissues that it seemed to possess the same texture and consistence, and could not be isolated from them. This indicated that pus *per se*, at least as existing in cold abscesses, is innocuous; and the results correspond with those obtained by former experimenters.

But a very different effect was produced when similar* injections were made with pus containing micrococci. In every instance, with the qualifications to be presently made, well-marked disease was set up. Quantities varying from one to three minims produced, in the animals already mentioned, symptoms of blood-poisoning, lasting from two to five days. The animals refused food, sat cowering in a retired place in their cage, were listless and apathetic, their coat was disordered and sometimes wet, their eyes were kept closed save when startled, and the mice showed the purulent conjunctivitis and glueing together of the eyelids described by Koch in his experiments on septicæmia. These symptoms became less marked towards the end of the first week or five days. If the animal were killed during this stage, the blood in its right heart was found to contain micrococci; single, in pairs, and in short chains of six or fewer, swimming in the serum between the cells.† Around the site of injection was found a patch of red infiltration, varying in size, and having in its centre an abscess containing more pus than corresponded with the quantity that had been injected. The pus contained myriads of micrococci of the same nature as those injected, but more numerous, averaging thirteen to eighteen millions per cubic millimètre, instead of two millions as before. The cocci were living and growing, and a drop of the matter injected into another animal produced the same results in it, and it on another animal, and so on. No increased virulence was observable in the transference through a series of animals. The red infiltration around the abscess showed the micrococci invading the neighbouring tissues, penetrating between their cells, and, in colonies or chains gradually decreasing in size, pushing their way for a considerable distance into the structures in the vicinity. The form of the colonies seemed to be determined by the cocci injected. Chain-cocci grew as in Fig. 12, still preserving their chain-arrangement; while grouped cocci formed cloud-like masses and colonies, such as those depicted in Figs. 7 and 17. In the invaded districts, the tissues seemed to have been acted on—cauterised, as it were—by the cocci, being more vitreous or waxy in aspect than those beyond the invaded territory. The micrococci in the heart-blood were comparatively few, and somewhat variable in number; they were generally found in each specimen mounted, but now and then this was not the case, as if their distribution were not perfectly uniform throughout the blood. I was never able to detect their presence in the lungs, liver, spleen, kidneys, lymphatic glands, or suprarenal capsules.

After five to seven days had elapsed, and in some cases even earlier, the animals exhibited a change. They became active again, threw off their lethargy, and seemed well; but, at the spot where the injection had been made, there was found a fluctuating tumour, gradually increasing in size, and presenting all the signs of being an ordinary abscess. When they were killed during this second stage, micrococci were more rarely found in the heart-blood, and the infiltration of the organisms into the tissues around the abscess no longer existed, having been replaced by a firm thick wall of granulation-tissue, in which micrococci could seldom be detected, and which seemed to act as a barrier, preventing or diminishing their migration into the blood and surrounding structures. Sections through such an abscess-wall showed the existence on its inner surface of a thin layer of croupy appearance (Fig. 7), in which, here and there, colonies of the micrococci were growing, but were seemingly powerless to penetrate further. The abscess-cavity contained pus filled with micrococci as before, but not in greater numbers than in the earlier stage. In the viscera of animals killed during this stage, I again failed to detect any organisms.

* One, alveolar; one, prepatellar; and one, perineal abscess.

* It need not be constantly repeated, that the utmost antiseptic precautions were observed in the whole of the experiments.

† In every animal experimented on, whatever was the result of the experiment, the injection-site, lungs, kidneys, and heart-blood, were submitted to a careful microscopical examination; and frequently nearly all the organs in its body were so examined.

It is necessary, however, to point out that there seemed to be a difference in the susceptibility of animals exposed to the same experiment. Even in those of the same species, the same age, and even the same litter, this was observable. The typical course was that above described.

But it sometimes occurred that an animal died with signs of blood-poisoning, at the end of the second or beginning of the third day. In two cases where this took place, the micrococci were found in the blood, and the site of injection was marked by a red infiltration, showing the ingrowth of the cocci already described, with, in one case, incipient purulent destruction in the centre of the knot; while, in the other case, this had seemingly not had time to occur. In both these animals, the dose injected was about half a minim, and both were mice.

In one case, that of a guinea-pig, the injection of one minim produced the symptoms of blood-poisoning, and the local infiltration was felt as a subcutaneous knot; but, after four days, the animal was recovering, and the knot diminishing in size, so as to give promise of being completely absorbed, when it was killed on the tenth day. In this case, no cocci were detected in the infiltration; the animal seemed to have had strength enough to render them innocuous by absorption and elimination.* A similar dose of the same pus produced, in an exactly similar animal, the usual results.

In three cases, the local reaction was so intense as to result, not in abscess, but in sphacelus of the site of injection and overlying skin. In these, the animals seemed to suffer rather less from the symptoms of blood-poisoning; and, when they were killed, few micrococci were found in their blood, and the necrosed tissues were surrounded by a strong thick wall of granulation-tissue, presenting, at the places where the slough was detached, a surface like that of an ulcer covered with a thin, whitish, croupy film, in which the micrococci were growing (Fig. 11), though in a feeble and scattered manner, contrasting strongly with their behaviour in the ordinary course of events.

A diminution of the dose injected resulted, as a rule, in a diminution of the intensity of the result. One-sixteenth of a minim, as well as the employment of pus that had been very much diluted with blood,† gave negative results, the animals showing merely trivial and evanescent symptoms of illness.

Four injections into the peritoneal cavity of one minim of pus each, in mice as well as in guinea-pigs, produced symptoms of blood-poisoning lasting about three days, after which the animals recovered, and, when killed, exhibited no trace of the injection in the form of either suppuration or adhesions.

On the presumption that carbolic acid would destroy the power of the micrococci, a series of injections were instituted with pus mixed with equal parts of a five-per-cent. watery solution of that substance. These were employed on separate animals, as well as on a different part of an animal injected with unmixed pus from an acute abscess; and, in every case, the pus so disinfected, though injected in larger quantity, produced no reaction whatever, but disappeared in the rapid and complete way described under the experiments with that from cold abscesses.

I next endeavoured to ascertain the temperature capable of destroying the power of micrococci. Although, in this direction, the experiments were not so numerous as is desirable, it may be stated that pus heated to 130° Fahr., or higher, hitherto always failed to excite suppuration.

A detailed account of the injection experiments, by which the foregoing results were obtained, would be tedious, and occupy much space; but it may be mentioned that 68 injections were made, 28 of them with unaltered acute pus, 4 into the peritoneal cavity, 20 with cold abscess-pus, and 16 as control experiments, with carbolised or heated pus, and pus diluted with blood, or in minute quantities.

The results, so far as has been gone, may be summed up as follows.

Cold abscesses contain no micro-organisms, and their pus is harmless.

Acute and pyæmic abscesses always contain micrococci.

Pus whose micrococci are killed by carbolic acid or high temperatures is harmless.

Pus containing micrococci is resisted by animals if the dose be minute, or if it be injected into the peritoneal cavity.

Doses of one or two minims injected into the subcutaneous tissue may cause death by blood-poisoning, or may cause sphacelus of the site of injection, or may be resisted by an unusually insusceptible animal.

As a general rule, such doses produce acute inflammation, accompanied by blood-poisoning, and ending in abscess.

* Any one who tries injecting pus—a liquid that often coagulates, and is then injected with difficulty—will understand that such a result may occasionally be also explicable by the injection having been imperfectly performed.

† Professor Lister, at the International Medical Congress at Amsterdam in September 1879, stated that he had experimentally found that blood, like a living tissue, resists the development of micro-organisms.

III.—Micrococci in Wounds and Suppurations.

Having studied the connection between micrococcus and acute abscess, it became necessary to extend the field of inquiry, and observe its relation to other forms of suppuration, as found for instance in wounds, ulcers, pustules, and catarrhs. It was specially needful to do so, as one of the most recent investigators of micro-organisms, Mr. Watson Cheyne ("Relation of Organisms to Antiseptic Dressings", *Transactions of Pathological Society*, vol. xxx), had arrived at the conclusion that the ordinary forms of micrococci are harmless. What I had observed, as well as what has further to be added, agreed with the facts elicited by him, but necessitated a revision of the conclusions at which he had arrived.

Observations were, therefore, collected regarding the presence of micrococci in forms of suppuration other than abscess. Examinations of pus in the sputa of bronchitis (one case) and phthisis (two cases), in pustules (nine cases), in gonorrhœa (four cases) and soft chancres (one case), in sycosis (one case), and in a malignant pustule of the lip, resulted in micrococci being found abundantly present in all, save one case of common acne, running a very chronic course, where they were not detected in about half the pustules examined. In gonorrhœa and soft chancre, they existed in enormous numbers, along with other micro-organisms, and gradually became less numerous as the diseases approached cure. In the malignant pustule of the lip, they were the only organisms detected; and, when injected into a wild mouse, killed it between the second and third day, with all the symptoms of blood-poisoning, the animal having large numbers of them in its blood, and presenting, at the site of injection, a knot of infiltration without suppuration, where the coccus-infiltration was extremely dense and well marked (Fig. 16).

A set of control examinations of normal fluids (blood, urine, etc.) and tissues, fully confirmed the now generally received opinion, that no micro-organisms exist in healthy human structures, etc.; and another series of examinations of pathological fluids, in hydrocele (two cases), ascites (one case), ovarian cystoma (six cases), extravasated blood (one case), hæmatoma (two cases), and vesicles (six cases), yielded one unvarying result, viz., that micrococci never were present in them where suppuration was absent. Even in normal lochia (two cases), where enormous numbers of all four forms of micro-organisms except spirilla exist, from the ninth hour after delivery onwards, without raising the pulse and temperature above normal, their appearance is the signal for a change of the red serous discharge into a liquid which becomes more and more purulent in its nature.

In two cases of puerperal fever where the lochia were examined, the micrococci existed in enormous numbers, and continued present longer than usual, gradually diminishing as the cases ended in recovery.

The remaining series of observations, ninety-six in number, were devoted to the study of wounds and ulcers in every situation and of every sort, embracing wounds that killed by septicæmia (one case), wounds where septicæmia terminated in recovery (one case), operation-wounds that had been treated Listerially and remained aseptic throughout (eleven cases), operation-wounds where the antiseptic treatment failed (eight cases), chronic abscesses that had been dressed Listerially and had remained aseptic (eight cases), similar abscesses where Lister's treatment had failed (eight observations), and wounds (twenty-eight observations) and ulcers under other methods of treatment and in all stages. The results were singularly corroborative of those obtained by the injection of the pus of acute abscesses.

In a case of extirpation of the thyroid gland for goître compressing the trachea, where the patient died of blood-poisoning on the sixth day, and where antiseptics were not employed, the wound not even having been mopped with chloride of zinc, the wound, which did not suppurate, teemed with micrococci; and the blood,* examined from day to day, contained in every slide numbers of micrococci. An opportunity of verifying the similarity of this case to those of rapid death in animals, by ascertaining the existence of local coccus-infiltrations by *post mortem* examination, was unfortunately denied me.

In another patient, however, where death was averted by amputation, the completeness of the proof compensated for this deficiency. A man had sustained a compound dislocation of the ankle-joint, and was treated for a week without Lister's precautions. He became septic-

* The mode of procedure in examining the blood of [illegible] septic man is of some consequence. So long as I was content to examine the blood obtained by pricking the finger or hand, the results obtained were almost always negative; but after I became aware of the proposal of Huter to observe the human circulation *intra vitam* on the inner surface of the lower lip by this knowledge by opening a small arteriole or venule, and utilised precautions, mounting the blood so obtained, I have [illegible] in that region, and, with proper which have been at my disposal since that time, to [illegible] never failed, in the seven cases in blood-poisoning in every slide, and usually with [illegible] detect the presence of micrococci without a prolonged search.

æmic. From the seventh to the tenth day, when I saw him in consultation, the discharge, which was not purulent, but serous, contained numerous micrococci. He came into hospital, and the limb was amputated on the tenth day, at the lower third of the thigh. Around the margin of the wound in the ankle, abundant reticular infiltration of colonies of cocci was observed; and, far up the leg, in the blood-stained and œdematous subcutaneous tissue, in its deepest part, lying in contact with the aponeurosis, the same infiltration of micrococci existed everywhere. The torn saphena vein contained pus for two inches upwards from the ankle, and this was the only pus found in the case. Above this, the vein was plugged by a firm coagulum; and bacilli, with multitudes of micrococci, existed in the pus. The clots in and around the ankle-joint were full of gigantic sheets and groups of cocci, mostly free, but sometimes in or on large non-nucleated masses of protoplasm (Fig. 10). No cocci were discovered in the popliteal lymphatic gland; but in the blood taken by a student, at my request, from the popliteal vein, at the moment of operation, and at once mounted, they existed in considerable numbers, and were evidently being carried off into the general circulation. In one of the amputation-flaps an œdematous spot was left; and, probably from it, although the operation and treatment were both minutely antiseptic, the wound became impure and suppurated, the pus containing micrococci and bacilli, which were also thrown off in great numbers in the urine* (Fig. 4). These two cases seem to be analogous to the rapidly fatal cases in animals where death ensues from blood-poisoning ere suppuration had time to be set up.

When an acute abscess is opened and treated Listerially (seven cases), the micrococci, at first abundant, gradually become fewer, and, instead of being found in large groups or chains, occur only isolated, in pairs, or in fours, or in short chains of threes, fours, and fives. The abscess is changed into a healing ulcer by the contraction and the growing granulation-tissue, and on the surface a thin whitish film is observable. If an opportunity occur of removing and examining a portion of such an ulcer (three cases), this film is found to consist of vitreous altered tissue continuous with the healthy tissues beneath, and in it the micrococci are growing, though by no means luxuriantly (Fig. 11). As the ulcer heals, the micrococci become fewer and fewer, until at last, when the granulations are bright red, clean, and level with the surface, only an isolated one, or perhaps a pair, can be with difficulty detected here and there in the discharge.

On two occasions, I was fortunate enough to obtain a portion of the thinned skin from the summit of a pointing acute abscess. There was no unusual coccus-infiltration visible in it, and the appearances indicated that pointing takes place by an absorption of the granulation-wall at one point, unaided by any special process in which the micrococci are actively employed.

A chronic abscess opened and treated Listerially, or a similarly treated operation-wound that has maintained an aseptic course, never shows any organisms whatever. I have examined many such cases over and over again, one of them being an abscess that had been open for five months, and invariably with the result that they were totally free from organisms of any sort. I am satisfied that Lister's spray and dressings are sufficient, when used with great care, to prevent the entrance of any living organism into a wound. But this statement has its limits: careless dressing is, of course, punished by failure in obtaining this result; and, in certain regions of the body, as the axilla, a proportion of the operations, however carefully performed, have, in my experience, become septic from the development of micrococci which had, I presume, existed in the large sweat or sebaceous glands, where they had been sheltered from the action of the carbolic acid. In the scrotum (two cases), I have not seen an operation-wound maintained free from organisms, whatever care had been exercised. They were present in the wound, in large numbers and of many sorts, within twenty-four hours. The large sebaceous glands existing there furnish a sufficient explanation of this.

Where the skin is thick, as about the heel, it is often necessary to dress the part Listerially and use frequent carbolic washings for some days previous to an operation, else an aseptic result may not be obtained.

Operations that have been conducted Listerially, but where a probable error in the antiseptics has led to the occurrence of *deep* suppuration, are exactly like a spontaneous acute abscess. Two such cases were observed (failure of the spray), both being excisions of the mamma; and in both the pus, on its evacuation, presented precisely the characters of abscess-pus in containing only micrococci.

In every wound which smelt suspiciously, bacteria or bacilli were present in large numbers; but no special odour indicated the presence or absence of micrococci.

Ulcers (eight cases) and wounds (twenty-eight observations), never treated antiseptically, present many forms of organisms in their discharge. On flat surfaces, where the discharge does not stagnate, micrococci exist in preponderating numbers, and are found growing in the film already described (Fig. 11). Where a bagging wound (three cases) or a deep sinus is present, the discharge is apt to be fœtid, and contains mostly bacteria and bacilli, the cocci being proportionally fewer; but where an incision converts the pouch into a superficial wound (two cases), the micrococci become again predominant. As such wounds and ulcers heal, the organisms become fewer, until, finally, in a sinus or ulcer almost cicatrised, it may be difficult to find them. They exist, however, to the very end; and in only a single case was discharge from a wound not treated antiseptically found to contain no evidence of organisms being present. This was a case of sinus of the cheek, where the opening had existed for three months, but was so small and valvular that possibly the sinus may never have been septic.

It was remarkable how certainly any virulence or acuteness of the suppurative process was accompanied by an increase in the numbers and signs of quick growth of the micrococci present, and a diminution in these respects by their diminished numbers and activity; so that, in a given case, from the violence of the appearances, it was quite possible to form a very accurate estimate of the microscopic appearances that were to be found in the discharge.

Once micrococci have gained access to a wound, it is not easy to eradicate them. Ordinary Lister's dressings will not do so (eight cases). After weeks of dressing with carbolic lotion (three cases); carbolic oil, 1 : 16 and 1 : 8 in strength (eight cases); after the use of dressings with boracic lint (four cases), salicylic acid (one case), and chloralum (one case), all carefully and thoroughly applied, they were found in the wounds and ulcers in nearly as great numbers as before; and it was clear that these applications, at least as ordinarily employed, although generally sufficient to kill bacteria and bacilli, are powerless to eradicate the micrococci. The only way in which I succeeded in destroying them in wounds, where they had once established themselves, was by cauterisation with strong solution of chloride of zinc, or by strong frictions with five per cent. watery solution of carbolic acid—the ordinary 1 : 20 lotion.

A confirmation of the late Mr. Callender's statements regarding the success attending the over-distension of abscesses by carbolised water, was met with in two cases of opened abscesses, where the inner wall was well rubbed with carbolic lotion, and where immediate healing was obtained under circumstances where it seemed otherwise impossible. The principle is identical in both cases, the success being explicable on the supposition that the energetic application of the antiseptic destroys the micrococci in the inner layer of the abscess-wall. Mere syringing out of the interior of a newly opened abscess with carbolic lotion did not produce the same effect.

The presence of micrococci, however, does not always imply suppuration. In one case of operation for flat-foot, performed and dressed Listerially, the dressing, which had not been changed for a considerable time, was observed on its removal to have a markedly cheesy smell. It was not putrid; and the wound, which was superficial, looked aseptic—that is to say, its discharge was merely serous, leaving a white pulp upon the protective quite unlike pus; and on its surface were partially decolorised blood-clots and portions of the catgut sutures, and these were being absorbed by the growing tissues beneath—so that the wound was healing "unter feuchtem Schorfe", as the Germans say. Yet the pulpy matter upon the protective contained organisms, and among them some micrococci, as shown in Fig. 9. This was the only cheesy-smelling dressing that I had occasion to observe.

The results of the observations on wounds and suppurations other than abscess may be thus summed up.

Suppurating wounds contain micrococci, whose numbers and activity are proportionate to the intensity of the suppuration.

Listerian dressings prevent micro-organisms from gaining access to wounds.

Micrococci in wounds withstand most antiseptic applications.

Where no micrococci are present in wounds, no pus is produced; the discharge is serous.

* It seems probable that the kidneys are the chief agents in eliminating micro-organisms from the system. I have already stated that I was never able to detect micrococci in the kidneys of the animals experimented upon, and I also failed in the few cases where their urine was examined; but in man, by the process mentioned in the introduction, I have not failed, since my attention was directed into this channel, to find abundant micrococci, and even more abundant bacilli, in urine drawn off pure by the catheter from patients suffering from a recent suppurating wound, or from an early abscess. Having only lately attended to this, I have had but few suitable cases at my disposal, but in them the organisms were abundant; and in one of them, a deep abscess under the flexor tendons of the wrist, the presence of micrococci in the urine was used as confirming the diagnosis, and deciding on the exploratory operation by which the pus was found and evacuated. In the later stages of abscess and suppuration, the establishment of a barrier of granulation tissue might be expected to diminish their numbers, or even put a stop to their occurrence in the urine.

Micrococci exist wherever pus occurs, save in chronic suppurations, such as cold abscess, chronic acne vulgaris (?), etc. Micrococci in man produce the same varying effects as in animals; they may produce blood-poisoning without suppuration; they may cause suppuration; or they may be resisted by strong individuals under favouring circumstances. Lastly, there are possibly micrococci that do not produce suppuration.

IV.—Cultivation of Micrococci.

It will not have escaped a critical reader of the preceding parts of this report, that there exist in it statements imperatively requiring further elucidation, or that even appear mutually contradictory. How can it be explained that micrococci are so deleterious when injected, as they are found in the pus of acute abscesses, into the subcutaneous tissue of animals, and yet are so harmless on the surfaces of wounds and ulcers? It is no doubt possible that there exist species of micrococci precisely similar to one another in appearances and growth, and yet widely different in the effects they are capable of producing. The observation already recorded of the presence of micrococci on a cheesy-smelling dressing, covering a wound that was not suppurating, points somewhat in that direction. But the observation was an isolated one, and much weight cannot at present be attached to it. The behaviour of a wall of healthy granulations, and its power to prevent their penetration in such numbers that the system is incapable of throwing them out, has also been dwelt on, and plainly forms a weighty factor in the solution of the difficulties. But these difficulties are rendered greater by an observation that has been reserved for special mention here. The pus of acute abscesses was found uniform in producing, with the reservations already stated, serious effects in the animals into whom it was injected; but pus from wounds was not identical in its effects. Sometimes an abscess resulted, sometimes it did not; and it was noticeable that, in marked contrast to the pus of abscesses, that of wounds, though rich enough in micrococci, was with difficulty able to produce an occasional suppuration. None of the facts already dwelt upon furnished a sufficiently satisfactory explanation of this. The results, however, of the experiments with cultivated cocci seem to offer the true solution of the difficulty.

In all, one hundred and eighteen cultivation experiments were carried out.

As might have been anticipated, cultivations of pus of cold abscesses (five cases) yielded uniformly negative results.

Cultivations of pus of acute abscesses gave at first the most inexplicable and contradictory results. They were grown in cells, prepared by cementing a ring of glass to the upper surface of a slide, moistening the lip of the cup so formed with a weak mixture of oleate of mercury and olive oil, scorching the cup and oil in the flame of a spirit-lamp, to destroy all organisms, and dropping on to it a cover-glass, also scorched in the spirit-flame. The cells were charged with the fluid in which growth was to take place, by removing the cover-glass for an instant, and dropping on it from a Lister's flask a minute drop of the liquid. The liquids used were: Cohn's fluid, Pasteur's fluid, urine, ascitic fluid, ovarian fluid, and blood obtained from the umbilical cord of new-born infants. Cohn's and Pasteur's fluids, as also the urine, were put in the flasks, which were corked with plugs of cotton-wool, and then boiled for ten minutes. The other fluids were introduced with antiseptic precautions into flasks that had been heated for three hours at a temperature exceeding 270° Fahr. Aqueous humour from the eye of a newly killed ox, introduced into purified sealed pipettes by breaking off the point in the anterior chamber, was also largely employed. All the liquids used for cultivation were kept for at least a month before being used, and were during that time repeatedly examined as to their freedom from organisms.

It was found by experiment that these methods afforded sufficient protection against the accidental introduction of organisms; for at least nine out of every ten cells charged in the laboratory with these fluids, and kept for ten days in the incubator, at a temperature of 98° Fahr., remained free from all micro-organisms.

Every cultivation was rigidly tested by the employment of control cells.

It was found that some of the micrococci from the pus of acute abscesses grew in these cells, whether they were of the chain or of the group variety. More often, however, no growth resulted, the cocci remained unchanged, and it not unfrequently happened that they died out and totally disappeared. Sometimes they grew in one liquid, and not in another; sometimes they grew in one cell, and failed in one precisely similar; and, in short, it was speedily evident that no useful or uniform results were to be obtained by these cultivations. Even where the growth had been most successful, it could only be characterised as poor and scanty compared with the progress it seemed to make in the subcutaneous tissues of animals.

Variations of temperature were next tried, but with no better result; and all degrees, between 50° Fahr. and 100° Fahr., were employed, without leading to anything satisfactory. There was plainly some factor at work that had not been taken into account.

Accordingly, a fresh series of cultivations was arranged. On a piece of plate-glass was placed a small bottle, capable of containing half a fluid-ounce. This was covered by a small glass shade, and this again by a larger one. The shades fitted accurately the surface of the plate-glass, and allowed the entrance of air, but not of solid particles. This apparatus was put into a warm chamber, and heated for three hours, at a temperature exceeding 260° Fahr. It was then allowed to cool, and removed. A number of these were prepared. On filling them Listerially with pure urine, or with ascitic or ovarian fluid, they remained free from organisms at any temperature in the incubator for any length of time.

They were now used by fours. Into the first was dropped* a drop of coccus pus, collected antiseptically; into the second was put a drop of a liquid containing bacteria and bacilli, but no micrococci; the third was either allowed to stand for thirty to fifty minutes exposed to the air in the laboratory, or (since this often failed in introducing organisms) had a drop of water from the tap added to it; the fourth was simply opened under spray, touched with a pure rod, and again covered.

Each series of four was kept together, and the result of exposure to various temperatures noted. The temperatures employed seemed to make little difference to the result; and, after this had been discovered, they were all kept in the incubator at a temperature of 98° Fahr.

When opened, after a month to six weeks, the following results were always obtained. The first flask (micrococcus) was limpid, odourless, acid or neutral, and seemed unaltered in any way. Its upper strata contained no organisms; but in its deeper strata, and in the thin film of sediment, micrococci were found growing and moving. Their growth was, however, by no means abundant or satisfactory; and, like those from wounds, they repeatedly failed to produce any effect when injected into animals. The second flask (bacterium and bacillus) was turbid, stinking, alkaline, and gave off ammonia. Its surface presented sheets or turfs of actively moving rods and bacteria. Its lower strata contained these organisms motionless, apparently dead. The third flask (water) was like the second in every way, save that micrococci were often found in its deeper strata. The fourth flask was unaltered in any way, and contained no organisms.

Repetitions of these trials yielding always the same results, it occurred to me that, as the cocci were found only in the strata removed from the influence of the atmosphere, they might possibly be organisms capable of living without air—*anaerobes*, as Pasteur (*Bulletin de l'Académie de Médecine*, 1878, No. 18) styles such. Their cultivation was, therefore, once more attempted in the first mentioned cells, and in the same fluids as before; the cells being filled with carbonic acid gas instead of air. But, whether from the carbonic acid escaping by diffusion, or from some other cause of which I am not aware, no better success was obtained than in the earliest set of experiments.

Finally, I hit on the idea of growing them in eggs, where, I anticipated, they would be in almost identical conditions with those under which they grew in the bodies of animals.

Newly laid eggs were washed in 5 per cent. carbolic water; and, under spray, a minute aperture was pierced in the larger end. One minim of pus from an acute abscess, collected under the strictest antiseptic precautions, was injected by a long pointed pure syringe into the albumen at the opposite end of the egg. A piece of protective was laid over the aperture. The egg was enveloped in a Lister's dressing, and kept for ten days in the incubator at 98° Fahr. At the end of that time, it was opened, and my expectations were fulfilled. The egg was sweet and fresh; its contents were unaltered, save that the yolk was somewhat broken up, and more or less mixed with the albumen; but the albumen, and sometimes the yolk also, were filled with enormous chains or masses (according to the sort of coccus used) of micrococci, growing quite as luxuriantly as I had ever observed them when experimenting on animals.

A drop of the albumen injected into an animal's back now produced typical abscess, with all the symptoms and appearances already mentioned; and the animal, on being killed, showed the micrococci in the blood and invading the tissues exactly as had been already obtained by the employment of the pus of acute abscesses. A control experiment, by injecting a drop of albumen from a fresh egg into another part of the same animal, gave the result to be expected, in a complete disappearance of the injection, without leaving any trace. This experiment was repeated three times with variations; the micrococci being cultivated in two eggs in succession for ten days each before being injected into the animal; and in two instances the cocci, before being passed through

* Antiseptic precautions are always understood, save where the reverse is specially mentioned.

the two eggs, had been grown for six weeks in urine in the doubly covered glass bottle. An acute abscess, with its usual accompaniments, resulted in all these instances. Thus the cocci, diluted so that (assuming an egg to contain thirteen fluid-drachms) only 1-146,016,000th of a drop of the original pus could have been injected, produced an abscess—a result inexplicable save on the assumption that they were the sole cause. The former observations on the growth, development, and movements of the micrococci in pus were repeated, and controlled by those contained in the egg-albumen.

Experiments on eggs by the introduction of pus containing other forms of organisms, such as bacteria and bacilli, showed that these latter also grew under such circumstances, but produced extreme putrefaction in the eggs, and blackened their red portion.

The behaviour of micrococci in wounds and ulcers was now explained. They grow badly where exposed to the action of the air, and in this imperfect condition do not reproduce themselves with the rapidity necessary for the exhibition of their noxious influences. They probably also lose for a time, when grown under such circumstances, a considerable portion of their activity and virulence. When placed in more favourable conditions, as when removed from the exposed urine to the sheltered egg, they speedily reacquire their ancient powers of inducing disease. This seems also to explain their being so prone to cause blood-poisoning in deep and sinuous wounds, as in those produced by a compound dislocation or removal of the thyroid gland.

To sum up: Micrococci do not produce putrefaction. They develop best when removed from the atmosphere. The preceding facts prove that they are able, under suitable conditions, to give rise to blood-poisoning, to acute inflammation, and to suppuration.

V.—Conclusion.

Little remains to be added under this head. The more these things are reflected on, the more pregnant they become with explanations and suggestions regarding many of the obscure facts in connection with the processes of inflammation and blood-poisoning. They tend to confirm the supposition of Kocher, that acute inflammations are due to micro-organisms; they suggest many probable hypotheses to explain the difficulties occurring in the study of pyæmia, septicæmia, gonorrhœal rheumatism, etc.; the different virulence of gonorrhœal balanitis and gonorrhœal urethritis; the occurrence of mammary abscess and pelvic suppurations after childbed; the causes and varieties of dissection and poisoned wounds; the success attending the open-air treatment of wounds; the causes of surgical fever; and many other features of disease that it would be premature to discuss here.

It is not intended to be conveyed by anything that has been said, that micrococcus is the only organism which produces such results: the other organisms fall to be investigated in their turn, and much yet remains to be done, for the subject is only in its infancy.

I cannot close this paper without expressing my thanks to Professor Ewart and Dr. Walker of Aberdeen, for their counsel and assistance, and my sincere sense of the obligations I am under to the Committee of Scientific Grants, and through them to the British Medical Association, for the aid they have generously given me, without which aid I had previously found it impossible to grapple with the subject of micro-organisms in surgical diseases, save in a most imperfect way.

True and False Dyspepsia.—In a communication made to the Paris Academy of Medicine on January 11th, M. G. Sée set forth his views on the diagnosis of true and false dyspepsia. After having noted that a dyspepsia is a true one when the digestion undergoes a permanent chemical disturbance, he asserted that a number of invalids show the same apparent phenomena as dyspeptics, without experiencing the unpleasant effects or the serious results of chronic dyspepsia. The morbid conditions designated pseudo-dyspepsia by M. Sée, which assume the forms of dyspepsia, are localised in three organs—the intestines, the liver, or the stomach itself. These conditions comprise five types, which were successively passed in review by the writer—viz., simple atony of the intestine with habitual constipation and permanent tympanic distension; atony of hæmorrhoidal or of mechanical origin; atony followed by muco-membranous enteritis; asthenic condition of the intestine, due to diminution of the biliary secretion; spasmodic atony of the stomach. M. Sée described, as a fifth type of pseudo-dyspepsia, spasmodic atony of the stomach, better known under the name of gastralgia or gastric neuralgia. He held that gastralgia has no connection with neuralgia, neurosis, nor hyperæsthesia; it is an additional motor disturbance, and not one of sensibility. After having sketched out the diagnosis of spasmodic atony and dyspepsia, M. Sée ended his communication by the conclusion that the atonic patient suffers constantly and digests well; whilst the victim of dyspepsia digests badly and suffers frequently.

REPORT
ON LOCAL LEGISLATION AS TO INFECTIOUS DISEASES.

Presented to the Parliamentary Bills Committee of the British Medical Association

By ERNEST HART,
Chairman of the Committee.

Provisions as to Infectious Disease in the Local Bills promoted this Session by the Sanitary Authorities of Aberdeen, Barrow-in-Furness, Birkenhead, Bradford, Reading, Salford, and Stalybridge.—Need for Caution in granting Exceptional Powers as to Domestic Quarantine of Infectious Disease.—Notification of Infectious Cases.—Regulations as to Infected Persons, Places, and Things.—Provision of Hospitals, and Compulsory Removal thereto.—Disinfection of Premises, etc.—By-Laws.—Height of Rooms.—Unnecessary Clauses in Local Bills.—Effect of Local Changes in General Statute Law.—Suggestion for Conference with President of Local Government Board.

Provisions as to Infectious Disease in Local Bills of this Session.—In a report bearing the same title as the present, which I presented to the Parliamentary Bills Committee on the 2nd of February, 1880, I undertook to criticise, from a medical and sanitary view-point, certain proposals made by a number of local authorities in the North of England for the alteration of the Public Health Act, and the addition thereto, for the particular districts concerned, of a number of more or less stringent provisions designed for the more effectual checking of the spread of infection. Of the six local Bills dealt with in that report, five have passed into law substantially as originally introduced; and, with regard to the towns affected by these Local Acts, the general public health-law of the country must, therefore, no longer be regarded as unreservedly applicable. The growing desire of local authorities to emancipate themselves from this general law is a matter for very serious consideration; and I make, therefore, no apology for laying before the Committee, at as early a date as possible, the further alterations now proposed by eight other sanitary authorities (Aberdeen, Barrow-in-Furness, Birkenhead, Bradford, Lincoln, Reading, Salford, and Stalybridge) in the local Bills which will be submitted for the approval of Parliament during the present session. The nature and extent of these alterations will be best judged from an abstract of the principal provisions in each of the local Bills in question.

The *Aberdeen* Bill provides that, in order to secure more prompt action in dealing with infectious diseases, every medical practitioner practising within the city shall, within twenty-four hours of the same coming to his knowledge, report to the Town Council every case of cholera, small-pox, measles, scarlet fever, diphtheria, typhus fever, enteric fever, and whooping-cough occurring in his practice, under a penalty not exceeding forty shillings (A).* For every case so reported, a medical practitioner is to be paid a sum not exceeding two shillings and sixpence; and forms, ready stamped for postal transmission, are to be provided by the corporation for the medical reports. The local authority are empowered to alter or vary, from time to time, the list of diseases of which such reports are to be sent. Offence against this clause is punishable by a fine not exceeding forty shillings; and, in case of a continuing offence, by a further penalty not exceeding twenty shillings for each day during which the offence continues.

The *Barrow-in-Furness* corporation, following the example set by Jarrow in 1878, desire power (B) to provide temporary shelter or house accommodation for the members of a family in which infectious disease has appeared; (C) to provide or contract for nurses for attendance upon persons suffering from infectious disease (and to charge any reasonable sum for any nurse so provided); (D) to order public or private day-schools, or other places of public resort situate in neighbourhoods affected by infectious disease, to be temporarily closed or suspended; (E) to order any shop, dairy, or other place for the sale or storage of articles of food or drink, clothing, or other articles liable to retain infection, to be temporarily closed, whenever, from the appearance of infectious disease in such shop, dairy, or other place, or in rooms in connec-

* For greater convenience, I have given to each of the clauses to which I shall have to refer a distinctive letter, so that it can be more easily traced.

tion therewith, such action appears to the corporation to be necessary; and to take all such means as seem to them desirable for preventing the entrance of the public into such place, or the issue from it of food, clothing, or other articles; (F) In case of the existence of any infectious disease in any house within the borough, the corporation are empowered to issue an order declaring such house or any part of it an infected place; and, until such order has been superseded by another certifying it free from infection, no person occupying or living in any such house or part of a house may continue at any in-door occupation which necessitates the handling of any clothing, food, or article likely to retain infection, which is intended for sale, or for the use of persons belonging to another family; nor may any bedding, clothing, or other articles liable to retain infection be removed from such house, or part of a house, without previous disinfection, or without proper precautions, for the purposes of being disinfected or destroyed. When the room or rooms occupied by the persons suffering from such disease can be effectually separated, and are so separated from the other parts of the same house or building, the rooms so occupied only are to be deemed to be affected by such order and regulations. The corporation are to make compensation to any person who has sustained loss by reason of the exercise of any of the foregoing powers, but such compensation is to be in regard only of direct material and pecuniary loss, and not in respect of any consequential loss or damage. Two clauses are, moreover, copied from the Huddersfield Act of last session; the one (G) providing that no person dwelling in any infected house or part of a house shall work at any other place in the same room with healthy persons, except with the written permission of the medical officer of health, and after disinfection of the person and clothing; the other (H), prohibiting a nurse who is attending on any person suffering from infectious disease, from either at the same time or afterwards attending as nurse on any other person, except under the same conditions. Wilful offence against this section is punishable by a penalty not exceeding five pounds; and, in the case of a continuing offence, by a further penalty not exceeding forty shillings for every day during which such offence continues.

The clause relating to the notification of disease (A^1) provides that, when any inmate of any building used for human habitation is suffering from infectious disease (defined to include small-pox, cholera, scarlet fever, scarlatina, diphtheria, typhus fever, enteric or typhoid fever, and puerperal fever) the occupier or person having the management or control of such building, or if the inmate so suffering be himself the occupier, then the person in charge of such inmate, is, as soon as he becomes aware of the existence of such disease, forthwith to give notice of the case to the medical officer of health. If the inmate be not a member of the family of such occupier or person, the head of the family (resident in such building) to which such inmate belongs, or if there be no such head, or if such head be prevented by illness, then the sufferer himself (unless prevented by reason of his disease or of youth), is, on becoming aware of the existence of such disease, forthwith to give notice to such occupier or person. Every medical practitioner attending on or called in to visit a case of these diseases is, on becoming aware of the case, forthwith to send to the medical officer of health a certificate stating, according to forms supplied to him gratuitously by the corporation, the name of such inmate, the situation of such building, the name of such occupier or person, and the nature of the disease from which such inmate is suffering. For every such certificate, a fee of one shilling and sixpence is payable by the corporation. Any person who wilfully and without reasonable cause offends against this section is liable for every such offence to a penalty not exceeding forty shillings.

The corporation may from time to time, by resolution made on the report of the medical officer of health and sanctioned by the Local Government Board, order that any other infectious or contagious disease shall be deemed an infectious disease for the purposes of the Act. Any such order may be permanent or temporary only, and if temporary the period during which it is to continue in force is to be specified, and the corporation is to give public notice of the resolution by advertising it in the local newspapers (A^2).

Somewhat unnecessarily, since they are already enabled to do so under Section 131 of the general Act, the corporation take power (I) to provide suitable hospitals for the isolation of persons suffering from infectious disease. Following the example set by Warrington in 1879, the bill further enacts (J) that, on the certificate of the medical officer of health or other legally qualified medical practitioner that any person within the borough is suffering from infectious disease, and is without proper lodging or accommodation enabling the case to be properly isolated so as to prevent the spread of the disease, or to be properly treated, the corporation may give notice to the head of the family (resident in the same building) to which the person so suffering belongs, requiring his removal forthwith to such hospital, or to any place of temporary accommodation provided under the local Act. If there be no such head of the family so resident, or if such head of the family cannot be found, the notice may be given to the sufferer. If the person to whom the notice is given consent, the corporation may forthwith remove the sufferer to the hospital or place of accommodation; but if the person to whom the notice is given refuse to consent to such removal or to be removed, or if he be by age, disease, or otherwise, incapable of giving consent, any justice may, on the application of the corporation, make an order for the removal of the sufferer. Such order may be addressed to an officer of the corporation or to any constable of the borough; and any person who disobeys or obstructs its execution is liable to a penalty not exceeding ten pounds, and to a further penalty not exceeding twenty shillings for every day or part of a day during which the disobedience or obstruction continues. Any expense incurred by the corporation in respect of the conveyance of persons to the hospital or place of accommodation, and his maintenance and treatment therein, may be recovered from him or from his personal representatives in the event of his death therein; or the corporation may, if they see fit, themselves defray such expenses or any part thereof.

The corporation have also adopted two clauses which first appeared in the Oldham Act, and another that appeared in the Huddersfield Act of last year. The first (K) provides that, if any person die in the fever hospital or place of temporary accommodation from infectious disease, and if the medical officer of health certify that, in his opinion, it is desirable, in order to prevent the risk of spreading infection, that the dead body shall not be removed from the hospital or place except for the purpose of being forthwith buried, it shall not be lawful for the dead body to be removed except for that purpose; and when the body is taken out, it is forthwith to be carried directly to some cemetery or place of burial, and there buried. Any person wilfully offending against this section is liable to a penalty not exceeding fifty pounds. The second (L)—borrowed from Huddersfield—provides that any person who hires a public conveyance other than a hearse for the conveyance of the corpse of a person dead of infectious disease, without previously notifying to the owner or driver of such conveyance that the death has been due to infectious disease, and any owner or driver of such a conveyance used for this purpose who does not immediately afterwards disinfect such conveyance, is liable to a penalty not exceeding five pounds. The third (M) gives power to the corporation to make by-laws for regulating the mode of conveyance for the purposes of interment of the body of any person who has died of an infectious disease; for causing the destruction of articles infected: for compelling the disinfection of articles and places, and prescribing the mode of such disinfection; for preventing the sale of infected articles; for giving power of entry for disinfecting purposes; for preventing the use of public conveyances by persons suffering from infectious diseases; for preventing infectious rubbish from being thrown into ashpits or ashtubs; for ensuring the proper flushing of water-closets and for requiring water to be properly laid on to water-closets. For every offence, a penalty not exceeding five pounds is imposed, and for a continuing offence a penalty not exceeding that sum for every day or part of a day during which the offence continues.

The *Birkenhead* clauses are, with one quite unimportant exception, exactly similar to those introduced into the Bill of last year, which was not proceeded with. Notice is to be given to the corporation by the occupier, or other person having the control of a house, of any case of small-pox, fever, cholera, or any contagious or infectious disease occurring therein, unless a duly qualified medical practitioner has been called in (A_3). In this case, it is the duty of the medical man to give particulars to the corporation, who will pay him a fee of two shillings and sixpence for each certificate given. Offence against this enactment (unless ignorance can be proved by the offender) is punishable by a fine not exceeding £10. The corporation are empowered (N) to make by-laws regulating the situation and arrangements of dairies, shippens, and cowsheds, providing for their inspection by an officer of the corporation, and ensuring the purity of their water-supply. The Birkenhead corporation also adopt the Jarrow clauses (B, C, D, E, F) in their entirety, and take power (I^1), in the event of the prevalence of any infectious disease, to establish a temporary hospital or ward for the treatment of the disease, to provide proper fittings, and to engage medical attendants, nurses, etc.; or to make an agreement with the managers of a hospital for the reception of such cases, and pay the necessary costs and expenses out of the borough fund.

In the *Bradford* Bill, so much of the Jarrow clauses are taken as relate to the temporary closing of schools (D) [not of other places of public resort], and of shops, dairies, or other places for the sale or storage of provisions, clothing, or other articles (E). In order that due notice may be given of the occurrence of cases of small-pox, cholera,

typhus, typhoid, scarlet fever, diphtheria, or relapsing fever, the occupier of the house where any such case exists, or other responsible person, is, if no medical practitioner is attending on the case, to give notice forthwith to the person in charge of the police-office at the Town Hall. Every medical practitioner attending on such a case is to give *to the occupier* or other person a certificate, on a form to be provided by the corporation, giving particulars as to it. (A_4). This certificate is to be forthwith delivered by the person to whom it is given by the medical practitioner to the officer in charge of the police-office. The fee for the medical certificates is to be half-a-crown, provided that not more than one fee is to be payable within an interval of thirty days to the same practitioner, for certificates given by him in respect of the same disease occurring in the same building. Any person offending against this enactment is liable to a penalty not exceeding £5. Bradford also adopts the Warrington clause (J), giving further powers with regard to compulsory removal to hospital of persons suffering from infectious disease, and who are without proper lodging or accommodation enabling the case to be properly isolated so as to prevent the spread of the disease, and to be properly treated.

The *Lincoln* Bill reproduces substantially the Jarrow clauses (B, C, D, E, F), giving in addition—like Huddersfield last year—power to charge a fee not exceeding five shillings for any licence to a person to supply nurses (C_2), and to charge a reasonable sum for the services of any nurse provided (C_1). The corporation may also order any place for the sale of liquor or any common lodging-house to be closed. The clauses (G and H) prohibiting a nurse who is attending on a patient in any "infected" house, from attending on any person in any other house (H_1) except with the written permission of a medical practitioner, and forbidding persons dwelling in any such house to work at any other place in the same room with healthy persons, except with the written permission of the medical officer of health, and after disinfection of the person or clothing, appear also here. The penalty for offence against these clauses is £5, but there is not, as at Jarrow and elsewhere, any continuing penalty. All cases of infectious disease, defined in the interpretation clause to be "small-pox, cholera, diphtheria, typhus fever, enteric or typhoid fever, relapsing fever, puerperal fever, scarlet fever, scarlatina, and such other diseases as the corporation under the provisions and for the purposes of this Act may from time to time declare to be infectious or contagious," are to be reported both by occupier and by medical attendant to the medical officer of health at his office, or to the inspector of nuisances at his office (A_1). For each medical certificate the Town Council are to pay half-a-crown, with limitations as to certificates given in respect of the same disease in the same building. Any person offending against this clause is liable to a fine of £5 also. The Warrington clause as to compulsory removal to hospital (J), the Oldham clause as to corpses of persons dying in hospital from infectious diseases being removed only for burial (K), the Huddersfield clause as to corpses not being carried in public conveyances without previous notification to the driver (L), the Oldham clause giving power to make by-laws as to certain sanitary purposes (M), are also in the Bill, together with a clause, borrowed from Warrington and Oldham, altering the procedure with regard to the disinfection of premises. This clause (O) provides that when the corporation are of opinion, on the certificate of their medical officer of health, or of any other legally qualified practitioner, that the cleansing and disinfection of any house or articles therein likely to retain infection, would tend to prevent or check infectious disease, the corporation, without requiring the owner or occupier to carry out such cleansing and disinfection, may themselves cleanse and disinfect the house and articles, and may for that purpose remove any such articles, recovering the expenses from the owner or occupier, or, if they see fit, defraying the whole or part of such expenses themselves.

In the *Reading* Bill, the Jarrow clauses (B, C, D, E, F) are retained, with two others, providing that no person not authorised by the corporation or the medical officer of health shall, except "in case of necessity or urgency, enter such [infected] house or part of a house" (P); and that no nurse attending on a patient in an infected house is to attend on any person in another house without medical permission (H_1); nothing, however, being said as to disinfection of clothing. The corporation are empowered, if they think fit, to establish a temporary hospital or ward for the treatment of infectious disease; and to provide proper fittings, medical attendance, and nursing (I_1). The Warrington clause (J), with regard to the removal to hospitals of infected persons without proper lodging or accommodation, is also adopted. All cases of infectious disease (defined in the interpretation clause to include small-pox, cholera, measles, typhus, typhoid, scarlet, relapsing, and puerperal fever, scarlatina, and diphtheria, and such other disease as the corporation.....may from time to time declare to be infectious or contagious) are to be compulsorily reported to the medical officer of health at his office (A_3). If no medical attendant has been called in, the occupier or other responsible person is to give the notice; otherwise the duty of notice-giving devolves on the medical attendant. For each certificate a medical man is to be paid a shilling, with limitations as to fees in the same house during the space of thirty days. Offence against this clause is punishable by a fine of £10. The corporation are empowered to order by resolution from time to time, on the report of their health-officer, that any other infectious or contagious disease shall, either permanently or temporarily, come within the provisions of the Act (A_2). They are also empowered to make by-laws with regard to dairies (N), similar to those of Bolton and Birkenhead.

The *Salford* Bill reproduces all the Jarrow clauses (B, C, D, E, F), with the proviso that the closing of shops, dairies, or other places for the sale of provisions, clothing, etc., is to be "on the representation in writing of two duly qualified medical practitioners in the borough, and on the recommendation in writing of the medical officer of health" (E_2). A fee of five shillings may also be charged for a license for nurses (C_2), and a reasonable sum may be charged for the nurse's services (C_1). The Huddersfield clauses (G and H), with regard to persons living in infected houses and nurses attending on infectious cases not mixing with other people, except with medical permission and after disinfection of the person and clothing, also appear. All cases of infectious disease, including "small-pox, cholera, whooping-cough, typhus, typhoid, scarlet, relapsing, and puerperal fevers, scarlatina, erysipelas, and diphtheria", and any other disease declared by the corporation to be infectious or contagious are to be compulsorily reported (A_1). Notice of such cases is to be sent both by the occupier and by the medical attendant to the medical officer of health, under a penalty of £10. For each certificate the medical man is to receive half-a-crown, with limitations as to subsequent fees in the same building. The corporation may by resolution, on the report of the medical officer of health, temporarily or permanently include other infectious diseases within the provisions of the Act (A_2). The Huddersfield clause (K), prohibiting the conveyance in a public conveyance of corpses of persons dying of infectious disease, except with due notification to the driver, etc., also appears in the Bill.

The *Stalybridge* clauses are evidently copied from those in the Oldham Act of last year, though only those relating to the notification of infectious cases are adopted. Every case of "small-pox, cholera, scarlet fever, diphtheria, typhus fever, enteric or typhoid fever, and puerperal fever," is to be reported by the occupier or person having charge of the house, to the medical officer of health, or the inspector of nuisances, at his office (A^1). Every medical practitioner attending on such a case is to report the particulars of it on forms to be provided by the corporation for the purpose; and for each such certificate a fee of half-a-crown will be payable. Any person who wilfully, or without reasonable cause, offends against these provisions is liable to a penalty not exceeding forty shillings. (The power to make and enforce regulations with respect to the removal to hospital of persons suffering from infectious disease, advertised in the *London Gazette* as one of the matters which the Stalybridge Bill would contain, does not appear in the Bill as printed.)

Need for Caution in Granting Exceptional Powers as to "Domestic Quarantine" of Infectious Disease.—For reasons which will be sufficiently obvious, I am unable, indeed it would not become me, to say how far the authorities asking for the exceptional powers contained in these local Bills are justified in asking for them. The wide and remarkable adoption by so many authorities (now thirteen in number) of the somewhat stringent provisions in the Jarrow Act of 1878, make me fear lest local authorities may have to some extent lost sight of their own obligations, whilst seeking to impose so great restrictions upon individual action as these clauses imply. They seem, indeed, to be not a little imbued with the old notions of quarantine, and to be expecting to check disease by the rigorous cutting off from the rest of the community of those who have come into contact with infection. As I said in my former report, these "Jarrow" clauses, "although valuable enough as an adjunct to the proper exercise of the powers already conferred by the Public Health Act, seem to me to have been mistaken by some of the authorities as superseding, as it were, the general Act. The restrictions which these Bills seek to impose upon individual action can surely only be reasonably enforced where the sanitary authority, as the guardian of the public health, has itself performed all its own statutory duties, by providing proper hospital accommodation, disinfecting apparatus, and the like." I would, therefore, here repeat the expression of my strong opinion that, before Parliament or the Local Government Board consents to clothe these authorities with power so widely ranging as are proposed, it should first be made clear that the authority has already provided the machinery for checking infection, which should render

possible the due performance of the duties which it seeks to impose upon individuals. It is obviously impossible for me to say what, with regard to any of these towns, is the exact state of their preparedness for epidemics, since this could only be learnt by local inquiry at the places themselves. But under any circumstances, I think the principle is all important to be maintained, that the authority must first show satisfactorily that it is prepared to carry out fully its own powers before it is allowed to shackle individual action to the extent proposed. (See BRITISH MEDICAL JOURNAL, vol. i, 1880, p. 250.)

It is the more necessary to insist upon these points, because in such discussions as have taken place on this really very important subject, the obligations of sanitary authorities to their constituents seem to have been lost sight of. An authority which has not, for example, provided proper infectious hospital accommodation, as at least three of the authorities now asking for exceptional powers have not, may almost be said to be stultifying itself in endeavouring to carry out the regulations proposed in these Bills with regard to "infected places". It would serve no useful purpose to point out in detail the anomalies which these clauses present when taken in connection with the actual sanitary arrangements of particular towns; it must suffice to criticise generally the various proposals that are made.

NOTIFICATION OF CASES OF INFECTIOUS DISEASE.

1—*Method of Reporting.*—First, with regard to the notification of infectious disease; it will be seen that all eight authorities ask for power to compel this notification in one way or another. It is to be regretted that local authorities fail to appreciate, and that the Local Government Board fail to convince them of, the superiority of the method of the reporting that has received the sanction of this Association. In my report of October 1879, on the "Registration of Infectious Disease" (See BRITISH MEDICAL JOURNAL, vol. ii, 1879, p. 830), I have given at length the reasons which induced our Registration of Disease Committee to recommend that the householder or person in charge of the case should be the person by whom the return should be made to the authority. I need not again argue the question, but shall content myself with pointing out that in all the twenty-six districts which now have, or seek to have, compulsory notification of infectious disease, only three, Nottingham, Norwich, and now Bradford, have arranged for this notification in the way that, in the opinion of this Association, is least objectionable, viz.: by the medical attendant to the occupier, the latter being responsible for the information reaching the authority. Of the eight Bills of the present session, only one (Bradford) proposes to follow this course (A^4). Four of the others (Barrow-in-Furness, Lincoln, Salford, and Stalybridge) have adopted the dual method of reporting, (A^1) viz.: notification by the occupier to the sanitary authority, an independent certificate being sent by the medical attendant to the sanitary authority. At Birkenhead and Reading, the occupier is only to report if no medical man is in attendance (A^2); a plan which is open to the objection that, if a person knows that by calling in no medical assistance he can better conceal the existence of infectious disease in his house, he is likely to neglect or delay procuring such advice. Objections still stronger attach to the Aberdeen Bill (A), which, by imposing no duty at all upon the occupier, is likely to encourage the employment of quacks and irregular practitioners who are of course under no obligation to give notice.*

2. *Diseases to be Reported.*—As to the diseases to be reported, but little needs to be said. Small-pox, cholera, typhus, typhoid, and scarlet fevers, and diphtheria, are included in all the Bills; puerperal fever in all but the Aberdeen and Bradford Bills; relapsing fever in all but the Aberdeen, Barrow-in-Furness, and Stalybridge Bills; whilst measles only appears in the Aberdeen and Reading Bills, and erysipelas in the Salford Bill, though the Birkenhead phrase, "any contagious or infectious disease", would of course cover these. It is noteworthy that both at Aberdeen and Salford the corporations wish for particulars of cases of whooping-cough. The only previous appearance of whooping-cough in this series of local Bills is in the Preston Act of last year. The practical usefulness of information as to this complaint may be open to question; but if the Town Councils desire information as to it, there seems no reason why they should not have it.

3. *Fees Payable to Medical Practitioners.*—As to the fees for medical certificates of infectious cases, much diversity is apparent. In my previous report I disclaimed any attempt "to gauge exactly the remuneration which is proper to be given to the medical attendant", nor do I think any one scale could be generally applicable. I leave, therefore, this question to the liberality of the local authorities concerned, merely remarking that the difference between a shilling per certificate at Reading, with limitations as to cases of disease in the same house, and half a crown, without limitations, as at Aberdeen and Stalybridge, betokens a vastly different valuation by the authorities of the information which they thus acquire for the purposes of protecting the public health. It is to be noted, however, that at Aberdeen the fee is to be "a sum not exceeding two shillings and sixpence". Clearly the fee should be made more definite than this, and should, in fact, be a fixed sum. Otherwise the Town Council might possibly later on adopt a fee much below that at first offered, which would be a virtual breach of faith with the local medical men.

4. *Fines for Neglect to Report.*—Fines for wilful offence against the requirement of reporting infectious cases range from £2 at Barrow-in-Furness and Stalybridge, and £2 with £1 for each day of continuance of offence, at Aberdeen, to £5 at Bradford and Lincoln, and £10 at Birkenhead, Reading, and Salford.

5. *Inclusion of other Diseases.*—It will be seen that power is desired by several authorities to include other diseases within the provisions of the Act, upon a resolution of their own (A_2). It may, of course, be argued that an authority that will have to pay for such increased information is likely to be chary in adding to the list of reportable diseases. But I think there are reasons why this power of requiring information as to other diseases should have some sort of veto placed upon it; and I would therefore suggest that in all those cases (Aberdeen, Lincoln, Reading, and Salford) where the Town Council ask for power to add other diseases to their list by a resolution of their own, such addition should only take place with the assent of the Local Government Board, or, in the case of Aberdeen, of the Scotch Board of Supervision.

6. *Necessity for Compulsory Notification being Carried into Effect.*—It is necessary to touch on one more point before dismissing this subject. The authorities who have proposed to require compulsory notification of infectious cases within their respective jurisdictions must be supposed to have considered powers to compel such notification necessary, or they would not have inserted clauses on the subject in their local Bills. Moreover, they must be supposed to have gauged public opinion as to the advisability of such a measure, before proposing it. It is, then, only to be expected that, when an authority asks Parliament for certain powers, and the Legislature accords what is desired, the authority should show its *bona fides* in making the application by enforcing the powers with which it has, at its own request, been clothed. The language of the local Acts is, indeed, such that, to my reading, the authority is in fact bound to exercise these powers. I am not able to speak with confidence as to the working of the clauses as to the notification of disease in each of the now numerous towns where they have been adopted; but it is, I believe, only in one town that the local Act has not been put in force at all. This town is Nottingham, and there have recently appeared in the columns of the JOURNAL some instructive facts as to the state of affairs in that place which are of more than local interest. Nottingham, it appears, although the local Act empowering the notification of infectious cases has now been passed for two years and a half, has made no attempt up to the present to enforce such notification. I may say that the wording of the clause is that the provisions with regard to notification "*shall* have effect"; and it is, therefore, a question whether, in law, the Town Council has any discretion in the matter. Be that as it may, however, the Act has never been enforced. I do not enter at greater length upon this subject, because it has recently formed the subject of much comment in the JOURNAL*; but the experience of Nottingham should warn Parliament of the necessity of imposing some compulsion on local authorities to set and keep in motion this most important part of sanitary machinery in towns where its use has been sanctioned. I think that if, after seeking and obtaining special powers, authorities neglect to enforce them, they should be subject to the same penalties as attach to the neglect to provide proper sewerage or water-supply, or to perform the other compulsory duties imposed upon them by the Public Health Act.

II.—REGULATIONS AS TO INFECTED PERSONS, PLACES, AND THINGS.

Antecedent Duty of Local Authority to provide Proper Sanitary Appliances.—The next subject that claims attention is the clauses which all but two of these eight Bills now contain, giving the authorities certain powers—known as the Jarrow powers—with regard to infected persons, places, and things. As I have already said, these clauses, though valuable enough as an adjunct to the proper

* It is instructive in this connection to note that at New York, where notification of infectious disease is compulsory, "physician" is, for the purposes of such notification, held to include a dentist, a midwife, and "every other person who practises about the sick and injured" (which phrase would seem to include all unqualified practitioners). See BRITISH MEDICAL JOURNAL, vol. ii, 1880, p. 1002.

* See BRITISH MEDICAL JOURNAL, vol. i, 1880, p. 953; vol. ii, 1880, pp. 854 and 1033; vol. i, 1881, p. 31.

exercise of the powers conferred by the Public Health Act, must not be regarded as superseding the general Act. The local authority has a duty of its own in providing proper sanitary appliances, such as hospital accommodation, disinfecting apparatus, mortuary, and the like; and, unless the authority has provided these, and shown in its general sanitary administration its earnestness for improvement, it should not be permitted to put the restrictions upon individual action which the Jarrow clauses would impose. Indeed, I cannot think how such sections can be made to work without gross injustice to individuals, unless the sanitary appliances of the authority are tolerably complete. I must disclaim pointing these remarks by reference to the unpreparedness of the authorities of any of the eight places now under consideration against an invasion of infectious disease, though it would not be difficult for me to do so. I will only say that I think the eyes of the Local Government Board ought to be opened—if by no one else, by this Committee—to the wrongheadedness of much of the legislation that is going on under cover of these local Bills. It is obvious that there must be order in these matters, and that the local authority has duties of its own to fulfil before it can with propriety, or with justice to its constituents, be clothed with the power of restriction on individual action which is the essence of the Jarrow clauses.

The Jarrow Clauses.—I will refer briefly to the subsections of the Jarrow clauses as they appear in the local Bills before us.

(1) *Temporary shelter or accommodation* (B) for the members of a family in which infectious disease has appeared would no doubt be useful, provided that there is a proper hospital to which the sick member can be sent, and be tended till he is well again. But, as regards those towns which have no fever-hospital for the reception of infectious cases, I hardly see how the clause as to temporary shelter-houses is to be usefully worked. Lincoln makes a curious blunder in asking for power to provide temporary shelter "for the *member* of a family in which infectious disease has appeared". The same phrase appeared in the Blackburn Act of last session. It can, apparently, only mean the provision of temporary shelter or accommodation for the infected person, and not for the healthy members of the family who have been exposed to infection, which is the obvious meaning of the clause in the Jarrow Act, as since copied by Derby, Huddersfield, Oldham, Preston, Barrow-in-Furness, Birkenhead, Reading, and Salford.

(2) *The provision of nurses* (C) by the sanitary authority is good, though I am a little doubtful as to the proposal of Barrow, Lincoln, and Salford (C_1)—following that of Huddersfield last session—to charge a reasonable fee for any nurse provided by them. I should have thought that it would have been better to make this nursing staff a purely gratuitous one, and to send the nurses to cases in which they were most needed, without any expense to the individual. Perhaps, however, a demand might grow up amongst the well-to-do for skilled nurses under the control of the sanitary authority; and for nursing services amongst this class of persons, the authority might properly expect payment. But it would seem best to regard these nurses as primarily for the poor who cannot otherwise have them, and to keep the idea of payment for their services as much in the background as possible. Lincoln and Salford, again copying Huddersfield, propose to license nurses for infectious cases, and to charge a fee of five shillings for such licence (C_2).

(3) It is right that sanitary authorities should have power to *close schools and other places of public resort* when such a course is needed in the interests of the public health. The part which schools play in the dissemination of infection is only too well known amongst medical men; but school-managers not unfrequently consider the spread of infection a secondary matter, compared with the loss of part of their grant from the Education Department. The question, indeed, of the increased facilities for the spread of disease afforded since the Education Act came into operation, is one of very great moment. It is so far satisfactory to find that the Local Government Board are alive to this danger; but it must be remembered that it is the Education Department, as the controlling power over school-managers, that has to be moved in the matter. In their recently issued ninth annual report, the Local Government Board observe: "We have found, in the reports of medical officers of health and elsewhere, considerable complaint of the dissemination of infectious disease through the medium of elementary schools. There is at present no legal power to enforce the closing of a school, against the will of the managers, on account of a local epidemic; and, although we are glad to recognise the readiness of most school managers to defer to the representation of the medical officer of health on this point, yet we have met with instances in which schools have been kept open, notwithstanding his advice, and where disease has appeared to be diffused from such schools. It may be necessary to consider hereafter whether some amendment of the law may not be requisite to enable sanitary authorities to deal with this source of danger." In these remarks I quite concur; and I trust that the Board will make such representations to the Education Department as will aid in the settlement of what is undoubtedly a grave difficulty in the proper enforcement of the public health law with regard to the prevention of infection.

(4) As to the *closing of shops, dairies, or other places for the sale or storage of provisions, clothing, etc.*, when infectious disease appears on the premises, and the prevention of the entrance of the public into such places (E), I would repeat the criticism I offered last year, that, whilst this power of closing is undoubtedly important in the interests of the public health, the sanitary authority "ought to be ready to afford all conceivable help to the people, to enable them to open the shop or other place again with as little delay as possible, and for this purpose ought to have in readiness proper hospital accommodation and disinfecting apparatus. Here, as in the next clause, important monetary as well as social considerations are involved; and it is especially necessary, in a matter of this sort, to avoid any semblance of shifting responsibility from authority to individual". The six authorities who ask for this power (Barrow, Birkenhead, Bradford, Lincoln, Reading, and Salford), copy in the main the Jarrow clause, though Lincoln proposes, like Huddersfield last year, to add places for the sale of beverages and common lodging-houses (E_1) to the list of places that may be closed; and Salford would only close the premises on the representation of two medical men, and the recommendation of the medical officer of health (E_2).

(5) The design of the clause empowering the local authority to make *Regulations with regard to infected houses* is evidently good, namely, to stop infected articles from being scattered broadcast over a district, as from a tailor's, milliner's, or washerwoman's. But the compensation provision still seems to me to be likely to work badly in practice, and to be very costly. It would be a direct loss to a tailor, or milliner, or laundress, to be kept out of work for six weeks or two months, whilst the house was "infected"; and meanwhile the authority must support the whole household. Up to a certain point, these regulations are no doubt valuable and important; but there is a limit to their usefulness, and certain additions which have been made to them by various local authorities savour of bygone notions about quarantine. The Reading proposal, copied indeed from the Blackburn Act of 1879, that "no person not authorised by the corporation or medical officer of health shall, except in case of necessity or emergency, enter infected houses" (P), seems to me to be of this kind. It cannot, without great expense and ceaseless watching, possibly be enforced; and the simpler and more common-sense plan would seem to be to remove at once the source of infection to hospital, and to disinfect the premises immediately, so as to impose as few restrictions upon individual movements as are consistent with the claims of the public health. Of the same class is the proposal made by Barrow, Lincoln, and Salford, that no person dwelling in an infected house "shall work at any other place in the same room with healthy persons, except with the written permission of the medical officer of health, and after disinfection of the person and clothing" (G). In commenting upon a similar proposal in the Huddersfield local Bill of last session, which was, notwithstanding its transparent absurdity, passed into law, I endeavoured to show the unworkable character of such a regulation; and, as these Barrow, Lincoln, and Salford clauses are obviously founded on the Huddersfield one, my objections would equally apply to them. Again, the proposal that no nurse attending upon an infectious case "shall either at the same time or afterwards attend as nurse upon any other person without the written permission of a registered medical practitioner, and after disinfection of the person" (H) is, in its present form, obviously too stringent. Of course, its aim is to prevent the spread of infection from the nurse's person and clothing, and to forbid nurses going straight from an infectious case to a lying-in room; but, as the clause stands, it would prohibit a nurse who was attending on a case of scarlatina in a house from treating another case of the same disease in the same house unless with "the written permission of a registered medical practitioner, and after disinfection of the person and clothing". I would suggest that this requirement should, as at Lincoln and Reading (H_1), be confined to nurses moving from one house to another in order to tend a patient sick of a different disease. Of the four authorities (Barrow, Lincoln, Reading, and Salford) who adopt this clause, one—Reading—unwisely leaves out any reference to the disinfection of the nurse's person and clothing, which I take to be the essence of the clause, and which ought certainly to be retained.

III.—Hospitals.

An important part of these local Bills are those clauses relating to the provision of infectious hospitals and the removal of patients thereto.

(1) *Provision of Infectious Hospitals.* Section 131 of the Public Health Act gives ample power to any local authority

to provide a hospital, to fit it up, and to keep it ready for use; yet we find Barrow-in-Furness and Lincoln proposing to give the local authority power to provide such (I); whilst Birkenhead and Reading copy a clause in the Blackpool Act of 1879 as to the provision of a temporary hospital, with the necessary appliances and medical and nursing staff (I_1). None of these clauses are necessary, and there seems no reason for their retention. I have already expressed my opinion that authorities asking for such exceptional powers as those to which I have referred in the preceding section should, as a condition precedent to the granting of such powers, have provided proper hospital accommodation, disinfecting apparatus, etc.; and I think that a clause might fairly be inserted in each Bill making the provision of these compulsory before the other clauses can come in force. It is only in this way that we can hope to prevent local authorities from altogether drifting away from their own responsibilities.

(2) *Compulsory Removal to Hospital.*—A more serious question is the utilisation of actually existing infectious hospitals for the class of people for whom they are primarily intended—viz., for that very numerous class of persons who, whilst not paupers, cannot be treated for infectious disease at their own homes without danger of the spread of infection to others. Certain officers of health have been content to shelter themselves behind the alleged difficulties of inducing this class of persons voluntarily to go to hospital in excusing the insufficient use of hospitals in their districts, or the non-existence of such buildings. While it cannot be doubted that there is often difficulty in inducing mothers to part with their children whilst suffering from infectious disease, yet, when officers of health have really endeavoured to make their hospitals useful, the difficulty has to a large extent disappeared. It is more often by persuasion than by compulsion that a politic health-officer will secure isolation in hospital; but, where the latter becomes inevitable, there are undoubtedly some legal difficulties in the way which certain of these local Bills seek to overcome. Section 124 of the Public Health Act provides that "any person who is suffering from any dangerous infectious disorder, *and is without proper lodging or accommodation*, or lodged in a room occupied by more than one family, or is on board any ship or vessel, may, on a certificate signed by a legally qualified medical practitioner.....be removed by order of any justice" to any infectious hospital within a convenient distance from the district. The real difficulty lies in the words which I have placed in italics. It has been held—on what principle I confess I cannot understand—that the "proper lodging or accommodation" of the section is lodging or accommodation proper for the patient himself, and not for those surrounding him. In other words, so long as the patient can be treated without danger to himself, the law can take no cognisance (*qud* compulsory isolation) of the danger of catching the disease incurred by those around him. This view is so singular that, had it not been authoritatively promulgated, I should have hesitated to notice it. It seems unnecessary to argue against it, beyond pointing out that this Section 124 comes in a part of the Public Health Act headed "Provisions against infection", and that the limitation of the powers of the section to cases of "dangerous infectious disorders" implies that there is a special reason, beyond getting the person, well why his removal to hospital should be made compulsory. It is monstrous to limit the action of this clause to those cases only where the lodging is improper for the patient himself. Whatever the legal view of the clause may be, it is obvious that its real intention is to check the spread of disease by compulsorily removing and isolating, away from healthy people, a person suffering from a disease capable of indefinite multiplication among his neighbours. Legal subtlety has, however, cast doubts upon this reading of the clause; and local authorities have of late been increasingly anxious to set the question at rest by an amended clause that shall be more definite in its wording. The first local Act that contained any reference to this power of compulsory removal was that of Warrington in 1879. Section 25 of this Act is in all essentials the same as that which I have marked (J) amongst the proposals of Barrow-in-Furness. It will be observed that this clause alters the procedure with regard to compulsory removal to hospital, the help of a justice's order being only called into requisition when the person, to whom notice requiring the removal of the sufferer to hospital has been given, definitely refuses to consent to such removal. But the real importance of the clause lies in the words "without proper lodging or accommodation enabling the case to be properly isolated so as to prevent the spread of the disease, or to be properly treated"—which make clear just the point that the general Act of 1875 is alleged to leave doubtful. In this clause it may be noted as significant that the prevention of the spread of the disease is put first, and the proper treatment of the case second. With the view of ascertaining the exact reasons of the Warrington corporation for including this clause in their local Act, I communicated on the subject with the then medical officer of health, Mr. G. W. Joseph, who courteously sent me the following official statement of the town clerk. This will be read with interest in connection with my preceding remarks.

"The object of the corporation in adopting the clause referred to was to extend the operation of the clause [124] in the Public Health Act. The latter merely deals with cases 'without proper lodging or accommodation', leaving it a matter for decision as to what is proper lodging and accommodation, regardless of the surrounding circumstances. The clause adopted by the corporation specially applies both to proper lodging and accommodation, so as to prevent the spread of disease amongst others, and also so that the case may itself be properly treated; and in this respect it does away with the vagueness of the Public Health Act and the liability of adverse decisions of the magistrates. It will be observed that the wording of the section is, 'without proper lodging or accommodation enabling the case to be properly isolated so as to prevent the spread of disease'. This is with reference to those surrounding the patient. Then read the other way, viz., 'without proper lodging or accommodation enabling the case to be properly treated', applies to the patient himself."

Since Warrington adopted this clause, it has been followed by Oldham and Stafford, and now by Barrow-in-Furness, Bradford, Lincoln, and Reading. This, at least, shows how much the difficulty to which I have referred is felt in practice, and how necessary it is that any ambiguity in Section 124 of the general Act should be set at rest in the sense I have indicated.

(3) *Removal for Burial of Corpses of Persons dying in Hospital.*—One other point in connection with hospitals deserves notice here. Though there is no provision in either the English or Scotch Public Health Act with regard to the disposal of corpses of persons dying in hospital of infectious disease, Section 158 of the Irish Public Health Act provides that no such body shall be removed from the hospital until removed direct to a mortuary or cemetery. Any person violating, or any officer of a hospital or other person who knowingly permits the violation of this provision, is liable to a penalty of five pounds. Last year the Oldham Act contained substantially the same provision in a clause providing that if the medical officer of health certified that it was desirable, in order to prevent the risk of infection, that the body of a person dying from infectious disease in the fever hospital should not be removed therefrom except for the purpose of being forthwith buried, no person might remove the body except for burial, under a penalty of fifty pounds. This year Barrow and Lincoln ask for similar powers (K), and the same authorities also seek for power to make by-laws, *inter alia*, for regulating the mode of conveyance for purposes of interment of the body of any person dying of an infectious disease (M). I think these clauses are eminently such as to commend themselves to the approval of the Committee.

IV.—Disinfection of Premises, etc.

1. Lincoln is the only authority which this year has followed the example of Warrington and Oldham, in altering the procedure with regard to the disinfection of private premises. Under Section 120 of the Public Health Act, it is the duty of an authority, when they think cleansing or disinfection necessary, to give notice to the owner or occupier to do what is necessary within a specified time. If he fails to do so, he is liable to a penalty; and the authority may do the work for him, and charge him with the expense. Under the local Acts above spoken of, the authority need not wait to give the occupier notice; but may themselves cleanse and disinfect the house and articles therein, and may recover the expenses from the occupier; or may, if they choose, themselves defray the cost (O). This alteration seems to prevent the unnecessary but unavoidable delay of the procedure of Section 120 of the general Act, and as such merits approval.

2. Huddersfield is, as will have been seen, responsible for a good many of the clauses in these local Bills. Thus, from its Act of last year are taken the clauses appearing in the Barrow, Lincoln, and Salford Bills, imposing a penalty on persons hiring a public conveyance, other than a hearse, for the conveyance of the corpse of a person who has died from infectious disease, without previous notification of the fact to the owner or driver; as well as a penalty on the owner or driver of such a conveyance, who, after its use for this purpose, does not immediately have it disinfected (P). I have no observations to make with regard to this clause.

V.—By-Laws.

1. Following the example of Oldham last year, Barrow and Lincoln seek for power to make by-laws for certain sanitary and disease-preventing purposes (M). None of these matters need any comment from me.

2. In the Birkenhead and Reading Bills, is a proposal that the Town Council should have power to make by-laws for the regulation and inspection of dairies, shippens, and cowsheds, and for ensuring the purity

of their water-supply (N). There was reason for such an enactment when Bolton took this power in 1877, before the passing of the Contagious Diseases (Animals) Act of 1878; but, since the latter Act was passed, all town councils have the power for which Birkenhead and Reading now ask, and the clauses relating to this subject in those local Bills are, therefore, unnecessary.

VI.—Height of Rooms.

Before concluding, there is one other point in these local Bills which, though not strictly germane to the title of my report, I feel bound to bring under the notice of the Committee. No less than six, viz.: Aberdeen, Barrow-in-Furness, Birkenhead, Lincoln, Reading, and Stalybridge, of the eight local Bills under consideration, contain a clause providing for a minimum height of inhabited rooms. Generally a minimum of nine feet is appointed, with certain exceptions in the case of attics, and it is only at Reading that the height is as low as eight feet. That so large a proportion of the Bills should contain a clause of this nature may seem at first a little singular, looking to the general powers of the Public Health Act; but there is a reason for it, which, though not at once obvious, is instructive as showing the manifold deficiencies of the Public Health Act, or rather as showing the difficulties arising from its unsatisfactory wording. No one except a lawyer would probably doubt that Section 157 of the Public Health Act, which empowers local authorities to make by-laws "with respect to the ventilation of buildings", gives by these very words powers to regulate the height of rooms. For it cannot be doubted that the height of rooms is an element of the most important kind in real ventilation. The Local Government Board have, however, ruled that neither Section 157 nor any other section of the Public Health Act gives an authority power to appoint a minimum height for rooms; and they have systematically rejected local by-laws framed with this object. Thus it comes about that only those authorities who are rich enough to afford a local Act can have this much needed power—the necessity of which is, indeed, significantly shown by three-fourths of the Bills under consideration dealing with the matter. As has recently been said, "the ventilation of any room in such a way as to provide for the health and comfort of its occupants, must clearly depend to a great degree upon its construction, and especially upon its height. If the room be high, the air need not be changed so rapidly as when it is low. The lower the room, the quicker the change of air must be, and the greater consequent difficulty of securing ventilation without a draught, which is always undesirable, and not unfrequently dangerous, especially in cold weather. People, especially poor people, who inhabit the houses for which building by-laws are most required, are apt to think only of the length and breadth of the room in apportioning the number of its occupants; and thus, the enactment of a minimum height for rooms becomes necessary, if for no other reason, in order that overcrowding and consequent ill-health may not arise. The principle may indeed be laid down, that for the purposes of proper ventilation, a room must have a height in proportion to its length and breadth. It is therefore important that sanitary authorities should have power to regulate the height of rooms so as to secure the necessary cubic space for ventilation, and it would seem well not to take a lower standard than at least eight feet, in order that currents of air may pass over the heads of the occupants. The requirement of a minimum height of rooms was amongst the model by-laws formerly issued by the Home Office, before the Local Government Board was formed. It found a place in the Metropolitan Buildings Act of 1855, and has since been adopted by several provincial towns in their local Acts. It seems to have worked well, and without complaint, in the places where it has been adopted, and if there be any valid legal objection to it under the present law, that law should certainly be amended without delay". (See *Sanitary Record* for January 15th, 1881, page 249.)

Unnecessary Clauses in Local Bills.—The Committee will not fail to have observed that, in the course of my remarks, I have several times had to speak of clauses as unnecessary, because already contained in the general law. It is, indeed, remarkable how fond local authorities are of making trivial alterations in the general statute law in any local Bill they may happen to be promoting. Aggravated examples of this may be seen in the Huddersfield Act of last year, and in the Birkenhead Bill of the present year. Huddersfield has considered it necessay since 1871 to have three Improvement Acts of its own, all of portentous length; the first reaching to over 400 clauses, the second to 141, and the third to 117. The Birkenhead Bill of the present session contains no fewer than 522 clauses, of which it is hardly too much to say that at least half are unnecessary. Without wishing to point my remarks by reference to these two particular Bills, I may say, generally, that many local Bills presented to Parliament are simply examples of the ingenuity of the draughtsman, who has incorporated in them as many changes in the general law as his fancy can devise.

Effect of Local Changes of General Statute Law.—The ramifications of local legislation are rapidly becoming so extensive and confused, that I think the subject of some effective supervision of local Bills needs to be earnestly pressed upon Parliament and the Local Government Board. The latter body has, indeed, the duty of reporting to Parliament upon all these Bills, and presumably draws the attention of the members of the Parliamentary Committee, to which each particular Bill happens to be referred, to the points which it considers defective therein. But the recommendations of the Board are notoriously treated in so capricious a fashion by the Committees who virtually decide the Bills for the House, that private-bill legislation has come to be a subject almost of ridicule, so illogical and inconsistent is it. I think, therefore, that in any representations which this Committee may think proper to make to the Government on the subject, it should urge the necessity of some efficient control being instituted over those clauses in local Bills to which there is obvious objection as unnecessary or ill-considered. Certainly, local Bills were never intended to be, what they have now to a considerable extent become, media for all sorts of unnecessary and confusing alterations in general enactments, which, when passed, were intended to be of general application, and not to be altered in particular towns at the caprice of local authorities or their officers. There is no precedent for allowing an authority to override the general law in favour of one which it thinks better, by the simple expedient of smuggling its alterations into a local Bill which few people hear of, and fewer still care about, till it is actually law in the particular place to which it refers. It must be obvious that any considerable increase of legislation of this sort must needs impair very importantly the unity of the working of the Public Health Act throughout the country. It would seem by far the wiser and better plan for the Local Government Board to face the question at once, and to set to work on an amended and amplified code of public health which shall have general application, rather than to allow these local patchings of an imperfect law to be multiplied indefinitely.

Desirability of Conference with President of Local Government Board.—These considerations seem to me to warrant action by the Parliamentary Bills Committee in the direction of conference with the President of the Local Government Board on the subject of such parts of these local Bills as touch the interests of the medical profession, and upon which the profession has a clear right to be heard. I would suggest, therefore, that Mr. Dodson be asked to receive a deputation of this Committee at an early date, for the purpose of drawing his attention to the dimensions which private legislation on the subject of the limitation of infectious disease is assuming, and to impress upon the Government through him the desirability of amending and strengthening the Public Health Act of 1875 in those parts which have been proved to be insufficient and unsatisfactory. Especially might the Committee ask for an early reconsideration of the position of the Board with regard to the notification of infectious disease, and urge the importance of facilities being given to authorities who may wish to adopt this notification in their districts without the trouble and expense of a special local Act. The Bill just introduced into Parliament by Mr. Edmond Gray, proposing to make notification of infectious disease compulsory in Ireland for any place where the sanitary authority desires and the Local Government Board approves, affords, I think, a valuable opportunity for the whole subject being referred to a Select Committee of the House, so that the question can be thoroughly sifted, and the form settled which future legislation shall take. In any case, it is clearly impossible that affairs can remain in their present anomalous position; and I think it behoves this Committee, in the interests of its constituents, to use its best efforts to have the matter set without delay upon a more satisfactory footing.

The Sanitary Condition of Country Villages.—Mr. J. B. Jacob, the medical officer of health for the Plymstock district, gives a very uninviting description of the condition of some of the Devonshire villages under his charge, in his report to his authority that some of them are very dirty, dung-heaps being more plentiful than closets. It will not, therefore, be surprising to learn that in one of them (Elburton), there was an epidemic of typhoid fever, three per cent. of the entire population being attacked. In another village (Pomphlete), the population, which is about three hundred, has no supply of water nearer than half a mile. There is in the whole village but one closet, which is intended for the use of eight or nine houses, some houses containing more than one family. The rest of the village has neither closets or cesspits. At Oreston, Mr. Jacob suggests that the cemetery should be closed, as it is too close to the village, and particularly to the village-pump. Diarrhœa in the summer appeared to be almost traceable to the water of this pump.

ON THE EPIDEMIC CAUSED BY ANKYLOSTOMUM AMONG THE WORKMEN IN THE ST. GOTHARD TUNNEL.

By E. BUGNION, M.D., Geneva.

THE little worm known by the name of *Ankylostomum duodenale*, or *Dochmius*, or *Strongylus duodenalis*, has acquired a bad reputation lately, from having been the principal cause of the serious epidemic which prevailed last year, and still prevails, among the workmen of St. Gothard.

This parasite had been hitherto entirely unknown in Switzerland; it is not unknown in Italy, but is more common in hot countries, such as India, the Antilles, and Brazil; and especially in Egypt, where it causes the disease denominated the Egyptian chlorosis. This latter fact was brought to light in the year 1854 by Griesinger, a distinguished German physician, who passed many years in Egypt; and to whom we owe, as well as to his countryman Bilharz, important researches as to the parasitical diseases of that country.

The ankylostomum is a nematoid worm, and consequently belong, to the same order as the trichina, the oxyuris, the ascaris lumbricoides or children's worm; but that which renders it much more prejudicial than the latter, is the fact that, instead of feeding on the contents of the bowels, it attaches itself like a little leech to the mucous membrane of the duodenum, of which it sucks the blood. Its mouth is armed for this purpose with a cup-like sucker, on the edge of which are fixed three pairs of hooks, with which it fastens itself to its victim. At the entrance of the œsophagus are found, besides, three movable blades, which work like little lancets, and probably serve to make incisions in the portion of the mucous membrane seized by the sucking organ.

Large ecchymoses owing to the bite of the ankylostomum are often found in the mucous or submucous lining of the intestines; and the repeated intestinal hæmorrhages produced by its attacks may be considered as the principal cause of the aggravated anæmia and increasing weakness which are generally observed in such patients.

The largest of these worms are always females; they measure about half an inch in length (126.18 millimètres); the male is about half the size. The smallness of these parasites is compensated for by their number, for they are often found by hundreds in the intestines of the individuals who have died of this disease. Dr. Tarona, at Varese, counted as many as 1,250 specimens of ankylostomum in the evacuations of a single patient, after the administration of ethereal extract of male fern.

The external symptoms of the complaint are an increasing paleness of the skin, lips, etc.; and it is accompanied in serious cases by swelling of the feet, and a puffiness of the face, caused by the excessive fluidity of the blood. The pulse is quick and feeble; the patient suffers from palpitation and giddiness; he feels a great lassitude, and soon becomes unable to work. With these symptoms, which are those of an aggravated anæmia, are generally connected a derangement of the digestion, and cutting pains in the abdomen. This condition may last for years, and is too often terminated by death. The patient finally sinks under dropsy and exhaustion.

The ankylostomum is extremely prolific; each female produces thousands of eggs. Happily for the patient, the development of these does not take place in the bowels, otherwise he would certainly lose his life. The eggs must be evacuated; the embryo continues its evolution externally, and is hatched in water. It is in drinking this water containing the germs of ankylostomum, that the man introduces this dangerous visitor into his body. It is easy to understand that, owing to the want of cleanliness on the part of the St. Gothard workmen, the epidemic has extended so rapidly.

The first of these cases was recognised by Professor Bozzolo last spring. It was that of a workman who had been employed in the great tunnel, and died soon afterwards in the hospital at Turin, with symptoms of aggravated anæmia. The *post mortem* examination revealed the presence of numerous specimens of ankylostomum in the small intestine. Three other cases, observed in the same town by Drs. Concato and Perroncito, were the subject of a communication to the Académie des Sciences in Paris, in the sitting of March 15th, 1880 (see *Comptes Rendus*, p. 619). The parasite was also identified, but in no great numbers, on March 10th, 1880, at Airolo, at a *post mortem* examination, by Dr. Giaccone, one of the physicians of the St. Gothard Company.

Notwithstanding these important discoveries, hesitation was at first felt in attributing to the presence of this noxious worm the cases of anæmia which were constantly increasing among the workmen. In consequence of the ankylostomum having been rarely observed up to this time in that part of Europe, it seemed more natural to refer the complaint to vitiated air, want of light, unsuitable food—in short, to the defective sanitary conditions in which the workmen lived.

The evidence, however, become irresistible after Dr. Sonderegger had treated a young engineer of the works. The patient showed all the symptoms of Egyptian chlorosis; and, after having taken santonin (two decigrammes) with calomel (five decigrammes), evacuated the ankylostomum in large numbers.

Similar cases were not long in appearing. Thus, in the month of November, Professor Bäumler discovered the parasite in the case of a Tyrolese workman, who had left the Gothard, and who had been admitted into the hospital of Freiburg in Breisgau.

In December, six instances of the same thing were observed by Dr. Schönbachler, in the Schwyz Hospital, among the workmen who had been employed in the tunnel. One of them soon sank, and about 300 specimens of ankylostomum were found attached to the mucous lining of the duodenum and jejunum.

During that time, twelve new cases were reported at Turin, by Dr. Perroncito and others; but none of them had a fatal result, in consequence of the successful administration of 15 to 30 grains of ethereal extract of male fern with 2½ to 3½ drachms of tincture of male fern, during two or three days successively.

Finally, we can add a last case, that of an Italian workman, who had been at Göschenen up to October last, and who, after having worked for some months in another part of Switzerland, was obliged, in consequence of increasing anæmia and weakness, to seek medical aid in the Infirmary of Rolle, during the month of January. Dr. Dumur, the director of this institution has had the kindness to send eight specimens of ankylostomum (three males and five females) evacuated by this patient. The presence of the parasite was first placed beyond doubt by microscopic examination of the eggs, which had been expelled. These little bodies, which measure hardly more than one six-hundredth of an inch (one-twentieth of a millimètre), nevertheless offer to the physician an important aid to diagnosis, by their being easily distinguished from those of the other hæmatoid worms infesting the human body.

The eggs of the *Oxyuris vermicularis*, which might otherwise be confounded with those of the ankylostomum, as being about the same size, are distinguished by the greater elongation of the shell, which is more convex on one side than on the other, and is furnished with an operculum. The embryo ready formed may be perceived within, while the eggs of the ankylostomum are generally expelled at an earlier stage of development.

In fact, we remarked, in the last-mentioned case, that all the freshly evacuated eggs included either an undivided vitellus, or only two, four, six, or eight cells; but, three days after, the segmentation of the vitellus was concluded in all the eggs, and even three embryos were found swimming about in the liquid, about ½ millimètre long (exactly 0.35 millimètre), and quite similar to those of *Dochmius trigonocephalus*, described by Professor Leuckart in his excellent work *Die Menschlichen Parasiten*, II, p. 435.

It is well to add that, if the cause of the epidemic of St. Gothard was not immediately recognised, it was partly caused by the impossibility of having *post mortem* examinations, the authorities of Airolo having refused the necessary permission.

We are informed, in fact, in the report published in June 1880 by Dr. Sonderegger, who was retained by the Federal Government, that, in 117 deaths which took place up to that time, only a single examination was made.

Now that the cause of the disease is known, it will certainly be subdued in a short time by the use of suitable remedies, and its return will be prevented by appropriate sanitary measures.

BEQUESTS AND DONATIONS.—The Newport (Mon.) Infirmary and Dispensary has received £500 under the will of Mr. R. P. Jones.—Mrs. Mackintosh has given £100 to the Glamorganshire and Monmouthshire Infirmary, Cardiff.—Lady Harriet Bentinck has given £100 to the Home for Incurable Children.—The Rev. Sir Brook C. Bridges, Bart., has given fifty guineas to the Kent and Canterbury Hospital.—Mr. William Dent has given £50 additional to the Royal Free Hospital.—"J. W." has given £50 to the Royal Hospital for Children and Women. Mr. Howard Gilliat has given fifty guineas to the Charing Cross Hospital. Mr. Charles Pearce has given fifty guineas to the Sussex County Hospital, Brighton. The Ladies' Association of the Great Northern Hospital have subscribed £40 to it.—The late Mrs. Abigail Mazon has bequeathed £200 to St. Patrick's Hospital for Incurables, and £50 to North Infirmary, Cork.—Mr. John M'Dowall has bequeathed to the Royal Infirmary and to the Western Infirmary, Glasgow, the sum of £1,000 each.

ON OPEN FALLOPIAN TUBE.*

By J. MATTHEWS DUNCAN, M.D.,
Physician-Accoucheur to, and Lecturer on Obstetric Medicine at, St. Bartholomew's Hospital.

THE uterine end of the Fallopian tube is regarded almost exclusively as a closed, or a merely potential, tube or canal. It is spoken of as large enough to permit a bristle to be pushed through it; but this is done with difficulty, and, for practical purposes, it is no doubt generally closed, for fluids accumulate in the uterine cavity under considerable pressure; and the use of intra-uterine injections, whether after delivery or at other times, is feasible, because the injected fluids, as a rule, do not find an open passage in the tubes. The closure of the tube is not by such apposition of its walls as is seen when a piece of gut is pressed flat between two parallel surfaces, but is stricture-like, or such as is produced by an active sphincter.

The cervix uteri has a canal, which is generally neither closed, nor a merely potential tube, there being an easily appreciable quantity of mucus, even in its external and internal os. If it be a mere potential canal, its closure is by apposition of its anterior and posterior walls; and a large probe—the ordinary uterine probe—can be passed easily through it. Fluids do not accumulate in the uterine cavity because of want of opportunity of exit, if the cervix be in its ordinary condition. Indeed, although it is often asserted that such closure of the cervix as arises from smallness of either of its two terminal openings, or from flexion, leads to distension of the uterine cavities by accumulation of retained secretions or excretions, there is no evidence to this effect; while examples of these cervical conditions without retention are very frequently observed.

The canalisation of the cervix, or rather its further canalisation, or increased canalisation, is different from the canalisation of a tube, which begins by having no available canal or passage at all.

The opening of the os uteri, at either end of the cervix, so as, with the intervening passage, to form a cylindrical tube of considerable diameter—say that of a No. 9—is easily effected by bougie in the healthy female; and its further rapid dilatation, so as to permit the passage of the finger, may also be effected. The canalisation of the cervix in labour is well known, and to a great extent understood.

The dilatation and canalisation of the cervix has often been described as occurring in sexual excitement; and Rouget has described a supposed mechanism of its production (see the author's *Researches in Obstetrics*, p. 431). This canalisation has also been described by Beck (*American Journal of Obstetrics*, November 1874), as seen in progress through the speculum; and I have observed, in the same way, the external os uteri forming a rounded wide opening in a woman who had never been pregnant, and whose external os was, a short time previously, in the ordinary virgin state. The improvement of the canalisation of the cervix is the chief object of most of the methods of treating sterility. (For further references, see Pallen, *American Journal of Obstetrics*, 1880, "On a Case of Abdominal Pregnancy".)

Apart from pregnancy, the otherwise healthy cervix becomes spontaneously canalised in certain hæmorrhages, which I have described in a paper on Hæmorrhage, with Dilatation of the Unimpregnated Uterus, and in another on Intra-uterine Menstrual Coagula (*Obstetrical Journal of Great Britain and Ireland*, January and March 1880).

The canalisation of a tube is provided for by its anatomical structure, and it must take place spontaneously, regularly, and naturally, in order to transmit the fecundated ovum; but little is known of its occasional occurrence as a condition morbid in itself, or leading to morbid results. This occurrence of dilatation or spontaneous canalisation was long ignored, as may be seen by reference to the literature of hæmatocele (*Edinburgh Medical Journal*, November 1865, p. 409). Indeed, long after its description (*ibid.*, June 1856), many attempts were made to explain away the evidence on which its occurrence was asserted.

No one now denies the occurrence of patent Fallopian tube, for it is frequently observed in practice, the probe passing through it in making uterine investigations. It has also been frequently seen in dissections, and of this I recently had an example. Investigating the pelvic conditions of a case, destined, by a colleague, for ovariotomy, I found the uterine probe pass to the right side of the pelvis, and far beyond the limits of the uterine body, which was pretty easily and certainly felt. When the woman was on the operating table, I failed to pass the probe again through the tube, probably from the unfavourable circumstances under which the attempt was made. A few days subsequently, in the *post mortem* examination, the right tube was observed lying in the route which the probe had taken, and its uterine extremity was patent, not to the extent of being big enough to transmit a uterine sound, with its large bulbous point, but to transmit a common small surgical probe.

Interesting evidence of the patency of the tubes is found in the intra-uterine clots discharged in some cases of metrorrhagia. These, coming away as models of the uterine cavity, bear at their upper angles long clots drawn out of the tubes, and found hanging from the main intra-uterine clot. Appendages of the same appearance and origin may be found attached to the decidua in cases of abortion (see the author's *Researches in Obstetrics*, p. 296); but these are decidual in structure, and have some strength, and are not extracted from the tube, but are part of the tube. They do not indicate patency; but the extraction of a long clot, so delicate and perishable as it is, attached only by the feeble cohesion of coagulation to the main intra-uterine clot, indicates a decided patency of the canal from which it passed. In Pirie's case (*Obstetrical Journal*, January 1880, p. 5), "the upper part of the clot was firm, even somewhat tough, and the tubal cords were nearly four inches long". In the case of C. Rokitansky (*ibid.*, March 1880, p. 133), the body of the uterus contained "a three-cornered coagulum, ending above on both sides in a short thin thread running to the tubes". Whitehead (*ibid.*, March 1880, p. 137) says that, in his case, "small fibrous prolongations from the clot corresponded to the Fallopian tubes".

Of the possible evil results of persistent patency of a Fallopian tube, the following is an example related to me by Mr. Hewer, as having occurred in the practice of his partner Mr. Calthrop. A widow, aged 48, had a polypus of the cervix snipped off by scissors. On the fifth day after the operation, her sister gave her, gently, a vaginal injection of warm water with Condy's fluid. Whilst receiving the injection, the patient cried out, "You have killed me", and was seized with sudden pain in the right side of the abdomen. She lived for three days in great pain, till within a few hours of death. On *post mortem* examination, there was found general peritonitis with flaky lymph on the intestines. The right Fallopian tube was seen to be much larger than the left—twice as broad; it was freely patulous. The section of the pedicle of the polypus was healthy. There were two other polypi in the cervix. Here, as Mr. Hewer says, it was plain that the injected fluid passed into the peritoneal cavity through a canalised tube, and caused peritonitis and death. Of this accident, many cases are now on record, the injections being either vaginal, as in Hewer's case, or intra-uterine.

By the same route, I have long held that blood frequently passes from the uterine cavity into the peritoneal cavity, and gives rise to hæmatocele. Indeed, I incline to the opinion that this diversion of blood, whether menstrual, menorrhagic, or metrorrhagic, is the most frequent cause of this not uncommon disease. Of course, it is necessary to suppose, what has been well accounted for, that the morbid course of the blood is mechanically easier than the natural or ordinary one through the cervix uteri into the vagina; and there can further be no doubt that, ordinarily, even when a tube is patent, the mechanically easier progress of the blood is through the cervix into the vagina. Were it not so, hæmatocele would be much more frequent than it is. I have often known a woman lose blood from her uterus *per vaginam* while a tube was freely patent.

Besides the passage of blood, there is the almost certain, but very rare, passage of a lumbricus through a patent tube (Winckel, *Die Pathologie der weiblichen Sexual-Organe*, S. 321). This kind of passage is effected by the movements of the animal.

Further, openness of a tube is a necessary condition for the accomplishment of the wandering of the ovum in certain cases of extra-uterine pregnancy.

In conclusion, it is necessary to remember that, besides natural and morbid conditions of patency, there may be unnatural absence of temporary patency, or of occasional dilatation of the tubes; for it is probable that they dilate during sexual excitement, and permit the passage of the semen. Indeed, it is scarcely conceivable that semen can permeate the tubes while they are in their usual closed state. This absence of dilatability of the tubes, or their rigidity, may thus be a cause of barrenness.

The proposition of Tyler Smith to catheterise the tubes, and thus cure sterility, was brought forward under the influence of different theoretical views from those expressed in this paper. It has, as yet, led to no more practical result than the proposal of Froriep to close them by cauterisation, in order to produce sterility.

* Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Cambridge, August 1880.

MEDICAL MAGISTRATE.—Dr. Moorhead, of Cootehill, has been placed on the Commission of the Peace for Cavan County.

CASE OF A FIBRO-CYSTIC SUBPERITONEAL TUMOUR OF THE UTERUS, CURED BY THE ACTUAL CAUTERY.

By A. WYNN WILLIAMS, M.D.,
Physician to the Samaritan Free Hospital for Women and Children.

Miss D., aged 32, consulted me on October 26th, 1877, complaining of severe pain in the back, prolapse of the rectum, costiveness, and great agony during and after defæcation. There was also great irritability of the bladder. The catamenia were regular, and not very excessive. On examining *per vaginam*, a hard rounded mass, somewhat larger than a cricket-ball, could be felt, firmly attached to the lower and posterior part of the uterus, filling Douglas's space, and pressing upon the rectum. The os uteri appeared normal, but somewhat patulous. The uterine cavity was half an inch above its normal length. The patient was ordered to take bromide of ammonium and chloride of ammonium three times daily, and Indian hemp every evening. After continuing these remedies for about four weeks without any relief to her sufferings, she entreated me to remove the tumour. I explained to her that no cutting operation would be justifiable. This opinion was based on the position of the tumour, and its close connection with the uterus. I then informed her that I had for some time past contemplated, in a suitable case, when medical treatment had failed to give relief, attempting the removal of such a tumour by another method; one, however, that was by no means without very considerable risk. She replied that she did not care what I did to her; that she would rather die than continue as she was, her sufferings being intolerable. I then explained to her, that what I proposed doing was to pass a red-hot iron into the tumour through the vagina, to which proposal she readily consented. I was fully cognisant of the good results following the treatment adopted by Drs. Greenhalgh, Routh, Meadows, myself, and probably others, by cauterising intra-uterine or submucous fibroids. I was also well aware that pedicles and other portions of the peritoneum in ovarian operations had been frequently severed by the actual cautery, without any injurious results.

On November 22nd, the bowels having been thoroughly cleared, chloroform was administered by my son, Mr. Trevor Wynn Williams of Brixton. The patient being under its influence, I introduced a large-sized speculum; and after ascertaining, by means of the sound used as a probe, the most prominent part of the tumour, I passed a red-hot pointed wire of the thickness of a crow's quill into the tumour; then withdrew it, and passed along the same tract another red-hot wire of the size of a swan's quill. On withdrawing this, about half an ounce of clear transparent yellow fluid followed, which at first sight had much the appearance of urine; but, whilst I was examining the bladder for fear some accident might have occurred, the liquid, cooling immediately, coagulated; which, together with the examination, fully satisfied me that it was the contents of a cyst situated in the centre of the tumour. The speculum was then withdrawn, and a morphia suppository introduced into the rectum.

When I visited her on the following day, little or no constitutional disturbance had manifested itself, and she had passed a very tolerable night. The nurse was ordered to syringe out the vagina three or four times a day with a weak solution of iodine, to prevent any septic poisoning; and to insert another morphia suppository, if required. With the exception of some trouble with the bowels, owing to the prolapse, which was very great, she went on without anything worthy of note occurring until the 29th, seven days after the wires had been introduced; when, on my visiting the patient, the nurse informed me that, after syringing, several large pieces of slough had passed; but, much to my annoyance, she had not preserved them. On making an examination *per vaginam* for the first time since the cauterising, I found the tumour much reduced in size and softened, and was able to pass my finger into the hole where the cautery had been inserted in the upper part of the vagina, adhesion having taken place all round it. The prolapse of the gut was still so large and painful, that I contemplated removing a portion with the cautery; but in the meantime opiate fomentations were kept constantly applied, and confection of senna taken occasionally, until the morning of December 7th, when I received a telegram requesting me to visit the patient immediately, as she was taken suddenly worse. On my arrival, I learned that, on the previous evening, my patient had been frightened by hearing her servant fall down stairs; and that, shortly afterwards, hæmorrhage had set in, and continued till the bedclothes were perfectly saturated. I was glad to find, however, on examination, that the hæmorrhage did not proceed from the wound, but from the uterus itself. The vagina was at once plugged with pledgets of cotton-wool saturated with one part of the strong solution of perchloride of iron in two parts of water; a scruple of gallic acid, dissolved in warm water, was ordered to be taken every three hours; warm milk, with a little brandy, being administered frequently. After remaining with the patient some time, I was glad to find that the hæmorrhage had ceased; and it did not recur. I removed the plugs on the second day. I was now, owing to the relaxed state of the parts, able to replace the prolapsed bowel, placing a T-bandage with a firm pledget of wool over the anus. The bowel did not again become prolapsed. From this time, nothing untoward occurred. The wound continued to discharge for some time, the vagina being frequently washed out with the iodine lotion. With generous diet and tonic medicines, she soon regained her strength. Some weeks afterwards, on making an examination *per vaginam et rectum*, I could discover nothing more than a small nodule where the tumour had been attached to the uterus, a little above the junction of the body with the cervix; and this in course of time became still smaller, and has continued so ever since. In fact, I do not think a stranger would discover even this slight elevation on examination. She is now in the enjoyment, I may safely say, of perfect health, menstruating regularly, requiring only an occasional mild aperient.

CASES OF LITHOTRITY AFTER BIGELOW'S METHOD.

By REGINALD HARRISON, F.R.C.S.,
Surgeon to the Liverpool Royal Infirmary.

I desire to record four additional cases where I have practised Bigelow's operation for the removal of stone, subject to such modifications as the special features of each instance required. In three, the results were in every respect satisfactory; one was followed by a fatal termination, for which the operation was in no way responsible; it was undertaken to relieve sudden and acute paroxysms of pain, produced by the presence of a stone within the bladder, which nothing in the way of medicine, save the administration of an anæsthetic, served to alleviate. In fact, it was, out of necessity, done during the height of a vesical inflammation, which it was found impossible to assuage. It might be said, Would not lithotomy have given the patient a better chance? I think not. The operation was unattended with difficulty, and, as far as could be judged from what came away in the washings, was effected without any structural damage. The course of events appeared in no way altered by the removal of the stone; and death came, as it probably would have done had no operation been performed. In cases such as these, the inflammatory action is not confined to the walls of the bladder, but extends to the subjacent textures, which are often extensively infiltrated with exudation material. In this patient, as I have said before, I should only have been too glad to postpone the removal of the cause of the inflammation. The unbearable character of the pain left no alternative but an operation. I cannot help expressing regret that a proceeding so well devised as Bigelow's should be saddled with a result for which it was in no way responsible. In order, however, that the profession may be able to form a correct estimate of all proceedings of a new and original kind, it is incumbent that cases terminating unsuccessfully should have equal prominence given to them as those where the results are such as we could always desire.

Case I.—A. C., a gentleman aged 42, whom I saw in consultation with the late Mr. Long in August 1879, had previously been suffering from the passage of renal calculi; but, more recently, there were signs that one or more had remained in the bladder. I crushed an uric acid stone, half an inch in diameter, and removed the fragments by Bigelow's aspirator. Chloroform was administered by Mr. Long. On the third day after the operation, the patient left for the country. A notice of the case has been delayed, as I thought, from his symptoms, that there might possibly be a recurrence. I saw him on February 17th, 1881, when he reported himself as having remained perfectly well.

Case II.—W. H., a gentleman aged 69, was seen by me in September 1880, at Seacombe, in consultation with Mr. Byerley and Dr. Craigmile. I found a large phosphatic stone, rather more than two inches in diameter. It was with some difficulty that I could get the stone into the grasp of my lithotrite, so as to allow of the fixing of the screw. I removed the stone at two sittings by Bigelow's method. Considering the age of the patient, and his somewhat feeble powers, and having regard to the nature of the stone, I preferred two shorter sittings rather than a prolonged one. On a third occasion, I introduced the lithotrite for the purpose of removing a small shell of stone

which had remained behind, probably detained in a saccule of the bladder. The fragments removed weighed 237 grains. The patient made an excellent recovery.

CASE III.—A gentleman aged 77, whom I saw in consultation with Mr. Hakes in December 1880, for some time past had suffered from an irritable bladder, but refused to be examined until his symptoms became suddenly and most acutely painful. I found two calculi. As I have before stated, it was found necessary, in consequence of the extreme urgency of the symptoms, to attempt removal without delay. On December 21st, in the presence of Mr. Hakes and Dr. Lee, without any difficulty, I cleared the bladder of two uric acid calculi; the fragments weighed one hundred and eighty grains. The course of the cystitis appeared in no way altered by the operation, and death took place on December 24th.

CASE IV.—J. O., aged 64, was admitted into the infirmary under my care in December 1880. Under ether, I crushed a phosphatic calculus three-fourths of an inch in diameter, and evacuated the fragments. The patient left the infirmary fourteen days after the operation.

EMPYEMA: DEATH UNDER THE USE OF ETHIDENE.

By ALBERT MOUILLOT, M.B.Dub.,
Pathologist to the General Hospital, Birmingham.

SAMUEL H., aged 45, was admitted to the General Hospital, Birmingham, on Thursday, February 17th, suffering from effusion in the right pleural cavity. On the 24th, a hypodermic needle was inserted into the thorax for diagnostic purposes, and a syringeful of pus withdrawn. Dr. Simon decided on having the empyema opened by two incisions, and a drainage-tube applied. In the evening of the same day, I was asked to give an anæsthetic, which, owing to the man's general condition, I was reluctant to do. However, I decided on giving ethidene, believing its action to be mid-way between that of chloroform, which was too depressing for the case, and ether, which was contraindicated by the trouble of the lung. During the administration, the patient struggled a good deal, but nothing alarming occurred until he was "under", when it became necessary to turn him on the left side to make the incision. He had not been in that position more than two seconds, when I found the pulse and respiration failing; and a glance at the pupils showed them to be widely dilated. The patient was immediately turned on his back; artificial respiration was commenced; and stimulants were applied to the heart—first, by slapping the cardiac region with the hand; and afterwards, by the needle and galvanic current. The only result was to get one long inspiration, which flattered us with hope that he would recover.

At the *post mortem* examination, held on February 26th, I first opened the abdomen, and found the liver pushed down as far as the umbilicus, and crossed by the transverse colon. A trocar with cannula was next inserted in the right side, and seventy-two ounces of pus were withdrawn. The sternum was then removed; and the right lung was seen to be adherent to the ribs, about three inches from the sternum—so that no empyematous cavity could be seen from the front. The apex of the heart reached the sixth interspace. The right auricle and ventricle contained much dark fluid blood; the tricuspid valve admitted four fingers. The left ventricle was empty. The right lung was adherent to the anterior chest-wall and diaphragm. The pleura was much thickened, and covered with shaggy lymph. The lung was collapsed, or airless. About ten ounces of pus remained in the cavity. The lung was much engorged with blood. A pyramidal abscess was found in the portion of the lung corresponding to the middle of the axillary line, which abscess was surrounded by a patch of pneumonia. A small abscess, connected with the periosteum of the frontal bone, was seen when the scalp was removed. All the other viscera were normal. Microscopic examination of the heart showed no fatty degeneration.

REMARKS.—I do not bring this case forward as any argument against the use of ethidene—an anæsthetic which, since the report of the Glasgow Committee appeared, I have used frequently; but I should like to elicit opinion on the advisability of administering any anæsthetic in these cases. The operation is painful, and sometimes prolonged; but, on the other hand, the danger is great, particularly when, as in this case, the other lung is diseased. My own experience extends only over three other cases. In one, ether was given, but had to be stopped on account of cough. In the second, a young girl of twenty, chloroform answered very well. The third, a middle-aged man, took ethidene, and had respiratory trouble during administration.

COLOBOMA OF THE CHOROID AND IRIS.

By W. C. ROCKLIFFE, M.A., M.D., Ophthalmic Surgeon, Hull.

CONGENITAL deficiency of the choroid being a somewhat uncommon occurrence, any case differing in the slightest from the accepted usual conditions is of interest.

A. B., a male child, aged 4, was brought to me by his mother, who stated "she wished to know whether her fears were correct"—viz., that the child was permanently blind. His family history was good, and I could elicit no case of affected vision (other than presbyopia) in any other member or branch of the family. He had three brothers, and one sister, perfectly healthy, and free from any malformation. According to his mother's statement, "from infancy, the two first years of his life were despaired of, he being almost continually delirious, and apparently blind; suffering from, as his medical attendant described it, 'water on the brain'." Since this time to the present date (two years), the child had enjoyed perfectly good health, and was most intelligent. When I first saw him, he had a well-fed healthy appearance, with somewhat a large head; but no visible signs of disease or defect, except coloboma of the right iris, and nystagmus in both eyes. The cleft in the iris had been noticed since birth. The vision was not easy to test, but seemed somewhat myopic in the left; while there was no perception of light in the right eye, except possibly at the extreme periphery.

Ophthalmoscopically, there was a slightly myopic appearance, with some haziness in the lower half of the fundus in the left eye. In the right eye, there was a large coloboma of the choroid, presenting the usual white surface, glistening from the lower part of the fundus, and extending upwards, embracing the disc and yellow spot; anteriorly reaching nearly to the cleft in the iris. The bulging backwards of the sclerotic appeared uniform throughout, and the retina in apposition, except at two small spots; while the boundary of the coloboma was most distinct, with a dark claret-coloured margin, round which the retinal vessels wound, and beyond which the fundus gradually merged into a healthy appearance, which latter condition was only seen at the extreme periphery. The disc was altogether indefinable; and the vessels twisted in an irregular and disconnected manner all over this white space. Where the coloboma of the choroid approached that of the iris, was a dark narrow band, possibly small rudimentary ciliary processes, as suggested by the late Mr. Soelberg Wells.

The general appearance (although larger) much resembled the engraving in Liebreich's *Atlas of Ophthalmoscopy*, except that the vessels crossing the coloboma appeared shorter, more tortuous and disconnected, and the coloboma whiter.

The coloboma of the iris was situated, as usual, at the lower and inner portion of the iris; pyriform in shape, the base toward the pupil. It was confined to the right eye, and was associated with no other congenital deficiency except that of the choroid.

This case is of interest in that it deviates somewhat from the usual, although by no means certain, conditions. 1. The macula lutea and optic nerve were both implicated and indefinable. 2. The coloboma affected only one, and that the right eye; it having been stated that usually both eyes are affected, or if only one, the left. 3. No deficiency or arrested development presented itself in any other portion of the body; and it was associated with no congenital cataract or defect except nystagmus.

HASTINGS.—The population of Hastings is now estimated at 40,400; and amongst this number of persons, there were 1,097 births and 734 deaths in 1880, equal to rates of 27.15 and 18.16 per 1,000, against rates of 26.97 and 16.84 in 1879. The infant mortality is still very high, those dying under five years of age numbering no fewer than 285, or more than one-third of the total deaths. The reason unquestionably is, in Mr. Ashenden's opinion, the increasing use of artificial foods, which are really little better than common starch. The deaths from zymotic diseases were considerably above the average, no fewer than 60 persons having died in the June and September quarters from diarrhœa alone. "Teething, want of breast-milk, and injudicious feeding, were credited with the specific origin of the disease." In consequence of the prevalence of scarlet fever in the suburbs of London, cases were continually cropping up in different parts of Hastings, chiefly among the middle and upper classes of visitors. Mr. Ashenden, while admitting the usefulness of the existing sanatorium, urges the provision of a building more capacious and better adapted for the treatment of more than one zymotic disease at a time. Constitutional diseases caused 135 deaths, local diseases 362, and developmental diseases 111. A good deal of unpretending sanitary work seems to have been got through.

CLINICAL MEMORANDA.

A CURIOUS CASE OF SUFFOCATION.

L. F. W., a plump, healthy-looking child, aged three years, was placed by the mother on a stool near the fire, to finish a cup of bread and milk which had been prepared for a baby. The child began to eat the food with a teaspoon, and the mother left the room. Within a minute, she heard the child cry out. She rushed back into the room, and, seeing that the child had become black in the face, she snatched her up, and ran with her to the shop of a chemist close by. The chemist thought the child was dead, and sent for Dr. J. W. Watson, my colleague, who attended immediately and pronounced life to be extinct. The child's face at that time had become pale; she had not been convulsed, nor had she vomited anything.

At a *post mortem* examination made twenty-six hours after death, the rigor mortis was well marked. There were no marks of external violence. The mouth and pharynx were empty, and there was a thick layer of subcutaneous fat. The heart, lungs, trachea, and œsophagus, were very carefully removed in one mass. The heart was healthy in substance; the right cavities were flaccid, and contained some fluid blood; those of the left side were contracted and empty; there were no clots. The lungs were healthy, with the exception of a patch of recent miliary tubercles at the left apex. Several bronchial glands were found to be much enlarged and filled with caseous matter. The œsophagus was empty throughout. On opening the larynx and trachea, a solid yellowish mass, of the size of a white haricot-bean, was found impacted in the glottis; and in the upper part of the trachea, another similar mass was found lying; these consisted of caseous matter. Just above the bifurcation of the windpipe, and on its right side, was an ulcerated opening half an inch long and a quarter of an inch in width; this communicated with the cavity of a diseased bronchial gland, as large as a walnut, which still contained some semi-solid caseous matter, and from which had come the mass that had caused sudden death from obstruction of the glottis. In the bronchi were found other smaller and softer portions of the same material. The abdominal organs were all in a healthy state.

The case is of considerable interest from its rarity; and the result of the *post mortem* examination was a comfort to the mother, who thought the child had been choked by some portion of the food, and blamed herself for want of care. It is curious, also, that so much disease of the bronchial glands, with so large an ulceration in the windpipe, should have caused no symptoms whatever in the child, and should have coexisted with such a well nourished condition of the body.

WYNN WESTCOTT, M.B.Lond., Sunny Gardens, Hendon.

OBSTETRIC MEMORANDA.

RAPID EVACUATION OF UTERINE CONTENTS BY ERGOT.

A FEW days ago, I was called upon to treat a stubborn case of uterine hæmorrhage in a woman aged 36, who gave the following history. The catamenia commenced at thirteen; she was married when eighteen, and had nine children rapidly; the last was born about three years ago. This labour was more tedious than the others, and was complicated by placental adhesion. She had never had an abortion, to the best of her knowledge. Menstruation was regular till six months ago, when it ceased for nearly three months. She did not at this time fancy herself pregnant, and about three months ago had uterine hæmorrhage, which lasted about a fortnight; this returned about three weeks afterwards, and continued, with slight intermissions, up to the present time. She, moreover, complained of pain, and a sensation of weight about the pelvis. On examination, I first ascertained that the uterus was about double its normal size, but uniformly enlarged. The speculum then revealed the cervix to be in all respects healthy and firm; the os was not unduly patent, and from it there exuded a dark bloody discharge, not in any way offensive, and not in large quantity. The sound could not be passed further than about half an inch into the uterus; and the os only just admitted the entrance of the sound, it being so firmly closed. From these data, I inferred that there was some product of conception in the womb; but, as the patient insisted that she was not pregnant, I thought of the possibility of a fibroid tumour. However, I ordered her to keep in bed, and prescribed a dose of thirty minims of liquid extract of ergot, with four grains of carbonate of ammonia, to be given every four hours. One hour after she had taken the first dose, "labour-pains" came on, which increased in severity; and, in a few hours, a mass was expelled which was about the size of a duck's egg, forming a complete cast of the uterine cavity, and, on examination, proved to be placental structure, which was considerably thickened by some fibrous tissue on the uterine surface. There was no trace of a fœtus. The whole mass was expelled from the uterus in about four hours after the ergot was taken, notwithstanding that the os was previously firmly contracted; and a second dose was not needed. From this time, she made an uninterrupted recovery.

BOYD B. JOLL, M.B.Lond., St. Ives, Cornwall.

THERAPEUTIC MEMORANDA.

INTRAVENOUS INJECTION OF MILK.

I READ with much interest the account given by Dr. Austin Meldon, and related in the JOURNAL, page 228. At the end of 1871, I was suggesting the injection of "chyle", in cases of typhoid fever and other exhausting diseases, to some medical friends; and, the following year, I informed a colleague of mine (Dr. R. W. Tibbits) at the Bristol Royal Infirmary, of my idea; coupling it with the wish that, in cases of surgical collapse with hæmorrhage, ammonia in solution should be injected instead of transfusing blood. A short time afterwards (October 1872), a patient, whose leg had been amputated, was, on the third day, dying; and, at my desire, my colleague injected ammonia in solution, and it was marvellous to see the rapid improvement in his case; but, unfortunately, only for a few hours. But the experiment was not thrown away, and was not without good and practical results; for, subsequently, it was tried, and that successfully, in several cases of surgical collapse (one case a double amputation); and certainly, from experience in such cases, I feel sure that, in many cases of supposed collapse from hæmorrhage, the collapse is due, not so much to the loss of blood, as to nervous shock; and, therefore, ammonia is more likely to be beneficial than transfusion of blood. There are many cases of collapse from nervous shock in midwifery practice which would be benefited, if not saved, were the cause more thoroughly understood; there is not time for remedies to reach the system other than by being placed directly in the venous channels. I feel, therefore, thankful for Dr. A. Meldon's valuable and, I trust, practical paper.

THOMAS E. CLARK, M.D., late Surgeon Royal Infirmary, Bristol.
Weston-super-Mare, February 19th, 1881.

THE CROTON-OIL TREATMENT OF RINGWORM.

DR. MAGEE FINNY, in his communication in the JOURNAL of February 26th on the above subject, remarks, that I have advised the use of croton-oil in the form of a liniment. A reference to my first article on Ringworm (*Lancet*, January 24th, 1880), and to a letter (April 10th), will show that this is a mistake, as I strongly advised the use of the pure oil, as the alcoholic solution is more apt to run beyond the limits of the spot painted with it, and thus to cause pustulation where it is not required.

It has afforded me much pleasure to see that Dr. Liveing and Dr. Magee Finny both advocate the use of croton-oil in suitable cases, and that the rules advised by Dr. Liveing for its application are similar to those I published in the *Lancet* and BRITISH MEDICAL JOURNAL (June 12th, 1880), where I gave a list of the most suitable cases in which croton-oil might be applied, and which subsequent cases have confirmed; viz.:

1. Inveterate cases that have resisted all other treatment for months or years, if not very extensive; especially those where the inveterate parts of the patches have been marked out and reduced in size by other treatment, as by oleate of mercury.

2. Any small patch of ringworm, not larger, say, than half-a-crown, where time is of the utmost importance, and a cure is desired as quickly as possible.

3. Cases, for example, where ringworm has been detected and properly treated for a time, until the new hair has made its appearance; after which treatment has been discontinued, although many diseased stumps remained. Months, or even years, have passed, and the child is perhaps rejected at some public examination. One or more patches are to be seen where the hair is growing firmly; but, on close inspection with a lens, some scurfiness and broken hairs or stumps are observed scattered among the long hairs on the patches.

4. Pustulation, in minute spots, should also be attempted, as probably the only cure for disseminated ringworm.

I fully agree with Dr. Finny that kerion may be produced with safety

—in proper cases—in children under ten. I have myself frequently used the oil to children from five to ten years of age.

ALDER SMITH, M.B.Lond., F.R.C.S.,
Resident Medical Officer, Christ's Hospital.

THIS treatment for obstinate attacks of ringworm is not new, as may be supposed. My uncle, the late Dr. Wm. Lane, of Limavady, Co. Derry, Ireland, employed it in very obstinate cases, to my knowledge, as far back as the year 1853. I have often had to make it up in the surgery in those days of my pupilage. I have used it since I came here, I think twice, and with success. His formula was: Croton-oil, three parts; castor-oil, five parts; spirit of turpentine, two parts; mix well in a bottle, and rub well in the affected parts, repeating application when required till cured. Afterwards have the parts often and regularly washed and rubbed over with mutton-suet.

JOHN WM. LANE, M.D., L.R.C.S.I., Bishop's Castle.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

UNIVERSITY COLLEGE HOSPITAL.

HEMIPLEGIA, WITH MENTAL IMPAIRMENT; PARALYSIS MORE MARKED IN LEG THAN IN ARM; AND INCONTINENCE OF URINE. REMARKS.

(Under the care of Dr. H. CHARLTON BASTIAN, F.R.S.)

(For the use of the notes, we are indebted to Mr. HENRY MAUDSLEY, M.R.C.S., House-physician.)

A. S., aged 49, male, was apprenticed to a plumber in his thirteenth year, and had followed that occupation ever since. The patient's father died, aged 65, of asthma; his mother, at 62, of "decay of nature". He had never had rheumatism, nor had he suffered from gonorrhœa or syphilis, though as a young man he was rather given to over-indulgence in drink, and excessive sexual intercourse. He was married at twenty-two; issue, four children, alive and well. He married for the second time at thirty-two; issue, one child, alive and well. For the last five months, he said, he had felt out of sorts, had lost flesh, and had been troubled by a "feeling of sinking at the heart".

On November 24th, the patient was sitting in a chair, reading, when he felt a sudden "giddiness", referred to the frontal region; he fell off the chair on to his left side. He found that he was unable to rise by his own efforts, and, when helped, said that the left leg dragged in walking, and that the left arm was powerless; on trying to move, he had "cramp-like" pains in the calves, and the muscles became "knotty". He was unable to retain his urine, the bladder emptying so soon as the desire to pass urine arose. Two or three days after the attack, he suffered, he said, from bronchitis. The bowels had been constipated; when relieved by purgatives, the stools were passed into the bed.

On December 1st, he was admitted. Left hemiplegia, with slight rigidity, and involuntary emptying of the bladder about every two hours, were noted. He was ordered to have an ounce of castor-oil.

On December 2nd, he was ordered a draught at night, containing twenty grains of bromide of potassium, and the same quantity of chloral.

On December 3rd, an acid mixture containing two grains of quinine was ordered, and full diet.

On December 6th, he was carefully examined. He was a man of spare, slight build, looking older than his stated age—forty-nine. His hair was grey; head partially bald; no arcus senilis. The cranium was not symmetrical, the left side being fuller and rounder than the right, owing chiefly to a flattening of the right parietal bone. He appeared to be rather dull and heavy; there was no distinct affection of speech, but his utterance was slow; he sometimes paused a long time before answering a question. When his attention was aroused, ordinary questions were answered readily and quickly; but, if the question were a little out of the common, he seemed puzzled. He said his memory was not impaired. He was good-tempered, and easily made to smile. He had slept well since he had the draught, but before that, had been very restless at night. The sense of smell was, perhaps, a little more acute on the right side. He was found to be presbyopic; he read easily with suitable glasses. Ophthalmoscopic examination revealed nothing abnormal. The left pupil was a little smaller than the right; both reacted well to light, and in accommodation. There was no ptosis; no strabismus. There was slight, but very definite, facial paralysis on the left side; the muscles on that side moving to normal less than those of the upper part of the face. He could move quite well on the left side. He could protrude his tongue: the tip was inclined perhaps a little to the left. All the movements of the left upper limb were markedly slow and weak, and, during their execution, there was a marked expression of effort. With great slowness, uncertainty, and difficulty, he could raise his hand to touch the fly which swung above the bed. The hand was semi-pronated; all the joints were semiflexed, and could not be extended. His grasp was very weak (15, with the dynamometer). Passive movement of the elbow met with a little resistance, due chiefly to the triceps. The movements of the right upper limb were not affected, though the grasp on this side also was weak (58). The right lower limb was not affected, but, on the left side, the paralysis was very marked. At the hip-joint, there was a barely recognisable power of movement, and the toes could be feebly flexed. There was slight rigidity on passive movement at the knee; rather more at the ankle. The sensibility of the limbs did not appear to be at all affected. The plantar reflex was markedly diminished; ankle-clonus was easily obtainable (not present on December 1st). The patellar tendon phenomenon was exaggerated. Electric irritability was not altered, either quantitatively or qualitatively, in either upper or lower limbs. When the desire to pass urine arose, it was immediately voided, so that he was obliged to keep the slipper constantly applied, in order to prevent wetting of the bed. Since the attack, his bowels had operated three times, and each time after a purgative. He seemed to know when the stool was about to pass, and called for the bed-pan; but, before it could be brought, the evacuation had occurred. The arteries were visible, locomotor, tortuous, and rigid; pulse incompressible (98 to 106). The heart's apex-beat was in the fifth space, one inch outside the nipple-line. The impulse was heaving. The second sound at base was accentuated. No murmurs. Respirations 28; irregular in depth and frequency. This irregularity was rhythmic; there were three or four deep inspirations, followed by seven or eight more shallow, and then by three or four so shallow as to be only perceptible on close observation; then the cycle began again with a deep inspiration. A few sibilant rhonchi were heard at both bases; no dulness. There was no deposit of lime salts on the gums, but, in the upper jaw, there was a dark-blue line along the margin of the gum. Tongue clean; bowels constipated. The urine was of specific gravity 1026, acid; a trace of albumen was found on December 2nd and 4th. The temperature, taken with an ordinary clinical thermometer in the two axillæ, was never above 98°. Most of the observations showed readings considerably below the normal. There was no constant difference between the two sides.

December 10th. His mental condition was much the same, but perhaps he was more easily excited to tears. He was unable to do "simple multiplication". The power of moving the left arm had decidedly increased. There was no improvement in the lower limb.

On December 8th, the urine was free from albumen; but, on December 11th, a trace was again found. After this date, no trace of albumen was ever seen, though the urine was frequently and carefully tested.

December 17th. He could now flex the hip to an angle of about 100° with the abdomen; he had some power, also, over the knee, ankle, and toes. His urine passed less frequently; he never wetted the bed. His mental condition was about the same.

December 22nd. He was very gloomy; cried very easily; and was childish in his manner. The motor symptoms were not much altered. He passed his motions into the bed, as he was not able to retain them long enough to give the nurse time to get the bed-pan.

December 28th. He had slight tremor of the hand and forearm on movement. There was slight plantar reflex; the patellar reflex was about normal; there was no ankle-clonus. The temperature observations, made twice a-day in the two axillæ, gave a temperature on the left side 1° to 2° above the right. It must be noted that he lay habitually on his left side, with the right shoulder exposed.

January 5th. His mental condition was worse; he cried more easily. He was difficult to manage; constantly asked for the bed-pan; when it was brought, he did not use it. He had complete control over the bladder and rectum. The power of moving the arm and leg was about the same.

January 9th. He cut the rope of his pulley the day before yesterday, because he thought it would be better if he had to reach higher. To-day, he cried about it when reproved, and could not understand why he did it.

January 12th. He sat up for a couple of hours last night, but could not stand; he looked and felt better and brighter. The power of movement in the left leg was much the same.

January 18th. He had sat up for two or three hours every day. His mental condition was improved. The left arm was stronger. The grasp of the right hand was 65; of the left, 30. The power of movement in the left leg was increased; but he was not able to stand. There was no definite difference between the muscles on the two sides in their reaction to the faradaic current.

January 19th. The power in the left leg had somewhat suddenly increased. He walked across the ward with the assistance of one of the other patients.

January 22nd. He sat up all day, and could walk without any support. He took a short step with the left leg; there was no dragging of the toe, no circumduction at the hip, and the toe was raised from the ground. He had perfect control over the sphincters. Urine was not passed with unusual frequency. He was still very childish, and easily made to cry.

January 25th. Diarrhœa came on yesterday evening, and continued through the night. The stools were watery; small in quantity. He was ordered to have a mixture containing sulphuric acid and opium.

January 26th. The diarrhœa had been checked; the patient was rather exhausted by it.

January 31st. He felt stronger again. He could do simple multiplication of money fairly well. The grasp was, right, 60; left, 25. He walked steadily, without support of any kind. His gait showed feebleness; he took short steps, and scraped the left heel slightly along the ground. He carried the left shoulder distinctly lower than the right. His mental condition was not materially altered during the previous ten days. Electricity was not used as a method of treatment.

He was discharged on February 5th.

REMARKS BY DR. BASTIAN (on December 10th).—Looking to the mode of onset, and to the condition of the patient's arteries, this is a case of hemiplegia probably due to cerebral hæmorrhage, though not to a large bleeding, judging from the slight disturbance of consciousness when the attack commenced, and from the fact that he is already beginning to regain motor power. I wish, however, specially to draw attention to three symptoms, not commonly associated, with which we have to deal in this case, viz., obvious mental impairment, incontinence of urine, and paralysis—notably more marked in the leg than in the arm.

There is a distinct slowness in apprehension and degradation of mind in this man at the present time, seventeen days from the onset of his paralysis, which is unusual in ordinary cases of hemiplegia, where the initial lesion is not large enough to produce any profound loss of consciousness. Such a condition might be due to damage of one hemisphere, involving certain tracts of brain-tissue; but it is also especially apt to occur when even small lesions coexist in the cerebral hemisphere which is not mainly affected.

Secondly, there has been from the first incontinence of urine, of the type described in the notes (December 6th). After the comatose or semicomatose stage of initiation of a hemiplegia has passed away, and even throughout the attack in the majority of cases where there has been no loss of consciousness, this is an unusual symptom. When it exists in hemiplegia, it is commonly in cases where the patient is not sufficiently conscious to pay attention to the desire to micturate, or is so much impaired mentally as not to heed or attempt to restrain the want. Neither of these conditions exists in our patient. But there is another condition which, even in the absence of either of the other two, may still account for this symptom, as I have seen on several occasions, and that is, the coexistence of lesions in the two hemispheres—even though, on the one side, they may be so slight as to give rise to no appreciable paralysis. In such a case, cerebral control, or "inhibitory power" becomes weakened, and incontinence of urine, with adequate consciousness of the fact, is met with. At intervals, when the bladder becomes partially full, its contents are voided. This condition, which may be met with also in some spinal diseases, is apt to coexist with constipation of the bowels or with incontinence of fæces, only after the reflex excitability of the intestine has been exalted by a purgative. Looking to the physiological difference between the two acts, it is not contradictory, as it may seem at first sight, to have, in case of paralysis, incontinence of urine associated with some amount of constipation.

The third uncommon feature in this case of hemiplegia is the greater amount of paralysis in, and the slower recovery of, the leg, as compared with the arm. You know that, in most cases, the reverse condition obtains. In the majority of the exceptional cases that I have seen, I have been able to assure myself that the lesion was situated low down, that is, either in or near the pons Varolii; but, in this case, the evidence is decidedly against the lesion being at the base of the brain. The following characters taken together are quite sufficient to enable us to reject any such localisation: 1. The fact of the mental impairment; 2. That the facial paralysis is slight, and is being quickly recovered from; 3. That the tongue is so slightly interfered with, that its deviation is hardly perceptible; 4. That deglutition and articulation are not impaired; 5. That sensibility on the paralysed side is scarcely, if at all, affected; and, 6. Because the temperature observations show no decided difference between the paralysed and the non-paralysed sides of the body.

On the whole, in consideration of the positive as well as of the negative indications, I believe that a lesion exists somewhere about the upper part of the right fissure of Rolando, involving the grey matter, and perhaps also the subjacent white substance; that is, occupying, in part at least, the so-called "centre for the movements of the leg". In addition, I think it probable that there is also a second smaller lesion in the left hemisphere of the brain, because the one lesion of the right hemisphere, supposed to be productive of the paralysis, does not sufficiently account either for the mental impairment or for the incontinence of urine, which has existed throughout in this case.

Looking to the early improvement, as regards the degree of paralysis, the prognosis may be considered as favourable, though perhaps some amount of mental weakness may persist. No electrical or special treatment is called for. The man is taking a tonic, and a bromide draught at night, as his sleep has been rather restless and disturbed of late.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

THURSDAY, MARCH 3RD, 1881.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

Congenital Unilateral Hypertrophy of Head and Face.—Mr. BARWELL showed the head of the patient, and also a plaster-cast. He had first come across the boy, who was then seven years old, in the country, about six years ago. He had kept the case under observation, and some time afterwards tied the carotid artery on the right, which was the affected side; the object of the operation being, not any great hope that it alone would lead to benefit, but to facilitate future operations. Six days afterwards, he died of a not very copious secondary hæmorrhage. The deformity had been present at birth, but had grown more marked with his growth. The right side of the face was twice as broad and one and a half times as long as the left. Near the ear was a patch of ichthyosis, which was increasing rapidly at the time of the operation. The enlargement was not due to cystic disease; for the enlarged parts were of a natural consistency; and the bones, as evidenced by a cast of the alveolar processes, had participated in the increase; and the sutures had been pushed over to the left. The right half of the tongue also was greatly enlarged. Mr. Barwell observed that the deformity might have been due to some functional derangement of the sympathetic, or, perhaps, as was suggested by the occurrence of secondary hæmorrhage, to some imperfect development of the middle coat of the arteries. Unilateral overgrowth to a slighter extent was not very unusual, and Mr. Barwell had met with several cases. The slighter degrees of overgrowth of one side of the trunk were in some cases the often-overlooked cause of lateral curvature. It was nearly always the right side which was thus hypertrophied, the left being affected only once in fifteen cases.—Dr. NORMAN MOORE thought it was most desirable to ascertain whether there was any new growth in this case. He had met with one case of remarkably large right hand in a young girl; the skull and the rest of the body were symmetrical. It had occurred to him to ascertain that this girl's father was a smith.—Dr. WILKS remarked, in reference to the possible nervous origin of the condition, that the want of symmetry noticeable in wry-neck was due to atrophy: might not the same pathological condition be behind both sets of cases?—Dr. GOODHART inquired whether the boy's intellect was impaired.—Mr. BARWELL, in reply, said that the boy appeared quite intelligent. He thought this case could not be brought into the same category with the atrophy accompanying wry-neck; for the overgrowth—and there evidently was overgrowth—if owning a nervous origin at all, must be due to sympathetic, and not to spinal, alteration. He pointed out that, where the lower limbs only were affected, the condition might be due to over- or under-growth following some injury to the epiphysis. He thought that there was no new growth. The patch of ichthyosis showed a tendency towards hypertrophy of the cuticle; and the cast of the alveolar borders showed that this had affected the bones.

Tumour of Spinal Cord, with Dilatation of Central Canal—Dr. WHIPHAM showed a portion of the spinal cord and microscopical sections from a patient, who had been under the care of Dr. Barclay in St. George's Hospital some years ago. He had first come under treatment for numbness and weakness in both hands, which was at the time supposed to be due to lead-poisoning (he had worked in white lead). He temporarily improved, but was admitted into the hospital a year later, with extensive paralysis of all the extremities. There was wasting of the right upper limb, especially marked in the interossei; and wrist-drop. The left arm was less affected, and there was no wrist-drop. The intercostal muscles were paralysed. There was incontinence of urine and fæces; this incontinence disappeared under perchloride of mercury; but a bed-sore formed, and he died of exhaustion. The *post mortem* examination showed red hepatisation of the left lung, and a granular condition of the kidneys. The medulla oblongata and the spinal cord below for four inches were enlarged, soft, and fluctuating, owing partly to the presence of a new growth, partly to a large central cavity surrounded by numerous smaller ones. The anatomical structure of the medulla was obliterated; the cavity was lined by a fibrous layer, and partly filled with a gelatinous mass, which was found to have the structure of glioma. In the cervical region of the cord, the normal structure was in great part destroyed, its place being taken by gliomatous growth. The lymphatics were dilated, and their walls thickened. In the dorsal region, the dilated central canal was lined with a very dense fibroid tissue. The anterior cornua were widely separated, and flattened from pressure; and their ganglion-cells were few in number, small, and distorted. In the posterior cornua, the nervous tissue was so disposed in curves as to look like fibrous tissue. The white matter showed some homogeneous racemose masses, but no other alteration. Dr. Whipham observed that there were several cases on record of such cavities. Dr. Frederick Taylor had shown one in which there was no new growth. In the present case, the growth had probably extended from the medulla oblongata to the cord, and had produced the dilatation of the cavity by pressure.—In reply to Dr. HORROCKS, Dr. WHIPHAM added that the case had occurred before "reflexes" had been much talked about; and he could not, therefore, give any information on that point.

Sacral Tumour containing Fœtal Structures.—Mr. GOULD showed this specimen for Mr. Macnamara; it had been removed from an otherwise healthy child aged three months. It was situated a little to the left of the median line of the sacrum, and measured ten inches in circumference at the base; from the surface protruded two finger-like processes. The sacrum, examined *per rectum*, felt well formed; and the tumour could not be emptied by pressure. Mr. Macnamara transfixed the tumour at the base with a long needle; and, after emptying it as far as possible of blood by elastic pressure, had applied an elastic tourniquet. It was removed by a flap operation. The child did very well. Mr. Gould, who had examined the mass, reported that it contained several cysts—one about the size of an orange, another about that of a walnut, and other smaller ones. The solid portion consisted of fœtal fat, including an irregularly shaped piece of cartilage, in which ossification was commencing. A few reddish bands might be seen running through the fat; these consisted of fibro-cellular tissue and unstriped muscular fibres. Mr. Macnamara pointed out that the mass was probably a blighted ovum, and that the case formed a link between those in which two more or less perfectly developed children were born organically united, and dermoid cysts.—Dr. WILKS remarked that this mode of origin of such tumours was disputed; still in this case it was probably the true explanation.

Syphilitic Disease of Skull.—Dr. NORMAN MOORE showed the skull of a man aged 40 who had been under the care of Dr. Southey in St. Bartholomew's Hospital. There was a history of syphilis; and, at the *post mortem* examination, scars in the liver, and necrosis of the thyroid cartilage were found; there was also an old scar on the penis, and scars on the legs. The cranium presented a peculiar worm-eaten appearance on both surfaces, and the erosions were filled with a reddish gelatinous material, which had the structure of recent gumma. Dr. Moore said that during life there was no evidence of this condition, and pointed out the resemblance this skull bore to those skulls found in barrows upon which M. Parrot had founded his mistaken theory of prehistoric syphilis: in the barrow skulls, the appearance had been produced by the roots of trees.—Dr. WILKS pointed out that, in the skull shown, there was evidence of a process of repair; this would in any given case negative the idea of the roots of trees having produced the appearance. He inquired whether there was any evidence of periostitis or ostitis during life, and remarked that there were many skulls in various museums in which a great destruction of bone was attributed to mercury, although he did not think there was any evidence to show that the mercury was at all responsible.—Dr. MOORE said that there had been during life no evidence of inflammation of bone. There was reason to suppose that the man had never taken mercury.—Dr. BARLOW, a little later in the evening, having been ruled in order, remarked that the appearances in this skull could never have been attributed to the action of rootlets; for, at the vertex, there was a patch of cicatricial bone, and in another place an appearance just such as is left after ulcerating nodes. In justice to M. Parrot, he wished to point out that this was not at all the condition on which he founded his argument as to the antiquity of syphilis, but upon skulls showing great production of new material, and little or no loss of substance. M. Parrot had, in his communication to the Society, only shown photographs; but on the skulls themselves, which were in the museum at the Jardin des Plantes, osteophytic growths were very distinctly visible. All bones buried for a long period, and exposed to the action of water, grew porous; and this was the only change which had overtaken M. Parrot's specimens.

Malformation of Heart.—Dr. NORMAN MOORE showed this specimen, which was taken from a patient of Dr. Andrew. The apex was markedly bifid; the auricles were dilated; the ventricles were dilated and hypertrophied. The two sides of the heart communicated by an aperture between the upper part of the ventricular and the lower part of the auricular septum. There was thickening and deformity of the mitral valves, due probably to an endocarditis during an attack of acute rheumatism, from which the patient (a girl of eighteen) had suffered some years before death: during life, there was a loud systolic apex-murmur, and a presystolic murmur and thrill.

Epithelioma of Bladder and Calculous Disease of Kidney.—The patient was a man aged 47, who had been in Guy's Hospital under the care of Dr. Habershon. Twenty-one years before, he had been cut for stone, and ever afterwards he had been troubled by a pricking sensation at the end of the penis. He came under the care of Mr. Davies-Colley, at the Seamen's Hospital, Greenwich, five years ago, for an injury to the hip: it was then ascertained that he passed blood in his urine, but no stone could be detected. For the last year and a half of his life, the hæmorrhage grew more frequent and severe, but no stone could ever be detected; great œdema of the lower limbs came on, and he died of pneumonia. *Post mortem*, cancerous nodules were found in the liver and lungs; there was a growth in the pelvis, springing from the bladder, which had involved the lumbar glands, and had obliterated the vena cava; in the left kidney was a large branching calculus of triple phosphate. Mr. Davies-Colley thought that there was some connection between the lithotomy and the subsequent cancerous growth. Probably some small imperfectly healed surface had been left at the base of the bladder.—Dr. WILKS said that he had frequently noticed the combination of cancer of the kidney with pelvic calculi, and cancer of liver with biliary calculi; and Frerichs had once told him that he had remarked the same thing.—Mr. MORRIS asked how long the growth had been present.—Mr. DAVIES-COLLEY replied that the man had been passing bloody urine for five years, and that that was the best guide as to the duration of the tumour.

Leucoderma.—Mr. STARTIN showed a man who had symmetrical patches of blanched skin and hair in the popliteal spaces, the flanks, the forearms, and the chin: the skin was quite sensitive. The patient was a young man, who had been in Canada for three years: during the last year, he had suffered much from cold, and after that the patches appeared.—Dr. PAYNE inquired whether the other parts of the skin were browner than usual. In one case, where this was so, and in which he had made sections of the skin, it was clear that the pigment appeared to be in excess chiefly because it had become aggregated in the most superficial subepithelial layers; and he thought that the pale patches might be thus produced by the shedding of the epithelium in the ordinary course.—Mr. STARTIN, in reply, said that he did not think there was any deepening of the colour of other parts.

Congenital Ichthyosis.—Mr. STARTIN also showed a girl of ten years, in whom the palms and soles were covered by dense yellow laminæ from epithelial overgrowth. The condition had existed from the age of one year. In reply to the President, he added that some benefit had resulted from the application of liquor potassæ and spirits of wine.

Tricuspid and Mitral Stenosis.—Dr. HORROCKS showed this specimen, which had been taken from a girl aged 23, a patient of Dr. Fagge. She had had rheumatic fever at ten and at fourteen years of age; after the last attack, she had a systolic and a presystolic murmur. She was readmitted, last September, with great œdema: no presystolic murmur was ever heard in the tricuspid area, but after death that orifice was found only to admit the tips of two fingers; the mitral admitted the tip of one finger. The left auricle was greatly dilated and thinned. The case agreed with those which had formerly been brought before the Society by Dr. Fenwick as occurring in young women with a rheumatic history. It had been supposed that tricuspid stenosis was, as a rule, congenital; but in this case the health had been good up to the

first attack of rheumatism, and there was no evidence of arterial hypoplasia.—Dr. BEDFORD FENWICK said that, in the majority of his cases in which the murmurs had been noted, a *bruit* had been heard over a peculiar area to the right of the ensiform. He inquired whether the area of cardiac dulness was extended to the right, for in most of the cases it was.—Dr. HORROCKS replied that, from the *post mortem* appearance, he would think that the area of dulness had been increased to the left, owing to the enormous size of the left auricle.

Card Specimens.—Mr. TREVES showed a Vesical Calculus from a Dog: it filled the whole bladder, which was in a condition of acute cystitis. The dog died of uræmia.

Dr. ABERCROMBIE showed, for Mr. MORGAN, a Sarcoma of the Testis, removed from a boy that morning.

The Society then adjourned.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

WEDNESDAY, FEBRUARY 2ND, 1881.

Sir JOSEPH FAYRER, M.D., K.C.S.I., President, in the Chair.

Cholera and Fever.—Surgeon-General C. A. GORDON, M.D., read a paper on "Certain Considerations regarding Cholera and Fever, more especially with reference to India and China". He took, as his text, weekly reports of health in India, as published in the papers of the day; and, from these reports, argued that the phenomena of fever, cholera, and small-pox thus presented, could not be explained either by the theory of specific poison, or by that of contagion. He supported this view by numerous statements, some of which were the result of personal observation, but the greater number expressions by writers and authorities, to whom he referred. In summarising the results at which he arrived, the following appeared to him the most important. There is reason to believe that, although no actual relationship exists between cholera and small-pox, yet the same, or a similar law, applies to the manner of their prevalence as epidemics. Between cholera and malarial fevers a relationship is indicated, as existing alike in respect to causation and to phenomena. Both these diseases in India present a general relation to season. Both in India and in England, a relation appears to exist between the type of prevailing fever and locality. Bowel affections generally, in India and elsewhere, present a relation to season and locality, as defined as that of vegetation to the same circumstances. In endemic fevers, lesions of the intestines and of the abdominal glandular tissues occur as complications in particular cases. Cholera in India occurs under a variety of circumstances and in different manners; but neither furnishes a specific name, applied to particular cases, as indicating one particular manner of causation. Fevers vary in phenomena and intensity, according to geographical, climatic, and individual conditions. Among our soldiers in India, fevers in the mass and in individual cases are less sthenic in type than they formerly were. Specific poisons are of two categories, as described. Innocuous liquids can, by artificial means, become converted into poisons: hence analogy indicates the likelihood of corresponding changes being effected by means of vital action. But diseased liquids do not necessarily communicate their particular disease when inoculated or swallowed. Certain diseases, which are propagated by infection or contagion, are induced by particular combinations of conditions. Fever, in some of its types and forms, is of this class. So is cholera. Between these diseases themselves, and with regard to several others occurring epidemically, an affinity is indicated. The expression "malaria" is but another term for climatic influences. The existence of organisms peculiar to malaria has yet to be confirmed. No specific poison is necessary to account for the phenomena of Indian fevers. The theory of specific poison is opposed as insufficient by a number of authorities. General insanitary conditions predispose to disease; but do they to any one specific disease more than another? It is not established that such is the case. Polluted air induces certain diseases; but not necessarily a specific form of fever. In China, air, intensely polluted, is compatible with health and activity. The theory of local pollution, if sufficient to account for the recurrence of some epidemics, is altogether insufficient to account for others. Although contaminated water may induce cholera, the occurrence of that disease is not always thus accounted for. Water induces cholera after that disease has become epidemic not before. The relation of water-supply to cholera in India is not established by recent observations. Very striking instances are adduced where the use of extremely foul water has not resulted in fever, enteric or other; while instances are recorded, particularly in places where cholera is endemic or epidemic, of cases of that disease following the use of contaminated milk. Instances are recorded of infants, suckled by women ill of cholera, yet not becoming affected by it. Cases, said to have been of typhoid fever due to the use of diseased meat, were subsequently stated to have been cases of trichinosis and sausage-poisoning. Although specific typhoid, like several other forms of fever, may be conveyed by milk, this circumstance by itself fails to explain the diffusion of that disease. As a rule, cholera has no relation to age. In India, and the tropics generally, the young and the lately arrived suffer more from endemic diseases than the older in age and residence. Race appears to affect liability to certain tropical diseases in particular countries, not so in others. Infant mortality of Europeans in India is excessive. Individual conditions and habits predispose to particular forms of disease and complications. Climate influences the geographical distribution of disease, and determines its type and incidence. Although cholera has undoubtedly been propagated by means of masses of persons and individuals in numerous instances, there are others, equally numerous, in which it has not been so. Fevers of particular kinds, in India, may be propagated by means of infection; but, of the cases investigated by him, not one was thus accounted for.—In the discussion which followed, Dr. Murray, Dr. Norman Chevers, Dr. Russell, Dr. Thorne Thorne, Dr. Thin, and Dr. Collie took part.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

MONDAY, FEBRUARY 7TH, 1881.

T. A. ROGERS, M.R.C.S., President, in the Chair.

President's Address.—Mr. THOMAS ROGERS, the newly elected President, took his seat for the first time, and delivered his inaugural address. After thanking the Society for having, after an interval of sixteen years, again bestowed upon him a position which he considered the highest in the dental profession, he proceeded to recall the events which led to the foundation of the Society in 1856, and to compare the present state of the profession with that which existed twenty-five years ago. The foundation of the Society was an outcome of the agitation which culminated in the establishment of the examination for the dental licence at the Royal College of Surgeons of England. The appearance of the *British Journal of Dental Science*, in the same year, marked the commencement of periodical dental literature in this country. The Society, originally founded for political objects, had gradually settled down to a purely scientific basis; and now all political matters relating to the profession were left in the charge of its vigorous young relation, the British Dental Association, on whose energy and sagacity the profession might place implicit reliance. Mr. Rogers then spoke of the International Medical Congress. He had looked through the records of the previous congresses, but had failed to find any notice of a dental section. Obstetrics, ophthalmic surgery, otology, and dermatology were all represented, but dental surgery was ignored. He was surprised that their speciality had not been recognised at Philadelphia, considering the services which American dentists had rendered to this branch of surgery. It was with corresponding pride that he recorded the fact, that it had now at last received the official recognition of the surgical world. The profession should see to it that its action, on this momentous occasion, should be worthy of the position accorded to it, and should also serve as a precedent for guidance and imitation at future congresses. The rest of the address was occupied with a dissertation on the embryonic origin of the dental tissues—a subject which has long occupied Mr. Rogers' attention.

Swallowing Artificial Teeth.—Mr. ISIDOR LYONS related a case in which a set of artificial teeth had been swallowed during sleep; the patient awoke choking, and at once went to a neighbouring medical practitioner, who first tried to push the teeth into the stomach with a probang, and then gave a dose of castor-oil. The patient, not being relieved, went to St. Bartholomew's Hospital, where Mr. Smith, having ascertained that the plate was impacted in the œsophagus, removed it after some trouble with forceps. The treatment adopted by the gentleman first consulted was generally thought to be very injudicious.

Dumbness.—Mr. F. CANTON related the case of a boy, aged six and a half years, who, although most intelligent, understanding all that was said to him, and making himself understood by signs, could not speak. He had never suffered from any serious illness, or been subjected to any fright. The organs of articulation seemed perfect; and on one occasion, when about three years old, he had spoken one or two words, but could never be got to repeat them. Mr. Canton asked for information as to the probable cause of this aphasia, and the prognosis. —A discussion followed, in which several instances of late acquisition of speech were mentioned, the most remarkable being by Dr. WALKER, of a girl who did not speak till the age of fourteen.—Mr. HUTCHINSON also mentioned a family of four children, all bright and intelligent, none of whom learned to talk until four or five: the youngest, now aged four, could only say a few words

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: PATHOLOGICAL SECTION.

FRIDAY, JANUARY 28TH.

B. W. FOSTER, M.D., in the Chair.

Subcutaneous Urticaria.—Dr. SIMON showed a patient suffering from this condition of the skin, on which letters scratched by the finger appeared in a short time as raised white lines on a hyperæmic base.

Orbital Tumour.—Mr. EALES showed a patient from whose orbit he had removed a sarcomatous tumour, which, together with a microscopical specimen, was exhibited to the meeting; the histological appearances were those of round-celled sarcoma. The tumour was situated on the outer side of the orbit, and since the operation, the eye had been dry as if the lachrymal secretion were arrested. The lachrymal gland might have been involved by the tumour, though the microscopical examination had not give any evidence of this; or more likely the duct was cut through during the operation. There was some interference with the free movement of the eyelids. Vision equalled $\frac{15}{20}$.

Obstetrical Cases.—Dr. HICKINBOTHAM read notes of three interesting cases of labour. In the first, the symptoms suggested pulmonary embolism, but there was high temperature, followed by coma, delirium, and interference with distinct articulation; the latter symptom lasted some time, but the patient made a good recovery. The second case was one of rigid os uteri with prolapse of the bladder, in which craniotomy had to be performed on account of the extreme rigidity of the ring, and the very vascular state of tissues around. The patient made a good recovery, but the bladder remained prolapsed, and the anterior wall of the vagina contained an opening which communicated, not with the bladder, but with a cyst-cavity, apparently ruptured during labour. In the third case, a placenta prævia was found to be applied to an intra-uterine tumour. Craniotomy was required to effect delivery. A sharp attack of septicæmia followed, and the tumour sloughed, but the patient ultimately recovered.

Cancer of the Stomach.—Mr. COLIN CAMPBELL presented a specimen of cancer involving the cardiac end of the stomach which was uniformly about an inch thick. The patient had suffered from gastric symptoms for about seven years.

Mitral Stenosis.—Mr. COLIN CAMPBELL also showed a specimen of button-hole constriction of the mitral valve; there was also disease of the aortic valve, and a history of an accident seven years before his death, at which it was suggested that the aortic valve might have been torn. There was no history of acute rheumatism.

Sarcoma of the Humerus.—Mr. CHAVASSE showed a specimen from an arm he had amputated, and a microscopical section which proved the growth to be a spindle-celled sarcoma. The tumour grew from the periosteum.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

WEDNESDAY, FEBRUARY 2ND, 1881.

JOHN WIGHT, M.D., in the Chair.

Suture of the Ulnar Nerve.—Dr. ALEXANDER OGSTON exhibited a case. The patient was a girl about ten years old, who, by accident, had the nerve cut through. Before the operation, the parts supplied by the ulnar nerve had no sensation or motion, the interosseous and other muscles had almost disappeared, and the hand was of the form called a "claw-hand". On cutting down on the nerve, a fusiform neuroma, of the size of a date-stone, was found at the seat of injury. This was cut out, and the ends of the nerve were united by suture. At the end of a week, sensation returned in the parts formerly insensible; but, although two months had elapsed since the operation, there had as yet been no return of motion.

Fracture of the Angle of the Lower Jaw.—Dr. FRANK OGSTON reported a case. He had been called to the case early one morning, and found the patient with his left cheek bruised and excoriated, with crepitation on manipulation at times, and at other times without crepitation. By very careful examination, however, permanent crepitation was made out at the left angle; and, on pressing deeply between the jaw and the tongue, a splinter, about one-fourth of an inch in thickness, was found broken off from the tip of the left angle. There was no extravasation of blood about any part of the jaws, nor was there any looseness or irregularity of the teeth. The splinter was kept in place by the surrounding muscles. The man stated that he had slipped on the pavement, owing to the snow, and had fallen on his left side, striking his left cheek severely on a rounded stone projecting from the gutter. The case was reported, as the author had found no record of such a condition in any of the surgical authorities of France, Germany, or England.

An Unsuccessful Case of Œsophagotomy.—Dr. ALEXANDER OGSTON reported the case of a girl aged 19, of strumous appearance, with slight soreness of the eyes from disease of the lachrymal sacs, and with a scrofulous patch on one cheek. When admitted into the Royal Infirmary on 21st September last, she gave the following history. One morning in the middle of January last, she had swallowed two ounces of sulphuric acid. This was immediately followed by pain in the œsophagus and stomach, and vomiting of brown-coloured fluid, followed by vomiting of blood. Lime-water and milk were given freely; and, on the evening of the same day, the larynx was opened on account of difficult breathing, and a tube was introduced into the wound. After keeping in the tube for several days, it was removed, and the larynx gradually healed, but the pain in the œsophagus continued and increased. After several weeks' restriction to "milk-meat", animal food was resorted to; but this had to be given up, owing to inability to swallow it. Many instruments had been tried, but none had passed down the œsophagus. The food had come through the wound in the larynx for some time at first. On examination by Dr. Ogston, the larynx was found movable, and the wound in it healed. Swallowing was very difficult, requiring four or five distinct acts of deglutition before it could be accomplished. None of the food went into the larynx. She could eat bread and such like substances after thorough mastication, though with great difficulty. Sometimes the solid matter remained at the spot where she felt pain; and, if the solid was larger than a pea, it was rejected the first time she swallowed any liquid. On applying the stethoscope over the œsophagus at the seat pointed out, a whizzing sound, like fluid flowing through a narrow orifice, followed by a jerk as of water squirted from the nozzles of a syringe into a wide space, while liquids were being swallowed. A bougie of ordinary size would not pass down into the stomach; and various common French catheters were then tried, but nothing could be got to pass till October 14th, when a No. 11 French bougie was easily introduced through the stricture. After this, though a trial was made every day, nothing could again be got to pass through the stricture till October 29th, when a No. 5 whalebone-bougie was successful; but, after this, nothing would pass through. There were no means of ascertaining by means of these bougies the size of the stricture, and they were not supposed to be a measure of its diameter. On November 12th, she was sent to the Convalescent Hospital, after having been examined with the laryngoscope, which gave negative results as far as the œsophagus was concerned, the seat of stricture not being visible. After a month, she returned to hospital, worse. The power of swallowing was less, and some of the food seemed to get into the larynx, and cause choking, which had not been the case before going out. Rice-soup could be taken with difficulty when the grains went lengthways; but, if any of them went crossways, the whole was regurgitated. Œsophagotomy was performed on January 12th, under antiseptic precautions. After chloroform had been administered, an incision was made from the upper border of the larynx in front of the sterno-mastoid muscle, and cutting through the sterno-thyroid and omo-hyoid muscles, and laying bare the thyroid gland. Neither nerve nor blood-vessels were seen, but the œsophagus appeared deeply seated, and this was hooked up, and opened. The smallest œsophageal bougie would not pass downwards, but a director was passed through the wound and down through the stricture with ease; and on this, the œsophagus was nicked in various places, after which a No. 16 French œsophageal bougie was passed downwards to the stomach and up towards the mouth. This No. 16 was then passed from the left nostril into the œsophagus, reaching below the stricture, but not going so far as the stomach. As the spray had to be abandoned when the operation was half completed, the whole wound was mopped with chloride of zinc solution (forty grains to one ounce). The temperature after the operation rose to 100.6°, not indicating any septic condition. No food or drink was given for twenty-four hours, and then she was fed through a No. 19 catheter introduced through the nose. The next day, No. 20 was introduced; and, next day, No. 22. Nothing particular occurred till January 16th, one catheter having been put in on the removal of another. After keeping in No. 22 for twenty-four hours, it was removed, and the instruments were then kept in for half an hour only daily. At this time, she could drink, and occasionally take food, also, by the mouth, and was otherwise well supported by enemata. On January 20th, a No. 17 (English scale) œsophageal bougie was passed; and this size was not exceeded, as she was doing well. It was passed by the mouth after the 22nd; and, on that day, she swallowed well, and from that date had all her food by the mouth. The wound was clean and adhering, and one of two wires in the wound was withdrawn. On the morning of the 27th, severe hæmorrhage came on, and this was repeated at 12.30 P.M. Chloroform having been administered, the wound was opened, and a clot was seen in the lower part of the wound over the carotid artery, the carotid being in the wall

of the wound. The carotid was tied above the aperture and below it. She was pulseless on removal to bed, with deep sighing respiration; and the respiration afterwards became rapid and hurried after it had gradually become fainter and fainter, looking as if the breathing was forgotten for a time, and all at once a convulsive effort was made to get breath again. She died on January 28th, in the evening. To explain the bleeding, Dr. Ogston suggested that the silver-wires in the wound might have chafed the coats of the vessel, and caused irritation or ulceration in them.—Remarks were made on the case by several members.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, FEBRUARY 12TH, 1881.

A. W. FOOT, M.D., President, in the Chair.

Pulmonary Phthisis, with Head-Symptoms.—Dr. J. M. FINNY showed the lungs, brain, and spinal cord of a married woman, aged 33 years, who presented symptoms of phthisis early last autumn. A group of nervous symptoms supervened—delirium, screaming, intense cephalalgia, and high temperature (102° to 104°). Hyperæsthesia of the legs and ultimately of the arms followed. There was wasting of the lower limbs. The tendon-reflexes were normal—the patellar reflex was, if anything, exalted. There was no ankle-clonus. Coincidently with the evidences of meningitis, the lung-symptoms became quiescent. At the end of December, however, the chest suffering recurred, and she at length died. Nothing abnormal about the brain or its membranes was discovered. There was very extensive pulmonary degeneration. In both lungs cheesy deposits and excavations existed, and so-called tubercles were present in great numbers. The dorsal region of the spinal cord was abnormally hard. It was referred for examination to the Committee of Reference.

Bony Formation in the Choroid.—Mr. J. B. STORY exhibited microscopic sections of a bony growth, removed from a phthisical eye. The specimen was a typical one of osseous formation in the choroid, resembling those figured and described in Pagenstecher's and Genth's *Atlas der pathologischen Anatomie des Augapfels*.

Cystitis and Pyelitis in Chronic Spinal Myelitis, with Softening.—Dr. J. M. FINNY submitted the spinal cord, bladder, ureters, and kidneys of an unmarried man, aged 27, formerly a soldier, without any history of syphilis. He had served in India, where he had suffered from fever and rheumatism. When admitted to hospital he complained of pain in his knees, and his gait was remarkably ataxic—he appeared to be the subject of aggravated locomotor ataxy. Patellar reflex was completely absent. There were no ocular troubles, such as diplopia, etc. During the last few weeks of life, hyperæsthesia of the lower extremities was very marked; but it gave place to anæsthesia. Paralysis of the walls and sphincter of the bladder was followed by cystitis, and the man at last sank from secondary urinary fever. The bladder was much thickened. The ureters were widely distended. The pelves and infundibula of the kidneys were in an advanced stage of disease (pyelitis). There was an excess of spinal fluid. The vessels of the cord were distended. In places, irregularities existed on the surface of the cord, and in places there was remarkable softening. The case seemed to be one of myelitis, *ramollissement*, and secondary cystitis.

SATURDAY, FEBRUARY 19TH, 1881.

A. W. FOOT, M.D., President, in the Chair.

Myxoma of the Bladder.—Mr. W. THOMSON exhibited the bladder, kidneys, and thoracic viscera of a man, aged 41 years, who had been ailing for about four months before his death. Incontinence of urine was the principal symptom. There was no hæmaturia. Clinical examination revealed enlargement of the prostate gland; and a tumour was discovered in the situation of the bladder. A diagnosis of malignant disease of this organ was made. The patient died five or six days after admission to hospital. The cavity of the bladder was almost obliterated. From the upper and right side of the cavity hung a mass resembling a bunch of Hamburg grapes. The walls of the bladder were rugose, and varied from half an inch to two inches in thickness—they were chiefly made up of mucous tissue (myxoma). A carcinomatous mass existed in the prostate, and the retroperitoneal glands were also carcinomatous. The kidneys afforded a good example of hydronephrosis. The ureters were dilated. The lungs were emphysematous and congested; tuberculous nodules were scattered throughout them. There was stenosis of the mitral valve, and a patch of atheroma was found in the pulmonary artery.

Injury to the Eyeball without External Wound.—Mr. J. B. STORY showed the enucleated eyeball of a boy aged twelve years, who, six days before admission to St. Mark's Ophthalmic Hospital, had received a thrust in the eye with the rib of an umbrella. There was iritis, with synechia posterior. Enucleation was performed twelve days after the accident to save the other eye. There was dislocation of the lens, and the choroid was detached from the sclerotic, probably at the seat of the injury, and at a point exactly opposite. The vitreous was inflamed near the original injury.

Diffuse Sarcomatous Disease.—Mr. W. THOMSON presented the viscera and femur of a boy aged 14 years, who had been under observation in the Richmond Hospital for a year previously to his death on January 21st, 1881. On the first occasion the lad was admitted with a "lump" on the front of the right tibia. It was apparently a chronic abscess. Six months afterwards the limb was amputated, as he was then the subject of sarcomatous disease. In November he fell ill, apparently of pneumonia; but the true nature of the pulmonary disease was recognized when, towards the end of December, a bad attack of "toothache" preceded the appearance of a tumour near the right temple. About this time, also, pain in the stump was followed by a fulness around the trochanter, and ultimately a tumour appeared in the epigastrium. He now sank quickly. The left lung was collapsed. To it were attached several pedunculated tumours. The whole substance of the right lung was involved in still larger masses of a similar new growth. There were no evidences of recent pleuritis, although old adhesions bound down the right lung. There was a tumour on the falciform ligament of the liver, but this organ itself and the kidneys had escaped disease. The pancreas was the seat of a new growth like that found in and upon the lungs. The femur was so extensively implicated below the great trochanter, that it had given way in the attempt to disarticulate the head of the bone. In all cases the new growths were good examples of round-celled and spindle-celled sarcomata.

Resolution of Condolence.—Dr. W. G. SMITH proposed, and Dr. J. W. MOORE seconded, the following resolution, which was adopted in silence:—"Resolved that the Pathological Society of Dublin have learned with deep regret the deaths of two highly esteemed and valued members, Dr. Robert Cryan and Dr. Edward Peele; and that the Society desire to convey to the relatives of the deceased members an expression of heartfelt sympathy in their sad bereavement."

A CHILDREN'S HOSPITAL IN NAPLES.—A children's hospital has lately been opened in Naples, by the foundress, the Duchess Ravaschiere, a lady well known for her active charity, and also as the authoress of a work on the charitable institutions of Naples. The hospital is called "Lina" after the daughter of the duchess, who died some years ago at the age of twelve, after a long and painful illness. The dowry which would have been hers has been devoted, in memory of her, to the purposes of the new hospital. The hospital is situated in an airy position to the west of the city, has excellent air, abundant light, and a free view on all sides. The rooms are arranged with elegant simplicity, and provided with every necessary comfort. The ground floor is occupied by refectories for the nurses and servants, large bath-room, kitchen, and other offices. There is also an airy school-room. The large dormitory on the first floor, which is vaulted, very lofty, and lighted by two large windows, contains sixteen small beds, the covers of which are of crotchet-work, made by the duchess, who employed a whole year in working them and various garments for the children. A handsome bas-relief over one window contains the likeness of the child "Lina," and one over the other the figure of the "Madre Consolatrice." There are other smaller dormitories, and a separate portion of the building is devoted to infectious complaints. At present there is provision for twenty-five patients, but this will be soon increased, and the foundress hopes that in time the hospital will become a great establishment. Children will be admitted from three to twelve years of age, many gratuitously; others whose parents are possessed of some means, or who are sent by kind friends, at the rate of one and a half francs a day. Some ladies and gentlemen have already taken beds, one of which is at the sole disposition of anyone paying five hundred francs a year. The directress and the nurses under her are *sœurs de charité*. Two rooms in the house are prepared for the foundress. There are two airy and sunny terraces on the first floor of the house, and below, a large courtyard with flower-beds and a garden orchard, where convalescent children may take recreation. In the centre of the house is a simple and elegant little chapel. The shrine of the altar has small golden doors, in which are set the coral beads once worn by the child whose name the hospital bears. In front of the altar is a *prie-dieu*, with an embroidered cushion, the pillow on which the head of the child once reposed; and at the side of the chapel stands an oaken reliquary, beautifully carved by the duchess herself, and containing articles which also belonged to her lost child.

REVIEWS AND NOTICES.

CLINICAL LECTURES ON THE DISEASES OF WOMEN, delivered in St. Bartholomew's Hospital. By J. MATTHEWS DUNCAN, M.D., LL.D., F.R.S.E., Physician-Accoucheur to, and Lecturer on Obstetric Medicine at, St. Bartholomew's Hospital. London: J. and A. Churchill. 1880.

OF all the branches of medical science, none have suffered from "terminology" more than that department which treats of the diseases of women. The very word "gynæcology" is decidedly clumsy. The technical names used in this science not only include a vast number of spurious Latin and Greek terms, but also a more objectionable collection of expressions, where a man's name is introduced to distinguish some particular operation or instrument. Still, as in every science, the scoffers at gynæcology are those most ignorant of its principles. They who laugh at "parametritis" and "perimetritis", at "Hodge's" or "Zwanke's" pessaries, should read the remarks of Professor Huxley, defending scientific technicalities, in his work on the crayfish. "Every calling", he remarks, "has its technical terminology; and every artisan uses terms of art, which sound like gibberish to those who know nothing of the art, but are exceedingly convenient to those who practise it."

Dr. MATTHEWS DUNCAN, however, has shown in these lectures that the diseases of women may be discussed in a scientific spirit, without the introduction of a tedious and confusing series of hard technical terms. Some of the lectures are what many would term "pre-eminently practical". All are remarkable for the vigour with which the particular line of practice adopted by the author is advocated, a form of dogmatism not only allowable, but to some extent necessary in lectures prepared for educational purposes. The value of such advice is increased by the candour with which the results of medication and operative procedures are noted. Dr. Duncan's blunt remarks on ovaritis are very significant. "Now a few words on the treatment", he says; "and I begin by telling you that you will find a great many cases chronic—which is almost a synonym for incurable. I advise you, indeed, in many cases which resist a properly conducted treatment, to give up the attempt at cure; you will only bother your patient, make her a valetudinarian, and do her harm, by further persistence in attempting to cure a disease which proper treatment has failed to remove." Few writers would be so candid; the cases that they have cured being more engraved on their memories than their failures, they would naturally be of a more cheerful, yet not so correct, opinion. The lecture on Ovaritis ends with the following words, applied to spaying for this disease: "That operation is still *sub judice*. Most gynæcologists say that it is condemned already, but upon it I reserve my opinion." Some time has passed since this sentence was uttered; "oöphorectomy" is now far oftener performed than it was then. The word "incurable", applied by Dr. Duncan to many cases of chronic ovaritis, cannot have influenced opinion on that operation but in one direction.

Dr. Duncan includes, under the term "spasmodic dysmenorrhœa", all real or imaginary varieties of painful menstruation, termed by others neuralgic, obstructive, mechanical, or spasmodic. He considers the disease a neurosis, in which certain physiological and pathological contractions of the unimpregnated uterus cause great pain. There are other views of the author on this subject which are now well known, such as his disbelief in any obstruction existing in the cavity of a uterus subject to flexion, and his advocacy of treatment by bougies. We trust that the young gynæcologist, ever ready to "do something" rather than content himself with prescriptions, will read carefully the middle as well as the end of the lecture on Dysmenorrhœa; otherwise he will most assuredly torture many women with bougies, when milder treatment would have sufficed. "It is only in severe cases that you use mechanical treatment", says Dr. Duncan, though he continues: "Medicines for the treatment of this disease are not very efficient." He refers to the well-known domestic remedy—a hip-bath and a glass of warm spirits and water—the utility of which he admits; but does not mention the great relief sometimes afforded by the application of an anodyne liniment, with hard friction, to the lumbar region. As to mechanical dilatation, he knows "no drug that can compare with this in its direct utility; yet I recommend you, in the great majority of cases of dysmenorrhœa, not to resort to it". As we know that the use of bougies for the relief of dysmenorrhœa has largely increased of late, through an influence that is obvious, we must repeat our wish that Dr. Duncan's lecture on that disease be considered in its entirety.

The lecture on Catarrh of the Cervix Uteri contains equally cautious advice; but the disbelief in "ulceration", as something indefinitely serious, has occupied the minds of other authorities for some time previous to the publication of these discourses. The pathological incorrectness of the term, when applied to a well-known appearance around the os externum displayed by the speculum, cannot be too strongly condemned by the medical teacher; and Dr. Duncan is right in explaining at full length to his pupils a fact which "we all know"; indeed, in a work of this kind, framed originally for students, the appearance of "something new" questionably enhances its value; but the clear enunciation of well-recognised facts for the benefit of the learner is just what is wanted.

Space forbids us to enter into any consideration of the lectures on certain disorders, ill-defined pathologically, and tedious for treatment—such as vaginismus, aching kidney, painful sitting, and irritable bladder; but, true to his plan, the author carefully teaches his class what is known, and further indicates what is not known, on these subjects.

The above, with a few lectures on more definite and generally considered questions, complete this series, and make up a work remarkable for true literary simplicity of style, for freedom from excessive technicality, and for cautious though positive judgment, both in the discussion of pathological details, and in the advice tendered to the student regarding surgical and medicinal treatment.

GENERAL PARALYSIS OF THE INSANE. By WILLIAM JULIUS MICKLE, M.D., M.R.C.P., Medical Superintendent, Grove Hall Asylum, London, etc. London: H. K. Lewis, 1880.

THIS book is divided into two parts, the first and largest devoted to the description of general paralysis, and the second to the illustration of its varieties. The whole work is written with remarkable thoroughness, the result of the great industry and original research, guided by the strong independent judgment of the author, and a wide acquaintance with the labours of his predecessors. Dr. MICKLE believes in the "doctrine of the unity" of general paralysis, which he defines in the following complete but lengthy manner:—"General paralysis is a disease of the nervous system, especially of the brain, marked clinically by (1) certain general disorders of mobility—viz., ataxy, and finally paresis, especially obvious in the apparatus of speech and of locomotion; also, but in less degree, by (2) sensory disorder or defect, and dementia, but in the earlier stages often consisting in part of exaltation of feeling, or even expansive delirium. Last, it is evidenced by certain organic changes in the encephalon and its tunics, often in the spinal cord and membranes also, and, as some say, in certain sympathetic ganglia as well."

The mode of commencement, stages, and prodromata of the disease are very faithfully pourtrayed by Dr. Mickle. As to the symptoms, they are divided into physical and mental, and discussed separately, arranged with each of the four stages admitted by the author in the evolution of the disease. In putting the mental symptoms in the last stage under the heading of *Amentia*, Dr. Mickle seems to adopt the now rejected classification of Pinel, who did not recognise any distinction between dementia and imbecility or idiocy; to which latter condition, however, the Latin word *Amentia* is usually referred, as meaning idiocy, or a congenital deficiency of the mental powers.

On describing the different forms of the disease during its confirmed stages Dr. Mickle disregards the epileptic form. Although we do not admit, with Voisin, epilepsy as a common cause of general paralysis, we are yet convinced, by experience, that the epileptic is as distinctive a form as the expansive, or the melancholic, convulsive seizure, being then, not a complication, but a more or less prolonged initial symptom of the disease. Furthermore, so far as we have noted, such peculiar form is more apt to supervene when the disease is connected with hereditary influences, or, more commonly, with alcoholism, and traumatic cranial injuries. The celebrated case of Count Chorinski is a well-known striking instance of the first kind. Dr. Mickle especially refers to Baillarger's views on the remission of general paralysis, but when speaking of the maniacal and expansive forms, he overlooks the congestive mania, *manie congestive*, which may continue for several months with the usual symptoms of the maniacal and expansive forms in all their force, and then gradually subside to the extent of making the patient look quite well again. This variety, described by Baillarger, and admitted by Falret and the majority of authors, exhibits too well-marked clinical features to be dismissed.

The systematic and exhaustive account of the symptoms and diagnosis of general paralysis, presented by Dr. Mickle, leaves unnoticed nothing that is valuable. There is scarcely one of his remarks which does not bear evidence of the most careful and close observation, and as it would be impossible to do them any justice here, we are compelled to refer the reader to the book. We will, however, notice two or three points in which we differ from Dr. Mickle. Thus, he says, on describing the symptoms of the third period of the disease: "In this stage the reflex activity of the limbs, especially of the lower, is

lessened." Our experience leads us to a rather opposite conclusion, for in several instances we have found the knee-reflex increased, as also the ankle-clonus and front-tap contraction. In respect to sensibility in this third stage, Dr. Mickle asserts: "As a rule there is general and progressive loss of sensibility affecting the surface of the limbs and other parts; and pinching, pricking, heat, cold, and injury, are often but little heeded." Here, again, we think that local anæsthesia seems in reality the rule with paretics, unless hemianæsthesia occurs upon some sudden apoplectic attack. In fact, the phenomenon is one of its distinctive signs from chronic alcoholism: general anæsthesia accompanying the motor disorders with this latter, whereas the loss of sensibility is less pronounced and usually more localised with the former.

Dr. Mickle's researches confirm, as one might have expected, that there is no special relationship between the pupillary condition and the depressed, and the maniacal state of the patient in general paralysis; and the views of Tamburini and Foville in regard to the pupillary modifications in general paralysis, as related to lesions of some cortical centre, are discussed in the chapter on pathology and pathological physiology; but no reference is made to the no less important relation between blindness and lesion of the cortex in the anterior cerebral region.

In regard to the etiological agency of syphilis on general paralysis, Dr. Mickle reasserts unhesitatingly his well-known views on the subject. For him, and the opinion is still much questionable, syphilis is not a true cause of general paralysis, the great distinction between this and intracranial syphilis being, "that in the syphilitic cases the affection of speech, tongue, etc., when it exists, is almost always mainly of a paralytic nature, instead of being of the nature of a mingled weakness and inordination."

Passing on to the causes of general paralysis we find that in relating to heredity Dr. Mickle gives us the experience of English and foreign authors, without his own; and also overlooking the important fact demonstrated by Morel, Falret, and others, that in cases where heredity enters as a factor of the disease this has a much longer duration. Cases of transformation of simple into paralytic insanity are in many instances by no means satisfactory or convincing. Dr. Mickle, however, has observed the physical signs of general paralysis first appear as late as a year and a half, and more than two years, after the onset of frank mental derangement.

As exciting agencies, Dr. Mickle thinks the following efficient causes of over-excitation and exhaustion of the brain frequently bring on general paralysis; and of the last four each is associated in many cases with undue alcoholic stimulation. 1. Alcoholic excess; 2. Excessive and prolonged intellectual labour, with undue emotional tension; 3. Protracted painful emotional strain; 4. Exhausting heavy physical labour; 5. Sexual excess. In Dr. Mickle's own cases, alcohol, although perhaps rarely acting alone, has appeared to be by far the most frequent and efficacious cause of general paralysis. We cannot well explain the secondary importance that Dr. Mickle attaches to cranial injuries, which we have found as potent as, if not more so than, sexual excess in developing general paralysis. In regard to this latter cause, we entirely acquiesce with Dr. Mickle's views, being satisfied, upon extensive inquiry, that sexual excess and masturbation have been very much overrated as exciting causes of insanity and epilepsy generally; the phenomena existing, in the majority of instances, as the effect, and not the cause, of insanity.

We can only rapidly glance at the interesting Chapters VII and VIII, on the Morbid Anatomy, and on the Pathology and Pathological Physiology of General Paralysis. Dr. Mickle's own microscopical observations have disclosed atrophy or granular degeneration and disintegration of the cortical nerve-cells, with unusual colloid bodies, or pigment-granulations, or microscopic patches in the neuroglia. Many of the cortical blood-vessels were sometimes completely filled, or were distended with aggregations of blood-corpuscles. Increase of the nuclei of the walls of minute blood-vessels was a common appearance. Sometimes molecular deposits or pigmentary deposits were seen in or upon their walls. Either associated with these deposits or existing separately, there were sometimes appearances of more or less irregular thickening or dilatation of the vascular wall. Now and then some vessels had a soft molecular appearance; occasionally fusiform dilatation was seen; more rarely, capillary rupture and extravasation, so that vessels were surrounded by minute ecchymoses.

On the Pathological Physiology of General Paralysis, Dr. Mickle puts forward a view which, broadly stated, refers the various symptoms "to a morbid process in the nervous system, which first deranges and then destroys, or tends to destroy, the functions of the part affected. The destruction of an inhibitory centre, under these circumstances, will permit relative overaction of functionally related centres, which have escaped from its regulative influence'. "Taking the mass of cases, the convolutions of the frontal and of the parietal lobes suffer more than those of other parts of the brain." "In conclusion—whether, in general paralysis, the principal mental symptoms can be entirely referred to the organic changes in certain frontal (and parietal) convolutions—the motor to those certain portions of the temporo-sphenoidal and parietal—must remain a matter of question." And, upon this declaration, Dr. Mickle says: "I have found that, when one cerebral hemisphere principally is attacked in general paralysis, the difference in the relative damage to the two hemispheres being great, then the clinical phenomena almost always vary extremely with the particular hemisphere more affected. When it is the *right* hemisphere, exalted delusion, gaiety, expansive delirium, and maniacal excitement predominate; when it is the *left*, either emotional depression, melancholic ideas, and perhaps hallucinations, or else an extreme and early dementia, are unusually obvious, if not predominant." Whether these original assertions really stand on unquestionable grounds, is a subject that we hope to see established by Dr. Mickle's further researches.

What is stated on Therapeutics and Hygiene is brief, though sufficient, and dealing with all conditions likely to arise. "In veratrum viride" (which has been used also by American alienists), "during the earlier periods of some few cases, and in perchloride of iron, either throughout or in the latter stages only, has Dr. Mickle, thus far, found the best treatment of the disease *during those portions of its course which the patients usually pass in a lunatic asylum.*"

Part II contains twenty very interesting cases in illustration of the five groups into which the disease is artificially divided by Dr. Mickle, according to its clinical and pathological aspects. This clinical portion of the work is full of value, but we have no space for its examination. Let us only remark, to terminate this necessarily imperfect notice, that, as a faithful exposition of general paralysis of the insane in its various stages, and as a trustworthy clinical guide to a clear understanding of the phenomena as exhibited throughout the wide range of its manifestations, Dr. Mickle's book deserves unqualified praise for its most able, original, and exhaustive execution.

NOTES ON BOOKS.

MR. ROBERT EDIS *On Town Houses* (C. Kegan Paul and Co.).—In a most interesting and charmingly illustrated book on the decoration and furniture of town houses, Mr. Edis has amplified, illustrated, and collected his Cantor Lectures of 1880. There is a great deal in such a book to interest the practitioner, professionally as well as personally. The decoration and furniture of town houses has passed out of the hands of the upholsterer and decorator of a past period into the hands of the sanitarian and the artist-architect. Architects of the stamp of Mr. Edis now understand that construction and decoration must go together, and should be based upon what may almost be called sound principles of moral and physical beauty, and not upon the mere varnishing of shams. In this relation must be mentioned such things as the introduction of varnished wood dados, of non-poisonous paints, of parquet floors, of carpets easily movable, and with a wide margin of cleanly washable floors about them. Attention to the cleanliness of the surface, to the impermeability of the joints, to the free ventilation of rooms, as well as to the artistic and economic construction of fire-grates, and to the sanitary arrangements of closets, soil-pipes, and traps, are recognised as primary duties. Mr. Edis has thoroughly mastered the principles and practice of the new school of architecture and decoration which is revolutionising our dwelling-houses with such excellent effect, and which has not only relieved our English people from the reproach of ugliness and bad taste which attached to their houses, but has substituted light, healthy, artistic, airy, well ventilated, well warmed, pleasantly coloured, and elegantly furnished houses, such as once more place an English home foremost in Europe, not only for its comfort, but also for its healthiness and its beauty. We shall not enter into minute criticism of this charming book. It is one from which every one who is interested in this widely interesting subject will derive both instruction and great pleasure, medical men—the guardians of the physical welfare of the house—at least as much as others. The book is devoid of exaggeration, and refers everywhere to practical examples. The illustrations are also chosen, not from fancy subjects, but from the actual details of existing models.

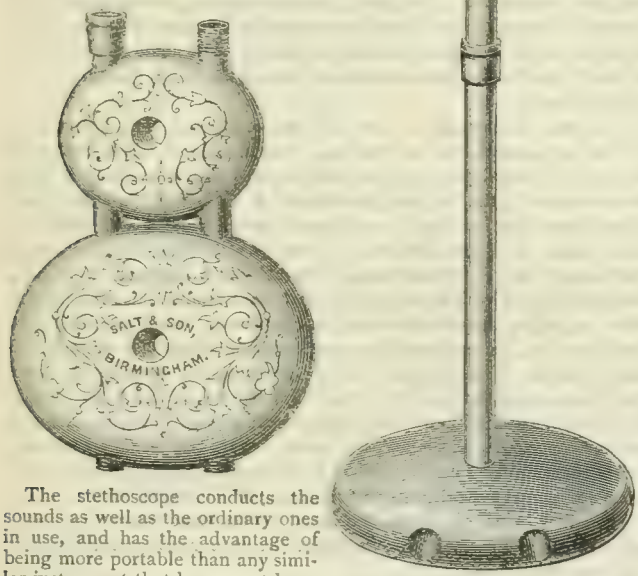
THE EXPENSES OF CORONERS' INQUESTS.—At the last meeting of Middlesex magistrates, the following sums were paid for coroners' inquests: Mr. Humphreys for 291 inquests, £464 2s.; Dr. Hardwicke, 232 inquests, £459 12s.; Dr. Diplock, 103 inquests, £270 8s.; and Mr. Bedford, 20 inquests, £59 19s. 6d.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

A NEW PORTABLE STETHOSCOPE.

We have received, from Messrs. Salt of Birmingham, a portable stethoscope, arranged by Dr. Sutherland.

The stethoscope divides into four separate pieces—the ear-piece, the chest-piece, and two hollow rods, forming the tube. These four pieces, when screwed together, form an ordinary stethoscope. When separated, it is intended that the two rods should be inserted transversely through the chest-piece and through the ear-piece, so that the whole stethoscope again appears as one piece, but so flat in shape as to be easily carried in the breast or tail pocket of a coat, thus doing away with the usual method of conveying the instrument in a hat, which not unfrequently spoils the shape of that article of attire.



The stethoscope conducts the sounds as well as the ordinary ones in use, and has the advantage of being more portable than any similar instrument that has as yet been introduced.

London Hospital Reform.—At a recent meeting of the Westminster Liberal Union, it was resolved to present to the Home Secretary a memorial asking for the appointment of a Royal Commission to inquire into the existing hospital accommodation of London; the revenues from all sources and the expenditure; what improvements experience may suggest as practicable in association with the present poor law administration, or a new central authority; and the welding of the whole hospital accommodation of London into one great administrative system adequate to the possible wants of an increased population.

The late Dr. Harland.—The board of the Staffordshire General Infirmary, Stafford, at their last meeting, passed the following resolution: "That this board desires to express its great regret at the death of Dr. Harland, and to record its high sense of the valuable services rendered by him to the Infirmary during the forty-two years he acted as physician to the institution. The board also wish to express their condolence and sympathy with Mrs. Harland and the members of his family."

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

Subscriptions to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY MARCH 12TH, 1881.

POLITICAL AND EDUCATIONAL ASPECTS OF OBSTETRIC MEDICINE.

When a new president of one of our societies takes formal possession of his office, he enjoys an opportunity similar to that which devolves upon the professor who is chosen to open the session of a medical school. For the nonce, he leaves the particular, and launches into the general. Medicine, strictly speaking, claims the almost undivided attention of the society at its ordinary meetings. But one night properly belongs to the President. Upon this occasion, he has full liberty to range over the wide field of science and its relations to the outer world; and, if wisely used, we may expect such an occasion to be fruitful in interest and ability. Those who heard or have read the address of Dr. Matthews Duncan, on taking the chair at the Obstetrical Society, will surely not have been altogether disappointed. Edinburgh is not, perhaps, exactly in harmonious *rapport* with London and the other great centres of medical teaching. It is not, therefore, surprising that some of the statements and opinions uttered by Dr. Duncan, jar a little upon Southern ears attuned to more universal sympathies.

Dr. Duncan dwelt more especially upon some of the political questions associated with obstetric medicine. The Society had, he said, already interfered powerfully in various medico-political affairs. He spoke with approbation of the advocacy of his predecessor and Dr. Macnaughton Jones, in favour of the extension of the time allotted in the curriculum to obstetrics. The last impressions strike most strongly; but others, and amongst them Tyler Smith and Barnes, might challenge superior praise in this respect; and it is not quite clear, from Dr. Duncan's remarks upon this subject, whether he does not still hold the opinion he expressed two years ago, that the course of forty lectures given to obstetric medicine is satisfactory. He next touches upon the value of Greek and Latin to the student and practitioner of medicine. It cannot be said that he speaks slightingly of the use of the dead languages. He says, with not less elegance than truth, "that through them pass the roots of our language, our philosophy, our arts, our sciences". Only the added qualification is disappointing: "But while high culture cannot exist without Latin and Greek, excellent practitionership, such as the Medical Council has to care for, may flourish without them." We fondly hoped that a final decision had been pronounced upon this question. A youth can hardly begin to study medicine with much advantage before the age of eighteen. What is he to do to prepare himself for the study? Can he do anything much better in the fundamental work of training his mind for the study than in learning those languages "through which pass the roots of our language, our philosophy, our arts, our sciences"? True, it may be that at eighteen he can hardly have dipped deeply into this perennial spring of knowledge, but the mental discipline undergone in the study is still of inestimable value. Nor need it exclude the preliminary study of the exact sciences, especially physics and chemistry, upon the acquisition of which Dr. Duncan so strongly insists. Though Latin and Greek do not of necessity make a man a good medical practitioner, that is no reason why they should not help to make him better fitted for medicine. So, when Dr. Duncan

tells his hearers that "physics and chemistry must be studied by all good medical men, and knowledge of them is a guarantee of good practitionership", we should qualify this statement by submitting that physics and chemistry help to make a good practitioner. Surely, few things in medical life are more painful than to see any of our fraternity, no matter how humble his position, deficient in that rudimentary culture which is expected of everyone who wishes to take a becoming position in society, and the mark of which culture often governs the outside world in its judgment of general and professional capacity.

After thus extolling "physics and chemistry", Dr. Duncan naturally passes on to discuss the influence which these branches of science have had upon medical doctrine. And here we are a little startled at the picture he draws of medicine as it was taught at Edinburgh thirty years ago. He referred to Stahl, and his opposition to "mechanical, chemical, and dynamical" theories. "Most of us here", he says, "were reared under the potent empire, not of Stahl, but of theories more or less exclusively metaphysical like his. Not a few of us imbibed our first lessons in medical science at the feet of the venerated Alison, the greatest medical philosopher of his day." Yet "his teaching is now obsolete". Alison winds up some observations upon "mechanical philosophy" thus: "Yet the chemical changes of animated nature are as distinct from those which we produce at pleasure in dead matter, as the stimulation by nerves and the contraction of muscles are distinct from any of the principles and powers of mechanics."

How far the alumni of Edinburgh will accept this teaching of Alison as fairly representative of the teaching of the great northern University, we cannot stop to discuss. Nor is it worth while to inquire how far a man who, thirty or forty years ago, could teach such doctrine, deserves to be called "the greatest medical philosopher of his age". May we not suspect that the sentiment which attributes to Alison this exalted position is the reflex expression of that intense compatriotic affection that burns in every Scottish breast? The true philosopher is before his age, not behind it.

But are we to accept the teaching of Edinburgh to be fairly representative of the teaching of the greater world of London, Paris, or Germany? More than fifty years ago, the physical and chemical teachings of Lavoisier, Magendie, and others in France, had become thoroughly rooted in the schools. In Germany, Liebig flourished; and Müller may be said to have summed up the applications of physics and chemistry which already formed the distinguishing feature of the medicine of the day. In this country, it may justly be said that Müller's *Physiology*, interpreted and extended by Baly, was the textbook of the schools forty years ago; and that medical teaching was impressed with the teaching of that work. Brodie was a truly great medical philosopher, and, although skilled in metaphysics, was essentially an experimental and physical teacher. And what of Lawrence? And what shall we say of Marshall Hall? What of Prout, whose views of medicine carried into therapeutics were nothing if not chemical?

But we cannot pursue this topic, or others touched upon by the orator. One announcement, however, was made, which could not fail to be received with unanimous satisfaction. This was conveyed in a letter from the Lord-President of the Privy Council, saying that he would submit to the Queen the name of a gentleman practising obstetrics for a seat at the General Medical Council, in the place of the late Dr. Hudson. That the Council should have gone on so long working complacently in the dark, as it has done in its dealing with, or rather in oblivion of, the public interest in its relation to this department of medicine, is sufficiently astonishing.

Here we must take leave of Dr. Duncan's inaugural address, expressing our cordial admiration of its general tone and capacity, whilst differing from some of its propositions. His depreciation of classical authors, as an element of medical study, will probably be harmless. The style of the address refutes its argument. A discourse so well expressed could not have been composed by one who had not cultivated the study which it condemns. Why should that study not be as good for others as for himself?

THE HAMPSTEAD HOSPITAL DECISION.

THE agitation against the small-pox hospitals continues; and it is unfortunate, from a public health point of view, that the recent decision of the House of Lords will probably increase it. That the decision of the Lords, on the issues placed before them, is correct, will not be denied by those who least believe in the alleged danger arising from the proximity of these hospitals to inhabited houses. They will admit that such a hospital in the neighbourhood of an exceptionally healthy district, and near the houses and lands of persons rarely subject to infectious influences, is practically a nuisance which calls for compensation. Small-pox hospitals, not only *for* London but *in* London, are necessary in the interests of the public health; and, whatever inconvenience they may cause those near whose lands and houses they are placed, ought to be compensated for by the general public, for whose benefit they are established.

From this point of view, the result of the protracted litigation is not to be regretted. The decision, while for a time at least increasing the difficulties of the sanitary authorities in dealing with infectious diseases, simply affirms these authorities to be amenable to the ordinary rule, that any interference with the legal rights of individuals must be compensated. The law has thus been made clear; and, henceforth, while, for the necessary carrying out of the Public Health Act, the sanitary authorities ought to have full power to obtain such sites as they may deem necessary, they ought, at the same time, to be directed to make due compensation to those with whose rights and privileges they may have to interfere. We have, therefore, nothing to say against the action of those who have been instrumental in bringing about the recent decision, which, if it does nothing else, will at least make clear the condition of hopeless muddle in which at present the public health administration stands.

The most disheartening feature of the present agitation, however, is not the lay element, but the medical. Having regard to the loathsome character of small-pox, and the hideous disfigurement which it often leaves behind it, the laity may be excused if their faith in vaccination falters when they hear that a small-pox hospital is to be established at their doors. This fear, indeed, it is true, is wholly unreasonable, were the vaccination of themselves and their children efficient. Not only, then, might they with impunity live near the hospital, but even, as statistics regarding the attendants and nurses prove, *within its very walls*. On this point, the evidence is as near a demonstration as medical evidence can be. Thus—to note but one instance out of many—the late Mr. Marson asserts that, during the thirty-two years and upwards that he was connected with the Highgate Small-pox Hospital, no nurse or servant contracted the disease, he having taken care always to revaccinate them on their coming to live in the hospital; and at a time when a large number of workpeople were employed for several months about the hospital, most of whom consented to be revaccinated, two only were attacked by small-pox, *and those two were amongst the few who were not revaccinated*.

While it is possible, as we have said, to excuse the general public for not feeling the full force of our knowledge on vaccination, with the members of the profession it is entirely different. They ought to know that, to persons efficiently vaccinated and revaccinated, a small-pox hospital brings no danger; and, having regard to the public health, we think it is their duty to insist on the value of the protection, rather than to lend their authority in favour of popular prejudices which have no scientific foundation.

One advantage at least the small-pox hospital has, granting it to be a danger to the fullest extent: it is known, and can be avoided. On the other hand, were the policy of such men as the Medical Officer for Brompton carried out, we should be placed in a serious dilemma. Either in the place of hospitals, "plain for all folks to see", there would be innumerable "small hospitals", to wit, private houses, with no precautions for the isolation of the patients, and with the dangers which are alleged in the case of the present hospitals from visitors indefinitely multiplied; or, instead of the hospitals erected by the Asylums Board

in the suburbs of London, there would be a hospital in each parish, and consequently a multiplication of centres of infection, and an increase of the dangers which are at present alleged.

The difficulty in dealing with the objections raised against the present small-pox hospitals is the vagueness of the charges brought against them. Of such a nature are the charges brought against the Fulham Hospital by Mr. F. Godrich, in a recent letter to an evening paper. In his personal experience during the last three years, he states that cases of small-pox occurred more frequently within the quarter-mile radius near the hospital than beyond that radius, and he thence infers that the hospital was the cause. Were it the fact, not only that these cases occurred with greater frequency within the quarter-mile radius, but that in this region the number of cases were in proportion to their proximity to the hospital, then a *primâ facie* case would be made out against it. But even then, as was shown in the case of Stockwell, we should not be in a position to say that the hospital was the cause. Before any such conclusion can be arrived at, many other considerations have to be taken into account, and these Mr. Godrich seems entirely to have overlooked. The character of the population, for example—whether migratory or stationary—and its relation to the rest of the metropolis, form a very pertinent question. It seems to be forgotten, indeed, that the locality in which the hospital is placed is not isolated from communication with the rest of the metropolis; that its inhabitants are probably not without friends and relatives elsewhere with whom they interchange visits; and that a large number of them probably work in other districts, where they may be exposed to infection. By this means, we have found typhus spread; and, in the case of small-pox, there is a strong probability, if the disease exist in London, especially in an epidemic form, that Fulham, or any other district, will not escape it. That cases may have arisen through the medium of the hospital we are not prepared to deny; but as yet we have met with no satisfactory evidence to prove it. Moreover, a distinction must be drawn between the hospital and its appendices, such as its ambulances; and the risk attending the latter must not be set down against the credit of the hospital. It is acknowledged that ambulances are a source of risk; they are not readily recognised, and may stop on their way to and from the hospital at street corners or public-houses. To render these free from risk, their regulation should be placed in the hands of the central authority; and they should be so constructed as to be readily recognised. The police could thus prevent any such stoppages as at present occur.

So long as vaccination remains in its present unsatisfactory condition, small-pox hospitals will be necessary; and, notwithstanding the plausible assertions of Mr. Godrich, we are of opinion that these hospitals may be so conducted as to be harmless to the neighbourhoods in which they may be placed.

PROPOSED ROYAL SOCIETY OF MEDICINE.

THE important question which Mr. Erichsen revived in the interesting address with which he concluded his prosperous and dignified presidency of the Royal Medical and Chirurgical Society, is one on which, we believe, a large preponderance of opinion will be found to support the conclusion to which his experience has conducted him. Whether that preponderance will be sufficient to overcome the resistance which may be again excited to the project, remains to be seen. Our readers will not have forgotten that, more than ten years ago, viz., in 1870, this scheme was mooted, and obtained a very considerable amount of support; that the other societies were invited by the Royal Medical and Chirurgical Society to discuss the terms of amalgamation; and that there seemed a fair prospect of bringing the project to a practical issue; for the proposal of the Royal Medical and Chirurgical Society was actually accepted by the Pathological, Clinical, and other Societies, when, from some fear or jealousy on the part of those interested in the junior societies, and not from any reluctance, any suspicion of bad faith, or any inordinate claims on the part of the older society, the whole negotiation was broken off, and the idea seemed to have been definitely abandoned. We are glad to see it now revived under the influence of so competent an authority as the present President of the College of Surgeons, and it must again be deliberately discussed at the councils of all the bodies which will be invited to join. The advantages of the scheme are so palpable, that it might hardly seem necessary to set them forth; but it may, perhaps, be as well to do so once more, since the debates of 1870 will have well-nigh faded even out of the minds of those who took part in them; and of these, the majority are unfortunately no longer active members of any of the societies interested; while the juniors of that day have now come to the front, and to them the question is probably a novel one. The great object, then, of those who urge the amalgamation of the Royal Medical and Chirurgical, Pathological, and Clinical, and others, into a single society, is to prevent the waste of material and the overlapping which is so strongly felt under the present system; while another and hardly less important object is to enable all the sections, which in the new Society would represent the present societies, to take a larger and more general view of their functions; to occupy themselves less with details, single cases, and isolated specimens, and devote their time more to the general questions connected with their subject. And a third object is to render the new institution grander and more commensurate with the dignity and the increasing public importance of the science of medicine, more ready and more fit to assist the Government and the public, on occasions of emergency, with counsel and assistance such as can hardly be obtained at present even from the colleges, and certainly from no other institution. Along with this (although this is a matter of quite subordinate importance), it is believed that such an amalgamation will enable the societies to work more cheaply; will increase considerably the number of members, as a consequence of the increased *prestige* of the institution; and will thus place the new Royal Society of Medicine on a firmer financial basis, and render its continuance more secure, than can be said to be the case with the present societies—even the oldest and most dignified of them.

Such, we say, are the alleged advantages of the scheme; and they are, at any rate, probable consequences of the amalgamation. In fact, the first is almost a necessary consequence of it, and is itself almost a sufficient motive for the renewal of the attempt which failed in 1870. It does not follow that the scheme then proposed is the best in all its details. In fact, some of those details, such as the exclusion of bodies so respectable as the Medical and the Harveian Societies, were obviously open to revision. Nor do we affect to anticipate the result of the deliberation of the councils of the various societies. But the plan is in itself highly alluring, and it is supported by so many of the most influential members of all those bodies, that we cannot doubt its receiving mature discussion; for our own parts, we heartily wish that it may be brought to a more successful issue this time, and that the unworthy fears and jealousies which then reigned in the minds of influential members may no longer operate on those of their successors. The scheme was so near success in 1870, that it is almost difficult now to see why it was dropped. If it be heartily advocated and properly worked out now, we do not see why it should not soon be realised.

PORK-INFECTION AND MEDICAL INVESTIGATION.

REUTER'S Telegram includes denials very energetic (but apparently too sweeping to be quite reliable) of the prevailing epidemic of trichinosis, which it appears fashionable to designate as hog-cholera. The Board of Managers of the Commercial Exchange in Philadelphia, have adopted a resolution declaring their belief that the report of the British Consul at Philadelphia regarding hog-cholera is incorrect, and injurious to American commerce. A deputation from the New York Produce Exchange has called upon the British Consul at Philadelphia, in order to ask that something should be done to counteract the ill-effects of the statement which had been made. Mr. Crump, who was Acting-Consul at the time when the despatch announcing the prevalence of hog-cholera was sent, said the statement in question only applied to Illinois, and further stated on whose authority he had

made it. A minute was agreed to, declaring that the Acting-Consul obtained information direct from Illinois that 700,000 hogs had died last year. Should the figures prove erroneous, the British Consul will at once make the necessary correction. The fact that American pork and hams are extensively trichinosed is placed beyond doubt by the results of examination in America by the authorities as competent as Dr. Billings, and by official evidence in France. On the other hand, it is also pretty certain that, when cooked, such ham or pork very rarely communicates the disorder to human beings. All the same it is certain that diseased hogs are slaughtered wholesale, and exported without check from many of the great slaughtering and packing establishments in Chicago and elsewhere, and that some investigation and prescription of precautions as to this use of extensively diseased meat is very desirable. It is very necessary that it should be instituted on the spot, but as the pecuniary interests involved are large and are likely to be paramount in the Transatlantic dealing with the matter, it seems advisable that we should take means here of ascertaining for ourselves what is the quality and condition of healthiness or disease of the pork which is sold in England, whether of English or foreign origin. The reports which we last week published relating to the Welbeck and Nottingham outbreaks of disease from pork-infection, show that the results are not likely to be devoid of public importance.

We are glad to see, therefore, that the President of the Local Government Board has informed Dr. Farquharson, M.P., that in connection with the statements which the BRITISH MEDICAL JOURNAL last week published, he intends directing the attention of the medical officers of health and other inspectors to the utility of local investigation of the subject. We shall be much obliged if any medical officers of health who may undertake such local microscopical examinations of the pork and ham sold in their district will communicate the result to us.

THE ROYAL COLLEGE OF SURGEONS EXAMINING IN MEDICINE.

THE London College of Surgeons appears now to have determined upon a step, into which it would not be right to inquire too curiously as to the motives, but which is on the face of it for the public good, while by those who look below the surface it will, we believe, be seen to have an exactly opposite effect. The College proposes to increase and extend its medical examinations, with the ostensible view of remedying the present anomalous state of things, which allows a member of the College of Surgeons to go on the *Register* and to practice both medicine and surgery with impunity as a registered medical man. There can be no doubt of the anomaly, and, indeed, it is one which we first dwelt upon, and in respect to which for a short series of years we published numerical lists indicating the extent of the anomaly and the danger; but we by no means admit that this is the right way of remedying it, nor can we accept the view that in this case a defective remedy is better than none at all. That no one should be registered as a medical man who has not been tested thoroughly in medicine and midwifery as well as in surgery, is now a truism; but it is far from being equally apparent that it is therefore right that the College of Surgeons—a purely surgical body, whose examinations have only a surgical value, and have no other legal *status*—shall assume to itself the power, the duty, and the responsibility of becoming an examining body in surgery, medicine, and obstetrics. It is certain that, outside of surgery, the College of Surgeons, ruled by a body of pure hospital surgeons, will always be the worst examining body in the kingdom, just as in surgery it will always remain the best; and the marriage of defective examinations in medicine and obstetrics to complete examination in surgery is not what is required to bring about a sound state of medical education and registration. Any patching-up of this sort may be in the interest of the College, by giving an aspect of completeness to its diplomas, which no doubt the Council are right to consider; but it certainly is not in the interest either of medical education or of medical examination. It is not fair to students that they should be called upon in this way to go through multiple examinations by medic bodies in surgery and medicine, and by surgical bodies in medicine and surgery before they can acquire a qualification to practise. Nor is it right to the public that the College of Surgeons should set up an inferior standard in one set of subjects, in order to justify and enhance its power and position of examining in others. It is equally mischievous, as impeding the prospects of early and complete remedial measures in dealing with medical education and registration. It is much better fairly to face a difficulty, and openly to avow it, and to call for a remedy, than it is to apply a very imperfect measure, which is in itself an evil rather than a good. If the Council of the College of Surgeons were to go boldly and honestly to the Lord-President of the Privy Council, and inform him that they were in a difficulty as to their examinations—because their surgical examination gives a right of registration, and therefore to practice—and to urge upon the Privy Council the necessity of taking steps to relieve them of that difficulty; and if, meantime, they were to combine with medical bodies, such as the College of Physicians, to give a conjoint degree, and not to give their own diploma under any other circumstances, they might claim to be acting in the public interest; and there is no doubt that their action would have a beneficial influence in determining early legislation. Their present step we regard as retrogressive and selfish: although, possibly, the application of such a description may surprise those who are the authors of it, and whose intentions may fairly be considered to be of quite an opposite kind. It is necessary, however, to look beyond the interest of corporations in this matter; and it is precisely because each corporation is still at the present moment fighting for its own hand, and working for its own interest in the name of the profession, that we once more earnestly protest against the present impotency of the Medical Council to regulate the actions of the corporations, and against the present absolute deadlock, brought about by those who object to the representation, in the Medical Council, of the profession, whose interests are outside and above those of the corporations.

HIS ROYAL HIGHNESS THE PRINCE OF WALES has signified his intention to preside at the forthcoming festival in aid of the Royal Hospital for Children and Women, Waterloo Bridge Road, S.E.

IT is reported that small-pox is raging in the Sandwich Islands. Many houses in Honolulu have been placed in quarantine, and communication between the islands is stopped.

THE Duke of Connaught will preside at the anniversary festival of the Hospital for Sick Children, Great Ormond Street, at Willis's Rooms, on Wednesday, March 16th.

DURING the past nine weeks of the current quarter, the metropolitan death-rate has averaged only 24.3 per 1,000, against 26.0 and 29.7 in the corresponding periods of 1879 and 1880.

THE Sermon preached in King's College, Cambridge, by the Right Reverend the Lord Bishop of Ely, at the last annual meeting of the British Medical Association, has, with the kind permission of his Lordship, been printed, and may be obtained (price sixpence, in stamps), by application to the Manager, at the office of the JOURNAL.

SMALL-POX has, it is stated, broken out in Leicester. Mr. P. A. Taylor's constituents may possibly have an opportunity of estimating the worth of the anti-vaccination movement, with which their representative has identified himself.

EVERY member of the committee who are conducting the opposition to the reception of further patients at Fulham Hospital has put down his name for £25 towards expenses, and it has been resolved to make immediate application for an injunction.

WE hear from Boulogne that small-pox has been raging there for over two months; and, a fortnight ago, the deaths were 4 per cent., or 40 per 1,000. There is a great dearth of vaccine-lymph, and the present epidemic is said to be more severe than those of 1848 and 1871.

The vaccinal arrangements at present in France are very imperfect, but the small-pox is believed to have been imported by the workmen, of whom four thousand are employed just now on the new harbour works.

ST. BARTHOLOMEW'S HOSPITAL.

THE ballot for the election of an assistant-surgeon to St. Bartholomew's Hospital took place on Thursday last, March 10th; and at its close Mr. Walsham was declared duly elected, by a majority of three votes over the second candidate; the third scoring seventeen fewer than the second. Mr. Walsham is well known as the present indefatigable demonstrator of anatomy to the medical school of the hospital; as the author of a *Handbook to Surgical Pathology*; and as a contributor of valuable papers to medical journals and societies. All the candidates were men in favour of whom much might be urged. The election has been very keenly contested, and has entailed on all the candidates considerable and protracted labour in canvassing, not to speak of the cost, inconvenience, and humiliation involved. This mode of election to a professional office is a relic of ancient abuses which has been abolished at the hospitals of the West End, less trammelled by the vulgar influence of City tradition. It may be hoped that in time the governors of this ancient hospital may so far rise superior to the petty love of patronage and the aldermanic pride of power, which perpetuates a mode of election which is degrading to all concerned, and is the least fitted for selecting candidates for a hospital appointment.

OPHTHALMIA IN THE WEST LONDON DISTRICT SCHOOL.

IT appears from the annual report of Mr. Peter W. De la Motte, the medical officer of this school, that, during last year, 612 children between the ages of three and sixteen years were admitted to the two infirmaries and the fever ward of the school. On December 31st, the number remaining in hospital was 63. With the exception of a few cases of German measles, no outbreak of fever occurred. Mr. De la Motte reports that the malignant enemy of the school—ophthalmia—is decreasing under the present arrangements; but granular eyelids of all grades are prevalent, and require constant and careful watching in order to eliminate relapsing cases. The infants' department of the school was divided during the year into two sections: one section accommodating absolutely free children, and one those children having a tendency to ophthalmia. The former number 67, and the latter 28. Before this division was made, all the infants were more or less affected with the disease.

TYPHOID FEVER AT PEMBERTON AND ORRELL.

DR. HUBERT AIRY has made to the Local Government Board a somewhat disappointing report on an extensive outbreak of typhoid fever occurring last August in the districts of Pemberton and Orrell, Lancashire. The disease appears first to have been observed in a part of the district in July, three persons living in different streets in that neighbourhood coming under treatment on July 13th, 20th, and 27th. No fresh cases appeared till the beginning of the second week in August, when four or five persons were taken ill on as many successive days in as many different families, and in different parts of the district. On the 14th and following days, a great increase in the epidemic took place. Fresh families in different directions were infected at the rate of four or five a day, and from the 14th to the 23rd, perhaps as many as eighty persons were attacked. From that date the epidemic began to decline. The local medical officer of health was of opinion that the epidemic extension of the disease was due to polluted water-supply, and this explanation certainly seems to account best for the circumstance of the outbreak. The majority of the inhabitants in the place principally affected, and some in other places, obtained their water from a spring situated close to a brook, only a few inches above the ordinary level of the brook, and liable to be overflowed by it, after heavy rains. About a week before the great outburst of the fever (which took place on August 14th), there had been a violent rainstorm. There was distinct evidence that after this storm the brook overflowed the spring, filling it with turbid water polluted by the draining of villages on its upper course. At one of these villages there had recently been cases of choleraic diarrhœa, suggestive of "blood-poisoning", from which, there was no doubt, some of the excreta passed into the brook. Whether the spring would retain specific pollution for many hours after the flood was gone down is doubtful, for the spring is a strong one, and its basin is shallow, surrounded by a low dilapidated circular wall of stone, on the brink of which the women and children stand to dip their cans. After a flood, a muddy sediment remains on weeds at the bottom of the basin, which might contain matter specifically poisonous; this would probably be stirred in dipping the cans, and in this way possibly the spring might retain infective properties. Whether this be so or not, the causation by polluted water affords the only reasonable explanation of the epidemic; and though Dr. Airy, with characteristic caution, hesitates to commit himself to this, he admits that there is much ground for suspecting the spring to have been concerned in causing the outbreak.

DEATH OF SIR H. JACKSON, BART.

THE death of Sir H. Jackson, so soon after his elevation to the judicial bench, is an event of a peculiarly melancholy nature. The details of his last illness are of interest, not only from the rank of the sufferer, but from the unusual nature of the disease. The deceased gentleman inherited from his father a tendency to gout; from his mother a tendency to hepatic disease. In early life, he had experienced some gouty troubles; but, from the age of thirty-five, had adopted a most careful *regimen*, and had remained very free from any trouble until about six years ago. He then began to suffer from some symptoms of liver disturbance; and from time to time, after this, he had attacks of what was considered to be hepatic colic, the last and severest being in June 1879. Last autumn, he went to Carlsbad, and derived from that visit, as from several former ones he had made, considerable benefit. In January last, his health began decidedly to fail; but, with the indomitable energy which characterised him, he kept on with his work; and, on the 21st ultimo, he attended a levee, and was in the House of Commons. On the following day, he had all the symptoms of a severe attack of hepatic colic. About five or six days later, he told Dr. Clark (his medical attendant for the last twenty-five years) that he had felt the stone pass, and that all pain had ceased. The jaundice, however, and the quantity of bile in the urine, continued to increase; irregular pyrexia, with increasing rapidity of pulse and respirations, supervened, and the urine began to contain albumen, while its density fell. On the 5th instant, the albuminuria became more pronounced; and, two days later, total suppression of urine supervened. No treatment was now of any avail; and the lamented gentleman died on the evening of Tuesday, the 8th instant. *Post mortem* examination revealed a most curious condition of things. The gall-bladder was entirely occluded, and contained numerous gall-stones immersed in a milky fluid. Between the gall-bladder and the liver was a closed sac, containing many small calculi and a grumous fluid. The common bile-duct, at about one inch above its duodenal orifice, was much dilated, and contained at this spot a large calculus, which, however, was not impacted. The right and left divisions of the hepatic-duct were widely dilated, and had evidently acted as reservoirs; the biliary canals in the liver were also all dilated and full of bile, and the organ, as a whole, was twice its natural size. The fatal issue was no doubt immediately due to uræmic poisoning; but the kidneys, though large and full of blood, showed no evidence of structural disease.

DISEASED MEAT FOR HUMAN FOOD.

WILLIAM HENRY WILLS, potted meat and saveloy manufacturer, Birmingham, has very deservedly been sent to prison for three months, with hard labour, for having been found guilty of preparing diseased meat for human food. Wills had in his possession half a ton of putrid mutton and diseased horse-flesh, for the purpose of turning it into "potted meat", and he had also large quantities of sausages, saveloys, and potted meat made from equally disgusting material, red ochre being used to give the manufactured article a "fresh and beef-like" appearance.

SEATS FOR SHOPWOMEN.

OUR readers may have noticed that the case of the female assistants in drapers' shops, effectually raised by Dr. Edis, has at length engaged the serious attention of a number of members of Parliament, and that a Bill for providing seats will shortly be introduced. Dr. Edis writes to us to say that he will feel grateful to any medical men who will endeavour to influence members of Parliament in making known the necessity for legislation on this subject; for, although much has been done by some large firms to ameliorate the condition of young shop-women, there is still much to be done.

THE DETECTION OF ARSENIC IN WALL-PAPERS.

DR. WILLIAM S. HILLS writes to the *Boston Medical and Surgical Journal*, for January 13th, in deprecation of the nitrate of silver test as the "most simple and reliable test for arsenic in wall-papers". He states, and gives reasons at length for his opinion, that it is, on the contrary, one of the least reliable tests for the purpose. He then gives his own method, which is as follows. Take a sample three or four inches square (less will suffice with plain papers), cut into small pieces, moisten with concentrated sulphuric acid, and heat carefully till the paper is thoroughly charred. Let the charred mass cool, add to it about one fluid ounce of water, grind the black mass fine that the water may come into contact with all parts of it, filter, and wash. The arsenic will be found in the filtrate, which is examined by Marsh's test. All the chemicals must be free from arsenic. A paper which, treated carefully in this manner, furnishes no arsenical mirror on porcelain, does not contain any appreciable amount of arsenic.

MEDICAL AID TO THE BOERS.

THE Berlin papers publish an appeal by the "Committee for Assisting the Dutch Wounded in the Transvaal," from which the following may be cited: "The war that has broken out in the Transvaal is followed with the greatest interest by the whole of the civilised world. The late bloody collisions have shown that it is a life and death struggle; and, as English and Boers vie with each other in personal bravery, the number of victims will be unusually large. But the Boers lack the sanitary arrangements of a regular military system, and it is, therefore, the duty of humanity to help and tend their wounded as best it can. For this purpose, the Central Committee of the German Red Cross Societies has already handed over a sum of money to the Netherlands Committee in the Hague, which has provided for establishing the Red Cross in the Transvaal through the instrumentality of the Royal Dutch Consul at Cape Town. In the same sense, the undersigned have met to appeal for subscriptions and forward them to the same destination; and we make a pressing request to all who have a heart of pity for the wounded Boers, to let us have their contributions quickly. Should these come in profusely, it is in contemplation ultimately to send out German surgeons and sick-nurses to the seat of war through the Dutch Central Committee." Among the signatures to this appeal are those of Professors Du Bois-Raymond, Hartmann, Langenbeck, and Virchow.

HOW SMALL-POX MAY BE SPREAD.

A STATEMENT reflecting very seriously on the sanitary administration of Lambeth was made at the last meeting of the vestry of that parish. One of the members said that a severe attack of small-pox had occurred at a house in Stockwell, in a street abutting on the hospital. "The whole of the family were attacked, but fortunately escaped with their lives. After the children were convalescent, the sanitary inspector came to disinfect the premises. He brought a little bit of sulphur in an Australian meat-can, and he proposed to disinfect the house by burning a few grains in his hand. These people were told there was no provision for disinfecting bedding, and were instructed by the same person to empty the contents of the bed upon the floor of the room, which was to be fumigated in this trumpery way." Clearly this so-called disinfection of premises was no disinfection at all; it was only what Mr. Simon once happily called a "futile ceremony of vague chemical libations or powderings" known by that name, and of absolutely no avail whatever. The medical officer of health was fain to admit the slovenliness of the "disinfection"; but he stated that he could not supervise the work of four inspectors of nuisances; and, on the ground that the inspectors were as much responsible to the vestry as he was, disclaimed any connection with the case. Looking, however, to its importance as a probably typical instance of perfunctoriness, it is satisfactory to find that it has been referred to a committee for report. There is much reason to fear that "disinfection" by unskilled persons often does more harm than good.

PROTECTION OF INFANT LIFE.

THE necessity of the amendment of the Infant Life Protection Act, in the sense repeatedly urged by us (viz., so as to provide for the registration and inspection of every house where any child is taken in to nurse by those who are not related to it), receives daily illustration by the cases reported in the newspapers. It has recently also been very strongly borne out by a case recorded in the last annual report of Dr. Bruce Low of Helmsley, which tells its own story so well that we prefer to leave it without comment. Dr. Low, referring to the high percentage of illegitimacy in the district, observes that the system of statute-hirings, and holidays of a similar kind, assist much in the development of immorality. "It is unfortunately too much the custom, among the servants in agricultural districts, to stipulate with their masters and mistresses for a large share of personal liberty during their period of service; this liberty resulting too often in misfortune and ruin, both to character and prospects. In last year's report (see Vol. i, 1880, page 666), I gave in detail three glaring cases, illustrating the crime and the innocent suffering which follows this immorality; and I have, unfortunately, yet another typical case to record. The story is briefly the usual record of cruelty and neglect by a baby-farmer, who is under no supervision, and therefore does as she likes with the young life committed to her care. The illegitimate child of a servant girl was entrusted to an accommodating married woman at a distance, who had no child of her own. The child was fat and healthy when given up by its mother. In three months, it was reduced to a living skeleton; its body, when I saw it, was a mass of bruises, and the marks of the fingers of the cruel nurse could be distinctly seen on the tender skin of this unfortunate infant's back. The neighbours had often heard the beating administered, and some brutal remark, as the child was tossed into the cradle. The buttocks were covered with deep sores, from neglect. For some time after its rescue, the child, on the approach of any one, threw up its little arms in a way that at once suggested, to the most obtuse observer, that it was trying to save its body from the expected blows to which it had become accustomed. It shrank in fear from the embraces even of its mother, who, on receipt of a telegram informing her of the facts of the case, at once gave up her situation and rushed to the rescue of her unhappy babe. The child had been fed on bread and water, and had been drugged to keep it quiet, when beating failed to silence it. When remonstrated with regarding the food, the fiendish nurse indignantly stated that she 'could not afford' milk, and that 'bread was good enough for it'. It would have moved the heart of a stone to have seen the miserable bastard baby's sad and wrinkled face, sorrow stamped prematurely on every lineament. After great suffering on the part of the child, and great exertion on the part of its mother, the infant was gradually restored to health, although its death was daily looked for during the first few weeks of its escape from the brutal baby-farmer. Examples like these, it is to be feared, are not uncommon in our rural districts. The urgent necessity that exists for some improved legislation to protect infant life is patent even to the most casual onlooker. If the present Infant Life Protection Act could be extended, so as to bring every single nurse-child under supervision, it would at least save much cruel suffering, and prevent the shedding of innocent blood."

"NATURAL CAUSES."

WE are tolerably familiar now with the sagacity of lay coroners in divining "causes of death", and the preternatural acuteness of coroners' juries in inventing explanations, which the professional skill of medical

witnesses are unable to furnish. At an inquest at Stanishaw last week, a coroner's jury distinguished themselves highly in this way. A man had died in bed without medical attendance, and the doctor summoned was unable to say what was the probable cause. The coroner hesitated to make a shot; but, undismayed by this singular modesty, the jury sapiently found that the man had died from "natural causes". As this leaves it quite uncertain what the man died of, the verdict may be considered more comic than clever, and jocose rather than judicial. The coroner's feelings seem to have been greatly hurt, that the doctor declined to view the corpse with a gimlet-eye, and say off-hand, without knowing it, what was wrong inside. The jury proposed to censure the medical man for his obduracy in declining to swear to an unknown cause of death. If, however, they knew without him that it was a natural cause, their superior intelligence might have pitied and pardoned, rather than censured, his inferior information on the subject. Their process is economical in *post mortem* fees, and not likely to prove prodigal in producing poisoning cases. Whether money or life be more valuable in the neighbourhood of Stanishaw, is a matter which is possibly considered of mainly local interest.

THE ACCIDENT TO MR. SPEDDING.

THE injuries received by Mr. Spedding were of an almost necessarily fatal nature. Mr. Holmes, under whose care he was in St. George's Hospital, was of opinion that the base of the skull was fractured. Nearly the whole of the left ear was torn off, and the adjacent tissues extensively lacerated. The immediate cause of death was diffuse inflammation of the scalp. Mr. Spedding was in a depressed semiconscious state from the time he was admitted into the hospital until his death. The statement which he made, to the effect that the accident was his own fault, was almost the only coherent speech he uttered.

THE ST. GOTHARD TUNNEL.

WE publish in another column a report addressed to us by Dr. R. Bugnion on the epidemic mortality among the workmen at St. Gothard Tunnel, which has been definitely traced to the fatal influence of a parasitic nematoid worm, very prevalent in hot countries, especially in Egypt, where it causes the disease known as Egyptian chlorosis. The presence of this noxious worm was only lately recognised as the cause of the cases of debility and impoverishment of blood, epidemic among the workmen. Dr. Bugnion, it will be noted, adds (and this has some social significance just now): "It is well to add that, if the cause of the epidemic of St. Gothard was not immediately recognised, it was partly caused by the impossibility of having *post mortem* examinations, the authorities of Airolo having refused the necessary permission. We are informed, in fact, in the report published in June 1880 by Dr. Sonderegger, who was retained by the Federal Government, that, in 117 deaths which took place up to that time, only a single examination was made. Now that the cause of the disease is known, it will certainly be subdued in a short time by the use of suitable remedies, and its return will be prevented by appropriate sanitary measures." The refusal of *post mortem* examinations is by many thought quite a social virtue, regardless of the fact that it is only by such examinations that we can solidly advance in pathological knowledge—one of the three essential feet of the tripos of physiology, pathology, and therapeutics—on which the art of healing rests.

EXCLUSION OF AMERICAN PORK.

IN the French chamber this week, M. Haentjens protested against the exclusion of American pork. He argued that the danger of trichinosis had been exaggerated, that thorough boiling might be recommended, and that the lower classes would be deprived of 37,000,000 kilogrammes of food. He deprecated the panic, which had extended to home-bred pork, urged that England had taken no such step, that at Antwerp and Hamburg no alarm existed, and suggested that American pork would simply come in *viâ* Belgium or Germany. For twenty years, he said, there has been only one death in France from trichinosis, and the Government had so far recovered from its fright as to allow the admission, subject to examination, of pork already in bond at Havre. The Minister of Commerce replied that last year precautionary measures were deemed sufficient, but the consumption had since increased, and trichinosis had been produced by American pork. Several countries prohibited the importation. Pork seized at Lyons in January was found to be infected, and in Paris and manufacturing towns various maladies were attributed to diseased pork. The Hygienic Committee declared strict examination necessary, but this was impracticable with large quantities. The exclusion was a painful measure, but it was required by the public health until stricter examination could be resorted to; and when these guarantees were secured, the Government would gladly rescind the prohibition.

THE LATE MR. E. R. ALSTON.

ANOTHER promising young zoologist has followed the late Professor A. H. Garrod to an early grave. Mr. E. R. Alston, F.G.S., F.Z.S., F.L.S., died of phthisis in Maddox Street, on March 7th, aged 35. He contributed numerous monographs to the learned societies, chiefly on the marsupialia and on the rodentia. A very valuable paper on the classification of the latter order appeared in the *Proceedings of the Zoological Society* in January 1876.

CHROMIC LIGATURES.

WE have this week received a communication from Dr. Macewen, in which he disavows any wish to claim priority over Mr. Lister in the matter of the new methods of preparing catgut. This is satisfactory, as it frees any further discussion with regard to these different modes of preparation from the personal element, which would only interfere with the elucidation of this most important subject.

REMOVAL OF THE WHOLE TONGUE.

AT a recent meeting of the Medical Society of London, the President, Mr. Gant, described the case of a man in the Royal Free Hospital, from whom he had recently removed the whole tongue for epithelioma of that organ. The disease had commenced eighteen months before, on the right side of the tongue, opposite a jagged second molar tooth; the patient was also a great smoker. For the first nine months, the growth remained stationary; it then became painful, and ulcerated rapidly. Caustics had been applied. No connection with syphilis was traceable. There was frequent hæmorrhage, and the patient's general strength was much reduced when he came under Mr. Gant's care two months ago. The tongue was then enlarged, and a hard mass of ulcerated tissue implicated the right side and base of the organ, reaching at its centre across the dorsum of the tongue to the left. There was great pain at the part, and some glands at the angle of the jaw were hard, enlarged, and tender. The patient having been fed up, and treated, but without local benefit, with large doses of iodide of potassium, the tongue was removed. The patient being anæsthetised by the mixture of alcohol, chloroform, and ether, an incision was first made from the left angle of the mouth down to the angle of the lower jaw, avoiding the parotid duct, and exposing the base of the tongue. The facial artery was twisted, and the tongue seized and drawn forwards out of the mouth. Two stout curved needles, set in handles, were then thrust from beneath the tongue, through its base, in front of the epiglottis; the loop of a long chain *écraseur* was passed over the needles around the base of the organ, the frænum being divided, in order to fix the loop more closely around the curve of the needles. The *écraseur* was then worked slowly, by one movement of the handle every minute; and, as the substance of the tongue yielded under the slow strangulation, the instrument was worked more slowly, a movement being made every two minutes. In the course of about twenty minutes, the tongue was completely detached, leaving the floor of the mouth without any hæmorrhage at the time of operation or subsequently. The buccal incision was accurately closed with four harelip-pins and twisted suture, a fine hair-suture further guarding the corner of the mouth. After the operation, the patient was, for the first three days, fed entirely *per rectum;* he then took fluid by the mouth. The wound in the cheek

healed by the first intention; the last of the harelip-pins was removed on the sixth day. The pulse and temperature remained good throughout the recovery from the operation. The patient left the hospital on the eighteenth day, feeling well, and suffering no pain. The glands near the jaw were diminished in size, though somewhat enlarged. Mr. Gant dwelt on the ease with which the base of the tongue was reached by this operation, and urged that the *écraseur* should be very slowly tightened, so as to avoid all possibility of hæmorrhage.

ANTISEPTIC SUPRAPUBIC LITHOTOMY.

So rarely is the removal of a vesical calculus attempted by the suprapubic method, that, though all surgeons are familiarly acquainted with descriptions of the operation, but few can have witnessed its actual performance. On the afternoon of Friday, February 25th, Mr. Lister, at King's College Hospital, performed the operation twice. Both patients were males, and in each the strictest antiseptic precautions were observed. Before the operation began, the bladder was washed out, and distended with a solution of carbolic acid: the wound in the bladder, and that in the abdominal walls, were both closed; and provision was made, by means of a catheter most carefully secured in the bladder, and communicating by a long India-rubber tube with the bottom of a large glass bottle containing a layer of carbolic oil, for the preservation of the urinary secretion free from decomposition.

SCOTLAND.

THE President and Council of the Faculty of Physicians and Surgeons of Glasgow have appointed Mr. David C. McVail, M.B., Lecturer on Medicine in the Glasgow Western Medical School, to be the next Faculty lecturer. His subject will be: "The Physiology and Pathology of Respiration."

ABERDEEN UNIVERSITY.

THE Senatus Academicus of Aberdeen University have resolved to confer the degree of LL.D. on various alumni of the university. Among those selected for this honour, is David Ferrier, M.A., M.D., Professor of Forensic Medicine in King's College, London.

PROPOSED FEVER HOSPITAL FOR EDINBURGH.

REFERENCE has been made previously in the columns of the JOURNAL to the question which was raised in Edinburgh some time ago as to the necessity for and propriety of establishing in Edinburgh a thoroughly equipped and sufficiently large hospital for the treatment of fevers and other contagious diseases. The matter has since then occupied the attention of the medical officer of health and the Public Health and Lord Provost's Committees of the Edinburgh Town Council. Hitherto the arrangement has been the maintenance of a fever hospital by the managers of the Royal Infirmary; this being supplemented by hospital accommodation for small-pox patients in a building in the Canongate, which last happily has had few calls made on it of late years. The medical officer of health, in a report submitted by him, pointed out that at various times the city had been visited by epidemics for which the local sanitary authorities were unprepared, and that the means resorted to on those occasions had been less satisfactory and more expensive than would have been the case had there been sufficient accommodation in existence. Notably, in the late outbreak of scarlet fever, he had been greatly embarrassed by the want of proper accommodation. His opinion is that there should be provided for the purpose a hospital which would allow one bed to each thousand of the inhabitants. This would require two hundred and twenty beds. The managers of the Royal Infirmary are in a manner bound to maintain seventy-four beds for the reception of fever patients; and this they propose doing by retaining the eastern block of old Infirmary buildings, while the medical officer of health advises that the corporation should acquire the remainder of the buildings for the purposes of a fever hospital. He also points out the advantage of this plan as regards the situation of the buildings, their exposure, and the ease with which they could be adapted to the intended purpose. At a meeting of the Lord Provost's Public Health Committee of the Town Council, held on March 4th, the medical officer's opinion was adopted, and it was agreed to offer the sum of £23,000 for the central and eastern blocks of the old Infirmary buildings. At the weekly meeting of the managers of the Royal Infirmary, held on Monday, it was agreed to sell the central block for the sum of £16,000, for the purpose above alluded to; but, in view of the valuation of the eastern block given them by their own valuer, and in the interests of the Infirmary, they decline to part with them for the sum of £7,000 to the Town Council. There can be no question of the importance of this subject to the interests of the public and of the Infirmary, as well to the special object for which the movement has been made. That suitable accommodation ought to be in the hands of the authorities is obvious; and the conclusion regarding the site has only been arrived at after much consideration, and with a full knowledge of the advantages of a fever hospital being outside of the city, and also of the difficulties of acquiring such a rural site. If it be finally determined that the old Infirmary buildings are to be devoted still longer to the treatment of disease, we have no doubt as to an amicable settlement being arrived at between two corporations that have long been so closely associated as the Town Council and the Infirmary. Still it cannot be forgotten that when, some years ago, the University proposed to purchase the entire building for £30,000, the transaction was arrested from the outside; and, if we remember rightly, the law-courts appealed to, to prevent the managers from selling the buildings for so low a sum to another corporation (the University), which had been long and intimately associated with the Infirmary.

RELIEF OF INCURABLES, EDINBURGH.

THE Society for the Relief of Persons labouring under Incurable Disease in Edinburgh has at present on its roll two hundred pensioners. It is a pity to observe that subscriptions to so deserving a charity have diminished this year by nearly £29. The expenditure for the year was £940, and the income £866, leaving a balance against the institution of about £74, to be paid out of capital. To this institution, as to others, the late Dr. Andrew Vans Dunlop showed his practical goodwill by leaving it over £5,000, directing that the sum in question (£6,000, less £600 legacy duty) should be held and applied "as a special fund for relief of incurables at their own homes, and especially of those incurables who suffer from cancerous disease".

THE REGISTRATION OF INFECTIOUS DISEASES AT GREENOCK.

THE figures given by Dr. Wallace, in his report for last January, show greater attention by householders to the fulfilment of their duties of reporting all cases of infectious diseases, under the local Act of 1877, though there is still great room for improvement. Of 107 cases ascertained by the department, 65 were reported by householders, 19 by the sanitary officers, 4 by medical practitioners, 16 by the registrars, and 3 in other ways. The 107 cases included 12 from typhus, 8 from enteric fever, 20 from scarlatina, 43 from measles, and 12 from whooping-cough. As compared with the figures for December, there was a diminution in the number of cases of measles and whooping-cough, but an increase in those of typhus and scarlet fevers.

DEATH OF A CHILD CAUSED BY A NEEDLE.

THERE is reported from Bonhill the death of a child, aged 7 months, from the effects of a needle, which had found its way into the body either by swallowing or from without. About a fortnight ago, the infant was seized with very peculiar and unexplainable symptoms of illness, the only outward indications being irritation and a hardness on the left side of the body. These symptoms increased, and the child died. The result of a *post mortem* examination showed the presence of a common sewing-needle, which had pierced the pericardium, and was found imbedded in the lower region of the heart.

GLASGOW PHILOSOPHICAL SOCIETY.

AT a meeting of the above institution, held on the 2nd instant, a paper was read by Mr. T. H. Jones on "Visible Speech, and its application to the Teaching of the Deaf". Mr. Jones explained that the system of visible speech, which was invented by Professor Melville Bell, of Edinburgh University, was, as its name implied, a method of making visible to the eye the action of the vocal organs in producing speech. In the system, the two great objects aimed at are—first, to teach the pupils articulation, or how to express their own thoughts in spoken language; and, secondly, to understand the speech of others by watching the motion of their vocal organs. The practical results of the system were well illustrated by pupils of the Greenock Articulation School; and, at the end of the proceedings, a very hearty vote of thanks was given to the lecturer.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending February 26th, it appears that the death-rate in the 8 principal towns during the week was 22.5 per 1,000 of estimated population. This rate is 3.0 below that for the corresponding week of last year, and 1.4 below that for the previous week of the present year. The lowest mortality was recorded in Greenock—viz., 16.5 per 1,000; and the highest in Paisley—viz., 25.4 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 2.8 per 1,000, being 0.6 below the rate of last week. Acute diseases of the chest caused 150 deaths—a decrease of 43 on the number for last week. The mean temperature was 34.6°, being 0.8° below that for the week immediately preceding, and 9.1° below that for the corresponding week of last year.

IRELAND.

THE Rev. Professor S. Haughton, M.D., has been appointed senior Lecturer of Trinity College, in place of the Rev. J. H. Jellett, D.D., Provost-elect.

HIS Excellency the Lord Lieutenant has been pleased to appoint George H. Porter, M.D., Surgeon in ordinary to her Majesty the Queen in Ireland, a member of the Board of Superintendence of the Dublin Hospitals, in the room of the late Christopher Fleming, M.D.

DR. ALFRED H. MCCLINTOCK, President of the Royal College of Surgeons in Ireland, Ex-Master of the Rotunda Lying-in Hospital, and President-Elect of the Dublin Branch of the Association, has been appointed Crown Representative for Ireland on the General Medical Council, in the place of the late Dr. Alfred Hudson.

TRICHINOSIS IN DUBLIN.

As has been reported by Mr. Redmond in some of the daily papers, that gentleman, in his capacity as Demonstrator of Anatomy in the Medical School of the Catholic University, has recently met with instances of this disease in the bodies of two subjects. So far as we are aware no particulars of the life history of these individuals have been ascertained. Cases of a similar kind are not, we believe, of uncommon occurrence in dissecting-rooms. As a fact not generally known, it may be interesting to note that the disease was first recognised in a Dublin dissecting-room, by the late Professor Harrison, and described by him at a meeting of the British Association in the same city.

ARMAGH COUNTY INFIRMARY.

FROM the medical report of Dr. J. Mansergh Palmer, surgeon to the Armagh County Infirmary, for the year ending January 4th, 1881, it appears that, during that period, 3,021 patients were under treatment at the hospital, being an increase of 81 over the previous year. Of this number, 730 were admitted into the wards, 413 being surgical, and 252 medical, cases. There were 213 discharged cured, 373 much relieved, 45 were incurable, and 59 remained under treatment, making a daily average of 48 intern patients. The mortality amounted to 15, equal to a percentage, including all cases treated, of 1.95. The accidents included 55 simple fractures, 14 compound fractures, 19 dislocations, etc.; while 16 capital operations were performed, 45 other operations, and several excisions of various joints. Of the accidents admitted, 4 died almost immediately after admission, thus raising the deaths from 11 to 15. A death also took place within twenty-four hours of amputation of the thigh for chronic disease of the knee-joint, being the only death after operation during the year, with the exception of an old man of 80 years, from whose lip a cancerous mass had been removed, making the mortality after operations 2 per cent. These results are very satisfactory, and speak well for the care and skilful manner in which the inmates in this infirmary are treated. We may add that the operations were usually carried out by the antiseptic method, under a spray of carbolic acid, chloroform being the anæsthetic used in each case.

TYPHUS IN DUBLIN.

WE are glad to observe that the epidemic of typhus in Dublin, the progress of which has been from time to time noted in these columns, shows signs of diminution. The registered deaths from typhus in the Dublin Registration district for the week ending Saturday February 26th, nine in number, are equal to the average for the preceding five weeks, but three under the number for the week ending the 19th inst. Thirty-one new cases of the disease were admitted into the principal hospitals during the week, being four under the admissions for the preceding week, and twenty-six under the number for the week ending the 12th inst. Fifty-three typhus patients were discharged during the week, six died, and 124 remained under treatment on Saturday last, being twenty-eight under the number in hospital at the close of the previous week. The type of the epidemic has been mild throughout. A few bad puerperic cases occurred, but the majority were in elderly individuals and confirmed drunkards.

MONKSTOWN HOSPITAL.

THE annual meeting of the friends and subscribers of this institution was held on last Monday at Parry's Hotel, presided over by Viscount de Vesci. The report of the Committee of Management for the past year shows that there was no falling off in the amount of subscriptions received as compared with the preceding year; but, as a debt exists to the extent of over £900—the cost of enlarging the hospital—exertions are being made, which it is hoped will be successful, to remove this liability. Between March 2nd, 1880, and December 31st, 1880, 145 patients were admitted to the wards; of which 126 were cured or relieved, 5 died, and 14 remained in hospital on the 1st of January last; while at the dispensaries—one at Kingstown, and the other at Monkstown—5,532 persons were relieved; all at the comparatively low cost of about £700 expenditure. The annual sale of work last year realised £230 6s. 9d., and the thanks of the meeting were given to the ladies who were instrumental in obtaining this sum. An offer has been made by a lady to institute two memorial beds, at a cost of £100 each, in connection with the Mariners' Church, which has been thankfully accepted by the committee.

TYRONE COUNTY INFIRMARY.

DURING the year ending January 5th, 1880—the report for last year not being yet ready—600 patients were admitted to the Tyrone Infirmary; of which number, 445 were discharged cured, 118 were relieved, 9 died, and 33 remained in hospital, while 703 were attended to at the extern department. Eighty-two operations were performed, including 1 amputation of the thigh, 2 of the forearm, 3 of the breast, 8 of fingers, 16 cases of cancer, 14 tumours, extirpation of eyeball, 3 cataract extractions, etc. The mortality (one death) resulting from these various operations was trifling when we consider their gravity, the only fatal case being that of an elderly woman (75), whose forearm was amputated more for the purpose of relieving the suffering attendant on malignant disease, than with any hope of ultimate recovery. There were 35 fractures and dislocations, three being compound, and all made satisfactory recoveries. Nine deaths took place during the

year, a percentage of 1.5 of the patients discharged, a result which must be considered as most satisfactory when the serious nature of a large number of the cases treated is considered. This result the surgeon to the infirmary—Edward Thompson, M.B.—ascribes to the improved sanitary condition of the hospital, which the recent extensive and costly improvements have effected; and also to the careful application of Professor Lister's antiseptic precautions in the performance of operations, which has tended, in a remarkable manner, to lessen the mortality of surgical hospitals. We may add that an important factor in this gratifying result must also be attributed to the skill and attention bestowed on the cases by Dr. Thompson, which reflect great credit on that gentleman. The expenditure amounted to £1,320, the average number of beds occupied being 43, and the cost of each £30 14s. 3d.

KANTURK UNION.

At the weekly meeting of the Board of Guardians of this Union, held last week, a letter was read from Dr. James O'Shaughnessy, visiting physician to the workhouse, tendering his resignation as medical officer, and recommending Dr. Barry to act, pending the appointment of his successor. An objection was lodged to the effect that a fortnight's notice should have been given by Dr. O'Shaughnessy, but the Chairman ruled that it was not necessary. A motion that the salary of the medical officer should remain as previously, viz., £130 *per annum*, was met by an amendment that it should be reduced to £90. The Chairman, in directing that a poll should be taken, remarked that the position of a doctor was a most important and responsible one, and his profession a very high one. They would not be consulting the interest of the poor, over whom they were placed, if they were to fix such a salary as would engage an inferior man, for it was evident that no qualified gentleman would accept a salary under the present one. The amendment was lost, and the resolution that the salary should remain as before was carried by one vote.

HEALTH OF BELFAST.

From the report of Dr. Browne, medical superintendent officer of health, for February, we learn that the average death-rate for the four weeks was 32 in a population of the borough estimated at 224,000. The death-rate has been very heavy, principally due to the mortality from diseases of the lungs, 280 deaths having been registered from phthisis and affections of the respiratory organs. This gives a rate of 15 per 1,000, or nearly one-half of the entire mortality. During the same period, the average rate of mortality from zymotic disease was only 2.4 per 1000 inhabitants.

THE LATE DR. PEELE.

A meeting of some of the friends of this much lamented gentleman was held at Dr. Bank's house on Saturday last, with a view of raising some appropriate tribute to his memory. There was a large and representative attendance. It was resolved to place a memorial stained-glass window in St. Patrick's Cathedral. Subscriptions, which are limited to one guinea, will be received by Robert Reeves, Esq., Q.C., 3, Ely Place, Upper, or by Benjamin Mullen, Esq., House of Industry Hospital, Dublin, Honorary Secretaries and Treasurers.

NERVE-STRETCHING IN LOCOMOTOR ATAXY.

Mr. Stokes, of the Richmond Hospital, stretched the left sciatic nerve of a man aged 45 years on Monday last, in a well marked case of this disease of five years' standing. So far as we are aware, this is the first occasion on which this operation has been performed in a similar case in Ireland. We await with interest the result of the procedure, which Mr. Stokes has kindly undertaken to communicate to us.

DISPENSARY APPOINTMENTS IN DUBLIN.

Mr. E. H. Byrne has been appointed medical officer to the High Street Dispensary District, *vice* Dr. Edward Peele, deceased. A second election for the appointment of a medical officer to the Grand Canal Street Dispensary in the place of the late Mr. Hamilton Labalt, will be held on the 15th inst. The first election proved abortive in consequence of Mr. Byrne, now appointed to High Street, having polled the same number of votes as another candidate, Dr. Barton.

THE TYPHUS EPIDEMIC IN DUBLIN.

During the week ending March 5th, the registered deaths from typhus, five in number, were four under the average for the preceding five weeks, and also four under the number for the week ending February 26th. Twenty-four new cases of the disease were admitted into the principal hospitals during the week, being 7 under the admissions for the preceding week, and 11 under the number for the week ending 19th ultimo. Twenty-four typhus patients were discharged during the week, 4 died, and 120 remained under treatment on Saturday last, being 4 under the number in hospital at the close of the previous week. The deaths from all causes represented an annual rate of mortality of 35.9 per 1,000.

A STEP IN THE RIGHT DIRECTION.

The King and Queen College of Physicians have at present before them the consideration of a new by-law, by which it is proposed to enact that no candidate for the licence in medicine of the College be admitted to examination who has been rejected at an examination for a qualification in medicine within two months previously by any other licensing body.

THE DEATH-RATE OF DUBLIN.

The King and Queen's College of Physicians and the Council of the Royal College of Surgeons in Ireland, impressed with the necessity for inquiry into the causes of, and the remedies for, the excessive mortality in Dublin, have felt it their duty to consider a subject so intimately connected with the public health. Committees were, therefore, appointed by both Colleges to co-operate in forming a joint report. After a lengthened incubation, a report has been produced; and, having been adopted by both Colleges, has been issued as an expression of their opinion. As a concise and authoritative statement of previously well known and recognised causes of the established high mortality of Dublin, the report is valuable; and the "suggestions" for sanitary reforms in the city, if not novel, should be viewed with respect as coming from such high authorities. The Colleges, after careful consideration of all facts, gives expression to their deliberate opinion that "the City of Dublin is, and has been, unhealthy in an excessive degree; and its extraordinary death-rate is attributable, not to errors of computation or irremediable circumstances, but to long-continued disregard of sanitation, and the omission to enforce the legal means provided for a remedy". The Colleges are further of opinion that "the excessive mortality within the city demands from the civic sanitary authority the most firm, energetic, and persevering execution of the powers entrusted to it, to secure even a partial amelioration of the existing evils; and the health of the city will be likely to deteriorate still further unless dealt with by a new and radical method much more vigorous than that which has hitherto been adopted". An appendix gives the sections of the Public Health Act (Ireland) of 1878, which confer full legal powers on the sanitary authority for enforcing several of the various hygienic and sanitary measures referred to in the report.

The London Temperance Hospital.—Last week the London Temperance Hospital was formally opened by the Lord Mayor. According to the statement read, the hospital was first opened at 112, Gower Street, on the 3rd of October, 1873, and had since relieved 954 in-patients and 8,006 out-patients. It was established to give a scientific trial to the non-alcoholic treatment of disease; and although provision was made for the use of alcohol should the medical staff deem it necessary in any special case, yet, in point of fact, this provision had been acted upon but once, and that without benefit to the patient herself. Many severe cases, both medical and surgical, had been treated on the non-alcoholic system with marked success, and the Board had thus been encouraged to provide the larger field of hospital practice inaugurated that day.

THE COMPULSORY NOTIFICATION OF INFECTIOUS DISEASE.

A MEETING of the Parliamentary Bills Committee of the British Medical Association was held on Friday, March 4th, at the offices of the Association, 161A, Strand, for the purpose of receiving the Chairman's Report on Local Legislation as to Infectious Diseases. There were present Mr. Ernest Hart (Chairman); Dr. J. W. Tripe, Medical Officer of Health for Hackney; Dr. Dudfield, Medical Officer of Health for Kensington; Dr. Norman Kerr; Dr. Meymott Tidy, Medical Officer of Health for Islington; Mr. Sibley; Dr. Hart Vinen; Dr. Fancourt Barnes; Mr. Nelson Hardy; Mr. Rogers-Harrison; Mr. Danford Thomas, Medical Officer of Health for Willesden; Mr. Shirley Murphy, Medical Officer of Health for St. Pancras; Mr. Wickham Barnes; Dr. Cameron, M.P. for Glasgow; Dr. Walker, Medical Officer of Health for Putney; Mr. Archer Farr, Medical Officer of Health for Lambeth; Mr. Lovett, Medical Officer of Health for St. Giles and St. George, Bloomsbury; Surgeon-Major S. B. Partridge.

Letters of apology were received from Dr. B. Browning, Professor W. H. Corfield, Mr. Douglas Fleming, Dr. W. T. Iliff, Sir Trevor Lawrence, M.P., and Dr. H. J Sutton.

The minutes of the last meetings in London and at Cambridge having been confirmed, the Chairman reported that a grant of £50 had been made for expenses incurred during the past two years, in drawing up the reports of the Committee, in which a large amount of labour was necessarily involved. The only expenses, however, incurred by him during that period was an item of £12 12s., with a sum of £15 15s. in connection with the Report on Vaccination.

The following were introduced by the Chairman as the salient points of the report, which had been previously circulated in print among the members, and which appears at page .

1. Increase in number of authorities asking for exceptional powers as to infectious disease.

2. Variety of powers asked for, and variety of ways in asking for them.

3. Need for caution in giving these powers to places with no hospital accommodation or disinfecting apparatus, or whose sanitary administration is lax.

4. Local Government Board should make inquiry as to these matters before letting authorities have the powers for which they ask.

5. Sanitary authorities lose sight of their own obligations: they prefer to make stringent but unworkable regulations savouring of domestic quarantine.

6. Notification of infectious disease. Method of reporting various. It had better be uniform. Diseases to be reported vary, as well as fees and fines.

7. Other diseases should not be included without consent of central authority.

8. Sanitary authorities that have taken power to require this notification should not be allowed to neglect to enforce it (Nottingham).

9. Exceptional (Jarrow) regulations as to infected persons and things must not be regarded as superseding general law. They cannot be worked without gross injustice to individuals, unless sanitary appliances of local authority are tolerably complete.

10. Temporary shelter and accommodation. Workability questionable.

11. Provision of nurses good, but should be confined to lower classes. To ask for payment for nurses' services undesirable.

12. Schools, etc., should certainly be liable to be closed by order of sanitary authority.

13. Power to close shops, dairies, etc., desirable; but sanitary authority should give all needful help to enable the shops, etc., to be reopened as soon as possible.

14. Regulations as to infected houses good in theory, but compensation clause expensive and probably unworkable.

15. Prohibition of persons in infected houses from working at other places without permission of Medical Officer of Health and disinfection silly and unworkable; so, too, similar prohibition as to nurses.

16. Unnecessary clauses in local Bills as to *provision* of hospitals. Ample powers already given by Section 131 of Public Health Act.

17. Compulsory removal to hospital. Words of Section 124 of Public Health Act open to legal quibble. Alterations in local Acts designed to make it clear that a person who cannot be treated at home *without danger to others* may be compulsorily removed.

18. Prohibition of removal of corpses from fever-hospitals, except for burial, good. Already in Irish Public Health Act.

19. Alteration cutting short procedure as to disinfection of private premises, good, but paltry.

20. Corpses may not be conveyed in public conveyance other than a hearse without notifying the driver and without disinfection, good.

21. By-laws for sanitary purposes. *Nil.*

22. Power to regulate dairies already given by Contagious Diseases (Animals) Act, 1878; therefore unnecessary.

23. Height of rooms should be regulated, as an important factor in proper ventilation. Cannot be done under present Public Health Act.

24. Many clauses in these local Bills unnecessary: Bills simply examples of ingenuity of draughtsmen.

25. Ramifications of local legislation rapidly becoming extensive and confused. Need for more power over unnecessary and ill-considered clauses to be given to Local Government Board. Sanitary authorities should not be allowed to override general law as they choose.

The result of this was to indicate that, in lieu of the numerous introductions of special sanitary clauses into special bills, an amended Public Health Act was required; and the Chairman suggested that, if the report were adopted in its present or any amended form, they should, in presenting it, take that opportunity of impressing the fact upon the Board that an amended and improved Public Health Act was required, and ask for an early consideration by the Local Government Board of its position as to the notification of infectious diseases; and, further, the improvement of the position of the Local Government Board, which has to have a *locus standi*, and be represented before committees which had to consider private Bills containing saaitary regulations.

Dr. CAMERON, M.P. (Glasgow) stated he had read the report with great interest. He was of opinion it would be better to confine themselves to a measure dealing with infectious disease and its notification, and with the question of removal of corpses, which might very properly be embodied in one Act. If they attempted to regulate building, they would involve the landlord interest against them, and would find great difficulty in getting anything done. He was of opinion that it would be a mistake to mix up the general question of public health with this peculiarly distinct subject. What was proposed was, a general Act without those capricious clauses in local Bills, which might be compulsory all round or voluntary. The latter would take away a considerable amount of opposition. It would be impossible for any minister to hope to get time to carry any measure which involved much opposition from any section.

The CHAIRMAN said Ireland had a draft Bill proposed, and fourteen towns had local Acts providing compulsory notification of infectious disease; and the local vestries of London were moving in the same direction. When they last saw Mr. Sclater-Booth, he said that public opinion was not sufficiently far advanced to justify the Government to do anything in the matter. What they would now ask him was, when he thought it possible, to draft a Bill for the purpose, or to refer the whole matter to a Select Committee, with the Irish Bill, and the various other Bills in question. Then they would also deal with local legislation as a separate question.

Dr. CAMERON thought a Select Committee would greatly facilitate matters.

Dr. TRIPE was of opinion that Dr. Cameron's proposition was the right one. There could be no doubt that exceptional legislation was very useful, but he must say that exceptional private Bill legislation had already gone far enough. They had sufficient (fourteen) private Acts in order to ascertain how they worked; some of them had not worked at all: *i.e.*, they had not been put in force, and some of the others had done very little. He had gone very minutely into the question, and taken out all the deaths from small-pox in his district for ten years, and divided them into districts, out of 37,000 inhabitants. He had come to the result that the number of deaths among the better class of people was only one-tenth of what it was among the poor; and, therefore, it was ten times as necessary that they should have notification of infectious diseases among the poorer classes. That led to the question whether it should be confined to houses letting lodgings. He was of opinion that the matter should go before a Select Committee, because they would then be able to obtain evidence which otherwise could not be got. Dr. Tripe had found diseases had been spread by medical men sending patients away out of the district by railway on the third day of the attack, telling them they had better go home because they would become infectious. He related a case in which a girl had been so sent away, and on questioning the medical man he acknowledged he had done so, and said if he had acted illegally, he (Dr. Tripe) might take proceedings against him. He knew he had not done an illegal act. Dr. Tripe concluded by moving the following resolution: "That the report now presented be received and entered on the minutes; and that, as local legislation has already taken place to a sufficient extent to show the general working of the various clauses enumerated, a deputation be appointed to wait upon the Local Government Board, and

requesting that the whole matter be referred to a Select Committee of the House of Commons."

Dr. MEYMOTT TIDY, in seconding the motion, was also of opinion that the questions raised should be referred to a Select Committee of the House of Commons. Nothing should be done which would be likely to disturb the kindly feeling existing between the medical practitioner and his patient, and it would be an unwise thing to require the medical man to report cases of infection. The householder had a duty to the local authorities, and the medical man had a duty to his patient; as a matter of propriety, the medical man would acquaint the householder or the people in the house of the existence of the disease. He felt great interest in the question, and he should be sorry to see medical men designated for conveying the intelligence. He considered it would be injurious to the medical profession.

Dr. NORMAN KERR called attention to the absolute necessity of the local authorities being prepared with proper hospital accommodation. He knew a case in one of the chief districts of the west-end where a patient could not be removed, simply because there was no accommodation. In the parish of Marylebone, if any patient were taken ill of small-pox, unless there was a vacancy somewhere the patient could not go, and he knew of a case where a patient was obliged to be kept at home, with the danger of spreading the infection to any extent. They were without the means of carrying out the provisions of a compulsory Act if they had one.

Mr. ROGERS-HARRISON spoke of the incompatibility of compelling removal without adequate hospital accommodation.

Mr. NELSON HARDY thought this was a question of great importance.

The CHAIRMAN called attention to a resolution which last year was unanimously approved by the committee in favour of a particular course of procedure—viz., that, where the inmates of a house were suffering from any such disease, and no medical man was in attendance, the occupier should notify to the sanitary authority; and that every medical practitioner, when attending or becoming aware of the existence of an infectious disease, should fill up, sign, and deliver a certificate stating the nature of the disease, and when that certificate was handed in, it was for the medical officer of the sanitary authority to take such steps as he thought proper. Of course, if there was a medical man in attendance, and he did not indicate insufficient means of isolation, no interference could take place.

Mr. NELSON HARDY apprehended the course upon which they had previously agreed, and which was the addition of what was now known as Mr. Ernest Hart's "model clause", was that the medical man should certify and give that certificate to his patient, and that the patient should report to the sanitary authority. He thought it was very important they should be agreed upon that point before they went to the Local Government Board. There was one point for consideration with regard to fees. Under the regulations, a medical man received a fee for reporting to the sanitary authorities, varying from 2s. 6d. to 1s. If the medical man gave the certificate to his patient, he thought it was doubtful whether he could be paid a fee.

The CHAIRMAN was of opinion that the option of claiming the fee should be left in the power of the medical man. It would never be more than 2s. 6d. nor less than a shilling, and he would receive it from the sanitary authorities, and not from the patient.

Mr. NELSON HARDY thought that the way in which local Acts were worked made out a strong case for the course of going to the President of the Local Government Board. With regard to the want of uniformity in local Acts, and the variety of fees and fines, he stated that in some places the fine was put at 40s., and in others £10. This he regarded as an absurdity. He supposed a case of a gentleman taking his family to a watering-place, where his children caught an infective disease. He wished to have his medical man from London. Neither was aware of the existence of the local Act, and he immediately became liable to a penalty of £10, in consequence of a local Act being enforced there differing from the Act being enforced in London. On the question of payment for nurses' services, he believed this system was already adopted in the case of the Asylums Board in London. If, after sending patients into the hospital, it was found their position was such as to enable them to pay, they were charged for this and for other accommodation by the Guardians. He considered the whole report one of the most important that had been presented to the Committee for a long time.

Mr. WICKHAM BARNES, Secretary of the Poor Law Medical Officers' Association, urged the settlement of the question of fees for giving information. He frequently received letters from Poor-law medical officers, complaining of not being paid for giving information.

Dr. DUDFIELD thought the best course would be to go to the Local Government Board and agree upon something. As the Public Health Act did not apply to London, he suggested that the metropolis should be dealt with; and something set down in the present session for London, he was of opinion, would pave the way for a measure for the whole country. He regarded it as a sham and delusion for a local authority to have an Act of this kind, and not to provide the necessary hospital accommodation. It was first necessary to provide adequate accommodation. They possessed power everywhere to provide hospitals; and, if those responsible for the health of the people would not provide hospitals, he thought it was absurd to ask for this power for local authorities. Local Acts looked well at a distance; but many were not in action at all. If they had a general Act, he thought they would be infinitely more likely to carry their object. He would go a step further than the Chairman had gone, and suggest the dealing with this terrible evil at the public expense. He would rather pay a patient to go into an hospital for infectious diseases, than that he should stay at home. Dr. Dudfield concluded by moving the following resolution, which was seconded by Dr. THOMAS. "That the admission into hospitals for the purpose of isolation of persons suffering from infectious diseases is eminently desirable in the interests of the public, and should be encouraged; that payment for the assistance given in hospitals to persons so suffering should not be enforced; that the giving of such assistance should not entail on the recipients the loss of any social or political status where their admission into hospital is certified by as being desirable, on the ground of difficulties of isolation; and that the cost of hospital treatment of the infectious sick should be made a charge on the public funds of the sanitary authority."

Mr. MURPHY, in reply to a question, said he could not give the number of people who pay some portion of their expenses. The idea of payment was rather an idea than a matter of practice.

Dr. THOMAS said there were probably 90 per cent. who were not paupers, who belonged to the working classes, who had not received parochial relief, and who only when stricken down required relief. He was not of opinion that those who would apply would be those who would be of any benefit to the medical man. The respectable class would not be compelled to go. It was those who were a little above the pauper class who filled the hospitals.

Dr. DUDFIELD was of opinion that the whole of the amount paid back to the guardians was utterly insignificant. He believed they were unable to claim one-fourth. He thought it was a great question if the guardians had any right to take the money as the asylums were part of a metropolitan rate, and not out of parish rates. He had found again and again the great evil of enforcing payment. The difficulty, he contended, was to get people to go into the hospital; and he never knew people to go into the hospital who should not have gone.

INQUIRY INTO THE TRANSMISSIBILITY OF THE DISEASES OF ANIMALS TO MAN BY WAY OF FLESH OR MILK USED AS FOOD.

A MEETING of the Commission, lately appointed by the Committee of Council to investigate the present knowledge on the subject of the communicability of diseases to man, by the use of meat or milk from diseased animals, was held on February 3rd, under the presidency of Dr. ALFRED CARPENTER.

It was resolved that the transmissibility of the following diseases to man, whether in their original form, or in some modified type, should form the subject of the inquiry. 1. Contagious pleuropneumonia; 2. Rinderpest; 3. Foot-and-mouth disease; 4. Anthrax; 5. Quarter-evil; 6. Texan fever; 7. Tuberculosis; 8. Glanders; 9. Horse-pox; 10. Sheep-pox; 11. Vaccinia; 12. Fowl-cholera; 13. Garget; 14. Swine-plague; 15. Scarlatina; 16. Diphtheria; 17. Pyæmia; 18. Parturient fever; 19. Erysipelas; 20. Animal parasites (including cysticercus, fluke, trichinosis).

It was further resolved that evidence should be collected by members of the Commission relating to the presence or absence of any infectious properties in the meat or milk of animals affected with the diseases mentioned above; and that the inquiry should be extended to the question of the communicability of typhoid fever by milk directly or indirectly contaminated.

In view of the knowledge often possessed by members of the medical and veterinary professions, and especially by medical officers of health, as to the sale and as to the consumption of diseased meat or milk, it was further determined to solicit the return of facts, whether positive or negative, relating to the investigation, from the persons most likely to be furnished with such information.

The following points were suggested as heads of inquiry:

1. Effects observed in man after the consumption of the meat of animals known to have been diseased (specific infection, non-specific affections, immunity).

2. Effects observed in man after the use of milk from diseased animals.

3. Results observed in animals after the ingestion of diseased meat, whether experimentally administered or otherwise.

4. Transmission of disease to the young by the milk of the mother.

5. Conditions capable of destroying or modifying the infectious properties of meat or milk.

Communications bearing upon these or allied points will be welcomed by Dr. Carpenter, of Croydon; Dr. Greenfield, of 15, Palace Road, St. Thomas's Hospital, London; Mr. F. Vacher, of Birkenhead; Mr. G. Fleming, Army Veterinary Inspector, War Office, Pall Mall; and by Dr. William Ewart, of 33, Curzon Street, Mayfair, Honorary Secretary to the Commission.

MEDICO-LEGAL REPORTS.

THE MANAGERS OF THE METROPOLITAN ASYLUM DISTRICT *v.* HILL AND OTHERS.

On March 7th, the Lord Chancellor, Lord Blackburn, and Lord Watson gave judgment in this case, which raised the question of the right of the appellants to establish a small-pox hospital at Hampstead. It was an appeal from the judgment of the Court of Appeal, which was in favour of the respondents, and was argued at considerable length during the present sittings.

The LORD CHANCELLOR said it must be assumed, for the present purpose, that the small-pox hospital which the appellants established at Hampstead was, in its actual position, and independently of the particular way in which it was conducted, necessarily a nuisance to the neighbours; and the injunction which had been granted by the order was against "using the plot of land mentioned in the statement of claim, and building thereon as a hospital for small-pox, or any other infectious or contagious disorder, in such manner as to create a nuisance to the plaintiffs, or either of them". The appellants were therefore obliged, in order to succeed in this appeal, to prove that they had statutory authority to create a nuisance for the purpose of, and as incidental to, the maintenance of a small-pox hospital in that place. His lordship then examined the provisions of the Metropolitan Poor Act of 1867, and the orders of the Poor-law Board made pursuant thereto; and said that, if express words or necessary implications or intendment must be shown in order to authorise the Poor-law Board or any managers of an asylum to create a nuisance in the exercise of the discretionary powers given to them, he could find none in that statute. The result was (1), that the Act did not necessarily require anything to be done under it which might not be done without causing a nuisance; (2) that, as to those things which might or might not be done under it, there was no evidence in the face of the Act that the Legislature supposed it to be impossible for any of them to be done (if they were done at all, somewhere and under some circumstances) without creating a nuisance; (3) that the Legislature had manifested no intention that any of these optional powers should be exercised at the expense of, or so as to interfere with, any man's private rights. The only sense in which the Legislature could properly be said to have authorised these things to be done was, that it had enabled the Poor-law Board to order, and the managers to do, them, if, and when, and where they could obtain, by free bargain and contract, the means of doing so. In the circumstances, the Lord Chancellor said he was clearly of opinion that the Poor-law Board and the managers had no statutory authority to do anything which might be a nuisance to the plaintiffs without their consent.

Lord BLACKBURN, in concurring, said he was sensible of the great difficulty there might be in finding sites for asylums under this Act, or hospitals under the Public Health Act, 1875, sect. 131, unless further powers be given; but that must be for the consideration of the Legislature.

Lord WATSON also delivered judgment in favour of the respondents.

The judgment of the Court below accordingly was affirmed, and the appeal dismissed with costs.

THE PLAGUE IN MESOPOTAMIA.—A telegram from Constantinople states:—At the instance of the International Sanitary Council, the Porte has ordered a double cordon to be drawn round the localities where the plague is raging—one round each village, and the second round each district. It has also been decided to burn all the infected villages. At Nedjeff there were eighteen deaths between the 28th of February and the 2nd of March; and thirty persons fell victims to the plague at Djagra during the last thirteen days of February. The extent of the mortality at Kerbela has not been exactly ascertained. Dr. Kabiadis, who is an authority on the plague, has been despatched to the stricken district.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

WEST SOMERSET BRANCH.—The spring meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, March 17th, at 4 o'clock. The ordinary business and papers or cases will be taken before, and the question after, dinner. Dinner (5s. a head, exclusive of wine) will be served at 5.30 punctually. The question as settled by the Council for the meeting to discuss is: The Treatment of Neuralgia. Members having communications to bring before the meeting are requested to send notice of the titles on or before the 10th March.—W. M. KELLY, M.D., Honorary Secretary.—Taunton, February 16th.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting of this District will be held on Thursday, March 17th, at the Harp Hotel, Dover, at 3 P.M.; Ashby G. Osborn, Esq., in the chair. Dr. Parsons will move: "That, in future, the Honorary Secretary be relieved of the duty of providing wine at the dinners at the common cost, and every member be at liberty to provide wine for himself at his own charges." The following papers have been promised: 1. Mr. Garraway: Notions begotten of Attendance upon Two Thousand Labours. 2. Dr. T. Eastes: On Embolism. 3. Dr. Bowles: On Phlebitis. 4. Dr. Tyson: A Case, with Remarks on Treatment. Dinner will be provided at 5 P.M.; charge 6s. 6d., exclusive of wine.—T. WHITEHEAD REID, Honorary Secretary, 34, St. George's Place, Canterbury.

SOUTH-EASTERN BRANCH: WEST SURREY DISTRICT.—The next meeting of the above will be held on Thursday, March 24th, at the County Hospital, Guildford, at 3.45 P.M.; Dr. Morton in the chair. The following communications have been promised: 1. Mr. W. Rose: On the Treatment of Fractures of the Patella and Knock-Knee by Operation. 2. Mr. Henry Taylor: Death from Gall-stones. 3. Mr. Butler: A Case of Compression of the Brain from Contre Coup. 4. Mr. Roome: A Case of Cerebral Rheumatism. 5. Mr. C. J. Sells: A Case of Addison's Disease. Dinner will be provided at 6 P.M. precisely, at the White Lion Hotel; price 5s., exclusive of wine.—A. ARTHUR NAPPER, Honorary Secretary, Broad Oak, Cranleigh.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting of this District will be held on Thursday evening, March 17th, 1881, at 8.30 P.M., in the library of the London Hospital Medical College; the President of the Branch in the chair; the following being the order of business. 1. The discussion of Mr. Greenwood's paper On some Remarks on the Symptoms and Diagnosis of Typhoid Fever, adjourned from last meeting. 2. Mr. Frederick Treves will read a paper on the Treatment of Nævus. 3. Dr. Dundas Grant will read a paper on Aural Notes.—FREDERICK WALLACE, Honorary Secretary, 243, Hackney Road, E.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.—The next ordinary meeting of this district will be held at the house of Stephen Alford, Esq., 61, Haverstock Hill, on Thursday, March 24th, at 8.30 P.M., when the following papers will be read: Mr. Lennox Browne: On Tubercle and Syphilis of the Larynx, and show Drawings of the same by the Oxyhydrogen Limelight. Mr. Alford: On Defective Nerve-Power as a Primary Cause of Disease, with special relation to Dipsomania. Dr. Norman Kerr: On Heredity in Alcohol a Predisposing Cause of Dipsomania.—T. STRETCH DOWSE, M.D., Honorary Secretary, 14, Welbeck Street, Cavendish Square, W.—March 7th, 1881.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.—A special meeting of the members of this district will be held at the Rooms of the Medical Society of London, 11, Chandos Street, Cavendish Square, on Tuesday, the 22nd day of March, at 4.30 P.M., to consider the necessity of establishing a General Hospital for North London.—T. STRETCH DOWSE, M.D., Honorary Secretary, 14, Welbeck Street, Cavendish Square, W.—March 7th, 1881.

GLOUCESTERSHIRE BRANCH.—The next meeting will be held, under the presidency of J. Bubb, Esq., on the evening of Tuesday, the 15th of March, at 7.30 P.M., in the Board Room of the General Hospital, Cheltenham. Business of the meeting—1. A Case of Osteotomy for Genu Valgum, with Remarks: J. Bubb, Esq. 2. A Case of Purulent Peritonitis, with Symptoms of Obstruction: Dr. E. T. Wilson. 3. On Hip-Joint Disease; a Sequel: G. Arthur Cardew, Esq. 4. Anomalous Rashes: Dr. E. T. Wilson. 5. Medical Cases: Dr. Batten.—RAYNER W. BATTEN, Honorary Secretary.

NEW SOUTH WALES BRANCH: GENERAL MEETING.

THE last general meeting of the session of 1880 took place at the board room of the Sydney Infirmary on December 13th, 1880. There were present the President, Dr. RENWICK, M.P., in the chair; Dr. Moffitt, Vice-President; and fourteen other members. Dr. W. Lee of Moilland was introduced as a visitor.

Recognition of the Branch.—A letter from Mr. Fowke, dated September 14th, 1880, in which was contained a courteous communication from the Council of the British Medical Association, announcing the recognition of the Branch, was read; and the Secretary was directed to acknowledge it.

New Members.—The PRESIDENT informed the meeting that, at the last meeting of the Council, the following gentlemen had been elected members of the Branch: Dr. Samuel Aloyes Dome of Gunnedah, Dr. F. W. Kyngdon of St. Leonard's, and Louis Conrad Jockel, L.R.C.P.Edin., of Richmond.

Publication of Proceedings of Branch.—The SECRETARY (Dr. Milford) read the following communication from the Council. "The Council recommends the publication of the proceedings of the Branch during the first year of its existence; and that a subcommittee, elected by the

members, be appointed to edit and prepare the pamphlet." The majority of the members being favourable to the proposal, it was agreed that the publication be proceeded with, and that the expense be met by an additional subscription of one guinea.

On the motion of Dr. BRADY, seconded by Dr. MORANT, the following subcommittee were appointed to edit and publish the papers, viz.: Drs. O'Reilly, Warren, Belgrave, Milford, and the mover. The recommendation of the Council to decline co-operation with the Victorian Branch in the publication of a newspaper on the terms proposed was then read; and the Secretary was requested to communicate the respectful refusal of the Branch to the Victorian Secretary.

Dinner of Branch.—Dr. TARRANT proposed, and Dr. O'REILLY seconded, "That a dinner take place a week before the first meeting of the Branch in 1881, and that the following gentlemen form a subcommittee for carrying it into effect, viz.: Drs. Warren, Clune, Cox, Milford, and the mover."

This was put to the meeting, and carried unanimously.

Watering the Streets.—Dr. COX moved: "That a deputation wait upon the Mayor for the purpose of recommending that the streets be watered, during the present stint of fresh water, with salt water, and the sewers flushed with the same." This was seconded by Dr. O'REILLY, and carried unanimously, after an animated discussion.

Conjoined Twins.—Dr. O'REILLY exhibited a case of conjoined twins, born at or about the sixth month of utero-gestation, similar to the Siamese monstrosity.

Compulsory Registration of Disease.—Dr. MARANO gave notice that, at the next meeting of the Branch, he would advocate "the compulsory registration of contagious disease".

Bullet-Wound of Brain.—Dr. WARREN read a letter from a medical practitioner in the country, describing an interesting case of bullet-wound of the brain, and eliciting the opinions of the members of the Branch on the case. An interesting discussion relating to the case took place.

Medical Reform.—Dr. TARRANT, M.P., stated that, in his opinion, a Medical Bill ought to be introduced into Parliament, similar to the English Bill, but which should contain a clause permitting persons who have heretofore practised in the colony during the last five years to be registered as legally qualified medical practitioners.—The PRESIDENT stated that he could not support such a measure. The Medical Bill which had been before Parliament last session, contained a clause which allowed such persons as described to be examined, and, if found competent, to be registered. He thought that this was the proper course to take with these persons, in considering a Medical Bill for the colony. —The Secretary (Dr. MILFORD) thought that a Bill containing clauses such as those advocated by Dr. Tarrant, should not originate with the profession; certainly not with this Branch; as he deemed the members thereof were the preservers of the public health, and should do nothing likely to injure it.—Dr. DURHAM said that, in passing the New Zealand Medical Act, many irregular practitioners had been permitted to register. —Dr. WARREN coincided with the last speaker.—Dr. BELGRAVE agreed with Dr. Tarrant. He considered that there were many persons practising without diplomas in New South Wales equal to those who had obtained their diplomas in the usual way.

A Vote of Thanks to the President for his able conduct in the chair closed the proceedings.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.

A MEETING of this district was held on Thursday, January 20th, 1881, at the Bow and Bromley Institute; Mr. CORNELIUS GARMAN in the Chair.

Communications.—The following were made.

1. Dr. HERMAN read a paper on Prolapse of the Ovaries. He restricted his remarks to simple uncomplicated prolapse of the ovary, of which he narrated five cases which had come under his observation.

2. Dr. DALY exhibited two specimens of Scirrhous Cancer of the Breast, which he had removed recently. Both patients did equally well, though one had been operated on with strict antiseptic precautions, while, in the other, lead and spirit lotion, as suggested by Mr. Hutchinson, had been used in dressing the wound.

3. The CHAIRMAN read the notes of a Case of Puerperal Fever.

4. Mr. M. GREENWOOD read the notes of Nine Cases of Rheumatism treated with Salicylate of Soda with marked Benefit.

Next Meeting.—Mr. HOVELL of Clapton was elected to preside at the next meeting of the District, to be held at the Town Hall, Hackney.

CORRESPONDENCE.

THE RECENT ELECTION AT THE ROTUNDA HOSPITAL.

SIR,—Of many matters of regret connected with the recent election of Consulting-Physician to this hospital, the letter of Dr. Henry Kennedy, of which you give an extract, is, I think, not the least; moreover, it is (1) incorrect, and therefore misleading, while it is calculated to reduce to a mere personal matter a question which is of much importance to the profession.

1. The appointment is not "in the hands of the Master", but is, and always has been, in the hands of the governors: the candidate is proposed at one meeting, and elected by the governors at a general meeting subsequently, only the custom has been for the Master to propose the candidate; and since the hospital was founded, more than one hundred years ago, there never before has been a contest.

2. Dr. Kennedy must be well aware that, had he been proposed by "the Master", the contest would have gone on all the same; as, in point of fact, it was only between the candidate proposed by "the Master" and the one put forward by the lay governors that it really lay.

3. The real and only question of importance is, Should the lay governors of any hospital elect to the honorary office of consultant without the approval of the medical staff?

It is the custom in all hospitals of which I have any knowledge, for the governors or managing committees to take the advice of the medical staff in reference to the election of the honorary officers; and, on the present occasion, Dr. Hudson's death having caused a vacancy, both in the City of Dublin and St. Mark's Hospitals, for a consulting-physician, this principle was acted on. So it has always been in this hospital; but, though in it the staff virtually consists of but one chief medical officer, "the Master", I do not think any Master proposed a consultant merely as he thought right himself. Certainly, I did not. I only proposed the gentleman I did after consultation with several of the governors, both medical and lay, whose opinions always have great weight with me, and to whose advice I willingly defer.

I cannot imagine anything so likely, in my opinion, injuriously to affect the status of the profession as the course Dr. Henry Kennedy, and those who think with him, wish to see adopted. Few, indeed, will, I think, be the members of it who, being from their professional eminence entitled to be appointed consultants, would condescend to canvass, either personally or through their friends, for the office. Consequently, we might have men appointed who would be, in the judgment of the profession, undeserving of the honour, simply because some friend or relative on the Board made an active canvass in their favour.

It is of no great importance to the Master of this Hospital who may be appointed consultant to it; and it was solely as a matter of duty to the hospital and to what I conceive to be due to the dignity of our profession that I, to the utmost of my power, opposed the determined combination made to set aside the long-established usage of this hospital.—I am, sir, yours, etc.,

LOMBE ATTHILL, M.D., Master of the Hospital.

Rotunda Hospital, February 20th, 1881.

LONDON INTERNATIONAL MEDICAL AND SANITARY EXHIBITION.

SIR,—We have much pleasure in announcing that arrangements have been completed for holding the International Medical and Sanitary Exhibition initiated by the Executive Committee of the Parkes Museum of Hygiene.

This exhibition will be held on the occasion of the meeting of the International Medical Congress of 1881, and will be open from July 16th to August 13th.

The exhibition will comprise everything that is of service for the prevention, detection, cure, and alleviation of disease, and will be divided into three sections.

Medical Section.—Surgical instruments and apparatus; appliances of the ward and sick-room; drugs, disinfectants, medical dietetic articles, and mineral waters; electrical instruments and appliances; microscopes and optical apparatus; apparatus of other kinds used in the investigation of disease; appliances used for the treatment of sick and wounded during war; street ambulances, etc.; appliances used in teaching medicine; books, diagrams, models, etc.

Sanitary Section.—Domestic and hospital architecture; planning, construction, decorative materials; ventilation, lighting, and warming; water-closets, sinks, baths, etc.; sewerage and drainage; water-

supply and filtration; health-resorts and sanitaria; books, diagrams, models, etc.

Miscellaneous Section.—Applications of hygienic principles to food and dietaries, clothing, etc.; school furniture and other articles more or less connected with the general purpose of the exhibition.

The exhibition will be held at South Kensington, space having been granted for it by the Royal Commissioners for the Exhibition of 1851. Applications for space from Great Britain and Ireland, and the Continent of Europe, must be made not later than Thursday, March 31st, 1881; but applications from India, the Colonies, and America, will be received up to April 16th, 1881.

Certificates of merit will be awarded to exhibitors. New inventions exhibited will be protected under a certificate from the Board of Trade. Exhibitors will be charged for space; and it is hoped that the exhibition, in this and other ways, will be made to pay its expenses. An undertaking of this magnitude, however, is not without risk; and although upwards of £800 has been subscribed as a guarantee fund, we hope the Committee will receive such additional contributions as will enable them to thoroughly carry out their work. A list of the guarantors will be published in the catalogue.

Forms of applications for space, and all particulars, may be had of the Secretary of the Exhibition Committee, Parkes Museum of Hygiene, University College, London. Office hours, 10 to 4; Saturdays, 10 to 2.—We are, yours, etc.,

JOHN ERIC ERICHSEN, F.R.S. (President of the Royal College of Surgeons), Chairman of the Exhibition Committee.
MARK H. JUDGE (Curator of the Parkes Museum of Hygiene), Secretary of the Exhibition Committee.
Parkes Museum of Hygiene, University College, Gower Street, February 18th, 1881.

MEDICAL EDUCATION.

SIR,—By invitation of the Committee of Council of the British Medical Association on Medical Education, addressed to members generally, I venture to give expression to my opinions on this important topic, particularly on that portion relating to medical and surgical qualifications. The measure I now propose is a brief, and perhaps revolutionary one; but nevertheless I am firmly of opinion that it is the only effectual method of dealing with this vexed and wearisome question, as it must now be a foregone conclusion that the conflicting claims of the licensing bodies, be they universities, colleges, or halls, are irreconcilable. The attempt at a patchwork reconciliation should not be essayed, for, after the waste of much precious time, it would issue in failure; but a new and independent *State Qualification* be instituted forthwith, and placed under the control of the reorganised Medical Council. It should be compulsory for all future medical students to obtain this qualification, which alone would confer the licence to practise and the right to insertion of the name in the *Medical Register* of the Council. The arrangement of the course of study, preliminary and professional; the medical schools to be retained; the boards of examiners to be appointed; the centres of the examinations; and all other matters pertaining thereto, to be left absolutely in the hands of the Council, with power of appeal of the profession to the Home Secretary. I would suggest that the title conferred, after successful examination, be "State Licentiate in Medicine and Surgery". It will be asked, What position, then, is reserved for the existing licensing bodies? I reply that they would become almost purely honorary. I take the clerical profession as a model of the sort of arrangement I should like to see initiated. In England the bishop, and in Scotland the presbytery, respectively, prescribe the course of study required, and then, by chaplain or otherwise, examine and admit the candidates for "holy orders"; and this, be it remembered, quite irrespective of the possession of certain University degrees—for a Bachelor or Doctor of Divinity is not a clergyman in virtue of his degree, which is merely indicative of his learning and knowledge of cognate subjects, and often obtained after ordination. I think the medical profession would be a gainer in influence and social status were it modelled after this fashion, for the possession of the higher qualifications of the profession would not become the mere instruments, giving the holders an advantage in the competition with quacks, and the power to enforce payment of reluctant fees, but would mark their more profound acquaintance with professional subjects, based upon a liberal substructure of learning. According to my scheme, the Medical Council would represent the bishop and the presbytery, and, by qualified representatives, examine and admit candidates to the State license. Many licentiates would probably be content with the new qualification, which would stamp the acquisition of a satisfactory amount of medical and surgical knowledge, such as the State has a right to expect from its protected practitioners; but, as is natural, the more ambitious would seek for other qualifications from the colleges and universities. It would then become more particularly the duty of the Colleges of Physicians and Surgeons to promote the higher study of their distinguishing subjects, and to arrange the education and examination of their candidates for this end; while, as at present, the possession of the degrees of M.B. and M.D., etc., would confer the status and privileges which adhere to them, varying according to the standing of the university conferring them. I propose to admit all practitioners whose names are in the *Medical Register* to the new State qualification, without examination, and on the payment of a small fee for registration; and also on the same terms, all present students, on their obtaining the qualifications for which they are now studying; but, all commencing their studies after a certain date, to come under the regulations made by the Medical Council regarding the State qualification. It may be noted that this scheme does not interfere with the licensing bodies further than to add another to the number, whose qualification is the *sine quâ non* for admission to the *Medical Register*, which is, and should continue to be, the only legal evidence of the right to practice medicine and surgery. The effect of this will be to render the old qualifications, more and more, of an honorary character, but not to give one existing body the slightest advantage over the others, more than may be possessed at present. In time, some of the qualifications may not be so popular as others, and may even cease to be sought after, and the particular corporation die from inanition, but this will only be an example of the "survival of the fittest", and will be the result of the manner in which each body has fulfilled the important trust committed at first to its keeping. I make no suggestion as to the re-organisation of the Medical Council, as that is a broad question to be dealt with by special legislation; all I affirm here is that in the carrying out of the plan of reform I suggest, it is essential that there should be direct representation of the profession to counterbalance any natural prejudice the representatives of the corporations may have to the introduction of a new and rival qualification.—I am, Sir, your obedient servant,

WM. DEAN FAIRLESS, M.D., etc.

Oxford, February 22, 1881.

SIR,—With reference to Mr. Macnamara's letter, dated 12th, in the JOURNAL of Feb. 19th, I may correct what the President of the Subcommittee says and repeats, that fifteen days only elapsed between the examination in London and in Edinburgh. The fact is, that at least five weeks passed over between the last day of examination for the Preliminary of the Royal College of Surgeons and the first day of the Edinburgh examination. Reference to dates will prove this, and, with this fact, Mr. Macnamara's arguments are null and void, as in his last letter he based his remarks on fifteen days.

What Mr. Luther Holden said on the 14th in the Hunterian Oration on public school education, tempts me to crave permission to trespass a little on your space. My son's education commenced at a preparatory school not unknown to fame, and there he remained for nearly four years, when he proceeded to a well-known public school, and remained four years and a half on the classical side, where geography is only taught in the lower forms.

I apprehend that the examination (preliminary) of the Royal College of Surgeons was only instituted, as are all preliminaries, to find out whether an intending student has had such an education as will prepare him to study medicine. As Dr. Clerk of Glasgow remarked, for failure in geography a youngster should not have been disqualified, when the examiners were satisfied on so many other subjects. The disqualification, however, by the examiners seems to justify the substance of a remark made to me, when discussing the subject, by a Doctor of Medicine of a northern university, that the examination (preliminary) was rather fitted to test the memory of those coached in special subjects, as at our national schools, than to find out how much those students knew who, at a "public school", had received a liberal education.

If this correspondence should help only a little to put the preliminary examinations on a proper footing, so as to take account of what is known, and to form some estimate of the education a candidate has received (perhaps "non multa sed multum"), instead of rejecting a candidate who fails, it may be in geography, I shall be more than satisfied.

With this explanation, I willingly leave the decision of the inferences to be drawn from the remark of the Subcommittee (quoted in my first letter) to the members of the Association.—Your obedient servant,

February 19th, 1881. A MEMBER.

HOSPITAL AND DISPENSARY MANAGEMENT.

EVESHAM COTTAGE HOSPITAL.

In 1876, Mr. J. Rice and others, with the active assistance of the editor of our excellent contemporary the *Evesham Journal*, took steps to provide a cottage hospital for Evesham and the adjacent villages. A public meeting was held at the Town Hall in December of that year; and, by an active canvass, nearly £1,400 was raised. A well situated site was granted to the committee, at a nominal ground-rent, by Mr. E. Charles Rudge; the plans of Mr. George Hunt, architect, were accepted; and the hospital was erected and formally opened in the year 1879. The first annual report has just been issued. During fifty weeks, the time the hospital has been open, sixteen surgical and twenty-four medical cases have been under treatment; the average stay of each patient being twenty-two days, and the average cost of each, £4 13s. 1d. The income amounted to £239, of which £25 was contributed by the patients. The expenditure was £236. The cost of erection was £1,379, or £172 per bed; and the furniture and fittings increased this amount by £253. The rules are well drawn, and the medical staff has been carefully chosen; and the Evesham Cottage Hospital has apparently a prosperous future in store for it.

TAMWORTH COTTAGE HOSPITAL.

This hospital was opened in January 1880. It was erected, at a cost of £1,098, by the Vicar, the Rev. W. Macgregor, who also paid £171 for the fittings and furniture, and £48 for surgical instruments. There is accommodation for ten patients, in addition to two cots for children. Out of fifty-five cases admitted to treatment, nine were suffering from typhoid fever; and the report testifies that "in no case has the slightest suspicion of contagion been awakened, while the spread of the disease from several centres in the different homes in which it first occurred has been prevented, and the chances of a wide epidemic have been practically reduced". A provident dispensary has been established in connection with the hospital, which has the names of 225 members upon its books. Its object is declared to be, to enable the working classes of Tamworth to insure to themselves and their families efficient medical advice and medicine, by small and regular periodical payments; and the committee are satisfied with the results of the first year's working. The income amounted to £387, of which £79 was derived from patients' payments. The expenditure was but £249; so that there is a balance in hand of £138—a sum just equal to the amount received in annual subscriptions. The hospital is well arranged and excellently managed, and is certainly doing good work in a neighbourhood where hospital accommodation was formerly very much needed.

BOURTON-ON-THE-WATER COTTAGE HOSPITAL.

The twentieth annual report of this small but useful institution has just been presented to the subscribers. During 1880, forty-four in-patients and two hundred and eighty-seven out-patients were admitted to treatment; the average daily number of beds occupied was four; and each patient remained on an average thirty-six days in the hospital. Although a new hospital was erected quite recently, experience has proved, as we anticipated at the time, that the sanitary arrangements were unsatisfactory, and will have to be improved. It is to be regretted that architects seldom pay much attention to these arrangements; and the Bourton Hospital is one more instance of the dangers attending the occupation of a new building which has not been properly protected against the entrance of sewer-gas and other impurities. The report contains much useful information, and reflects great credit upon the medical officer, Mr. John Moore, and the honorary secretary, Dr. Coles.

WIRRAL CHILDREN'S HOSPITAL.

The report of the Wirral Children's Hospital shows that, during the past year, the number of patients treated was 118 in-patients, and 1,571 out-patients; being a large increase over the number treated during the previous year. A building fund, for the extension of the present premises, had been set on foot, and already amounted to £830 10s. 8d. A system of training ladies in the practice of nursing the sick had been established. In spite of the number of in-patients, the cost of their maintenance had been, owing to the excellent management of the matron, less by £100 than during the previous year. The financial statement showed that the receipts during the year were £860 0s. 2d. After providing for the expenditure, there was a balance of £93 5s. 10d. with which to commence the new year.

BIRMINGHAM LYING-IN CHARITY.

The annual report of this institution for 1880 has just been published. All the patients are attended at their own homes, and all ordinary cases are conducted by midwives, the surgeons being only summoned in difficult labours. The number of patients attended during the past year was 1,020, compared with 1,028 in the preceding year. No death occurred during the year among the mothers. A similar happy immunity from maternal mortality, has twice before, during the last twelve years, been recorded in the annual report. 1,009 children were born alive, of whom 541 were males, and 468 females; 12 infants died; 25 were still-born. There were twelve cases of twins, and one of triplets. The number of still-born children was equal to 24.51 per 1,000; the average for the past ten years being 28.05 per 1,000. The finances of the charity are satisfactory; the statement of accounts shows a balance of income over expenditure of £162 5s. 7d. The cost per patient had been 10s. 9¾d. Mr. Goodman, in moving the adoption of the report, referred to the gratifying fact that no death had occurred amongst the mothers during the past year; this year they will not be so fortunate, for two maternal deaths took place shortly after the close of last year, one of them from puerperal fever. The average number of maternal deaths in ten years had been so low as 5 per 1,000. Since the charity had been changed from the indoor to the outdoor system, it had been eminently successful.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, March 3rd.

Small-Pox in London.—Mr. Dodson, in reply to Mr. Firth, said: It is not the fact that the Fulham Small-pox Hospital is made the receptacle for more than one-third of the small-pox cases in the metropolis. The total number in the hospitals of the Asylums Board is 763, of which 217 are in Fulham. I have not received any offer from the borough of Chelsea to take charge of its own small-pox patients. The borough as such has no power to undertake such a charge, and the vestries of the several parishes in the borough have not, so far as I have been able to learn, provided any hospital for such cases, although express power was given to them to do so as far back as 1866, and they have from time to time been reminded of it. The hospitals of the Metropolitan Asylums Board, of which Fulham is one, were provided for the whole metropolis, at the cost of ratepayers generally; and, so long as there is fair accommodation, admission could not be refused to patients sent from any part of that area. For this reason, it appeared to me useless to receive a deputation on this subject. The alleged decision that a small-pox hospital is *per se* a nuisance and may be stayed by injunction, is now the subject of appeal to the House of Lords. I am not aware that the inhabitants of Western London propose to apply for an injunction. Lastly, I am not prepared to advise the Metropolitan Asylums Board to close the Fulham hospital and remit small-pox patients generally to the care of the local authorities, seeing that the vestries and district boards have, as a rule, failed to provide hospitals, as they should have done—at all events for non-pauper cases, which formed more than half of the cases admitted.

Friday March 4th.

Coroners' (Ireland) Bill.—Mr Healy, in moving the second reading of this Bill, said it provided that coroners should be paid by fixed salaries, and that in their absence or illness they should be able to appoint deputies. After some discussion the Bill was read a second time and referred to a Select Committee.

Monday, March 7th.

Medicines for the Army.—Mr. Gabbett asked the Secretary of State for War whether medicines were provided for the army in England by inviting tenders from the drug trade, and, if not thus, in what manner; whether the practice that existed in England was applied in Ireland; and whether the Irish drug trade received invitations to tender for supplies.—Mr. Childers replied that the present system under which drugs are obtained for the army in England is that quarterly requisitions are received and settled for the stations, exceeding in number one hundred, and the drugs are supplied direct to those stations by either the Apothecaries' Company or Messrs. Savory and Moore, according to the price tendered. In Ireland, they are supplied by the Apothecaries' Company of Dublin. The prices are checked by those paid by the Admiralty Contract Department, who purchase from the drug trade.

Notice of Motion.—Mr. Talbot has given notice of his intention, on Monday next, to ask the President of the Local Government Board

whether, after the recent decision of the House of Lords in the Hampstead Hospital case, he will undertake, by legislation or otherwise, to secure to the metropolis those advantages with regard to fever and small-pox hospitals under the Metropolis Poor-law Act, 1867.

Trichinosis.—DR FARQUHARSON asked the President of the Local Government Board, whether, in view of the alleged frequency of trichinosis in American and other hams and pork, and of the recent outbreak of diarrhœal disease traced to the presence of infecting organisms in pork at Welbeck by Dr. Ballard and reported in the BRITISH MEDICAL JOURNAL of March 5th, he would suggest to the local sanitary authorities throughout the kingdom to instruct their medical officers to make frequent microscopic examinations of pork and ham exposed for sale.—MR. DODSON had sent a circular to the local sanitary authority enjoining them to require special vigilance on the part of their medical officers.

Thursday, March 10th.

The Origin of Small-Pox.—Mr. DANIEL GRANT asked the President of the Local Government Board, whether, considering how constantly epidemics of small-pox recur, the large number of deaths which are annually returned, the wide differences of opinion that exist among fully qualified medical men as to the limits of the protective power of vaccination, and with respect to the genesis, distribution, and limitations of contagion, he will take into his consideration the advisability of offering a series of substantial premiums, open to all the world, for obtaining concise, accurate, and fully tested information as to the origin, growth, and development of the disease; also such other practical knowledge as will tend to minimise its power of infection, and indicate the means for its extinction; and, whether it may with propriety be assumed that, if any person can discover an absolute specific for the disease itself, a full pecuniary recognition would be awarded. Mr. CHAMBERLAIN: I hope the hon. member will not think me wanting in respect if I do not enter into the various points raised in the preamble of his question. It could not be included within the limits of a reply. As to the substance of the question, I hope he will accept as a practical answer my assurance that I have no funds whatever applicable to that purpose.

OBITUARY.

ROBERT CRYAN, F.K.Q.C.P.I.

ON Thursday, February 17th, after a few days' illness, the above-named gentleman died of acute bronchitis, at his residence, 54, Rutland Square West, Dublin, at the comparatively early age of fifty-four. By his death, the profession in Dublin has lost one of its most respected members; those associated with him, a loved and esteemed colleague; and the public, a skilled and conscientious physician.

Dr. Cryan became a licentiate of the Royal College of Surgeons of Ireland, in 1847; and immediately afterwards was appointed Demonstrator of Anatomy in the Carmichael School of Medicine, in which he had been educated. He subsequently filled the Chair of Anatomy and Physiology in the same school. He likewise became a joint-proprietor of this school; and in conducting it was associated with Mayne, Hatch, Power, Gordon, and McDowel.

In 1855, he was appointed by Dr. (now Cardinal) Newman, joint-Professor of Anatomy and Physiology in the School of Medicine of the Catholic University of Ireland, which was founded in that year—his colleagues being the late Messrs. Ellis and Tyrrell; Dr. Sullivan, President of the Queen's College, Cork; Dr. Lyons, M.P.; and Dr. Hayden. With the last-named gentleman, as co-Professor of Anatomy and Physiology, he was more intimately associated than with his other colleagues; and, for a period of twenty-five years, the work assigned to them in common was, by mutual arrangement, apportioned between and performed by them, without even a momentary interruption of harmony and friendship.

Dr. Cryan was also a Licentiate and Fellow of the King and Queen's College of Physicians; member of the Royal Irish Academy, and of the Medical, Surgical, Pathological, and Obstetrical Societies; and one of the physicians to St. Vincent's Hospital. He practised as a pure physician; was a careful observer; and had a high reputation as a clinical teacher. He was modest and retiring, almost to a fault; and, although many years a lecturer, he continued, even in the latter years of his life, to feel the greatest diffidence in addressing an audience other than his class.

In his private relations, Dr. Cryan was the most amiable of men; a a firm and devoted friend, honourable in the strictest sense, and an uncompromising enemy to chicanery and charlatanism in all its shades and forms. When roused by a daring exhibition of these vices, his natural timidity gave way to the instinctive reaction of his honest heart; and, impelled by his keen sense of honour and love of truth, he often exhibited in these circumstances the courage of his convictions, with a spirit that astonished his most intimate friends.

As an author, Dr. Cryan did far too little, his opportunities and attainments considered; but that little, which consisted in communications to the Pathological Society of Dublin, and a few introductory lectures at his hospital and school, was excellent of its kind, and showed a capacity in its author for more ambitious work. His habits were essentially domestic; and he rarely appeared at any of the medical *réunions*, except the meetings of the College of Physicians, and at these he rarely spoke. As a lecturer, Dr. Cryan was painstaking and instructive, and was highly esteemed by his class; but his style, though free, was simple and didactic, never mounting to the dignity of "a lecture". He had been a widower for many years. He leaves a considerable fortune, and an only child (a son), aged about fifteen. The funeral, which took place on February 19th, was large and eminently representative of the medical profession in Dublin. The Fellows of the College of Physicians attended in college costume; and the medical students of the school and the hospital to which the respected deceased had been attached, to the number of about one hundred, walked in procession after the hearse, wearing crape on the arm, and carried the coffin on their shoulders from the mortuary chapel to the vault in Mount Prospect Cemetery, Glasnevin.

Dr. Cryan had been, for the last few years, subject to recurrent attacks of bronchitis in the winter, which were latterly associated with irregularity and occasional failure of pulse. During one of these attacks, he indiscreetly persisted in performing his professional duties. He lectured on Monday, February 14th, was confined to bed on Tuesday, and in the course of that day was visited by Dr. Gordon, who announced to his friends the not distant prospect of a fatal result to his illness. On Wednesday, he was seen by Drs. Gordon, Banks, and Hayden in consultation; he was then calm and self-possessed; but the surface was livid, the pulse failing, and the over-distended heart in the early stage of systole. A fatal issue within the next twenty-four hours was predicted, and he sank quietly at eight o'clock the following morning.

PETER DAVID HANDYSIDE, M.D., F.R.C.S.E., F.R.S.E.

DEATH has lately been busy among well-known Edinburgh men. During the last month, we have recorded the deaths of Dr. Andrew Wood and Professor Sanders. In a recent JOURNAL was announced the death of Dr. P. D. Handyside, lecturer on anatomy in the College of Surgeons, Edinburgh. The deceased was born in Edinburgh in 1808. He was the son of Mr. William Handyside, writer to the signet, and nephew of the late Lord Handyside, one of the Scottish judges. He was educated in Edinburgh, and graduated M.D. in 1831; in 1833, he became a Fellow of the Royal College of Surgeons, Edinburgh, by examination. He also studied in Heidelberg and Paris; and, early in his career, directed his attention to anatomy and surgery. Associated with other teachers, he conducted an anatomical course, and was also one of the surgeons to the Royal Infirmary. For some time, he then left off teaching; but, on the appointment of Dr. Struthers (then lecturer on anatomy in the College of Surgeons) to the chair of the same subject in Aberdeen University, Dr. Struthers succeeded him, and has since continued to act in that capacity. He was a member of the Royal Society, and other scientific societies at home and abroad; and contributed many articles on anatomical, physiological, zoological, and surgical subjects to the current literature of the profession. As a hospital surgeon, Dr. Handyside is favourably remembered by his contemporaries; as a teacher of anatomy, he is respected by the many members of the profession who passed as pupils through his course; as an upright citizen, he gained the respect of all who knew him. Dr. Handyside interested himself in a spirit of true philanthropy in many ways, and to his efforts the beneficent Medical Missionary Society of Edinburgh owed largely its origin and present success; while the warm interest he took in all that related to the religious and moral welfare of students, showed how earnestly he had their best interests at heart.

EDWARD PEELE, M.K.Q.C.P.I.

FEW deaths, within recent years, have cast a deeper gloom over professional and social circles in Dublin than that of Edward Peele, which occurred on February 18th. In the discharge of his duty, as medical officer of a dispensary district, he contracted typhus fever; and, on the 5th ultimo, was struck down by such a violent attack of that disease that, from the first, the most serious apprehensions of an unfavourable result were entertained by his medical attendant.

Dr. Peele was a native of Durham. On first coming to Dublin, many years ago, he became attached to the choir of St. Patrick's Cathedral, to a vicar-choralship of which he was subsequently appointed. Gifted with a remarkably fine tenor voice, and possessed of a sound musical training and knowledge, he rapidly acquired a high position in professional musical circles. This, however, he gradually relinquished eleven years since, and applied himself with diligence and assiduity to the study of medicine. Shortly after obtaining his qualifications to practise, he was appointed a demonstrator in the School of the Royal College of Surgeons, and medical officer of one of the south city dispensaries. He also held the appointments of Physician to the Hospital for Incurables; Physician to the Hospital for Diseases of the Throat and Ear; and that of Visiting Physician to the Coombe Lying-in Hospital. Everyone with whom Dr. Peele came into contact liked him. His ever genial expression, and kindly, warm-hearted manner, were the genuine indications of a man of sterling worth. In social circles, he was at all times a welcome guest; and, as a physician, he had the confidence and respect of his brethren. In a comparatively short time, he had attained a recognised position amongst the medical men of his adopted city; and his untimely death, at forty-two years of age, will be long and sincerely regretted. Funeral services were held in both St. Patrick's and in Christchurch Cathedrals, as well as in the Chapel of Trinity College, on Sunday, February 20th; and the unusually large funeral procession, over half-a-mile in length, which followed his remains to the grave on Monday, was a testimony of the great esteem and affection in which he was held.

MILITARY AND NAVAL MEDICAL SERVICES.

MEDICAL C.B's.—Deputy Surgeon-Generals Annesley Charles Castriot De Renzy, Bengal Army; Stephen Chapman Townsend, Bengal Army; Henry Bolton Hassard; and Brigade Surgeon James Arthur Hanbury, M.B., are gazetted Commanders of the Bath for services in the Afghan campaign.

INDIAN MEDICAL SERVICE.—A new Royal Warrant for the Indian Medical Service provides for 21 brigade surgeons for the Bengal Presidency, 14 for Madras, and 9 for Bombay. The promotions to this rank are to be made from the list of surgeons-major by selection, to date from the 27th of November last.

THE NEW NAVAL MEDICAL WARRANT.

THE full pay of medical officers of the Navy is to be improved by the scheme about to come into force, but it will not be a very costly matter, only £6,500 being required for the whole of the medical officers on the Active List. The following will be the new scale of pay: inspector-general of hospitals and fleets, maximum pay increased from £2 10s. to £2 15s. *per diem*. Deputy inspectors-general of hospitals, etc., will rise to a maximum of £2 2s. instead of £1 18s. as heretofore. Fleet-surgeons increase 3s. per day, from £1 10s. to £1 13s. Staff-Surgeons' maximum per day will be £1 4s., in lieu of £1 2s.; and surgeons will be materially benefited in receiving the present minimum scale of 11s. per day upon entry, without deduction, while pursuing the probationary course of study at Netley Hospital.

THE LATE SURGEON-MAJOR CORNISH.

A CORRESPONDENT writes in reference to the late Surgeon-Major Cornish, whose death we recorded in our last issue. In the earlier part of his service he spent some time in South Africa, and served in Mauritius during the great epidemic of fever. He was in the 10th Hussars for some time, chiefly in India, and on the introduction of the unification system, continued to serve with this corps, in which his manly character and other good qualities made him very popular. He served with the Field Hospital of the 1st Division, Peshawar Field Force, in the Afghan war of 1878-9. In the spring of 1879, he took part in the expedition to the Kunar Valley on the occasion when, in fording the Cabul River, forty men of the 10th Hussars were swept away and drowned, Surgeon-Major Cornish himself narrowly escaping. He did excellent service in the fatal return march from Afghanistan in June 1879, when the exhausted troops had to struggle back to India in the face of cholera, intense heat, and scarcity of shade and of water, and is believed to have been among those thanked in general orders. He had served two or three years more than his tour of five years in India, and was to have returned to England this spring. It is uncertain whether he volunteered to accompany the troops ordered from India to South Africa, knowing the latter country, or whether he was detailed to accompany them. He was of powerful physique, hardy, brave, skilful, and attentive in his profession, and he was admirably adapted for the career he had chosen; and his many friends, in deploring his loss, will feel assured that he bravely met his death in the discharge of his duty. He died, it is believed, of wounds.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE REGISTRATION OF INFECTIOUS DISEASE.

AT the last meeting of the Whitechapel Board of Guardians, the following report, in relation to the registration of infectious diseases in the metropolis, was presented.

"The Workhouse Committee, in connection with the question of medical arrangements, had been led to consider the importance of securing the earnest co-operation of the district medical officers in such measures as may be adopted for preventing the spread of epidemic diseases. Under the order of the Local Government Board of February 12th, 1879, it becomes the duty of every district medical officer appointed after February 28th, 1879, immediately upon the occurrence of any case of contagious, infectious, or epidemic disease of a dangerous character among the pauper patients under his care, to give notice thereof to the sanitary authority; but there is no provision of statute or order under which it is obligatory upon medical practitioners or Poor-law medical officers to give such notice in relation to private patients. In the absence of any such provision, the guardians are unable to impose upon their medical officers any duty in relation to other than pauper patients. At the same time, in view of the extreme importance of the sanitary authority being promptly advised of the existence of epidemic disease, the committee are of opinion that the guardians would be justified in inviting the co-operation of their medical officers in this direction, not necessarily by the notification of every case of infectious or contagious disease which may occur in their practice, but at least such as do not possess adequate means of isolation, and for the protection of the family or immediate residents from infection. Beyond this, it does not appear that, in the present state of the law, the guardians can go. The committee, however, desire to draw the attention of the guardians to the fact that, in at least one borough of England (Bolton), there exists a provision of law for the compulsory registration of infectious diseases, it being obligatory on heads of families and medical practitioners to give notice to the Corporation of the existence of any of the following diseases—viz., small-pox, cholera, measles, scarlet fever, typhus, continued fever, puerperal fever, and diphtheria. The committee could not but think that some such provisions as these might with advantage be extended to the entire country; and, in the event of the guardians concurring in this opinion, the committee recommended that a representation be made to the Local Government Board to this effect."

The report was unanimously approved and adopted.

PREVENTION OF INFECTIOUS DISEASE.

SIR,—The notification of infectious disease, with a view to compulsory removal, is a subject that has as yet received only a one-sided attention. At first sight it has merits; but the immediate and obvious result, if good, is not the only one to be considered. The proposal marks a change that, if carried far, will alter materially the status of the profession. The advocates of these measures have, as yet, tried to minimise their effects in speaking of them—to protest that they are only meant to be applied in extreme cases. But already, though powers for such proceedings have only been obtained in a few places, we begin to hear declarations that isolation is impossible in any private house. The effect of unrestricted power, where it is obtained, will inevitably be slowly and surely to sweep all infectious cases into the fever hospitals. Of course, this would involve enormous increase of suitable hospital accommodation and large expenditure in bricks and mortar. Local authorities would come to emulate in fever-hospitals the immense piles already raised for lunatic asylums and prisons, structures which were no sooner finished than found to be costly mistakes.

Of course, all this change to which we are drifting cannot but be disastrous to the profession. The compulsory clauses of some local Acts, where carried out, alter profoundly the relation of the profession to the public. From being a trusted friend and resource in times of distress, the doctor presents the ambiguous aspect of half adviser, half spy, at war between his desire to help the sick, and his obligation (under a penalty) to inform. There will be constant hesitation in sending for medical advice for all febrile diseases, delay that will not unfrequently end disastrously to the patient who has no infection, as well as to him who has. For we may be sure patients will not always take our view of the advantages of hospital treatment. Nor is the matter much helped by making the doctor give his certificate to the householder instead of to the health officer. The result is still the same—immediate publication and ulterior measures follow the calling-in of medical advice.

In answer to the statement that these results have not occurred where the experiment has been tried, it would not be difficult to find instances where they have; and it is a matter of common notoriety, which has been made even in the BRITISH MEDICAL JOURNAL, that everything depends on the discretion of the medical officer of

health. As yet, he has been feeling his way; but when his power is assured, he will probably show himself much less modest. It is easy to foresee a rank growth of officialism following on his present embryonic state.

Surely, no body of men but ourselves ever proposed that they alone, of all mortals, should be forced to reveal at once what they know in confidence. Such a thing has never been dreamt of, except in the worst times of persecution. The priest in confession, the lawyer in advising his client, have long been exempted, as a matter of public policy, from revealing, at any future time, or under any stress of law, what they know. And no other class is obliged to inform, except under cross-examination on oath. *Sancta simplicitas!* what complications and entanglements are we not preparing for ourselves and others, when such legislation becomes developed and extended?

The granting of hospital treatment to persons not requiring charity is one of the flagrant evils of the day. Compulsory removal will necessarily increase this evil. Patients forcibly removed, it may be taken as certain, cannot be made to pay all expenses, to say the least. Large numbers will learn the lesson of leaning on charity for expenses they have been in the habit of meeting. Of course, the medical man suffers here again; for under a hospital *régime* he gets less pay than under any other arrangement possible.

Those who think with me—and they are numerous, to judge by the opposition brought to bear against local bills—are far from putting their own interests first. Our profession, whether advocating Utopian schemes or opposing them, is always ready to defer its interests to those of the public. But we have a right to ask, For what advantage are the public and we to make such sacrifices—sacrifices in liberty, in pocket, and not least in the sentimental feeling of desiring to alleviate the last moments of those relations who die of such diseases? Is it so very certain that much is gained by hospital treatment? The larger a hospital becomes, the greater is the difficulty of isolation. Nurses must have holidays; washing is always a difficulty; patients, especially when in danger, must be seen by their friends; even doctors have more chance of carrying infection than in ordinary practice, so steeped in it do they become. Isolation is a misnomer; no such thing is possible by the constitution of human nature.

Some of the diseases for which removal is enforced are those least capable of being prevented in such a way. In measles and whooping-cough the disease is usually transmitted to a second person before its symptoms are unequivocal in the first. It is extremely doubtful whether any object can be gained in them by isolation, or even by notification. Typhoid fever, diphtheria, and cholera, are not infectious in any high degree, but are to be prevented by drainage, ventilation, and the supply of good water. Removing the patient is trifling with prevention. When the late Sir James Simpson proposed to stamp out small-pox by isolation, his scheme was much and rightly criticised on the ground that it tended to depreciate vaccination—a far better preventive. So we may fear that these attempts at isolation will draw attention from the better to the worse forms of prevention. Putting aside rötheln and chicken-pox, as not touched by local Acts, scarlet fever, typhus, and relapsing fever are all that are left. Typhus is far from common; relapsing fever is still rarer; so that it appears this enormous inroad on the rights and customs of individuals is only calculated to meet dangers somewhat remote and exceptional.

But this is not the end. In the distance we see indefinite possibilities of compulsory duties to be put on the patient practitioner: duties the real stress of which is little appreciated by the consultant, the officer of health, or the *litterateur*—

"The rough and ready man that writes apace,
Reads somewhat seldomer, thinks perhaps even less."

One well-meaning gentleman actually proposes to report every case of disease to the registrar, and does not see "why medical practitioners could not as easily fill up disease-certificates as they do death-certificates"; thus drawing an argument from one encroachment on our services in favour of more. Next, I suppose, we shall be compelled to report any unvaccinated child we may happen to meet with; after that, quite as reasonable a provision as any, every case of syphilis; which information will doubtless be followed by forcible removal and gratuitous treatment in hospital. Then, perchance, it will be argued that people are not competent to choose their own dwellings, but are to be barracked in habitations duly provided by the State, and forcibly removed on information, obtained under penalty from the doctor, that there has been an unusual amount of sickness in a family. After this a Maine liquor law would be a trifle; and if the average Briton tolerates this kind of coercion, because it is of the beneficent and grandmotherly type, he will ultimately be forbidden to go out after dark without a medical certificate. May the shadow of such portentous legislation soon blow over, and receive no more encouragement from our Association!—I am, your obedient servant,

CIRCUMSPICIENS.

VENTILATION OF SEWERS.

SIR,—I am glad to find that your columns are again open to a consideration of this most important question. A discussion of the same subject, in which I have taken part, has for several weeks past been carried on in a provincial contemporary. But there the question was as to the kind of ventilation which should be adopted, not as to whether ventilation itself should be retained or abandoned. The contest lay between those who were in favour of untrapping street-gullies, and ventilating straight into the road (as in London), and those who preferred shafts carried high up above the house-roofs, where the escaping sewer-gas would be more readily subject to the law of diffusion. I need scarcely say that I took the latter side. But Mr. Chesshire takes an altogether different view; and says that, "instead of admitting atmospheric air into the sewers, it should be excluded to the utmost possible extent".

Will you allow me to ask Mr. Chesshire how, in case his view were carried out, the variation in the quantity of liquid contained by the sewer at different times of the day, and in different states of the weather, could be accommodated? How is a sewer, running, say, half-full, to be on a sudden able to run three-quarters full, unless the compressed air or gas have a ready means of escape? Would not the gas in a sewer sealed, as suggested by Mr. Chesshire, be much more likely to find its way into houses, than if it had a ready means of exit into the open air?

I admit that there is a constant current of air into and through a well-ventilated sewer; and that, as the liquid in it sinks, atmospheric air is drawn into the sewer in large volumes; but I fail to see that any such process can render the pressure of gas within the sewer dangerous to the houses connected with it. The air is drawn into the sewer, when it is so drawn, by reason of the low pressure subsisting within, and of the constant tendency of gases in communication to equilibrate. The gas cannot find its way past a good trap until the pressure within exceeds that of the air outside by an amount represented by that of the column of water in the trap. The greater the freedom of direct communication with the outer air, the less likelihood of the pressure inside the sewer becoming injuriously excessive.

It would be easy to controvert Mr. Chesshire's main proposition, that the sealing of sewers, if it could be carried out, would be advantageous in a sanitary point of view; and certainly the operations of the unintellectual portion of creation seem to point to a very different conclusion. But I prefer to take my stand on the ground of its impracticability.—I have the honour to be, sir, your obedient servant,

Kingston-on-Thames, February 26th, 1881. D. BIDDLE.

ISOLATION AND DESQUAMATION IN SCARLATINA.

SIR,—As you are aware, we have had recently, in Halifax, some painful experience of this disease. The practical questions now arise, How long should we keep our patients isolated? When may they be considered innocuous? My own rule is to insist on a six weeks' quarantine, using, during the desquamative stage, inunction of carbolised oil; in exceptional cases, this rule is broken, viz., when desquamation is very rapid.

One of my objects in writing to you is to ask on what series of observations—as outbreaks, of small or great extent—is the belief based, that scarlatina is so highly infectious in the desquamative stage; or on what theory—that of germs, or diseased dead matter? Is it the waste epithelia, or any secretion adhering to the epithelial *débris*, which convey the poison?

The practical question of the duration of isolation comes home to parents who have children in pay-hospitals, or where children have been taken ill away from home; whilst it is equally important to the medical officer who has a large number of children under his care. On hearing, at the end of December, of the prevalence of scarlatina, I closed the Halifax Workhouse, established quarantine, as there are 126 children in our school. This I kept up for eight weeks. Whether a coincidence or not, though the poorhouse was near the infected centre, the children up to the present have escaped. Owing to the necessity of examinations at the board-schools, the children had to attend, and are now regularly going to school. But mark this: according to a local paper, last week (Jan. 28th) the number of new cases reported was 52, this week the number is 22, making a total of 359 since the outbreak of the epidemic. Of the additional cases reported this week (Feb. 5th), 19 are entered as scarlatina, and 3 as sore-throat, and we may state that nearly the whole of the new cases are of a mild type. The number of deaths from scarlatina registered in the Halifax district during the past week (Jan. 28th) has been 14—an average of two per day—but we are informed these are chiefly cases of old standing, and are confined to young children. The Pellon Lane and Queen's Road board-schools have been reopened (Feb. 1st), and most of the private schools in the town have also resumed their duties.

Bearing on isolation and the desquamative stage, these facts admit of controversial debate. In January, particularly from 1st to 14th, scarlatina was very prevalent; the board-schools were then closed for about sixteen or seventeen days; reopened 1st February. According to the usual rate of progress, desquamation would be proceeding this month in cases ill in January; and presuming that this stage is so dangerous theoretically, the public schools had even more reason to be closed this month than at the time they were closed. Practically, there has not been a recurrence or an exaggeration of the disease from the opening of our public schools, though I know that the classes who attend these schools are careless about isolation, disinfection, and the rest. Owing to educational requirements, my quarantine was broken at the very time (Feb. 24th) when I might expect increased danger from the presence of children with imperfectly shed epithelium at the board-schools, or from children attending such schools, with brothers or sisters ill at home. My primary intention was to keep the children within the Poorhouse walls until April 1st, but the difficulties of obtaining such a long quarantine were insurmountable. Was it necessary? Can we frame any rule in scarlatina epidemics as to the length of time isolation should be maintained, not alone of the diseased but of the healthy. I think, with the vast mass of facts we must have at our disposal, for scarlatina is one of the parts of English life, this should be possible; and it seems to me worthy of being taken up by some of the societies or by the British Medical Association. Such an inquiry would include an examination of the desquamative stage, and experiments with desquamative malarias, or it might be framed as to include the whole subject of scarlatina, incubation, and the rest; for our ideas on incubation are nearly upset by the numerous statements about milk-contamination; the incubation period being, in many of the reported epidemics from poisoned milk, excessively short. This milk question leads me on to ask, Is it an organism which infects the milk? a germ? Have any new forms of bacteria been found in diseased or suspected milk? or is it a secretion, as suggested by Dr. Richardson (Address to the Sanitary Institute at Leamington, 1877) which taints the milk? By placing some milk for a few days in the same room with a bad case of scarlatina, the experimenter ought to be able to obtain proofs as to how the milk becomes infected, or what change takes place. If the Halifax outbreak were due to milk, then the poison must exist in even as subtle a form as the attar of roses, and a very small quantity must have high infective power. This outbreak is now *sub judice* (Dr. Ballard), so that I must suspend my opinion. If, again, the incubative period is dangerous, owing to germs, is the desquamative stage dangerous from the same cause, or from diseased dead matter tainted by a diseased glandular secretion? What about the other excrementitious products: urine, fæces, etc.?

These thoughts of mine are only suggestive, and are put in a crude form. From correspondence in other journals, it is evident there is great diversity of opinion on the subject of isolation and on desquamation, so that I may be pardoned for taking up your space and asking for a scientific investigation of all the vexed questions about scarlatina—an investigation precise and thorough, which should set these questions at rest for ever.—I remain, yours faithfully, TH. M. DOLAN.

Horton House, Feb. 26th, 1881.

ILFRACOMBE.—The statistics of this favourite health-resort have a more than local interest. Though the statistics given by Dr. Slade King, in his report for 1880, might well have been fuller, those that he does give are sufficiently reassuring. The death-rate was at the very low figure of 13.8; and the only deaths from zymotic diseases seem to have been 6 from diarrhœa (occurring at a time when the temperature was high and an east wind prevailed), 1 from scarlatina, and 3 from sequelæ of measles. A good deal of important sanitary work was done during the year. An important part of the public sewers is being reconstructed at a considerable expense, and a large scheme for the improvement of the water-works is in a forward state. Altogether, the supervision of the district seems to be honest and thorough.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, March 3rd, 1881.

Guillim, Richard Davis Hoyle, Marlborough.
Jennings, Charles Egerton, Malmesbury.
Palmer, Edward Talbot, Southsea.

The following gentleman also on the same day passed the Primary Professional Examination.

Collins, Edward Treacher, Middlesex Hospital.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, February 7th, 8th, 9th, and 10th, the following candidates were successful.

The Licence to practise Medicine.—James Stuart Brooke, Dublin; James Joseph Davis, Trim; Edalji Dorabji Patel, Bombay; Edmund Joseph Thunder, Dublin.

The Licence to practise Midwifery.—James J. Riordan, Rathmore, Co. Derry; Edmund Joseph Thunder, Dublin.

The following Licentiates in Medicine, having complied with the by-laws relating to Membership, have been duly admitted Members of the College.

Charles Henry Leet, 1863, Liverpool; William Berkeley Drew, 1871, Surgeon R.N.; William Robert Kerans, 1873, Surgeon-Major, Army; George Alexander Moorhead, 1876, Tullamore, King's Co.; Joseph Michael Redmond, 1873, Sandford Road, Ranelagh, Dublin.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced :—

BRITISH LYING-IN HOSPITAL—Physician to the Out-Patient Department. Applications, with testimonials, to the Chairman of the Board of Management on or before April 9th.

*CARLISLE DISPENSARY—Assistant House-Surgeon. Salary, £90 per annum. Applications, with testimonials, to the Honorary Secretary.

CITY OF LONDON LUNATIC ASYLUM, Stone, Kent—Assistant Medical Officer. Salary, £120 per annum. Applications, with testimonials, on or before the 16th instant, to Mr. Youle, Guildhall, E.C.

*CHARING CROSS HOSPITAL, West Strand—Assistant Surgeon. Applications on or before Saturday, April 2nd, to the Committee.

DENBIGHSHIRE INFIRMARY—House-Surgeon. Salary to commence at £85 per annum. Applications, with testimonials, to be sent in by the 25th instant, to W. Vaughan Jones, Secretary.

DUNDALK UNION—Medical Officer for Barronstown Dispensary District. Salary, £120 per annum, with £25 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 14th instant.

DURHAM UNION—Medical Officer. Salary, £45 per annum. Applications by March 18th.

ESSEX AND COLCHESTER HOSPITAL—Matron. Salary, £60 per annum. Applications, on or before Wednesday, March 23rd.

*GLAMORGANSHIRE AND MONMOUTHSHIRE INFIRMARY AND DISPENSARY, Cardiff—House-Surgeon. Applications to the Secretary by March 29th.

*GREAT NORTHERN HOSPITAL, Caledonian Road, N.—Junior Resident Medical Officer. Applications to the Secretary on or before the 31st instant.

GUILDFORD UNION—Medical Officer of Health. Salary, £200 per annum. Applications on or before March 5th. Applicants to attend on the 12th.

*HALIFAX INFIRMARY AND DISPENSARY—Assistant House-Surgeon. Salary, £50 per annum. Applications, with testimonials, to the Senior Physician, on or before Wednesday, March 16th.

*HULL GENERAL INFIRMARY—House-Surgeon. Salary, one hundred guineas per annum. Applications, with testimonials, on or before the 21st March next, to the Chairman of the House Committee.

KENT AND CANTERBURY HOSPITAL—House-Surgeon. Salary, £80 per annum. Applications, with testimonials, to be sent on Friday, March 25th, by 12 o'clock noon.

KIDDERMINSTER FRIENDLY SOCIETIES' MEDICAL ASSOCIATION—Assistant Medical Officer. Applications, with testimonials, on or before March 12th, to W. Holloway, 28, St. John Street, Kidderminster.

LEITH HOSPITAL—Assistant House Surgeon. Salary, £60 per annum, with board. Applications, with testimonials, to G. V. Mann, on or before April 8th.

*LIVERPOOL EYE AND EAR INFIRMARY—House-Surgeon. Salary, £ 0 per annum. Applications, with testimonials, to the Honorary Secretary not later than the 28th instant.

RADCLIFFE INFIRMARY, Oxford—Resident Medical Officer. Salary, £100 per annum. Applications to the Secretary by the 14th instant.

SALFORD AND PENDLETON ROYAL HOSPITAL—District Surgeon. Salary, £ per annum. Applications by March 15th.

*SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY—Junior House-Surgeon. Salary, £ per annum. Applications to the Secretary.

STOCKPORT INFIRMARY—Medical Officer—Salary, £ per annum. Applications to the Honorary Secretary.

*TOTTENHAM TRAINING HOSPITAL—House-Surgeon (single). Salary, £ per annum. Applications to Dr. Laseron, Tottenham.

UNIVERSITY OF GLASGOW—Examiners in Medicine, vacant April 1st; viz., 1. Physiology and Pathology; 2. Medicine and Clinical Medicine; 3. Surgery and Clinical Surgery. Annual fee of each examiner, £40; term of office, four years. Applications, on or before March 15th, to Dr. Anderson Kirkwood, 145, West George Street, Glasgow.

WARNEFORD HOSPITAL AND NURSING INSTITUTION, Leamington—Matron. Salary, £70 per annum, with board, lodging, and washing. Applications, with testimonials, to the Secretary, on or before Saturday, March 12th.

*WEST SUSSEX, EAST HANTS, AND CHICHESTER GENERAL INFIRMARY—House-Surgeon. Salary, £80 per annum. Applications to the Secretary on or before April 9th.

*WHITEHAVEN AND WEST CUMBERLAND INFIRMARY AND FEVER HOSPITAL—House-Surgeon. Salary, £150 per annum. Applications, with testimonials, to the Secretary before May 1st.

MEDICAL APPOINTMENTS.

BEEVOR, Walker, M.B., M.R.C.S., appointed House-Surgeon to Newark Hospital, *vice* John D. T. Reckitt, L.R.C.P.Ed., resigned.

CROWE, John Wainwright, L.K.Q.C.P.I., L.R.C.S.I., appointed Honorary Physician to the Hartlepools Hospital.

FIELD, James W., M.R.C.S.Eng., appointed Assistant-Surgeon to the Tewkesbury Hospital, *vice* Charles Penruddoch, M.R.C.S.E., resigned.

GARMAN, J. C., L.R.C.P.Ed., appointed Assistant Medical Officer to the Central London Sick Asylum, Highgate, *vice* E. C. Cripps, M.R.C.S.E., resigned.

MORISON, James Rutherford, M.B., F.R.C.S., L.R.C.P.Ed., appointed Honorary Physician to the Hartlepools Hospital.

POOR-LAW MEDICAL APPOINTMENTS.

ARMSON, Charles Greasley, L.S.F., L.M., appointed Medical Officer to the Lichfield Union, *vice* Thomas Wilson, resigned.

BODDY, H. W., M.B.Lond., appointed Medical Officer to the Prestwich Union Workhouse, *vice* S. Buckley, M.B.Lond., resigned.

CEELY, James H., F.R.C.S., appointed Medical Officer to No. 3 District of the Aylesbury Union. *vice* R. Ceely, F.R.C.S., deceased.

EDMUNDS, Richard, M.R.C.S.Eng., appointed Medical Officer to the Pantengue District of the Pontypool Union, *vice* J. S. Cousins, L.R.C.P.Ed., deceased.

HEPBURN, William A., L.F.P.S.G., appointed Medical Officer and Public Vaccinator for No. 2 District of the Durham Union, *vice* J. W. Blandford, M.R.C.S., resigned.

JEFFREYS, Richard, M.R.C.S.Eng., L.S.A.Lond., appointed Medical Officer to the Brampton and Walton Districts of the Chesterfield Union.

MACDONALD, D. S., L.R.C.P.Ed., appointed Medical Officer to the Parish of Comrie, N.B.

PLUMMER, C. J., M.R.C.S., appointed Medical Officer to the Fourth District of the Alton Union, *vice* J. Woods, M.R.C.S.Eng., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

FAVELL.—On March 6th, at Glossop Road, Sheffield, the wife of Richard Favell, M.R.C.S., of a son.

MARRIAGES.

BISHOP—BIRD.—At St. Lawrence Church, Barton-on-the-Heath, Warwickshire, on the 8th inst., by the Hon. and Rev. Walter R. Verney, assisted by the Rev. Arthur Nettleship, rector of the parish, John Bishop, M.D., F.R.C.S.E., Edinburgh, to Isabella Lucy, daughter of the late Rev. Edward Bird, rector of Wyton, Huntingdonshire.

WILSON MINTO.—On March 1st, at Edinburgh, by the Rev. A. Whyte, M.A., Albert Wilson, M.B., of Leytonstone, Essex, to Amy, youngest daughter of J. Clephan Minto, M.D., late Staff-Surgeon H.M.S.

DEATH.

CARPENTER.—On the 2nd instant, after a painful and protracted illness, at No. 130, Stockwell Road, Sara Palmer, the wife of R. H. Spencer Carpenter, L.R.C.P.L., and only sister of Miss Carpenter, Whiteladies Road, Clifton.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council of the College was held on Thursday afternoon, the 10th instant. Reports were received from the Court of Examiners, and from the Committee on Preliminary Examinations, on a series of questions contained in a letter received from Dr. Haldane, of Edinburgh, in December, regarding the desirability of candidates for the medical profession being required, before they enter on the purely medical curriculum, to have been instructed and examined in the rudiments of natural science, physical, chemical, and biological. The Committee recommended that an answer should be returned, to the effect that, in the opinion of the Council, it is desirable that intending medical students should be encouraged to study in one or more of the branches of natural science which are not included in the compulsory subjects of the preliminary examination required by the General Medical Council; and that a student who shall have passed an examination in one or more of such subjects should be exempted from any attendance on lectures [on the subject or subjects on which he shall have passed] and from similar examinations on those subjects during his professional education; but that such exemption should not include the practical instruction and examinations now required by any of the several medical authorities;

and that, in the opinion of the Council, proficiency as ascertained, by examination should be deemed sufficient.

A letter was read from the honorary secretary of the International Medical Congress in reference to a *conversazione;* and it was resolved that a *conversazione* be given by the College to the members of the Congress.

Mr. GAY moved: "That in the opinion of this Council it is desirable that lectures delivered in the theatre of the college should conform, so far as may be practicable, to the terms and conditions of the trust in relation to the strictly Hunterian Lectures on Comparative Anatomy and other subjects, as defined in that trust; and that they should, therefore, relate, for the most part, to such subjects as admit of illustration by the preparations in the museum; and that the president and vice-presidents, in regulating (as provided by the standing rule) the details of the proceedings relating to the lectures, be requested to communicate to the several professors and lecturers, from time to time appointed, the foregoing resolution of the Council".

This, not being seconded, fell to the ground.

THE Mont Dore of Bournemouth Company has issued the allotment letters for the first series of shares.

SUPERANNUATION.—Mr. W. F. Fuller, late Assistant Resident Medical Officer to the St. Marylebone Workhouse, has obtained a superannuation allowance of £80 *per annum*.

PUBLIC HEALTH.—The annual rate of mortality, for the week ending February 26th, in twenty of the largest English towns, averaged 21.9 per 1,000. The rates of mortality in the several towns were as follow: Sheffield 16, Bristol 18, Portsmouth 18, Leicester 19, Birmingham 19, Hull 19, Salford 20, Bradford 20, Nottingham 21, Plymouth 21, London 21, Wolverhampton 21, Norwich 22, Sunderland 22, Brighton 23, Leeds 23, Newcastle-on-Tyne 24, Manchester 25, Oldham 26, and Liverpool 28. Scarlet fever showed the largest proportional fatality in Oldham, Portsmouth, and Leicester. Of the 13 deaths referred to diphtheria in the twenty towns, 8 occurred in London, and 2 in Birmingham. The death-rate from fever in the twenty towns was unusually low. Small-pox caused 49 more deaths in London and its suburban districts, and one in Brighton, but not one in any of the eighteen other large provincial towns. In London, 1,525 deaths were registered, which were 255 below the average, and gave an annual death-rate of 21.5. The 1,525 deaths included 44 from small-pox, 22 from measles, 20 from scarlet fever, 8 from diphtheria, 41 from whooping-cough, one from typhus fever, 10 from enteric fever, one from an ill-defined form of continued fever, 17 from diarrhœa, one from dysentery, and not one from simple cholera; thus, 165 deaths were referred to these diseases, being 82 below the average. The fatal cases of small-pox, which had been 52 and 55 in the two preceding weeks, declined to 44 last week. Of the 44 persons who died from small-pox, 15 had resided in the East, 12 in the South, 11 in the North, 4 in the West, and 2 in the Central groups of registration districts; 9 fatal cases belonged to Hackney, 4 to Shoreditch, and 4 to Bow and Poplar. The number of small-pox patients in the Metropolitan Asylums Hospitals, which had steadily increased in the seventeen preceding weeks from 77 to 703, further rose to 752 on Saturday last. The deaths referred to diseases of the respiratory organs, which had declined steadily from 702 to 364 in the four preceding weeks, were 367 last week, and 100 below the average; 252 were attributed to bronchitis, and 71 to pneumonia. Different forms of violence caused 52 deaths; 43 were the result of negligence or accident, among which were 16 from fractures and contusions, 2 from burns and scalds, 3 from drowning, 2 from poison, and 12 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 34 4°, and 5.3° below the average. The general direction of the wind was N.E., and the horizontal movement of the air averaged 9.8 miles per hour, which was 3.0 below the average. Rain fell on four days of the week, to the aggregate amount of one inch. The duration of registered bright sunshine in the week was equal to 9 per cent. of its possible duration.—The annual rate of mortality last week, being the ninth week of this year, in twenty of the largest English towns averaged 23.0 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Brighton 17, Leicester 18, Bristol 19, Birmingham 21, Leeds 21, Hull 21, Sunderland 21, Sheffield 22, Newcastle-on-Tyne 22, Oldham 22, Portsmouth 22, London 23, Nottingham 24, Bradford 24, Norwich 24, Plymouth 24, Manchester 25, Salford 25, Wolverhampton 25, and Liverpool 26. Whooping-cough showed excessive fatality in Leeds. Of the 16 deaths referred to diphtheria in the twenty towns, 9 occurred in London, 3 in Portsmouth, and 2 in Salford. The death-rate from fever was generally low, but was proportionally excessive in Norwich and Portsmouth. Small-pox caused 54 more deaths in London and its suburban districts, and one in Birmingham, but none in any of the eighteen other provincial towns. In London, 2,620 births and 1,633 deaths were registered. The deaths were 116 below the average, and gave an annual death-rate 23.0. The 1,633 deaths included 52 from small-pox, 18 from measles, 27 from scarlet fever, 9 from diphtheria, 35 from whooping-cough, 8 from enteric fever, one from an ill-defined form of continued fever, 13 from diarrhœa, and none from typhus, dysentery, or simple cholera; thus, 163 deaths were referred to these diseases, being 79 below the average, The deaths referred to diseases of the respiratory organs, which had been 364 and 367 in the two preceding weeks, further rose to 419 last week, which were, however, 44 below the average; 283 were attributed to bronchitis, and 75 to pneumonia. Different forms of violence caused 63 deaths; 53 were the result of negligence or accident, among which were 21 from fractures and contusions, 5 from burns and scalds, 2 from drowning, 2 from poison, and 18 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 37.1°, and 3.3° below the average. The mean was considerably below the average on each of the first five days of the week, whereas it showed an excess on Friday and Saturday. On Monday the mean was only 30.5°, and was 9.7° below the average, whereas on Saturday it rose to 50.3°, and showed an excess of 9.8°. The direction of the wind was variable, and the horizontal movement of the air averaged 11.3 miles per hour, which was 2.4 below the average. Rain fell on three days of the week, to the aggregate amount of 1.20 of an inch. The duration of registered bright sunshine in the week was equal to 12 per cent. of its possible duration. The recorded amount of ozone showed a considerable excess on each of the last four days of the week.

POISONING AT A HOSPITAL BY MISADVENTURE.—Mr. George Collier lately held an inquiry at the London Hospital as to the death of Elizabeth Tondup, aged 50. The husband of the deceased, who is a dock-labourer, living in Bethnal Green, stated that she was admitted into the hospital on the 18th ult., suffering from skin-disease. Jane Turner, nurse at the hospital, said that the deceased came under her charge on the day mentioned by the husband. The witness applied a lotion until the 23rd of the month, when it was changed. The witness applied the second lotion, but the deceased grew unconscious, and died the next day. The witness did not know what ingredients formed the lotion. Charles James Cooper, a dispenser of the hospital, stated that he made up the prescription. To the best of his belief it was made up by him according to the words written thereon. Mr. Albert E. Jones, house-physician, said the deceased came under his charge. Dr. Turner, the physician, prescribed a simple lead lotion. The deceased did not improve under the treatment, and on the 23rd there was a good deal of irritation, and Dr. Turner, ordered a lotion containing morphia. This lotion was applied on the evening of the 23rd. The solution of morphia was ordered to allay irritation. He was called the next morning about 8 o'clock by the nurse to see the deceased, who appeared to be cold. He ordered her some brandy, which she drank. About an hour afterwards he was again sent for and found her unconscious. He then formed the opinion that she was suffering from cerebral hæmorrhage or was under the influence of some narcotic. She died at 12 o'clock in the day. The witness explained that in the prescription, instead of writing the word "Liq." in the proper column, together with the remainder of the terms of it, thus making the whole a solution of morphia, he wrote it in an adjoining column. The word "Liq." was unnoticed by the dispenser, and morphia hydrochlorate was made up. The strength of the lotion would then be half as much again as that intended for use. Mr. Cooper stated that he did not observe the word "Liq." on the prescription. Mr. Macarthy had made a *post mortem* examination, by which he ascertained that the cause of death was due to poisoning by morphia. The coroner, in summing up the facts, said an unfortunate mistake had been made, but there was nothing to show that the death of the deceased was other than the result of accident. The jury returned a verdict of "Death by Misadventure."

SUCCESSFUL REMOVAL OF ORBITAL EXOSTOSIS.—The following interesting case is reported by Dr. H. B. Sands, in the *Archives of Ophthalmology* for December, 1880. A young and healthy looking farmer had noticed a slight protrusion of the right eye for three years, and had suffered subsequently deeply seated orbital pain, headache, and vertigo. The protrusion gradually increasing, the right nasal passage had become obstructed. There was no impairment of vision. At last, he could hardly close the right lid. A firm smooth growth springing from the floor of the orbit seemed to be the cause of the difficulty. The sides of the nasal passage were closely approximated. No positive diagnosis was made, although the coincidence of exophthalmos with nasal obstruction led to the suspicion that the tumour was connected with the antrum. A triangular flap, having its apex

near the inner canthus, was reflected so as to expose the anterior wall of the antrum. This was cut away sufficiently to admit the finger, when it was ascertained that the cavity was empty. The eyeball being now protruded and pressed upward, the inferior edge of the orbit was gradually removed until the index finger could penetrate deeply enough to feel the morbid growth. This was found to be a hard roundish body, a little larger than a large hazel-nut, attached to the superior maxillary fissure. By the use of a chisel and an elevator it was removed, bringing with it a portion of the floor of the orbit. A horse-hair drain was introduced into the wound, which was closed with sutures. The patient did well after the operation, and left the hospital at the end of a fortnight. The protrusion of the eyeball had almost entirely disappeared, and vision remained unaffected. An examination of the tumour showed it to consist of a shell of compact bony tissue containing a large nucleus of cartilage.

THE JERMYN STREET HAMMAN.—Among things which are better done in England than elsewhere must be reckoned the Turkish. With some little personal experience of Eastern travel, and a good deal of interest in Turkish baths, we can endorse the story which the *Athenæum* tells of the Hamman in Jermyn Street. At a dinner-table in Stamboul we heard a French Secretary request an Arab Sheikh from the Hauran, to tell him where he could find the best Turkish bath—whether at Cairo or at Jerusalem, at Constantinope or Damascus? "God is great, and Effendis are wise," said the Sheikh; "but if you ask your servant, he must say the best bath of all is to be found near Piccadilly, in London." In scrupulous cleanliness in all its annexed parts, in spacious accommodation, freshness of the air, and luxurious comfort, the Turkish bath in Jermyn Street has no rival in the East. Like many other successful works, it is the product of the energy, faith, and militant enthusiasm of a fanatic. "The Turkish bath a cure for cancer, I believe; and for consumption, I am sure," said Mr. Urquhart; and to a mild expression of doubts on those heads, he replied indignantly, "All my life I have been opposed by publicans and apothecaries." As a luxury in health, however, as a means of warding off or curing gouty, rheumatic, catarrhal, renal, and dyspeptic affections, the Turkish bath has secured for itself what may now be considered a permanent place in popular esteem, confirmed and opposed by medical experience. We learn that the bath in Jermyn Street is about to be still further extended and improved by the addition of new hot rooms, with direct radiating heat and adequate ventilation. Medical men are admitted now at all hours, on producing their cards, at two shillings, or a series of twelve tickets are furnished for one pound. This is one-half the usual rates before seven in the evening. These baths are largely used by medical men who find in them depurating and bracing influences, a more or less adequate antidote to the sedentary life which many are obliged to lead.

BEQUESTS AND DONATIONS.—Mr. Charles Hargrave of Clanricarde Gardens bequeathed £2,500 to the Middlesex Hospital, £2,500 to the London Hospital, £1,500 to St. Thomas's Hospital, £1,500 to the Charing Cross Hospital, £1,000 to St. George's Hospital, and £500 each to the Royal Free Hospital, the East London Hospital for Children, St. Mary's Hospital, the Poplar Hospital, the London Fever Hospital, the Earlswood Asylum for Idiots, the Royal Sea Bathing Infirmary at Margate, King's College Hospital, the Royal London Ophthalmic Hospital, and University College Hospital; and the "residue" of his personal estate to be divided among those charities to which he bequeathed £500.—The East London Hospital for Children has received £762 7s., additional, from the editor of the *Little Folks* magazine, making a total of £1,762 7s. contributed by its readers for the endowment of two cots.—The annual report of the Bradford (Yorkshire) Fever Hospital acknowledges the receipt of £300 under the will of Mr. Alfred Harris, £225 under that of Major Foster, and £100 under that of Mr. Martin Goldstein.—The Taff Vale Railway Company have given £500 to the Cardiff Infirmary.—Mr. Henry Roberts has given £150 to the Charing Cross Hospital.—The Hon. Francis Baring has given £100 to the North-Eastern Hospital for Children.—The Duke of Newcastle has given five hundred guineas to the building-fund of the Newark Hospital and Dispensary.—Mr. Thomas Burman has given £500 to the General Hospital, Birmingham.—"T. D. E." has given £100, additional, to the Chelsea Hospital for Women.—The trustees of Prison Charities have given a fourth one hundred guineas to the National Hospital for Consumption at Ventnor; fifty guineas, additional, to the Convalescent Branch of the Victoria Hospital for Children; and twenty guineas to the Convalescent Branch of the North-Eastern Hospital for Children.—The Radcliffe Infirmary, Oxford, has become entitled to £300 under the will of Miss Margaret Vavasor Durell.—The General Hospital, Birmingham, has received £100 under the will of Mr. David Bolton.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th. 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 2; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. The President (Dr. Bucknill) will deliver an Opening Address. Dr. T. Stretch Dowse will show a Case of Pseudo-Hypertrophic Paralysis. Mr. W. Spencer Watson: Two Cases of Unusual Affection of the Nose. Dr. F. Gilbart Smith will exhibit a Specimen of Embolism in the Kidney in a Case of Heart-Disease.

TUESDAY.—Pathological Society of London, 8.30 P.M. Dr. Thin: Relations of Disease of Nipple and Areolar Cancer of the Breast. Mr. C. Moore: Cystic Degeneration of Breast. Dr. Pye-Smith: Cystic Disease of Kidneys and Liver. Mr. Alban Doran: Cystic Disease of Ovary from a Fœtus. Dr. S. West (for Dr. Humphry): Aneurisms of Aortic Valve (cards). Dr. S. West: 1. Cancer of Mediastinal Glands and Pleura; 2. Localised Pneumothorax. Dr. E. G. Mason: Fibrinous Pulmonary Artery. Mr. Bradley: Cranium and Brain of Hydrocephalic Adult. Mr. Treves: Villous Polypus of Bladder. Mr. Shattock: Arrested Development of Upper Limb (cards). London Institution, 7 P.M. Professor De Chaumont, F.R.S.: Sanitary Assurance. The President of the Royal College of Surgeons in the chair.

WEDNESDAY.—Association of Surgeons practising Dental Surgery, 7.45 P.M., Council. 8 P.M., Communications from Mr. Edward Bartlett, etc.

THURSDAY. Harveian Society of London, 8.30 P.M. Mr. Bryant: A Case of Gastrostomy for Cicatricial Stricture of the Œsophagus. Dr. Gowers: On the so-called Tendon-Reflex Contractions.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COUNTER-SEATS FOR SHOP-ASSISTANTS.

SIR,—As the difficult question of obtaining seats of some sort for the many thousands of women employed behind counters and refreshment bars has been already much discussed in the press, it is hoped you will publish this appeal for help in what, after much consideration, seems to us the best plan of dealing with the subject. We do not wish to resort to dealing exclusively with those who provide seats, as we feel sure that a large number of shopkeepers only require to have the subject brought forcibly before them to grant our request. We also think it is a question on which public opinion ought to have much more effect than legislation.

The plan of having one large petition addressed to the shopkeepers of London generally has failed; we are therefore organising a scheme of petitions to individual shops, signed by as many customers of that particular shop as can be collected in a reasonable time. Each petition is placed in the hands of one person, who is to be responsible for the facts concerning the shop addressed, and who will present to the owners of that shop the petition so signed by their own customers. (Of course, all the collectors send each other any names they may have come across.)

If this system is to be successful, it must be extended all over London; and we therefore appeal to any medical men, as well as ordinary gentlemen and ladies willing to help, either by giving their signatures, or by starting new petitions, to write to either Mrs. Ashton Dilke, 1, Hyde Park Gate South; or to Mrs. Strange Butson, 49, Upper Gloucester Place, Regent's Park; or to Miss Bryce, 7, Nerf lk Square.

The ladies' work lies especially amongst the drapers and similar establishments. The very large firms do not, as a rule, employ women behind counters; and in the show-rooms there is always a place to sit down, if leave be given; but in the shops where cheapness is the main object, hundreds of women stand from eleven to thirteen hours a day, to the certain injury of their health. If Mr. Whiteley can have seats, others can do likewise.

Gentlemen, medical or otherwise, would greatly forward the movement by doing the same with regard to the refreshment rooms they may patronise. Apologising for the length of my letter, I remain, yours obediently,

A MEMBER OF THE NATIONAL SHOP-ASSISTANTS' SOCIETY.

51, Strand.

PROVIDENT DISPENSARIES.—We fear we shall be unable to publish Mr. Westland's article on "A Financial Basis for Self-Supporting Provident Dispensaries". Mr. Westland's main suggestion appears to be, that the scale of charges at the Haverstock Hill Provident Dispensaries should be re-adjusted and raised. No such charges will, however, we fear, suffice to make provident dispensaries self-supporting, until they become so popular as to enrol members in considerable numbers. They will then cease to require any charitable subscriptions. Sunderland Provident Dispensary, a financial statement of which has been sent to us, does not afford sufficient information to enable us to form any opinion as to its management. The payments to medical officers for 1880 appear, however, to have amounted to £271 19s. 10d.

POISONING BY GAS BATH-HEATERS.

SIR,—A paragraph has recently appeared in your journal respecting the death of Mr. C. F. Deacon, of Anerley, Surrey, who was poisoned by the noxious vapours arising from the gas apparatus by which his bath was heated. A Dr. Turner is reported to have stated at the inquest that gas-burners were highly dangerous, and he advised that the use of them should be discontinued. To this sweeping condemnation wide publicity has been given. I have already received numerous letters from persons who have been alarmed by it, and I trust therefore you will permit me the right of a public reply. It is perfectly true that some of the methods now in use of heating water for baths by means of gas are not safe. None of the class known as instantaneous water-heaters for baths should be used in any room unless the products of combustion can be perfectly carried away at once by a flue, although small sizes may be safely used in sculleries and lavatories for heating small quantities of water quickly. They are especially dangerous in bath-rooms, which are, as a rule, small and close, and the danger increases with the power of the heater. Although I am a patentee and manufacturer of these instantaneous heaters, I have never used them or recommended their use for baths. This, however, does not warrant a condemnation of all systems; and the one I have adopted for heating baths is such that no danger or unpleasantness can arise from its use. Even in the smallest and most confined bath-room, without ventilation, the fumes given off by the burner used are so exceedingly small in quantity as to be incapable of causing the slightest harm. I cannot, therefore, permit Dr. Turner's remarks to pass without protest. It is evident that he has formed his opinion without possessing a full knowledge of his subject, and intending only to condemn the system he knew, has at the same time condemned others which, his remarks prove, he can never have seen.—I am, yours respectfully,

THOMAS FLETCHER, F.C.S.

No. 4 and 5, Museum Street, Warrington, February 26th, 1881.

LINIMENT FOR CHILBLAINS.

FOR unbroken chilblains, *Le Med. Pract.* recommends a liniment consisting of one part of carbolic acid to ten of alcohol, with twenty-five parts of glycerine, to be applied night and morning.

CLEANSING, DISINFECTING, AND PRESERVING SPONGES.

SIR,—Admirers of the excellent sponge-bath, made by Messrs. Groom and Co., to which you called attention last week, I should like to say a few words about sponges. Some years ago, when I was travelling alternately on the Rhine, I noticed that my bath-sponge was very differently affected by the fresh water and the sea water which I used for my baths. We all know that sponges, after they have been used for a while in hard water, become clogged with organic and earthy impurities, and lose much of their elasticity and powers of absorbing and parting with water. The ordinary domestic remedy for this condition is common washing soda; but this substance, while effectually removing the impurities, destroys the texture of the sponge, and it quickly falls into pieces. The preparations of chlorine and sulphurous acid used for bleaching and disinfecting sponges have also an injurious effect, and should be avoided (as should new bleached sponges, for they are always bad ones); Condy's fluid stains, and carbolic acid consolidates organic matters in the meshes of the structure; and they are also to be avoided as unsuitable for mere cleansing purposes. I have found, by repeated experiment, that returning the sponge to its native element, or what answers equally well, steeping it in strong salt and water, to which a few grains of iodine have been added, enables it to throw off its impurities and to regain its normal elasticity and absorbent properties, and at the same time to become completely disinfected. The process is not a rapid one; and iodine is only slightly soluble in salt water; so that very dirty sponges cannot be purified in this way, and a preliminary washing in soap and warm water may be necessary. Sponges may be kept in this kind of pickle for any length of time without injury to their texture; and as clean sponges are essential to success in operative surgery, surgeons and nurses would do well to keep their sponges in this manner when not in use, instead of allowing them to become dry and gather dust, or absorb and condense impure gases. Salt is one of the best antiseptics, and iodine is one of the most powerful disinfectants, and they belong to the element in which the sponge was originally developed. A bath-sponge which has been treated in this way has the pleasant sea-side smell which has been attributed to the presence of ozone, but which is more probably due to iodine.—Your obedient servant,

CHARLES ROBERTS, F.R.C.S.

Bolton Row, W., March 3rd, 1881.

B. O. would find the required information in Braun's *Curative Effects of Baths and Waters*, translated and edited by Dr. Hermann Weber (Smith, Elder, and Co.).

LIFE-ASSURANCE COMPANIES AND MEDICAL FEES.

SIR,—I declined to answer the questions of the City of Glasgow Life-Assurance Company, on the grounds that, being a medical practitioner, I had no private position; that the questions submitted were essentially asking for a medical report; and that the company had no right to place medical men in so awkward a position with their friends. I enclose you the secretary's letter.—I remain, sir, yours, etc.,

R. P. B. TAAFFE, M.D.

45, Old Steyne, Brighton, February 26th, 1881.

The Secretary's letter is as follows.

"Dear Sir, I have received your favour of the 19th inst., and am sorry that you cannot see your way to answer our questions as a friend of Mrs. H. We are not to blame, as we cannot help a proposer for assurance naming whom she pleases. I must now, of course, inform her that you decline to reply as a friend, and that she must therefore name some one else.—Yours truly, J. W. BELL, Secretary.—Dr. Taaffe."

*** The questions asked are not friendly questions, or questions relating to position as a private friend of the patient, [but strictly professional questions, on strictly medical and technical subjects, on which our correspondent is asked to give expert and impartial evidence.

MEDICAL CERTIFICATES AND UNQUALIFIED ASSISTANTS.

SIR,—A case lately occurred in this neighbourhood in which a death-certificate was registered, signed by a surgeon who never saw deceased, she being attended by his unqualified *assistant*. And in another parish in the same registrar's district, an unqualified *locum tenens* signed the surgeon's name and his own to a death-certificate (deceased was not attended by the surgeon). In the former case, the superintendent registrar refused to take any action. What ought to be done in the matter? It is rather hard on those who have spent time and money to obtain a diploma, that unqualified men are allowed to practise with impunity, and false documents to be registered simply because there is no one to put the law into force.—I am, sir, yours obediently,

A MEMBER OF B.M.A.

*** It is to be feared that such cases as these referred to by our correspondent are of too frequent occurrence. Such independent practice of unqualified assistants is a grave injustice both to the profession and the public. Unfortunately, the Births and Deaths Registration Act does not specify who is to prosecute in case of the contravention of any of the clauses of that Act; and prosecutions, therefore, do not often take place. It seems to us, however, that, if the profession once makes up its mind definitely that such use of unqualified assistants is unprofessional, the practice can easily be put down by medical defence associations, since no help can be expected from the General Medical Council.

BRONCHIECTASIS.

SIR,—In the JOURNAL of to-day's date, in Dr. William's lecture on Bronchiectasis, I find the following sentence. "The action of the third cause is well seen in long-standing cases of pleuritic effusion, and in fibroid phthisis, where, owing to the air-pressure, which would naturally be distributed over the whole pulmonary surface, being concentrated on the limited area of the bronchial tubes, dilatation of the walls takes place." It would be interesting if Dr. Williams would explain how this can possibly take place; for in order that such a "cause" should act, it would seem to be necessary that we abolish the well known hydrostatic law, that fluids (and air is a fluid) press equally in all directions. I enclose my card, and am, yours truly,

PHYSICIAN.

February 26th, 1881.

L. T.—The Alexander and Parkes prizes are only open to army medical officers.

WHOOPING-COUGH.

SIR,—The volume to which Dr. Cane refers, I have seen, but I am unable to discover therein any further satisfactory elucidation of the subject in question. If Dr. Cane has not seen the so-called bacillus anthracis, might I venture to suggest that he should examine the serum or blood of any dead body some hours after death; and then he will, in all probability, find bacilli, few or many, but which cannot be separated, notwithstanding Dr. Koch, from what have been exhibited here as fine specimens of bacillus anthracis.—I am, sir, yours faithfully,

Bradford, March 1st, 1881. EDWARD T. TIVITTS, M.D.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

DIFFUSION OF DISEASE BY MILK.

SIR,—Would some of your readers who are acquainted with the facts of the case referred to under the above heading, in which a farmer was convicted at the Reigate County Court in £5 and costs, give us further information about them? For instance, how the case came into the County Court? Who was the prosecutor? What are the relations at Reigate between "the sanitary officers" who were "censured", and the police, to whom it is alleged that they ought to have given information? These are points in the story which seem at present somewhat mysterious, and upon which further light would be very desirable.—I am, etc.,

Gloucester. FRANCIS T. BOND, M.D.

DR. J. WILSON PATON (Rockferry).—Mr. Malcolm A. Morris, 63, Montagu Square, W., for cases; Mr. Herbert W. Page, 149, Harley Street, W., for financial matters.

THE STOMACH-PUMP.

SIR,—Will any of your readers be good enough to inform me to whom we owe the invention of the stomach-pump, when the invention occurred, and by whom it was developed into its present maturity?—Yours faithfully, QUAESTOR.

COLONEL TOTTENHAM'S QUESTION, AND IRISH LUNATIC ASYLUMS.

SIR,—I would ask you to give me space for some remarks on the claims latterly advanced by the small corps of eight asylum-assistants to monopolise the medical superintendentships to the Irish county asylums. These claims vitally affect Irish Poor-law medical officers, who are one thousand in number, and who have the very strongest claims on these appointments.

Colonel Tottenham, in the House of Commons, asked the chief secretary, Why the claims of the assistants had been overlooked in the case of Carlow, and what special qualifications Dr. O'Meara had for the office? Now, sir, as to the claims of assistants to exclude everybody but themselves, I would simply observe as follows. 1. These eight gentlemen can advance no professional claim, or point to any professional work done, which could in anywise distinguish them from the most obscure dispensary officer from one end of the island to the other. 2. They can advance no claims, founded on pecuniary sacrifices in the public service, for starting, as they do, on a level, in regard to professional antecedents, with the lowliest applicant for a dispensary, they, as a matter of fact, receive better pay. 3. It is held by everybody outside the charmed circle of eight that the training of the general physician constitutes the best preparation for the after-cultivation of special domains of medical science. This docrine receives a remarkable illustration in connection with these very asylums, in the fact that the consulting physicians to those asylums are always selected from general physicians. Thus it happens that the physician who is to be appealed to by these very superintendents in a case of difficulty is himself a Poor-law medical officer, who has never had the alleged experience of an assistant. The doctrine has received, however, a much more notable illustration from the other side of the Atlantic, where the National Association for the Insane has, with the full concurrence of the chief medical superintendents, actually proposed to supplement the deficiencies of these very superintendents by supplying each asylum with a consulting staff taken from the ranks of general practising physicians. 4. The two hundred hospital Poor-law medical officers have opportunities constantly furnished to them, in their respective hospitals, for cultivating this special domain, in addition to the general circuit of practice. 5. Having regard to the help given to diagnosis by patients in possession of their faculties, no physician, without long years of experience, would be at all fit to make a diagnosis, in the majority of cases, with the scant help which demented cases can afford. The fact is, an attempt is being made by a few gentlemen, who are certainly not in the front rank of their calling, to impose on the supposed ignorance of high officials; and this is sought to be supported by questions put by political partisans in the House of Commons. I would earnestly press on Irish Poor-law medical officers to bestir themselves; and, among other things, not to permit, without protest, any association or journal supported by them to trifle with their just claims with respect to those appointments. For once, might is on the side of right; and it will be the fault of my poorly paid and hard-worked Poor-law brethren if they be much longer deprived of the modest reward with which asylum-appointments would furnish them after their labours and sufferings. Let each in his own district labour for the amalgamation of the lunatic and Poor-law services. The public interest also calls for this.—I am, etc., THOMAS LALOR.

Cashel, February 23rd, 1881.

D... J. L. STEPHENSON. Letter and pamphlet duly received.

THE USE OF THYMOL IN RINGWORM.

A LADY by Mr. Malcolm Morris appeared in the *Lancet* of February 19th, 1881, recommending the use of thymol for ringworm in the following form: R Thymol (vel menthol) 3ss; chloroform 3ij; olei olivæ 3vj. M. To be painted or gently rubbed on the part.

IMPERFORATE HYMEN.

SIR,—I was sent for one night in March to see a young girl who was said to be very ill. On arrival at the house, I found a well-grown, well-developed girl of sixteen, rolling about the bed just like a woman in labour. She was in intense pain in the bottom of the bowels, dry tongue. The temperature was 100°. The pain had commenced two days before, and was increasing in severity. This was the third similar attack; the first occurring two months, and the second a month previous to the present one. She had never menstruated; and, on examination, I found a hard tumour, just reaching above the pubes, and about the size of a well-contracted uterus just after delivery. On examining *per vaginam*, there was a complete hymen protruding, and very tense to the touch. I punctured the bag with a trocar. About forty ounces of thick treacly fluid came away, giving immediate relief. I then made a conical incision in the hymen, and plugged with carbolised lint. She recovered without a bad symptom, and has since menstruated regularly and without the slightest pain.—I am, yours, etc.,

St. Thomas, Swansea, February 1881. E. B. EVANS, L.R.C.P., etc.

NIL ALIL. The dictates of humanity must always have the first claim in an emergency, especially in the case of a woman in labour. Our correspondent must, therefore, obey the voice of nature and conscience in each case, and weigh the various considerations for himself. We cannot undertake to decide beforehand.

SPASMODIC WRYNECK.

SIR, I shall be very much obliged to any of your correspondents who will tell me where I can read what is known on the subject of spasmodic wryneck, as all I have been able to find in the text-books is very meagre.—I am, etc., INQUIRER.

THE writer will be much obliged for any information, rules, etc., in reference to provident dispensaries established in connection with existing hospitals. Address, Dr. Meredith, Week Street, Maidstone.

MULTIPLE LIPOMATA.

SIR,—Edwin L, aged 66, a farm-labourer, enjoying very good health, except that, during the last twelve months, he has suffered from slight attacks of rheumatism. He gives no history of any syphilis. About eight years ago, he noticed a couple of small pimples on his forearm and also on the front of the thigh, which itched intolerably, and which he scratched till they broke. Very soon afterwards, he noticed that small lumps began to grow in the neighbourhood of the pimples, which rapidly enlarged, and then the itching ceased. At present, he presents a very peculiar appearance when naked, the body being covered all over with tumours, which in places are linked together in a regular rope. They are for the most part loosely placed in the connective tissue, the skin being perfectly movable over them, and they moving freely over the subjacent parts; an exception, however, exists in the case of three or four tumours on the front of the right forearm, which are attached to the tissues above and below. The parts mostly affected are in order as follows: forearm, fore part of thigh, front of abdomen. There are about thirty on the forearms, and about twenty-five on the thighs. In all, there are upwards of two hundred tumours all over the body above the size of marbles, many being as large as walnuts. There are hundreds of smaller ones scattered all over the body. There is a tumour under the angle of the jaw, about the size of an orange, but apparently of a different kind, being softer and more elastic, the others presenting the ordinary character of fatty tumours. He suffers no pain or any inconvenience from the presence of these multitudinous excrescences.—I am, sir, yours sincerely, J. LLEWELLYN TREHARNE, M.R.C.S., L.S.A.

Longcross House, Roath, Cardiff, March 2nd, 1881.

A NORTH OF ENGLAND MEMBER.—The use of a Queen's reading lamp with green paper shade and blue glass chimney would be advantageous.

PRECOCIOUS MATERNITY.

SIR,—After a somewhat lingering labour of twenty-four hours' duration, A. W., aged fourteen, was safely delivered by me with the long forceps on Saturday night, March 5th. The child, a fine healthy girl, was born alive; and both she and the mother are doing well. The father, I regret to say, is a married man of over fifty. It might be of interest to your readers if other members of our profession would state their experience in cases of precocious maternity.—I am, sir, yours faithfully, H. GEARY DYER, L.R.C.P.E., etc.

Ringwood, March 7th, 1881.

H. T.—We do not think our correspondent has any legal remedy; and should strongly advise him not to entertain the question.

MEDICAL PEERAGES.

THE *Lyon Medical* relates that, under Louis Philippe, Dr. Doulte was offered a peerage on condition of resigning active medical practice. He declined it coupled with that condition; and never received the proffered title. The reason for imposing the condition was coarsely stated by a member of the Upper Chamber as: "Je ne veux pas pour collègue, avoir le Comte de S.. .., un homme à qui je puis tous les jours montrer mon c.... pour vingt francs."

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. W. Tindall Robinson, Brighton; Mr. W. Stainthorpe, Wareham; Mr. W. Mac Cormac, London; Mr. Francis Whitwell, Shrewsbury; Dr. E. Seaton, Nottingham; Dr. Ryan, London; Dr. T. Dudfield, London; A North of England Member; Our Glasgow Correspondent; Member; Dr. B. Howard, New York; Dr. J. C. Reid, Newbiggin-by-Sea; A Member B.M.A.; Dr. James Finlayson, Glasgow; Mr. T. Whiteside Reid, Cambridge; Our Edinburgh Correspondent; Dr. Herbert L. Snow, London; Mr. D. Nicolson, Crowthorne; A Surgeon; Dr. Alder Smith, London; Miss Walker, Eastbourne; Misses Fullagar, Ramsgate; Messrs. J. and A. Churchill, London; Dr. Lombe Atthill, Dublin; Mr. Charles Roberts, London; Mr. John Liddle, London; Mr. J. H. Rius, Oxford; Mr. J. Ll. Treharne, Cardiff; Mr. J. Knight, Whitehaven; Mr. E. D. Farmar, Bournemouth; Dr. C. Steele, Clifton; Dr. A. Farr, London; Nigel; Mr. A. Mouillot, Birmingham; Mr. E. P. Evans, Swansea; Mr. K. Millican, Kineton; Mr. H. G. Dyer, Ringwood; Dr. W. Macewen, Glasgow; Mr. T. Holmes, London; Dr. Welch, Birmingham; Dr. Kelly, Taunton; Mr. J. Field, Tewkesbury; Mr. J. Hodgkins, Oxford; Mr. W. M. Hardy, London; An Indian Medical Officer; Mr. W. D. Parker, Cork; Our Dublin Correspondent; Dr. Lynn, Glasgow; Dr. Habershon, London; Mr. Watson Cheyne, London; Messrs. T. and H. Smith, Edinburgh; Dens Sapientiæ; Mr. R. A. B. Costelloe, London; Dr. Sieveking, London; A.M.D., Candahar; Dr. Bugnion, Geneva; Dr. Wiltshire, London; Dr. Burdon Sanderson, London; Dr. J. S. Meredith, Maidstone; The Secretary of the Royal Hospital for Diseases of the Chest; Mr. E. W. Wallis, London; Dr. D. E. Dunn, Walsall; Dr. Dawson Williams, London; etc.

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THE GULSTONIAN LECTURES
ON
ANÆMIA.

Delivered before the Royal College of Physicians.

By SIDNEY COUPLAND, M.D., F.R.C.P.,
Physician to the Middlesex Hospital.

Lecture I.—Part I.

Impoverishment of Blood with regard to Hæmoglobin the essential fact in Anæmia—This may be Quantitative or Qualitative—Analysis of Blood in Chlorosis—Methods of Estimation of Hæmoglobin—Malassez, Hayem, Gowers, Quinquaud—The Red Corpuscles: Variations in Number, Size, and Form; their Development, Destruction, and Renewal—Share taken by Lymphatic Glands, Spleen, Bone-Marrow, and Liver (?) in the work of Blood-Formation—The Hæmatoblasts of Hayem.

Mr. President and Gentlemen,—In selecting as the subject of these lectures, which I have the honour of delivering before you, a condition so commonly and widely prevalent as Anæmia, I fear that I have undertaken a task which is not easy of fulfilment. For around this subject there clings much obscurity, owing to our lack of knowledge; and it would require far more profound analysis than I can hope to give to illumine its dark places. I do not bring you any original researches, and I cannot discuss the question in all its bearings; but if, by a simple exposition of what I conceive to be the directions in which the solution of its problems lie, I can fulfil an useful purpose, I shall be satisfied. For the subject is one worthy of attention; and in this College, where the memory of Harvey—the student of the circulatory mechanism—is ever kept green, it is surely fitting that we should now and again review our knowledge of those conditions in which the blood plays so prominent a part. It is a truism to say that the integrity of the blood is essential to the performance of healthy function; and, as disease is in great measure only disordered function, it is plain that such disorder may be determined by, as it must determine, changes in the circulating medium itself. There are some diseases in which defects in the blood stand out in sharp relief; but, the more deeply the nature of disease is inquired into, the more clearly is it manifest that the blood—the mobile tissue pervading every part of the organism, and essential for its proper working—must be modified by any departure from the normal. The modification thus induced may be almost infinitesimal: it may be, in a sense, simply necessary to maintain the life of the individual when placed under abnormal conditions; or it may be so profound as seriously to interfere with the vital processes, and be the ultimate, if not the proximate, cause of death. Thus, in anæmia, we pass insensibly over the margin of health to disease—to the very confines of the latter's territory—the limit placed by death.

Naturally the greatest interest—for here lies the deepest obscurity—centres in the etiology of this condition; and my object to-day will be to consider facts concerning the blood and the part it plays in the economy, with the view of illustrating the varied manner in which the anæmic state may be brought about. Without attempting to give a definition of anæmia other than that it is a condition of the blood in which its composition is so defective that it cannot sufficiently fulfil its respiratory and nutritive functions—implying, that is, a lowering of its standard composition in those elements which are destined to promote oxidation, to accelerate tissue-change, and repair tissue-waste—I must, in the first place, say a little concerning the blood itself, and, in doing so, must crave indulgence for venturing to repeat facts so well known.

The blood consists of the fluid part or plasma, and the formed elements or corpuscles; the latter forming rather more than one-third of the whole by weight. The corpuscles contain about fifty per cent. of water, their main solid constituent being the albuminoid crystallisable substance hæmoglobin, associated in the coloured corpuscles with a minute quantity of iron, between 0.4 and 0.5 per cent. The serum, on the other hand, is composed of ninety per cent. of water, eight to nine per cent. of proteids, and two to one per cent. of fats, extractives, and saline matters (Foster). Then there is the curious circumstance in the inorganic constituents—viz., the preponderance of potash-salts and phosphates in the corpuscles as compared with a parallel excess of soda-salts and chlorides in the serum. (See Tables I and II.)

Table I.—*Mean Chemical Composition of Blood.*
(Becquerel and Rodier.)

	In Health. Adult Male.	In Health. Adult Female.	In Chlorosis.
Water	780	791	828.2
Solids	220	209	171.8
Fibrin	2.0	2.2	3.4
Albumen	69.4	70.5	72.1
Corpuscles	140.1	127.2	86.0
Extractives and Salts	6.8	7.2	8.3
Fatty matters	1.5	1.4	1.5

Table II.—*Plasma.* (Schmidt.)

1000 parts contain:

Water	901.51			
Solids	98.49	Fibrin	3.06	
		Album. and extr.	81.92	
		Salts	3.51—viz.	Pot. chlorid. 0.559
				Sod. chlorid. 5.546
				Sod. sulph. 0.281
				Sod. phosp. 0.271
				Sod. carb. 1.532
				Calc. phosph. 0.298
				Mag. phosph. 0.216

Corpuscles. (Schmidt.)

1000 parts contain:

Water	618.63			
Solids	318.37	Hæmatin	15.02	
		Globulin	296.07	
		Salts	7.28—viz.	Pot. chlorid. 3.679
				Pot. phosph. 2.343
				Pot. sulph. 0.132
				Sod. phosph. 0.693
				Sod. carb. 0.134
				Calc. phosph. 0.094
				Mag. phosph. 0.060

Analyses show, therefore, that the corpuscular elements form the greater part of the solids of the blood, and it follows that the hæmoglobin is by far the most abundant of its albuminoid constituents.

True anæmia, of course, implies a diminution in all these blood-constituents—a condition only obtaining, and that in a transitory manner, after profuse and sudden hæmorrhage, the quantity of fluid lost being made up by a rapid osmosis of water from the tissues. The blood in that case becomes hydræmic; as it may do in the later stages of a chronic anæmia where there has been loss or destruction of the albuminoids of the serum. The consideration of such rapid and extreme forms of anæmia as those produced by sudden and severe hæmorrhage does not enter into my programme, except as serving to illustrate the various phases of anæmia, whether primary or secondary. The most marked fact in such anæmia is the impoverishment of the blood in its albuminous constituents, especially in the hæmoglobin—an impoverishment which may be owing to an actual diminution in the quantity of this substance, but which is also very probably due to a qualitative change in it, whereby it is rendered unable to subserve its chief office, that of conveying oxygen to the tissues. At present, there is but little known concerning this latter modification.* Attention has been mainly directed to the alterations in amount of hæmoglobin and of the albuminoids; and it is found that the diminution in these constituents is accompanied to a definite, but a comparatively small, extent, by an increase in the saline matters, and generally also by an increase in the water of the blood. I have placed before you (Tables III and IV) certain

Table III.—*Mean Composition of Blood (1000 parts).*

	In Health. (Lecanu.)	In Chlorosis. (Andral & Gavarret.) Incipient.	Fully developed.
Water	790.1	812.0	853.2
Solids	210.0	190.0	146.8
Fibrin	3.0	3.3	2.9
Corpuscles	127.0	100.8	56.7
Solid resid. of serum	80.0	85.9	86.0

Table IV.—*Anæmia with Amenorrhœa.* (Beale.)
(Treated by citrate of iron.)

	Fifth Day.	Thirty-fifth Day.	Sixty-fifth Day.
Water	865.28	836.40	829.49
Solids	134.72	163.54	170.51
Fibrin	2.52	1.28	2.69
Corpuscles	49.29	78.73	85.70
Solids of serum	82.91	83.53	82.03
	(Salts, 7.54.)		(Salts. 8.203.)

analyses of blood in *chlorosis*, which show that in that form of anæmia, at any rate, the reduction of solids is mainly in the corpuscular part of

* It has been lately argued with much force by Drs. M. P. Jacobi and White (*Archives of Medicine*, 1880), that, in anæmia, the organised albuminoids of the body, including the corpuscular hæmoglobin, are all functionally inactive, and are rendered unable to condense oxygen and to store albumen in sufficient quantity for the needs of the organism. This is the most explicit statement I know of the view that the change in the hæmoglobin may be not simply a quantitative, but a qualitative, one.

the blood, and not in the serum; and there are abundant analyses made in more recent days which show that the reduction is almost entirely that of the hæmoglobin. The contrast between this deficiency and the normal, or even excessive, amount of serum-albumen in this disease, has been adduced as evidence of the essential difference between this form of anæmia and other forms. It seems doubtful, however, whether it is wise to base the distinction upon such a narrow ground as this, seeing that, in the all-important feature of anæmia—that of deficiency of hæmoglobin—chlorosis takes the chief place.

So important is this constituent that, in endeavouring to analyse the etiological side of anæmia, and to explain the effects of the condition, inquiry may be almost concentrated upon the variations of hæmoglobin to the exclusion of the other blood elements. Consequently, many methods have been devised for determining as accurately as possible the absolute and relative quantities of hæmoglobin in the blood. These methods severally consist in (1) the determination of the amount of iron in the corpuscles, it being found to be in constant proportion to the amount of hæmoglobin; (2) in the spectroscopic appearances given by solutions of hæmoglobin of various degrees of concentration; (3) in the absorptive capacity of a given quantity of blood for oxygen; and (4) in the comparative determination of the amount of colouring matter by contrasting a solution of blood of known strength with certain standard colours or coloured substances corresponding to the tint of a solution of normal blood. This last is the simplest and readiest of all the methods, although not quite as accurate as some of the others where larger quantities of blood are dealt with. It is to MM. Hayem and Malassez that we owe the introduction of these methods, and the simple apparatus devised by Dr. Gowers modifying the latter's method is before you. I have placed on the table specimens of blood of different degrees of anæmia, illustrating this method, where the standard of comparison represents the colour of 20 cubic millimètres of normal blood diluted 100 times. In that way, the percentage amount of hæmoglobin may be estimated, but the absolute quantity has been determined by some of the other methods. Of these, I may specially mention that carried out by Quinquaud, who, availing himself of the reducing properties of sodic hydrosulphite, was enabled to calculate the maximum quantity of oxygen capable of being absorbed by a given sample of blood. The mean capacity in health, he found, was 240 cubic centimètres of oxygen to every 1,000 grammes of blood; and as estimations by iron show that hæmoglobin contains 0.43 per cent. of that metal, and that 1,000 grammes of blood contained 0.53 grammes of iron, it follows that the quantity of hæmoglobin capable of absorbing the above amount of oxygen must be 128 grammes. (See Table V).

TABLE V.—*Estimation of Hæmoglobin and its capacity for Oxygen. Mean of four observations.* (Quinquad.)

	Amount of Hæmoglobin in 1000 cc. of Blood.	Amount of Oxygen absorbed by 1000 cc. of Blood.
Adult male	130 grammes	250 cc.
Adult female	114.2 grammes	225 cc.
Old man	105.8 grammes	205 cc.

M. Quinquaud has here assumed that hæmoglobin invariably has this absorptive capacity for oxygen, and has applied this method of determination to estimate the hæmoglobin in various diseases. In the main, his results accord with the older and more elaborate analyses, as well as with those obtained by the colour-methods. For example, he found that, in chlorosis, the hæmoglobin suffers absolute diminution to a greater extent than in any other disease, except pernicious anæmia and cancer, but that the solid matters of the serum were very slightly, if at all, reduced—a result similar to that I have recently quoted. The obvious objection to the method is, that it does not allow for alterations in the quality of the hæmoglobin of a given specimen of blood, which would alter its capacity for absorbing oxygen. Another difficulty arising in regard to most of the methods of absolute determination, lies in the discrepancies liable to creep in in the minute calculations they involve, a criticism which applies with equal force to all methods of blood-numeration and analyses of small quantities of blood. Thirdly, all these methods are imperfect, in that they, of necessity, tell nothing of the total amount of the blood, which may be much impoverished as a whole, but which, owing to alterations in density, may apparently yield a normal or even excessive amount of colouring matter and corpuscles. These points were well illustrated in a recent paper by Drs. Baxter and Willcocks (*the Lancet*, vol. i, pp. 361, 397, and 439, 1880), and enforce the lesson, that the results of these methods of estimation can only be dealt with in a relative sense; and that a very slight deviation may lead to very great error in the total result.

It is impossible, however, to deal with alterations in hæmoglobin without inquiring into the natural history of the red corpuscles themselves, which are so largely composed of this substance. This we may now proceed briefly to consider. We may expect to find variations in the number, size, form, and evolution of those elements to be associated with the anæmic state; for, in general terms, this state depends either on a numerical deficiency in these corpuscles, to a deficiency in their hæmoglobin, or in both these directions.

The number of coloured corpuscles in a cubic millimètre of blood is, on an average, 5,000,000 for the adult male, and 4,500,000 for the female. These figures, originally calculated by Vierordt and Welcker, have been confirmed of late years by the process of numeration by means of the hæmocytometer invented by Hayem, and introduced into this country in a modified form by Dr. Gowers. Their precise accuracy has been questioned, some asserting that they are too high, others that they are too low—discrepancies depending partly, perhaps, on instrumental errors, and partly upon the variations which occur in the healthy subject in relation to food, to the greater or less concentration of the plasma, to the region from which the blood is taken, or the state of contraction of the vessel yielding it. At the same time, these figures represent sufficiently well the average of health, and serve well enough as standards of comparison. Mere numeration, however, is misleading as an indication of the blood-value; the hæmoglobin also must be taken into account; and we can hardly have a better example than in chlorosis, where, with a much diminished quantity of hæmoglobin, the number of corpuscles is often but slightly, if at all, below the normal. It has, therefore, been an object to determine the actual quantity of hæmoglobin falling to each corpuscle. Malassez especially has attempted this, so as to express the corpuscular richness in terms of hæmoglobin, and the hæmoglobin in terms of corpuscular richness (Table VI); and he has quite lately further perfected his method,

TABLE VI.—*Hæmoglobin and Corpuscles.* (Malassez.)

	No. of Corp. per cub. mm.	Qty. of Hgbn. per cub. mm.	Qty. of Hgbn. per Corpuscle.
Chlorosis	3,600,600	0.038	10.53 $\mu\mu$ gr.*
Chlorosis	2,800,000	0.048	17.14 ,,
Ditto 1 month after treatment	3,300,000	0.062	18.78 ,,
Anæmia	4,000,000	0.086	21.56 ,,
Essential anæmia	1,830,000	0.033	16.66 ,,

* The sign $\mu\mu$ gr. = $\frac{1}{1000000}$ of $\frac{1}{1000000}$ of a gramme, and is employed to obviate the inconvenience of dealing with a large number of zeros in decimals.

whereby it can be clearly shown that the corpuscles in pathological conditions may contain a greater proportionate amount of hæmoglobin than in health, and the converse. He has shown also that the size of the corpuscle does not determine the amount of the hæmoglobin either in the animal series or in disease in man (see Tables VII and VIII).

TABLE VII.—*Hæmoglobin and Size of Corpuscles.* (Malassez.)

	Amt. of Hæmoglob. per Corpuscles.	Site of Corpuscles.	Amt. of Hæmoglob. per 1 μ cub. of Corp. Subst.
Man	30 $\mu\mu$ gr.	72	0.416 $\mu\mu$ gr.
Pigeon	52 ,,	125	0.416 ,,
Lizard	70 ,,	201	0.348 ,,
Frog	216 ,,	629	0.343 ,,
Proteus	1066 ,,	9200	0.115 ,,

TABLE VIII.—*Hæmoglobin and Size of Corpuscles.* (Malassez.)

	Richness in Hæmoglobin.		Diameter of Corpuscles.	
	Absolute.	Relative.	Absolute.	Relative.
Cancer	13 $\mu\mu$ gr.	0.43	6.64	0.87
Chlorosis	22.7 ,,	0.75	8.29	1.09
Normal	30 ,,	1.0	7.60	1.0

Variations in colouring matter are seen whenever one calculates the number of corpuscles and estimates the percentage of hæmoglobin; but, although in one specimen 4,000,000 corpuscles with a percentage of 30 of hæmoglobin will be equivalent to 2,000,000 with 60 per cent., as regards the total quantity of colouring matter, it must be borne in mind that the respiratory or nutritive value—in other words, the functional value—of the one may be greater than the other, owing to the difference in the number of the elements, or to difference in their size.

The size of the coloured corpuscles (diameter of $\frac{1}{3500}$ to $\frac{1}{3200}$ of an inch or 7.7 μ) is a tolerably constant quantity in health; but in anæmic conditions it is common to find very many corpuscles much below the averages. The smaller spherical coloured elements, which have received the name of microcytes, are often abundant in anæmic blood. They may represent immature forms of the red corpuscle; and I shall have to mention yet smaller elements, upon the presence of which great stress is laid by M. Hayem, in speaking of the development of the blood. More than one authority has declared that the corpuscles in chlorosis are larger than those in health, and that in cancer they are plainly smaller—changes which, if occurring, might be related to the nature of the intimate substance of the corpuscle, where also may be found explanations for changes in form as well as size.

For the characteristic discoid shape is (except in the case of the microcytes just mentioned) very little altered in the living state, although, after removal from the body, under the influence of reagents, etc., they

undergo many changes of shape. Considerable, and perhaps undue, stress has been laid upon the form-changes in corpuscles in the severe cases of idiopathic anæmia, of which they have been made almost a pathognomonic feature. In so far as they indicate a certain degree of instability, fragility, and proneness to decay of the corpuscles, or some altered relations between the plasmic fluid and the viscous globule, such curious alterations in shape may be suggestive of a profound blood-change. But more than this we are not warranted in saying.

Great interest attaches to these corpuscles in respect to their development in the embryo, their subsequent formation, destruction, and renewal; and it cannot be said that our knowledge is yet complete with respect to these matters. Their bearings upon the subject of anæmia are manifestly so important that I must not leave this part of my subject without alluding to them. The primitive blood-cells arise directly from the mesoblastic elements within the developing blood-vessels. These embryonic coloured corpuscles are nucleated, and in early fœtal life the blood is largely composed of such nucleated corpuscles, which gradually disappear with the further development of the body. As soon as the liver and spleen are differentiated, the formation of these corpuscles takes place within these organs, although it is not confined to them, the connective tissue cells giving rise to red corpuscles formed out of their protoplasm (Schäfer). There seems no reason why this latter process should not go on in the growing organism after birth, together with the new formation of blood-vessels. In adult life, it is generally believed that the coloured corpuscles are developed from the colourless cells of the lymph, the transformation taking place partly in the general circulation, but largely in those organs which are specially devoted to the formation of the corpuscles of the blood—the spleen, lymphatic glands, bone-marrow, and liver. The splenic pulp contains cell-elements of different kinds, lymphoid corpuscles of various sizes, red corpuscles, intermediate forms, and certain peculiar blood-corpuscle-holding cells, which may represent a stage in the final involution of the red discs, or indicate their evolution from lymphoid cells. As to the lymphatic glands, their *rôle* is evident. The hæmatogenous function of the bone-marrow, first described by Neumann twelve years ago, is now generally admitted. It was founded on the resemblance of this tissue (especially in young subjects, where it is more vascular, redder, and less fatty than in later life) and its vascular supply to the splenic pulp, containing, as it does, lymphoid cells, cells with coloured nuclei, forming transitional elements between the lymphoid and red corpuscles. The relative abundance of this tissue in youth accords with a like degree of development of cytogenic tissue elsewhere in the body, and affords a contrast in the reparative power, after blood-loss at that period as compared with later ages. Hence an explanation for alterations in the corpuscular richness of the blood has been sought in changes in the bone-marrow, when the other organs of sanguification have appeared to be unaffected. The liver, which in the embryo undoubtedly is a source of the coloured corpuscles, is by many considered to play a part in blood-formation throughout life; but there does not appear to be yet sufficient proof of this.

One other point of interest concerning the formation of blood-corpuscles must be mentioned. M. Hayem, who has paid much attention to the subject, and whose observations include not only human blood, but the blood in all classes of vertebrata, has described "hæmatoblasts" of a somewhat different kind from those which are recognised in the marrow or spleen. These are small rudimentary blood-discs, furnished by the lymph together with the leucocytes, but so transparent and fragile as to escape observation, unless the blood be promptly examined at a freezing temperature, or "fixed" by reagents. They are faintly coloured, and in size vary from one-sixth to two-thirds that of the fully-formed corpuscles, to which they bear a tolerably constant proportion—viz., one to twenty, being thus considerably in excess of the leucocytes. The existence of small granular masses in the blood has long been noticed; and I have already mentioned the occurrence of smaller forms of red corpuscles, which are regarded by Hayem as intermediary between the very immature hæmatoblast and the completely developed corpuscle; but it is at least singular that these hæmatoblasts, so numerous as they are, should have been so long overlooked by histologists. I may add, that their discoverer not only attributes great importance to them in the development of the blood, and regards their presence in undue amount as evidence of incomplete evolution of the blood (as in chlorosis), but asserts that they play a leading part in the formation of fibrin.

Incomplete as our knowledge is as to the precise manner in which the coloured corpuscles are renewed in the blood, it is even less certain as regards the manner of their destruction, and as to their duration as independent, functionally active elements. For their function is not simply that of carriers of oxygen to the tissues; they also furnish products to secreting glands, and in so doing must be considered to suffer destruction, just as in certain glands—*e.g.*, the mammary—the cells perish in giving rise to their peculiar product. Indeed, from analogy there would seem to be nothing peculiar in the continued destruction and re-formation of blood-corpuscles; for, although it may be true that a secreting cell often has a certain stability, and after yielding up its product is once more enabled to draw fresh material and convert it to its peculiar secretion, yet there must be a limit to cell life and a renewal of cells in place of those rendered effete by repeated acts of secretion. In the case of the blood, there is evidence of the rapidity of renewal of its elements in the increase in corpuscles following ingestion of food, in the diminution during fasting, in the repair of the blood after menstrual loss, or after profuse hæmorrhage, and, indeed, in recovery from anæmia of any kind. M. Hayem, finding the immature corpuscles, or hæmatoblasts, to stand in a constant numerical proportion to the fully formed corpuscles, sees therein evidence of continual change to maintain this ratio, whilst, on the other hand, Quincke, in some recent researches upon artificially induced plethora, has estimated the duration of a red corpuscle to be about two weeks. There are not, however, sufficient data to remove this interesting point from the region of speculation. We know that the material of the corpuscles is constantly being excreted from the body or deposited in the tissues, and we infer that this implies a destruction of the corpuscle. The actual seat of this destruction is not founded on much surer ground. The spleen has been long regarded as the place where such a regressive change takes place; its richness in iron, its peculiar nucleated cells containing colouring matter, suggest this; and yet the blood of the splenic vein is richer in corpuscles than its artery; so that, if the spleen is the seat of their destruction, it must also be the seat of their renewal; possibly building up new corpuscles from the relics of the old, besides sending forth also abundance of leucocytes, to undergo further transformation into the coloured elements. However this may be, there is less uncertainty as regards the liver, which seems to be the chief seat of the destruction of red corpuscles; for not only does the blood passing out of this organ contain comparatively fewer corpuscles than that entering it, but its cells are laden with pigment derived from the blood, which they excrete with but little modification in the bile, of which one pigment, the bilirubin, is identical with the iron-free hæmatoidin. Lastly, the urinary pigment must also be derived from the blood; but I do not know whether its precise seat of separation has been determined. [Under certain conditions, probably concerned as much with derangements in the circulation of the kidney as with any actual change in the blood itself, the hæmoglobin will transude into the urine unaltered. Such are the cases of so-called intermittent hæmatinuria, apparently sometimes associated with malarial influences. The appearance of indican, especially abundant in diseases of the alimentary tract, in the urine, has relations probably to imperfect changes in assimilation; but its occurrence in anæmia has also been declared, and is suggested to point to some relation with the deficiency of blood in colouring matter.] Lastly, in conditions of artificially induced plethora, and in pernicious anæmia, Quinquaud has found a great excess of iron taken up by leucocytes and gland-cells in the liver, kidney, and other organs.

Having dwelt at such length upon the red corpuscles, it will not, I hope, be concluded that I wish to ignore the other blood-constituents, or the part which their diminution plays in the production of anæmia. But it is because the essence of anæmia lies in the impoverishment of the blood in colouring matter, that I have said so little about the other constituents, nor do they need much exposition. The white corpuscles may have other functions than that of giving rise to the coloured corpuscles. They may take part in the renewal of other tissues and cells, but of this we have no concern to-day. In so far as they give rise to the coloured elements, any hindrance to their transformation, or arrest of it, must deprive the blood of its chief constituent. Dr. Cavafy's interesting research, which points to the leucocytes in leukhæmia being incapable of further transformation, is suggestive of the link between this blood condition and that of pure anæmia.

Then as to the albuminates of the serum and the salts, I have before intimated that they suffer change in anæmic conditions; but I must reiterate my conviction that, as compared with the hæmoglobin, they play but a minor part in the symptoms or effects of anæmia. It is impossible to dissociate them from the condition, for their changes are certainly factors of importance in its etiology; and yet there may be, as in chlorosis, all the evidence of anæmia with no diminution, but even an excess, of those constituents of the blood.

[*To be concluded.*]

SUPERANNUATION.—Mr. Thomas Collingwood, late medical officer for the Wardleworth district and the workhouse of the Rochdale Union, has obtained a superannuation allowance of £75 *per annum*.

ABSTRACT OF LECTURES
ON THE
STRUCTURE OF THE SKELETON IN THE SAUROPSIDA.

Delivered at the Royal College of Surgeons of England.

By W. K. PARKER, F.R.S.,
Hunterian Professor of Anatomy in the College.

Lecture V.

The early development of the Turtle is essentially the same as that of the lizard, but during its growth several of the body segments or somatomes of the former are suppressed. The suppression occurs especially in the neck, which is consequently shortened. The cervical vertebræ in the green turtle, which may be taken as a type of the group, are only eight in number, and are remarkable for the singular variety in the disposition of their articular surfaces. The third is opisthocœlous; the fourth biconvex; the fifth and sixth procœlous; but the posterior surface of the latter is nearly flat and very broad, as are both surfaces of the seventh. The eighth is procœlous, and differs from the others in the expansion of its neural spine, and by the arching backwards of its postzygapophyses over the convex prezygapophyses of the first dorsal vertebra. They are all freely movable upon one another, which gives great flexibility to the neck. The dorsal vertebræ are ten in number, and are immovably connected together by bone; the centra are, however, loosely united with the neural arches. The spinous processes, from the second to the ninth vertebræ, are much flattened out laterally, and form a series of broad plates, called the neural plates, which form the eight median elements of the carapace or dorsal shield, which is so well known in this animal. There are no transverse processes, and the ribs are articulated partly to the centra and partly to the neural arches. At a short distance from their attachments the ribs become expanded into broad plates of bone, which extend upwards and become united with the neural plates, the other ends terminating in dermal ossifications, which form a series of marginal plates. The united neural and costal plates of these eight dorsal vertebræ, constitute the principal part of the carapace. The small ribs of the first and tenth dorsal vertebræ are attached to the costal plates in front of and behind them. In front of the first neural plate, and joined to it, is the nuchal plate, which forms the anterior portion of the carapace; its posterior portion is formed by three median pygal plates behind the eighth neural plate, while its sides are formed of eleven marginal plates on each side between the nuchal and last pygal plates. These two latter plates and the marginal plates are membrane-bones, and are developed in the integument quite independently of either the vertebræ or the ribs. The carapace is, therefore, composed partly of the endoskeleton and partly of exoskeleton, each of which may be traced independently. The abdominal surface of the animal is covered by a bony shield called the plastron, which is composed of three pairs of lateral plates, the two clavicles and the interclavicle. These are all membrane-bones developed in the integument. The sternum is wanting, and there are no costal ribs. The sacrum consists of two vertebræ. The tail is flexible, and consists of procœlous vertebræ. In the skull all the bones are immovably united together, except the mandible and hyoid arch. The basi-sphenoid is large and distinct; the alisphenoid region remains unossified. In the periotic capsule the pro-otic and opisthotic remain distinct, but the epiotic unites with the supra-occipital. The naso-ethmoidal cartilage largely persists; there is a single vomer, which expands below and joins the palatine bone. The quadrate bone is firmly fixed to the periotic, and ends below in a strong condyle for the mandible. The pterygoids unite with one another in the middle line, and are firmly fixed to the base of the skull. The various pieces which compose the lower jaw are ankylosed together, and united in front by a bony union. There are no teeth, but the edges of the jaws are sheathed with horn. The anterior and posterior limbs appear anomalous in their position, being situated within the axial skeleton, and not outside. This is only in the adult; in the fœtus they are situated in front of and external to the ribs. It is as development goes on that they become covered over by the costal plates. The scapula and pre-coracoid form one bone, while the coracoid remains distinct.

Lecture VI.

Crocodiles are the highest living reptiles, and in form resemble the lizards, having long tails and well-developed limbs. The fore-limbs are smaller than the posterior, and possess five complete digits; while the hind-limb has only four. Nails exist on the three radial and tibial digits in almost all crocodiles. In the fore-limb, therefore, there are three digits with nails, and two without; while in the hind-extremity there is one digit which has no nail. The feet are more or less webbed. The nostrils are situated at the end of the long snout anteriorly and superiorly, and can be closed externally. The tympanic membrane is exposed under a pouch or earlid, which also can be shut down over it. All the animals are largely aquatic; and some, for example, the gavials, entirely so. The dermal armour consists of scutes covered by epidermic scales of corresponding form. When complete, it consists of transverse rows of quadrate bony plates, disposed so as to form a distinct dorsal and ventral shield, separated by soft integument in the trunk, but united into continuous rings on the tail. The scutes of each row overlap each other. The vertebræ are completely ossified, and marked out into cervical, dorsal, lumbar, sacral, and caudal. The number of presacral vertebræ is twenty-four, and of sacral, two. The caudal vertebræ vary in number, but are not fewer than twenty-five. Usually, there are nine cervical, eleven or twelve dorsal, and three or four lumbar vertebræ. All the vertebræ except the atlas and axis, the two sacrals, and the first caudal, are procœlous, and are united together by fibro-cartilages. Their neuro-central sutures persist for a long time, sometimes throughout life. The atlas is composed of four pieces—an upper median piece, which is developed in membrane apart from the rest, being added to the three pieces found in lizards and turtles. The odontoid bone does not coalesce with the axis, but is closely united to it. A pair of cervical ribs are attached to the atlas, and another pair articulates with the odontoid bone and the axis by distinct capitular and tubercular processes. The other cervical vertebræ also possess ribs which have short bodies prolonged in front of as well as behind the junction of the capitulum with the tuberculum. They lie nearly parallel with the vertebral column, and overlap one another. The ribs of the eighth and ninth cervical vertebræ are longer, and take more the character of the dorsal ribs, the ninth having a terminal cartilage. The bodies of the sacral vertebræ have their opposed surfaces flat; while those which articulate with the lumbar above and the caudal below are concave. Each has a strong rib expanded at its distal end. The first caudal vertebra is biconvex, but all the others are procœlous. Those forming the anterior half of the tail have ribs fixed between the neural arches and the bodies of the vertebræ; they also have, with the exception of the first, chevron bones, which are attached to the posterior edges of their centra. Between the seventh and ninth, the dorsal ribs are united to the sternum by means of sternal ribs. The sternum consists of a rhomboidal plate of cartilage bone. A long and slender interclavicle lies in a groove on the middle of its ventral surface. Its posterior angle is prolonged downwards, and finally divides into two cornua. In the ventral wall of the abdomen, superficially to the recti muscles, lie seven transverse series of membrane-bones, which are termed abdominal ribs, though they are not true ribs. All the bones of the skull are firmly united by sutures, which persist throughout life: an interorbital septum is present; the parotic processes are large; the palatine plates of the maxillary and pterygoid bones unite in the middle line, and separate the nasal passages from the mouth. The quadrate bone is very large, and firmly fixed to the walls of the skull. In the adult, air-passages extend from each tympanum to that of the opposite side through the posterior region of the skull. The pectoral arch has no clavicle. The pelvis is complete. The carpus consists of two elongated bones, articulated to the radius and ulna respectively; behind is the pisiform bone, and distally there is the lenticular bone. The three radial digits are much stronger than the two ulnar. The same is the case with the manus; the tibial and clawed digits are stronger than the others.

[*Erratum.*—In Lecture III, for "the skull does not possess alisphenoids", read "the skull possesses alisphenoids".]

Hitchin.—Mr. Jenner takes his authorities to task for their neglect to provide a fever hospital, which would have enabled them to stamp out the epidemic of scarlatina now existing in the district. He says that he has no hesitation in saying that the want of such an institution has been the means of sending fifteen or twenty children to an early grave; and, besides this, the outbreak has had the effect of virtually closing nearly all the public elementary schools in the town for the past two months. He also urges the necessity of the periodical flushing of the sewers and water-closets—a matter that should be the more easy as the authority have recently given to the town the benefit of a constant water-supply. The general death-rate is given as 17 per 1,000. The mortality amongst infants is by far too high for a place like Hitchin.

REMARKS
ON
THE MANAGEMENT OF HOSPITALS.*

By TIMOTHY HOLMES, M.A., F.R.C.S.,
Senior Surgeon to St. George's Hospital.

THE necessity for a public inquiry into the principles and details of our system of hospital management has long been evident to me, and I have advocated and tried to promote it in every way in my power. Recent events in connection with Guy's Hospital have so plainly demonstrated the necessity of some reform, and its impossibility without the intervention of Parliament, that the idea has become familiar to the public, and will soon, we may hope, be put to the test of actual experience. I shall endeavour, in what I am about to say, to touch as lightly as possible on any controverted matters; and, while I cannot avoid alluding to events which have stirred in all of us the deepest feelings of pain and indignation, I will yet speak of these matters as far possible in an impersonal light. They are, as I firmly believe, the natural and inevitable result of an evil system which it is our business to reform, and not the fault of any individual. Deeply as I regret, and much as I dissent from, many things which form parts of our hospital management, I quite believe that the system works on the whole for good, and that increased knowledge only is necessary to induce its managers to reform its most obvious defects.

The necessity for a reform of our hospital system proceeds, in the first place, from its voluntary character, and the consequent absence of all uniformity of plan or definiteness of object. We in England are proud of the spontaneous growth of our institutions, and even of the anomalies which such spontaneity has brought with it. And the feeling is no doubt in some measure a legitimate one. But, in the case of hospitals, at any rate, their free establishment by private effort, under the supervision of persons entirely ignorant, not only of medical science, but also of all matters connected with the public health, has had this great drawback, that the foundation of hospitals has had no reference whatever to the needs of the vicinity, and that the admission of various classes of disease into them has had no reference at all to the prevalence of diseases in the community, nor to the danger of those diseases to the public health. Thus we see in this city large hospitals built in the west end almost within hail of each other, while the east and north of London, containing more than half its population, is almost unprovided with hospital accommodation. Again, we see that the public hospitals are organised much more with reference to teaching purposes than to the care of the public health. For while, if we inspect the bills of mortality, we find that zymotic diseases, affections of the respiratory organs, the maladies of infancy, and similar medical affections, are the causes of the fluctuations in the public health, such affections are treated in very small proportion at our voluntary hospitals—the bulk of whose patients are indeed surgical. I do not complain at all of this. In my view, the public hospitals ought to be used chiefly for the purpose of teaching. But, even for that purpose, they are not thoroughly well organised. And I am sure the public do not as yet regard hospitals in this light, but, on the contrary, consider that a hospital is the refuge for the poor of the district when attacked by sickness. In old times, this may have been to some extent true. But in London, at any rate, and especially since the great reform of the workhouse infirmaries which was made some years since, this function has been undertaken by the medical department of the Poor-law, as indeed it must be; for the greater part of London, and that by far the poorer part, is too far from any of the public hospitals to find any such refuge in them, even if they could supply sufficient accommodation.

Then there is the great question of the out-patient departments, on which I have said enough, I fear, to weary my colleagues, but not enough to effect, or even initiate, any adequate reform. No one denies the evils of the present out-patient system—if system it deserves to be called, where system there is none—no one has ever adduced or even imagined any reason for it, or any use which it serves, except as a nursery for the in-patient departments; yet it keeps itself going mainly by its enormous size, and the difficulty, I might say the impossibility, of making any impression upon it by anything less than the force of public action.

Then there is the question, and a most difficult one it is, how far it is desirable to introduce the paying element into our voluntary hospitals. So long as hospitals were regarded as refuges for the sick poor of the district, no such question could be raised. Though, in fact, the patients were not all paupers, yet they were all regarded as such, and any attempt to make them pay for their medical treatment, or even their maintenance, would have been scouted as inhuman. But now that great workhouse hospitals, exceeding the voluntary in number and accommodation, give refuge in time of sickness to all the population who are really destitute, the case is very different; and there seems every reason why the question should be reconsidered. Every one knows that a beginning has been made in this direction at St. Thomas's; but, although I am myself entirely in favour of the general principle of introducing the paying element into our hospital system, I think it ought to be done on some general and uniform plan, with due regard to the great function of the hospital as a school of medicine, and with a fair and full consideration of all the bearings of the question, including, of course, the legitimate claims and interests of the members of the profession, both in and out of hospital office.

Another matter which deserves the consideration of the public is the foundation of so large a number of special hospitals, and the various characters of these institutions. Some of them are no doubt useful, some may even be necessary. But it is not uncharitable to say that many are neither the one nor the other; that they are founded not from any desire to benefit the public, or to promote the teaching of medicine, but from the most ordinary motives of private speculation; that they divert from the public hospitals funds which can badly be spared, and cases which are needed for the instruction of students; and that, under any intelligent system of what is called charity organisation, they would, if they were retained at all, be made departments of the general hospitals.

Another and hardly less important view of the question is the financial. It is no scandal to say that the finance of our present hospitals is in a condition of complete muddle. I do not, of course, intend to insinuate the least suspicion even of deliberate waste, still less of malversation; but no one who looks at the question free from prejudice can help admitting that the public have not that guarantee which they ought to have, and might have, that every penny subscribed or otherwise given for the relief of the sick poor is really devoted to this object, with the least deduction possible for necessary administrative expenses. If there were any such guarantee to the public, we could hardly have seen the late crisis in the affairs of St. Thomas's Hospital, whereby it became necessary to close a number of wards which had only very recently been built; and this, be it observed, not in a hospital dependent on voluntary subscriptions, nor in one which had sustained any unexpected deprivation of property, but in an institution supported by ample endowment, which had received an enormous sum by the sale of its previous site, and had for some years been working with a diminished establishment. I do not say that some satisfactory explanation of this may not be forthcoming; nor am I impugning either the honesty or the wisdom of the managers of this hospital. All I contend for is, that such financial difficulties, which seem to affect the richest as well as the poorest hospitals, show the need of some public inquiry and some uniformity of plan. In this branch of the inquiry, the financial relations between the hospitals and the medical schools connected with them would necessarily come under revision; and this, again, is a matter involving so many personal and special considerations, that it could only be dealt with properly by a tribunal as impartial and as far above suspicion as our proposed Commission would be.

These reasons are in themselves quite sufficient to show the necessity of some public inquiry which might result in the reforms so much needed in the general plan and objects of our hospital system.

But the chief reason, as it appears to me, and as I hope this influential meeting will also decide, why we should press for such an inquiry, is on account of the extreme variety, and in some cases the extreme incongruity, of the system of management of our hospitals. And here I touch on the resolution which has been put into my hands to move to-night, and which has been called forth by an event surely the strangest and, to our minds, the saddest which our experience of hospital matters has disclosed to us. We have seen two of the most eminent medical men in London—after a conscientious, laborious, and most distinguished service to their hospital of about forty years—men who were an honour and an ornament even to the great school with which they were connected—suddenly called upon to resign their offices without any ceremony, and without any cause alleged, except that they had criticised too freely or too sharply the course of management pursued by the lay governors of the institution. And what makes this strange proceeding even more significant is, that Dr. Habershon and Mr. Forster professed to be speaking in the names of all their colleagues,

* Introduction to a discussion at a meeting of the Metropolitan Counties Branch.

and that the governors had therefore the best reason for believing that their expulsion from the hospital would be followed by the resignation of the whole staff, involving the closure, and probably the ultimate dissolution, of the school. That this lamentable catastrophe was averted, by the almost excessive moderation and love of peace which the medical officers displayed, is nothing to my present argument. As far as the governors were concerned, it was accomplished. They showed that no considerations—I do not say for the feelings or dignity of the medical officers, though surely a faithful service of so many years by such men deserved some such consideration—but not even any consideration for the welfare of the patients or the maintenance of one of the first schools of medicine in the world, would be allowed to stand in the way of their assertion of what they must therefore have believed to be a principle of cardinal importance—viz., that the ultimate decision of all matters of hospital management, even one so purely technical as the relations between the medical staff and the nurses, should be reserved exclusively for the lay governors.

It is this principle which, I think, is at the root of all the trouble which has recently fallen on Guy's Hospital, and which may at any moment be occasioned by similar causes in any hospital where the medical element is entirely subordinated to the lay; *i.e.*, where the medical staff are not admitted to an independent share, as of right, in the government of the institution. In order that there may be no mistake about the matter, I will state very clearly what I believe to be necessary in this respect for the government of a well-ordered hospital; and, in doing so, I shall altogether avoid any reflection on the actions of any individual, and the more willingly because I really believe any such complaints to be undeserved. The lay governors of Guy's Hospital found themselves charged with the management of that great institution on certain principles, and were bound, as far as I can see, to defend their own powers and privileges. They had no means of knowing that the powers committed to them were harmful, and the principle one which must lead to mischief. In fact, their only defence (and a perfectly adequate one) from the charge of recklessness in the discharge of their trust towards the hospital, and still more towards the school, is, that they knew little or nothing of the management of hospitals; and that, as to the school, they did not regard themselves as having any duties towards it, or consider it as in any way interested in the question. But, whilst we must admit this defence as complete against any charge of personal culpability, in what a light does it set the principle which could commit men experienced and honourable in other walks of life, without any fault of their own, to a course utterly ruinous to the interests which they were bound to defend! And you will observe, further, that this argument in no way assumes that the medical staff were in the right in their unanimous condemnation of the system to which the governors were prepared to adhere in all extremities. The strangest part of this strange quarrel is that the case of the medical staff was never fully heard—at least in public; nor did the public ever understand that the question was other than a purely personal one. If we could make the assumption that, on a question so purely medical as this was, the whole medical staff were unanimously wrong, and the lay governors, though quite ignorant of all its principles and details, were in the right, this would only show more clearly the necessity for an open discussion of the subject between the two parties, to the result of which the beaten party must have submitted without reservation and without disgrace.

And let it not be imagined that I wish to claim any preponderance in the government of the hospital for the medical element. I only claim for every hospital that which already exists in many, and that which is essentially necessary to the proper management of all public institutions; viz., that the management should be in the hands of a public body, not of private individuals; and that those who understand most of the business, and are most interested in its success, should not be excluded from it. Whether the management of the hospital be vested ultimately in a board or in a large committee, the medical element in that body can never be in a majority; and I may appeal to the experience of my own hospital to show that the medical staff, even when unanimous, may be outvoted on a question so purely medical as the admission of fever-patients, as actually occurred a few years since. No regulation providing for the consultation of the staff by the governing body, or for the presence of some of their members on some committee or other, will answer the purpose. It is absolutely essential to the good government, and even, as I think, to the security of existence of these large hospitals, that the irresponsible powers now vested in a self-elected committee of lay governors, and delegated in practice to the treasurer, should cease; and that the management should be in the hands of a mixed body, settling their proceedings by open discussion and voting. In fact, the essence of the desired reform is that the medical staff shall be qualified to be members of the governing body, due provision being made that they shall not constitute a majority of that body.

Now I see no hope that such a result as this can be reached by anything less powerful than the action of Parliament, or that this action can be elicited by anything short of the entire conviction of the truth of the principle for which I contend, which would, I believe, follow on the complete sifting of the question before a Royal Commission. I say a Royal in preference to a Parliamentary Commission; for it is clear that a due proportion of the commissioners should be hospital physicians and surgeons, and it would probably be thought desirable to include some other members of the profession; and the present House of Commons, as far as I know, contains only two gentlemen who have filled hospital offices. This, however, is a minor detail. Some such Commission might, I think, be obtained from the present Government; and, if it were, I foresee from it results even more important than the actual reforms which yet we might hope would flow directly from it. The truth is, that the general public is very little informed on hospital questions; and I am not sure that even the medical profession itself has quite appreciated the vital change in the relation of hospitals to the general population which has been caused in London by the reform in the Poor-law Medical Service. That reform has resulted in the establishment of workhouse hospitals, the existence of which renders the hospitals unconnected with medical schools well-nigh superfluous, at least in a public point of view. And a change of this magnitude brings out into stronger relief the great function of our voluntary hospitals, still so little appreciated or even thought of by the public; viz., that of schools of medicine. It is often hastily assumed, especially by laymen, that this function of hospitals is of less public importance than the cure of the sick. It is, in fact, of very much greater value to the community. The actual care of the sick touches only a very small minority of the people, and no doubt most even of them would recover under whatever system. Those whose fate is really decided by any change in medical or in surgical practice, amount to a small number absolutely; but such changes result ultimately in benefits to the whole community which are literally incalculable. They are not limited to the actual patients, to the city or country or time in which they originate, nor even to the matters with which they are directly concerned; but their effect spreads to all countries, to all future times, and even to branches of practice which at first seem remote from the particular reform in question. And, without undervaluing the many discoveries and suggestions that have been made by private practitioners, it still remains true that the progress of medicine and surgery depends on the efficiency and activity of our great public schools. I would refer, for a striking example, to the history of antiseptic surgery. What proportion can be made, as a question of public utility, between the supposed benefits of this system to the individuals treated under it, on the one side, and the impulse which its discussion has given to surgical science and practice, on the other? And how could this discussion have been carried on, except in the great schools of surgery, and with the publicity and the ample resources of our great hospitals?

But, if the chief function of the voluntary hospitals is becoming, and will become more and more in future, that of schools of medicine, what possible doubt can there be in the mind of any reasonable man, that the teachers of medicine should not be excluded from the governing body? In fact, what motive can there be for so excluding them? The medical staff are not, as in our great schools for boys, the paid servants of the governors. The governors do not, as in those schools, understand the subjects of education as well as the teachers do. The lay governors do not, even in the unendowed hospitals, furnish the the whole of the funds; nay, I venture to say that, in most of such hospitals, as much money is provided, directly and indirectly, by the medical school and those connected with it, as by the general public; and that the success of the hospital is bound up inextricably with that of the school. In the endowed hospitals, the lay governors furnish none of the funds beyond their qualification as governors; which would, of course, be paid equally by the medical officers on their qualification; and they have no title, apart from their Acts of Parliament, to the power which they exercise. They have no knowledge of hospital matters. They do not, I believe, as a rule, give any personal attention to the affairs of the institution. The one of their body whom they elect as treasurer, and to whom, as a rule, they convey over the whole of their own irresponsible power, need not have, and as a rule has not, any more fitness for the office of manager of a hospital than have the rest of his fellows. It is altogether a flagrant anomaly; a survival from times when such abuses were common, when self-elected corporations were the rule rather than the exception, and the good old system of sinecures and monopolies and privileges flourished unquestioned and unchecked. But all this is now changed. We do not, in other departments of life, put great properties and still more precious institutions under the

management of self-appointed persons entirely ignorant of the business under their care. Why, then, in these great hospitals, is so irrational a constitution allowed to continue? If it be replied that the great hospitals have nevertheless done excellent work—that St. Bartholomew's and Guy's are the leading schools of medicine in England—I freely allow it; but this amounts to no more than to say that they have not absolutely wasted and brought to nothing the great resources and position which they have derived from their foundations; and this could not have been done without actual malversation. It would be strange indeed if institutions possessed of the most ample property, and which were long the only places in London where students could see practice, and which, therefore, commanded the services of the most eminent physicians and surgeons of their day, had failed to establish schools which could compete with those in connection with hospitals that possess none of these advantages.

I must now bring these remarks to a close; for I do not wish to obstruct debate, but to stimulate it. They are intended not by any means as a full statement of the question, but only as a sketch of some of the main lines on which I think inquiry ought to proceed. And you will see that such an inquiry ought at any rate to embrace the following points.

1. The general objects of hospitals, including the rules for the admission of patients; the nature of the diseases to be admitted or excluded; the relations of the voluntary hospitals to the workhouse infirmaries, the dispensaries, and the other public medical charities in the neighbourhood.

2. The effect of hospitals on the habits and status of the people; how far the indiscriminate eleemosynary relief provided tends to the pauperisation of the community; and what rules ought to be adopted to counteract this; in other words, how far the principle of self-help should be introduced into our hospital system.

3. The finance of hospitals; how to provide for the due and wise expenditure of the large fund which is now spent somewhat haphazard in the gratuitous medical treatment of the poor.

4. The relations of hospitals to medical schools.

5. The management of hospitals; what share should be given to the medical and lay elements in the arrangements both of the hospital and school.

In speaking to this Metropolitan Counties Branch, I have addressed myself only to the question of the London hospitals. Did time allow, I should find no difficulty in showing that our country hospitals are equally, if not more, in need of inquiry and organisation.

REMOVABLE AXIS-TRACTION RODS FOR MIDWIFERY FORCEPS.

By JAS. G. LYON, M.A., M.D., F.R.C.S.Ed.,
Surgeon to the Dispensary of the Western Infirmary, Glasgow, etc.

I THINK it may be conceded that the principle on which M. Tarnier's midwifery forceps is constructed are correct; and that the objects at which he aimed are most desirable, if they can be obtained, and without counterbalancing difficulties.

These principles may be briefly summarised.

1. *To allow traction to be made exactly in the axis of the pelvic curve*, whether the fœtal head be above the brim of the pelvis, or in its cavity.

2. *To allow mobility to the fœtal head* to follow the direction impressed on it by the irregularities of the maternal pelvis.

3. *To indicate to the operator the exact direction in which he should at any moment make traction.* (See BRITISH MEDICAL JOURNAL, May 26th, 1877.)

British forceps with the pelvic curve, such as are ordinarily used (*e.g.*, Simpson's, Matthews Duncan's, Barnes', or Roberton's), fail to fulfil the first of these requirements, when applied to a fœtal head at the brim of the pelvis; and traction can only be made approximately in the proper direction. According to M. Tarnier, they fail almost equally in making traction in the proper curve, whether the head is in the cavity or at the outlet.

These forceps also certainly fail, to a large extent, to fulfil Tarnier's second requirement—that of allowing sufficient mobility to the fœtal head to follow its natural direction; and also his third—of indicating the direction in which traction ought to be made; for, though it is customary to speak of "humouring" the forceps, this can only be done by an experienced operator, and even by him only to a limited extent, more especially if he requires to exert much force in traction.

But, although M. Tarnier's principles are admitted, his highly ingenious forceps will probably never—in this country, at least—come into ordinary use, from its complexity, its enormous size, and its high price; and I have long thought that all its advantages might be gained by certain removable additions to the ordinary pelvic curved forceps.

The "new tractors", suggested by Mr. H. Morgan (BRITISH MEDICAL JOURNAL, June 29th, 1878), and those of Dr. Duke (BRITISH MEDICAL JOURNAL, February 8th, 1879), seemed to me steps in the right direction, but only small steps—inasmuch as their "tractors" are straight rods, and without any provision for allowing motion or rotation.

In June 1880, Professor A. R. Simpson of Edinburgh brought out his adaptation of "axis-traction rods" to a slightly modified pattern of Sir J. Y. Simpson's forceps, and showed them at the Obstetrical Society of Edinburgh. They were figured in the BRITISH MEDICAL JOURNAL for June 26th, 1880. The objections to them seem to be, that the traction-rods are permanently attached to the forceps—so that the latter cannot be used without them (even for extraction of a head on the perinæum); and that the right traction-rod is much in the way during the introduction of the upper blade, and, in order to allow locking of the forceps, requires to be "pushed forwards past its shank". Mechanically, they are weak at the point of attachment of the rods to the blades of the forceps.

The axis-traction rods, which I now wish to bring before the profession, are the result of many experiments and trials; and are, I think, free from any of these objections. They provide for all M. Tarnier's

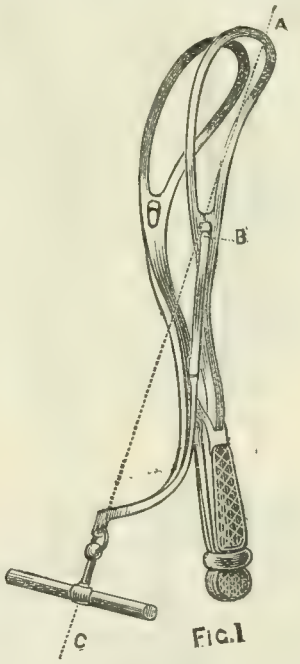


FIG. 1

The woodcuts represent the removable axis-traction rods fitted to Roberton's forceps.—Fig. 1. General View.

requirements as completely as his own instrument; and have, in addition, the following advantages—they may be fitted to any pattern of pelvic curved midwifery forceps; they are perfectly simple and easy to use; and do not, in the slightest degree, complicate the introduction or locking of the blades of the forceps. If not required, they can be detached completely—leaving the forceps unaltered, except by the addition of a small bridge of metal soldered across the bottom of each fenestra (Figs. 2 and 3 *a*), so as to form a rounded aperture, into which the thin flattened hook (Fig. 4) of each traction-rod slips, when at right angles to the blade on its outer face, but only in this position. This bridge prevents the hook from slipping out when the rod is brought parallel with the shanks.

The rod of the left or lower blade has attached to its free extremity the traction-handle, with its swivel-joint (Fig. 2, *b*), and the lower half of the right rod (Fig. 2, *c*, *f*), which is divided about its middle.

The upper half of the right rod hooks into the aperture of its blade; and is so contrived, that its lower end springs on with a light clamp to the shank of the forceps, at a distance above the lock just sufficient to keep it clear of it. (Fig. 3, *d*, *e*.)

The junction between the upper and lower portions of this right rod

(Fig. 3, *e*, and Fig. 2, *f*) is effected by means of an extremely simple and easily worked wedge-joint or lock, which is, at the same time, perfectly strong and efficient. This joint is shown in Fig. 5, *e'*, *f'*.

To use these axis-traction rods, the left traction-rod is hooked into the left or lower blade of the forceps; and, it being held, along with the handle, the blade is introduced as usual. Then the small upper portion of the right rod is hooked into the right blade, and its lower end sprung on to the shank. (Practically, it is as well to keep it always *in situ*, as it is more easily carried thus, and cannot be mislaid.) This blade can then be introduced in the ordinary way, and the forceps locked—as the rod does not, in the slightest degree, interfere with either the introduction or the locking. A stout India-rubber ring (similar to an umbrella-ring, but stouter) is now to be slipped over the handles of the forceps, or they may be tied together; and, the lower end of the right rod being freed from its attachment to its shank, its lower portion, at present hanging loose, attached to the traction-handle (Fig. 2, *c*), is brought up and guided by the finger into its catch (Fig. 3, *e*).

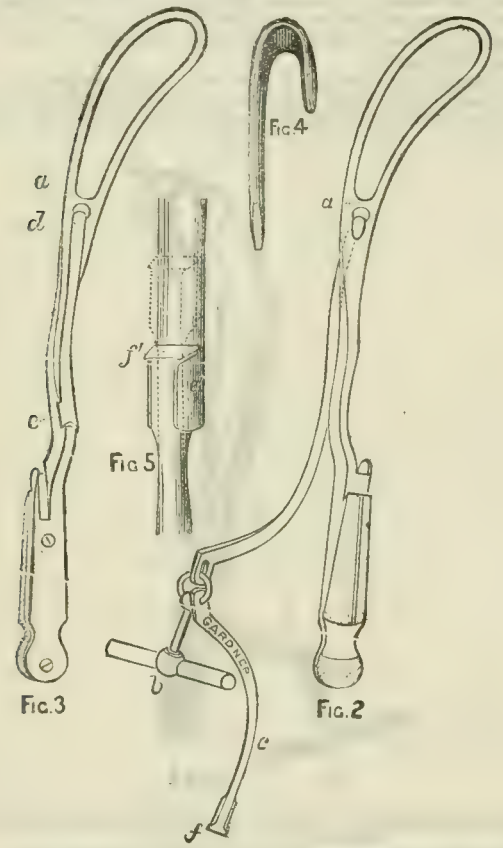


Fig. 2. Left or lower blade, with its Traction Rod and lower half of Right Rod (*c*), both attached to Swivel Traction Handle (*c*).—Fig. 3. Right or upper Blade, carrying upper half of its Rod (*d e*) clamped on to shank at (*e*).—Fig. 4. The hook by which the Rods are attached to Forceps.—Fig. 5. The Wedge bolt (*f' e'*), by which the wedge of right rod (*f*) is connected with the clamp of the upper portion (*e*).

The rods being now complete, traction is to be made entirely by the traction-handle in the line A, B, C, Fig. 1, the handles of the forceps being left perfectly free, and merely held together sufficiently firmly to prevent the blades from slipping, by the India-rubber ring, or by tape.

As the fœtal head descends in the pelvis, the handles of the forceps move forwards, and indicate that the direction of traction is to be altered, so as to keep the traction-rods parallel and just in contact with the shanks, as in the use of Tarnier's instrument.

It will be observed that the junction of the two portions of the right rod can never require to be made higher up than about an inch from the vulva, and this only when the head is high and the maternal pelvis deep.

The mechanical details have been well and carefully worked out for me by Mr. J. Gardner, surgeons' instrument maker, 45, South Bridge, Edinburgh, who is prepared to fit these traction-rods to any pattern of pelvic curved forceps, at a moderate cost.

Since writing the above, a paper has appeared in the *Edinburgh Medical Journal* for February 1881, by Dr. Archibald Reith, of Aberdeen, condemning all axis-traction forceps, and asserting that traction in the true axis of the brim of the pelvis is mechanically impossible. I think that, if Dr. Reith will take the trouble to study the laws of mechanics, and also to test practically (as he evidently has not done) traction-rods, such as I have described, he will find that it is not only possible, but easy, to make traction in the curve of the pelvic axis.

ON A NEW METHOD OF PERFORMING PLASTIC OPERATIONS.

By J. R. WOLFE, M.D., F.R.C.S.E.,
Surgeon to the Glasgow Ophthalmic Institution; Lecturer on Ophthalmic Medicine and Surgery in Anderson College.

In September 1875, I published in this Journal a case of ectropion cured by a plastic operation performed after a new method. Eight months later, I exhibited to the Glasgow Medico-Chirurgical Society the same case, along with another which was published (*Medical Times and Gazette*, April 1876) after we had an opportunity of satisfying ourselves of its successful issue.

Dr. Wadsworth, of Boston, U. S., sent me a report of a case in which he had performed my operation successfully, and which he afterwards brought before the Ophthalmological Congress in New York in September 1876; and successful cases have since been reported by Professor Hirschberg, of Berlin (*Beitrage für Practische Augenheilkunde*, page 97), Dr. Martin, of Cognac (*Annales d'Oculistiques*, September 1880, page 97), Dr. Vitali, of Bari, and Dr. Aub, of Cincinnati (two cases) (Knapp and Hirschberg, *Archives*, 1879, pp. 400-408). These surgeons consider that "the results of this operation are more satisfactory than those of any other blepharoplastic procedure; and that it is destined to supersede all others in cases where skin is wanted to replace cicatricial tissue".

This operation formed the subject of discussion at the Amsterdam Congress, and at the one recently held in Milan; and as I am not aware that the method has been tried in this country, I think it desirable to bring the subject again before the notice of the profession.*

I may say, at the outset, that my plastic operation is not skin-grafting, as introduced by M. Reverdin; nor cuticle-scraping, in which the little bits are said to be dissolved, and then to grow up again; but it consists in the transference of skin-flaps, cut to shape from any part of the patient's body, or from any person who feels disposed to make a present of a portion of his skin, to supply deficiences elsewhere. The practical importance of this operation is evident when we consider that it saves cutting a flap from the face to mend the face, in which case, if the operation be unsuccessful, we only introduce a new scar.

Case.—Mrs. M., aged 30, fell into the fire in a fainting fit, three years ago, and got her face and left eyelid severely burned; the temporal bone was laid bare; the lower eyelid was dragged downwards and outwards; the conjunctiva exposed to its *cul-de-sac*; and the lower canaliculus pulled about half an inch from its normal position. This accident not only caused a deformity of the face, but also produced dryness of the conjunctiva, especially at its outer angle, where the membrane had assumed a xerotic appearance. The eyeball was exposed, and was thus rendered liable to attacks of inflammation. Owing to the awkward twist of the eyelid, and to the total obliteration of its border, I considered the case very unpromising, and therefore avoided the operation for a considerable time; but ultimately, when it was represented to me that family considerations made the patient exceedingly anxious to try the effect of an operation, I consented to give her a chance.

The operation was performed in the following manner. I began paring away the edge of the upper eyelid at the inner margin, keeping clear of the eyelashes, and opened the obliterated canaliculus, into which I introduced a thin probe, pushing it horizontally into the lacrymal duct. I then made a curved incision a little beyond the puckered edge of the cicatrix, and dissected up the eyelid, liberating it from the malar bone, to which it was adherent. Having introduced my finger into the conjunctival sac to make sure that the whole tarsal cartilage and orbicularis muscle had been liberated, I pushed the probe into the nasal duct to serve as a guide in retaining the lids in apposition, and at the same time to keep the canaliculus out of harm's way. The edge of the lower eyelid being also pared, four ligatures were introduced through the upper and lower eyelids, and tied together. The hardened subcutaneous cicatricial tissue was cleared away, and the whole extent of

* Two other successful cases have more recently been recorded by Drs. Mathe and Pilcher. *Annals of Medicine and Surgery*, January 1880.

the gap exposed. Having taken a shape with a piece of lint of the flap required, I carefully dissected a piece of skin from the forearm, cutting it larger than the necessary shape all round, so as to allow for shrinking; I then turned up its deep surface, and with a pair of flat sharp scissors pared off every vestige of subcutaneous tissue, so as to leave a



Fig. 1.



Fig. 2.

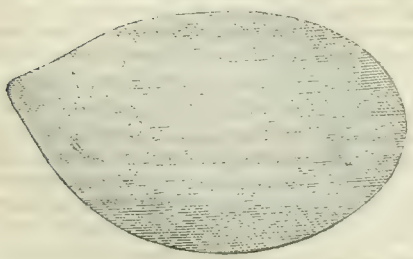


Fig. 3.

white appearance. It was then applied to the gap in the eyelid, to which it was united by fine silk ligatures. After pressing and moulding it into its new place, lint soaked in hot water was applied to its surface for about ten minutes. It was finally dressed with lint wrung out of hot water; over this, four folds of dry lint were placed, and the whole covered with fine gutta-percha tissue, and secured by an immovable bandage. On the third day the dressing was removed, and it was found that adhesion had taken place; the flap looked clean and dry, the temperature being slightly above that of the neighbouring part.

What was most remarkable in this case was, that the transferred flap was not looking white, but quite normal; bluish lines were visible here and there. The same dressing was repeated daily. The ligatures were removed from the flap, and also from the eyelids, on the eighth day, when the flap was found to have assimilated in appearance to the neighbouring skin. Only a small inner segment of the cuticle had become slightly elevated; the rest of the cuticle showed no tendency to peel off. On the fifteenth day, I separated the eyelids; the lower was rather stiff at first, as if unaccustomed to its new covering and position, but gradually it assumed its normal appearance. Fig. 1 shows the appearance of the eyelid before the operation; Fig. 2 its condition six weeks after the operation; Fig. 3 the exact size of flap.

The success of the operation materially depends upon every step of the operation being carried out to its minutest details. Seeing that such an operation takes more than two hours for its proper performance, we shall never be able to exercise sufficient patience, unless we start with the conviction that scrupulous attention in every point is essential. The eyelids should be carefully united, but not too tightly, else they will tear asunder; the wound must be properly cleared of cicatricial tissue; the size of the flap should be sufficiently large to allow a certain degree of shrinking; the forearm from which it is taken should rest in semi-supination, so that the skin may not be stretched; and the flap should be cut round the shape of lint larger than the required measure, and every vestige of its binding tissue carefully removed.

In my first operation, the skin of the face was dissected all round, and served as a frame under which the new flap was inserted, and by which it was held in its place without ligatures. The dressing consisted of dry lint; but I think Dr. Martin's recommendation of hot dressing is a decided improvement; and I have gradually been reconciled to the use of very fine ligatures. The patient is kept warm in bed, the head well covered, both eyelids closed, and generous diet is allowed. I do not employ antiseptic dressing now, because I consider it desirable to keep the cuticle from peeling off, and I am rather afraid that carbolised applications might have that tendency.

Considering the short period which has elapsed since I introduced the operation to the profession, and the favourable reports received from different countries, I think it is deserving of further cultivation.

PHIMOSIS AS A CAUSE OF HERNIA IN INFANTS.*

By SAMUEL OSBORN, F.R.C.S.

Having, in my capacity as surgeon to the Surgical Appliance Society, to examine many cases of hernia and apply some hundreds of trusses in the course of the year, the frequency of phimosis in combination with rupture in infants has struck me repeatedly. More especially of late, as I have had no less than ten cases within the last month. The phimosis in all these cases, I am certain, was the undoubted cause of the rupture, and may be thus explained.

After the descent of the testicle into the scrotum has been accomplished, the vaginal process of peritoneum through which it descended begins to close and become converted into a fibro-cellular cord. But the testicles having but lately descended (the left coming down between the seventh and eighth months of fœtal life, and the right between the eighth and ninth months) the uniting medium is but yet young; and, not being sufficiently organised, is easily broken down by any strain thrown upon it. Phimosis occasions that strain from the impediment which it offers to the outflow of urine; for the mechanism of ordinary micturition is effected by the contraction of the muscular coats of the bladder and urethra; but in cases of obstruction to the outflow of the urine, extraordinary force is called into action, and this is effected by the contraction of the abdominal walls pressing upon the bladder, whilst the diaphragm is also, at the same time, in a state of tension. By this means pressure is exerted over the whole of the abdominal wall; and, the apertures by which testicles have descended to the scrotum being always the weakest points of the abdominal surface, they naturally give way under the strain thrown upon them. In other words, the child, straining to pass his urine, forces the abdominal contents downwards upon the weak points at the inguinal canals, and rupture on one or both sides results.

I would go even still further than this, and say that the canal which

* Read before the West Kent Medico-Chirurgical Society.

has been the last to close, or in other words, that side on which the testicle was the last to descend, is the side on which we usually have the rupture occurring; and knowing that the right testicle is generally the last to descend, we naturally find that hernia in infants is also most frequently observed on this side. That the rupture occurs on the side on which the testicle was the last to descend, is only what one would suppose, for the uniting medium, which is effecting a closure of the canal on this side, is not in so advanced a condition of organisation as on the other side, where the testicle has taken its place prior to the other.

It is thus easily seen how a single truss frequently produces a double rupture. The cause of the obstruction to the outflow of urine is still present in the phimosis; and, one inguinal canal being guarded by the single truss, the abdomen gives way at its next weakest point, viz., the other inguinal canal, and a double rupture is the consequence. Such a result might have been prevented by early circumcision. The hernia in these cases is generally scrotal, or, if not, it soon becomes so by the wedge-like projection of the intestines; and whether it be congenital or infantile in variety, depends upon the amount of the funicular process of peritoneum which has become converted into fibro-cellular tissue, or which has been broken down by the aforesaid propulsion of intestine. The operation of circumcision as performed upon young children, and which was done in all of the cases of which I previously spoke, is both easy of performance and effective in its results; easy of performance, because no sutures are ever required, children bear pain well, and the parts are usually well in a week or ten days; it is effective in its results, because the hernia then stands every chance of being effectually cured by the application of a truss, the exciting cause having been removed; and at all events a double rupture is prevented by its early adoption. Occasional difficulty arises in the operation when the rupture is very large, for the penis, buried by the projection of the rupture, is represented in such cases by a button-hole aperture, and the operation is then more easily effected if the rupture be commanded by a double inguinal truss during its performance. In conclusion, I would suggest that, whenever an elongated or contracted prepuce is present in infants, the sooner circumcision is performed the better; thereby the more serious complaint of rupture would be prevented.

THE SALICYLATES.

By PROSSER JAMES, M.D.,
Lecturer on Materia Medica in the London Hospital Medical School; Physician to the Hospital for Diseases of the Throat and Chest, etc.

PROFESSOR CHARTERIS seems (JOURNAL, February 12th) to have abandoned salicylate of soda after a single trial; but the cases reported in the JOURNAL of January 29th show that it is being freely used in hospital practice. Perhaps the early introduction of this salt, and its ready solubility, as well as its sweetish taste, have combined to make it the favourite. I should, however, be glad to introduce to the profession some others which are deserving of their attention. In acute rheumatism, salicin seems likely to maintain its pre-eminence, because in this disease it is necessary to bring the patient rapidly under the influence of the remedy. This can only be accomplished by full doses at frequent intervals; and salicin seems to be more readily tolerated than salicylic acid or the salicylates; indeed, very disagreeable, not to say dangerous, symptoms arise with these salts, as testified by Dr. Charteris and many others. Where, however, it is not necessary to saturate the system quickly with the drug, no such disagreeable effects will occur, and the salicylates of soda and other bases deserve a more extensive trial. All produce similar effects, so far as the acid is concerned, each giving rise to variations due to its respective base.

Salicylate of Ammonia.—When it is merely desired to obtain a freely soluble and diffusible combination of salicylic acid ammonia may be substituted for soda, and the salt thus obtained administered in corresponding quantites; the only differences in the effects being due to the change of base.

Salicylate of Potash may be first named as a substitute for the soda salt; it is similar in taste, very soluble, and may be administered in the same manner, either in single massive doses, or in smaller quantities at frequent intervals. About three years ago, I took two ounces of it, in doses of half a teaspoonful to a teaspoonful once a day. I have also taken smaller doses more frequently, the effects being precisely similar to those produced by the soda salt. Salicylate of potash is to be preferred whenever it is desirable to introduce potash into the system rather than soda. This is often the case in the gouty diathesis, in some forms of dyspepsia, in the various manifestations of lithiasis, and in some other conditions.

Salicylate of Lithia is the next preparation I would introduce. It is not so easily made; or, at any rate, my early experiments in small quantities were not very satisfactory. I therefore asked Messrs. Blake, Sandford, and Blake, to make some. At first, the slightest variations in the process gave rise to an unexpected variety in the product; but now, a salicylate of lithia of uniform appearance and quality may be obtained. I recommend it in preference to either the soda or the potash salt when it is desirable to administer a salicylate to gouty patients, or to persons suffering from the presence of uric acid. In fact, where lithia is indicated, it may be given in this form, provided it is desirable to give the salicylic acid, which latter may, in other cases, be given at the same time that lithia in some other form is being taken; as, *e.g.*, during a course of lithia water.

Salicylate of Lime.—In consequence of the affinity of salicylic acid for lime the teeth may be acted on, and a mistrust has been expressed lest even the bones might suffer from a long continuance of the remedy. To meet such an objection the hypothesis may be ventured that this salt would best shield the osseous system.

Salicylate of Quinia. This salt has also been used with considerable success, particularly in those cases in which the effects of the bases already mentioned are not required, and in which a tonic, rather than a depressant, effect is desired; in fact, in those cases in which the two components of the drug are both indicated. In such cases, I have administered quinine and salicylic acid alternately; but the salicylate of quinia offers a more simple and elegant mode of prescribing, and has been well spoken of by Dr. Hewan in neuralgia and rheumatic pains.

Salicylate of Cinchonidia.—I now introduce this salt as a less costly substitute for that of quinia, and very useful as a tonic and antiperiodic in neuralgia, rheumatism, sciatica, etc. In such cases, five grains may be given every two hours, or ten grains may be given at once, and afterwards three or four doses of five grains at intervals of two or three hours. Cinchonidia ($C_{20}\ H_{24}\ N_2\ O$) is an isomer of cinchonia, but possesses left instead of right polarisation, and is rather more soluble. The medical committee which investigated the subject for the Government of India estimated that cinchonidia is only slightly less efficacious than quinia in fever; many observers have considered it of equal value in neuralgia. It might, therefore, be expected, that a combination of this alkaloid with salicylic acid would prove valuable in various nervous and rheumatic affections. The salicylate contains about a third of its weight of the acid, and is, of course, incompatible with iron. It is rather insoluble, and therefore the bitter taste is not quickly perceived; it may be given as a powder in wafer-paper or in a pill; or it may be suspended in a liquid, though this is not an agreeable method of taking it. I give the solid drug in the form of Wyeth's compressed tablets, which can be swallowed quickly like pills. They are sufficiently insoluble not to be tasted in this way, but they readily disintegrate in the stomach; for I have known a couple of tablets produce, in a short time, singing in the ears, which could not be distinguished from the effect of quinine by a patient who had often taken that drug. A patient who suffered acutely with neuralgia of the fifth nerve, which had been arrested twice by gelseminum, took for the third attack two tablets, repeating the dose in an hour; this sufficed. I have given it in pleurodynia and in the pains of chronic rheumatism. I have not yet tried it in acute rheumatism; but so many cases in which salicylate of soda is being employed would apparently do better if the effect of quinia in the system were substituted for that of soda, that we may hope the salicylate of cinchonidia may obtain a fair trial. Still, it is in more chronic cases of nervous and rheumatic pain, and perhaps in some of the consequences of malaria, that the chief use of this salt will probably be found. As a stimulant to appetite, and general tonic, it may also be given in moderate doses for a longer period, say two and a half to five grains twice or three times a day.

LYTHAM.—There is but little to note in Dr. Pountney's report for 1880 on this sea-side resort, except that there was a considerable diminution in the mortality from diseases of the respiratory organs, as compared with 1879, and very little prevalence of infectious disease. This happy state of affairs, however, must not be expected always to last; and it would be a wise course, on the part of the authority, to erect a hospital, to which the earliest cases of any infectious disease imported into the place could be isolated, before the infection had time to spread. The amount of sickness was below the average in every quarter, except the third, when there was prevalence of respiratory diseases and diarrhœa. The births numbered 123, or 24.6 per 1,000; the deaths 83, or 16.6 per 1,000, as compared with 17.8 in 1879. Twelve of the deaths were those of visitors.

CLINICAL MEMORANDA.

ETHER v. CHLOROFORM.

I HAVE been curious to observe the reasons set forth by some of the correspondents of the JOURNAL in favour of chloroform *v.* ether. Until lately, living in a remote district, I preferred to use a remedy I knew to one which I did not, in cases of, among others, parturition. I notice most writers give this as an occasion suitable for chloroform. I think, in the large majority of cases, this is a great fallacy. When I gave chloroform, I always did so with great reluctance, putting it off and dissuading the patient, dreading uterine inertia and *post partum* hæmorrhage, which I found to frequently follow. Now, I give ether; and I give it whenever the patient desires it, and often persuade her to have it, finding that after it the uterus always contracts well, as theoretically it should do, and rarely requiring to use more than an ounce of ether. I give it simply on a sponge wrapped in a towel, and am unable to account for parturient women requiring so small a quantity; but such I have found the case. I hope the readers of the JOURNAL will try its merits. W. PEEL NESBITT, M.B., M.R.C.P.E.,

Honorary Medical Officer of the Adelaide Children's Hospital.

THE USE OF ANÆSTHETICS IN OPERATIONS FOR EMPYEMA.

IN reference to the case of death under ethydene reported by Dr. Mouillot in the JOURNAL of March 12th, patients with empyema, if of adult age, generally bear the operation well without anæsthetics. There is seldom more than one incision; and the pain is not more severe than that of opening a simple abscess, while the relief given by the escape of the fluid to a certain extent consoles the patient for the slight succeeding pain. I have given ether for, I think, five operations for empyema; and in no case was there any obstruction to respiration, or excessive irritation, caused by the anæsthetic. The ether was in one case given on a frame-inhaler, and in the other cases Clover's well-known instrument was used.

ERNEST H. JACOB, M.D., Leeds.

MULTIPLE LIPOMATA.

IN some recent numbers of the BRITISH MEDICAL JOURNAL, there have been reported two or three cases of multiplicity of fatty tumours. A few weeks ago, a man, suffering from some syphilitic ulceration about the inner side of the right thigh, came under my care; and he drew my attention to numerous small tumours on his arms and legs, which he had first noticed fourteen years ago, and which, he said, were very slowly increasing in size. He told me that they were no inconvenience to him, and did not pain him in the slightest degree; on questioning him, he could give no reason for their appearance. I saw this man again only a few days ago, and, as I had made a note of these small swellings in my prescription-book, I examined him more carefully, and found them present on the forearms and thighs. I counted quite thirty small tumours altogether on the forearms, occupying both the flexor and extensor surfaces; the smallest of these was about the size of a small marble, whilst the larger ones were bigger than a walnut, the latter being situated on the flexor surfaces. They were freely movable between the fingers, and felt soft and lobulated, were quite free from pain, and the skin over them was not in any way adherent. I discovered over a dozen on the thighs, precisely of the same nature, the largest being placed on the inner surface of the limb. This patient is thirty-six years of age, and is at present suffering from tertiary syphilis. He is of good muscular development, and by trade is a shoemaker. He noticed the lumps first on his forearms when about twenty-two years of age.

I recollect, about four years ago, a friend of mine, whose age was about forty-five, showing me his arms, and asking my advice on various small lumps which were growing there. I forget their exact positions now, and did not examine them carefully, though I remember them to have been rather soft and freely movable. I think he told me that he had noticed them ever since he was a boy at school, and put their appearance down to the severe straining of the arms he had received in his youth when wrestling, as this was a sport to which he was much addicted. He added that they never gave him any pain, and never caused the least annoyance. I have no doubt now that this was also another case of multiple lipomata.

R. J. BRYDEN, M.R.C.S.Eng., L.S.A.Lond.,

Physician's Assistant, Bristol General Hospital.

OBSTETRIC MEMORANDA.

A CASE OF PUERPERAL CONVULSIONS.

I VENTURE to send a report of a case of midwifery, which I believe to be interesting from its rarity.

A girl, aged 16½, short, stout, and short-necked, was suddenly attacked one evening with convulsions. I was sent for the next morning (Sunday) to see her, and her relations told me that she was *enceinte*, and near or at her full time; and that she had had one fit before, during teething, when she was one year and a half old. I found her lying on a bed in an insensible condition, breathing quickly and noisily, her tongue between her teeth and much bitten, a foam on her lips, the buccinators flapping, and no effort capable of rousing her.

Soon after my arrival, another epileptic seizure came on; she was very violent, and I found that uterine contractions were synchronous with the convulsions. I administered some chloroform by inhalation, carefully watching the effect, while I sent for Mr. Wilton, one of the counsulting surgeons to our infirmary. I continued the chloroform in small quantities, and, under its influence, the convulsions became less frequent, and finally ceased, as long as she was under its influence. No fœtal heart was audible. On examination *per vaginam*, we found the pelvic outlet very small, barely admitting three fingers, and the os uteri firmly closed.

With much difficulty, I introduced a small Barnes's India-rubber bag. After four hours' patient dilatation of the os uteri, during which time three different sizes of air-bags were successively introduced, I was able to put on the forceps, the presentation being vertex, and, after some trouble, succeeded in withdrawing the child with but slight injury to the perinæum. The child, fortunately a small one, was dead, and its epidermis was in a peeling condition. She was delivered about 6 P.M. on the Sunday, having been more or less under the influence of chloroform about six hours. She remained in an unconscious condition until the following Thursday morning, when she seemed to begin to understand what her relations said to her; and, on the Friday, she had intervals of consciousness, during which she complained of intense thirst, and of acute pain at the lower part of the abdomen, especially over the uterine region. Before her return to consciousness, I had directed that the abdomen should be constantly covered with hot flannels and turpentine, and the vaginal opening bathed with hot water three or four times a-day. She had no epileptic seizure after delivery; and, during the period of unconsciousness, the treatment pursued with Mr. Wilton's sanction was extreme quiet, partial darkening of room, and for medicine, syrup of chloral hydrate and bromides of potassium and ammonium; and, during the peritonitis stage, calomel and opium. Her urine presented traces of albumen. The young woman is now perfectly recovered, with the exception of weakness.

A. M. SYDNEY-TURNER, Gloucester.

SURGICAL MEMORANDA.

IMMEDIATE CURE OF HERNIA.

SINCE my paper on the above subject appeared in the JOURNAL, I have received many communications respecting it, and, among others, one from a gentleman suggesting as an improvement the use of a hollow spiral to carry a thread, which should be allowed to remain *in situ*.

When I had the privilege of giving a demonstration of my operation at the Cork Northern Hospital, during the meeting of the British Medical Association in that city, I showed a screw-needle made on this very principle, but not hollow. It is a very difficult matter to pass a thread through a hollow needle with several curves; I therefore employed a screw such as I ordinarily use for the operation, but having an eye near the point large enough to carry silk or catgut. The plan I then advised was to pass the screw in the ordinary way, and then thread it; and, on withdrawing the screw, to allow the ligature to remain *in situ*, each end of it being secured to a piece of wood or other smooth material, such as glass or porcelain, in order to keep it on the stretch while the parts are thus held in apposition. I have used it in a case of hernia in a boy this week; but my fear is, that there may not be sufficient irritation set up to cause the invaginated tissue to become agglutinated. But we shall see. Hitherto, I have been so well satisfied with the results after using the screw itself, that I have been unwilling to adopt the alternative plan, which is, after all, similar in effect to Mr. John Wood's operation by ligature.

W. DUNNETT SPANTON, Hanley, Staffordshire.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

KING'S COLLEGE HOSPITAL.

CASE OF HIGH TEMPERATURE AFTER INJURY OF THE HEAD.

(Under the care of Dr. BURNEY YEO.)

FOR the use of the notes of this case we are indebted to Mr. J. F. W. SILK, House-Physician.

T. R., aged 30, male, had no history of hereditary disease. The patient was said to have had typhus fever three years ago. He was in Homerton Fever Hospital for three months, and his brother was treated in King's College Hospital for the same disease two years ago. He had been in the habit of drinking beer freely. There was a history of a sore on the penis, followed by a non-suppurating bubo, and frequent sore-throats. Three weeks before admission, the patient received "a crack on the head" with a poker; the resulting wound was dressed at St. Bartholomew's Hospital, and in a few days he quite recovered. On January 29th, three days before admission, he received several blows of the fist on the head and face. On January 31st, he began to suffer from vertigo, pain referred to the temporal and frontal regions, anorexia, and vomiting. On that and on the following evening, he had several rigors.

He was first seen, as an out-patient, on February 1st. He was a well-made, well-nourished man, but looked ill, and had a somewhat dull expression of countenance. The scalp showed numerous scars of old wounds, and of a more recent one just at the vertex, which was not completely healed. There was no evidence of affection of any of the cranial nerves. There was some slight tremulousness about the movements of the hands; but no loss of power or perverted sensibility. The tongue was coated with a thick, creamy, yellowish fur, marked by teeth; his breath was very offensive. The bowels had not been open for two or three days prior to admission. There was no abdominal retraction or distension; no spots; he had some tenderness over the abdomen about the umbilicus. There was some tenderness over the liver, which could be felt extending for about two inches below the level of the ribs. The sounds of the heart and lung were normal. The bowels were open freely after the frequent use of purgatives. The motions were partly light-coloured and relaxed, and partly dark. His temperature in the out-patient room was between 103° and 104°; and the same day, at 10 P.M., it rose to 105°; it remained about that point for six hours, and then gradually sank, reaching 101.6° at 10 A.M. next day. He had slept heavily all night. In the evening, the temperature rose to 102.8°. On examination, the scalp was found very tender to the touch in several places, and was covered by numerous eczematous crusts matted together with the hair. The scalp over the occiput was boggy, and at the back of the neck there was some fulness. There was no œdema about the seat of the most recent scar on the vertex, and the bogginess about the occiput could not be referred to any one of the cuts. This condition appeared to be due to phtheiriasis. The head was thoroughly cleaned.

On the evening of February 3rd, the temperature rose to 104.4°, and remained, with two slight remissions, above 103° for twenty-six hours.

On the morning of February 5th, he was still in a heavy sleepy state; tongue very furred and tremulous; no rigors. During the next twelve hours, the temperature gradually fell, and finally reached the normal point early on the morning of February 6th; later in the day, it was noted that he was less drowsy, and felt better. The tongue was less furred. The bowels were open daily.

On February 8th, two incisions were made over the region of the occiput; a little serum and blood, but no pus, escaped.

From that date he made an uninterrupted recovery; the temperature never again rose; and the tongue gradually cleaned; the puffiness and phtheiriasis subsided. He was discharged on February 22nd.

REMARKS.—Dr. Burney Yeo pointed out that this case was an interesting one, on account of the difficulty that naturally arose in estimating the precise import of the high and fluctuating temperature observed. When he was first seen, the following were the chief points which seemed to call for attention in considering the diagnosis of the case: the recent occurrence of heavy blows on the head; the dissipated habits of the patient; the high temperature; the fact of his living in a place in which typhus had existed formerly; the dull, heavy expression of countenance; then afterwards, on admission, the discovery of the eczematous crusts on the head; the previous constipation; and the tenderness and enlargement of the liver.

Was it possible that this patient, coming from a former abode of typhus, was again the victim of this disease, and the blows on the head only an accidental coincidence? Against this supposition, there was the well known fact, that one attack of typhus usually confers immunity from subsequent attacks; then the rapid fall of temperature the day after his admission, and its equally rapid rise the following day, were quite unlike the course of the temperature in typhus; but, on the other hand, it was very like what has been observed in intracranial abscess, and this was a possibility strongly in our minds. Or was there some diffuse suppuration beneath the scalp outside the cranium? There was certainly some bogginess over the occiput and vertex in the right side; and had there been purulent absorption and consequent septicæmia? All these suppositions were negatived by the progress of the case; for, by February 6th, the temperature had fallen to normal, and did not rise again, recovery from this date having been uninterrupted. What, then, was the cause of the high temperature in this case? Dr. Yeo believed the case to be analogous to one of traumatic erysipelas running a short course and terminating in resolution. It must be borne in mind that, before the blows on the head were received, the skin of the scalp was already in a state of chronic inflammation, as shown by the existence of eczematous crusts; the blows excited a temporary acute inflammation of the deeper layers of the integument, and the constitutional fever attendant upon this was heightened by congestion of the liver, induced, no doubt, by intemperance. As to the treatment: the constipation and the existence of enlargement and tenderness of the liver, and the foul condition of the breath, indicated free purgation by salines, which was attended by the best effect; the hair was removed, the eczematous crusts loosened by suitable local applications, and two small incisions were made, antiseptically, over that part of the scalp which appeared boggy. Although this case made so good a recovery, it is important to remember that the symptoms which it presented on admission often prove of the gravest import.

ST. MARY'S HOSPITAL.

DOUBLE COMPOUND FRACTURE OF SKULL: IMMEDIATE ELEVATION OF DEPRESSED BONE AT SITE OF ONE FRACTURE: CONVULSIONS ON TENTH DAY: TREPHINING AT SITE OF OTHER FRACTURE: RECOVERY.

(Under the care of Mr. PEPPER.)

[From notes by Mr. R. W. WILSON, Clerk and Dresser.]

ON February 28th, 1880, J. E., aged 17, was kicked in the forehead by a horse, which knocked him down, the back of his head coming forcibly into contact with the ground. On admission, he was quite sensible, but seemed dazed. There was a cut over the left forehead, extending from the upper lid (which was nearly divided) to about two inches on the forehead. The outer table of the frontal sinus was depressed. There was also a triangular punctured wound over the left parietal eminence, in which was fixed a stone about the size of a horse-bean; this wound reached the bone, in which was a small indentation, but no depression could be made out. The patient was put under chloroform, and the head shaved. Mr. Pepper then elevated the depressed frontal bone (outer plate), and brought the edges of skin together with several wire sutures; a drainage-tube was placed in the frontal sinus. The operation was performed under strict antiseptic precautions. The case made good progress for nine days; the wound in front healed rapidly, with but little suppuration, and no puffiness appeared at the posterior fracture. On the tenth day, the temperature, which had averaged hitherto 99° F., began to rise, and the patient was seized with general convulsions, during which the tongue was bitten.

After consultation with Mr. Lane, it was decided to trephine at the punctured wound over the parietal bone. This was accordingly done, when the inner table of the skull was found extensively splintered, the sharp edge of one of the fragments pressing upon the dura mater, which, however, was not wounded. The edges of the incisions in the scalp were fixed with wire sutures, and a small drainage-tube was inserted. This operation was also performed antiseptically, as the dressings and discharge had remained aseptic from the first. The temperature continued to rise until the next day, when it had reached 101.6° F. After this, it gradually subsided to the normal, and all again went well.

On March 16th (seventeenth day from the injury, and seventh from the trephining), from some unexplained cause the temperature rose to 105.2°, and three severe convulsions occurred, followed by great tur-

bulence, and this by marked drowsiness. In two days, these symptoms had all passed away, and complete recovery ensued.

The patient was discharged well on April 22nd, and continued so when last seen, six weeks afterwards.

REMARKS.—The points worthy of attention were: 1. The long immunity from dangerous symptoms; 2. The extensive fracture of the inner table of the skull, with the merest indentation of the outer; 3. The second set of convulsions a week after relief had been afforded by trephining; 4. The treatment. It is generally accepted that trephining should be immediately resorted to in all cases of punctured fracture of the skull, and this case proved no exception to the rule; but, as the external signs of injury were exceedingly slight, and as no symptoms of depression or irritation existed, it was, after careful consideration, thought advisable to wait, and the course the case pursued for many days appeared to justify the decision. Why convulsions should not have arisen until the tenth day—the cause from the first having been permanent—and why they should have been repeated a week later without apparent cause, must remain unanswered until meningeal and cerebral pathology is better understood than at present.

Perhaps no little credit should be accorded to the antiseptic plan of treatment adopted. One point may be insisted on: the advantage obtained by completely shaving the head, as then the hair cannot act as a natural drainage beneath the dressings, and so defeat the purpose held in view, viz., the prevention of contamination of the discharges by septic influences from without.

LEICESTER INFIRMARY.

SIMULTANEOUS ARREST OF HEART'S ACTION AND RESPIRATION DURING THE ADMINISTRATION OF ETHIDENE-DICHLORIDE: RECOVERY.

(Under the care of Mr. F. H. HODGES, Ophthalmic Surgeon).

[From notes by the House-Surgeon, Mr. HORACE N. EVERARD.]

ALBERT H., aged 9, was placed on the operating-table, at 12 noon, on February 18th, for the operation of peritomy. Through a mistake on the part of the nurse, the boy had his usual lunch at 10.30 A.M. Ethidene-dichloride was given by Mr. Everard, and he was brought under its influence quietly and quickly. He then vomited freely. On recovery, more ethidene was given; but it was observed that his pulse became weak and fluttering, rapidly recovering, however, on suspension of the anæsthetic. On resuming the ethidene, anæsthesia was induced in about twenty seconds, and the operation commenced. It was very nearly completed, when the pulse suddenly became almost imperceptible, then ceased entirely, together with the respiration; the face became cyanotic and congested, and the pupils widely dilated. The head was promptly but deliberately lowered; the chin drawn away from the sternum, so as to prevent obstruction of the glottis from falling back of the tongue; and complete inversion of the body, practised by seizing both feet and gradually raising them. He was kept in this position, without showing any sign of life, for fully two minutes; then a long deep gasp ensued, followed in a few moments by renewed and deeper lividity of the face. The tongue was now drawn out with forceps, with a view of making sure that it was not obstructing the glottis. This procedure, however, was followed by no response; but, on maintaining the inverted position for another minute, a second deep gasp ensued. The feet were now let down, the body rolled slowly over on to the left side, and firm interrupted pressure exerted over the cardiac region and lower ribs till respiration and circulation were completely re-established.

REMARKS BY MR. HODGES.—Deaths under chloroform have become painfully frequent of late; and I have a conviction that many of them could be averted if treated on the principle of the above case. From the reports of fatal cases, it appears, however, that, on the occurrence of cardiac failure, artificial respiration by Silvester's method, galvanism, brandy enemata, slapping the chest, and other violent measures, are usually resorted to; by which, I believe, the little life remaining in the patient is knocked or galvanised out. I do not mean to assert that all cases of cardiac failure so treated die; but maintain that when the syncope is profound, these violent measures are worse than useless. Many years ago, I had the pleasure of attending a lecture and demonstration, by Dr. Richardson, on the treatment of chloroform-syncope; and the lessons of promptness, calmness, and gentleness of manipulation which he then inculcated have never been forgotten by me. It requires no little courage sometimes to carry this out, when every one around is frightened, and is ready with suggestions. Thus, in the case just recorded, brandy was immediately called for, and Silvester's method proposed; but, being confident that suspension practised as above described would succeed if the patient were recoverable, I discarded all suggestions. During an exceptionally large experience in the administration of all the anæsthetics in use, I have had many cases like the above which have happily recovered. In any case of recovery, however, I never remember to have seen before a relapse of the symptoms with increased lividity and congestion of the face; and, on the supervention of this, I regarded the case as hopeless. But, since persistence in the treatment restored life, I hope others may be induced to confidently practise this method. It is a question whether this accident would have happened had chloroform, and not dichloride of ethidene, been employed. My experience of the latter agent (about one hundred cases) is, that it more quickly and markedly depresses the heart than chloroform, but less persistently; for, on removing the inhaler, and allowing an inspiration of pure air, the depression at once passes off. The full state of Albert H.'s stomach was no doubt the cause of the trouble; and the case will be a warning to me, and I hope to others also, not to persist with an anæsthetic after the occurrence of a copious vomit.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MARCH 8TH, 1881.

ANDREW WHYTE BARCLAY, M.D., F.R.C.P., President, in the Chair.

THE PRESIDENT, on taking the chair, thanked the members for the honour conferred on him, and expressed his intention of endeavouring to fulfil the duties of his office to the satisfaction of the Society.

ON A PROBABLE CAUSE OF LEAD-COLIC.

BY C. HILTON FAGGE, M.D., F.R.C.P.

After referring to the fact that, in certain observations on the nature of the lead-line in the gums, published in the fifty-ninth volume of the *Medico-Chirurgical Transactions*, he had been anticipated by a French physician, M. Cras, the author remarked that both he and M. Cras had, on theoretical grounds, suggested that it was almost certain that sulphide of lead must be formed in the intestinal mucous membrane of persons exposed to the action of the metal, by the reaction of the sulphuretted hydrogen of the intestinal gases upon a soluble combination of lead circulating in the capillaries. The author had since had few opportunities of examining the bowel in patients who had had symptoms of lead-poisoning. In two instances, the results were negative. In the other two instances, a marked and extensive blackening of the interior of the bowel was observed. Dr. Stevenson was kind enough to make analysis of the discoloured contents of intestine, and to compare them with analysis of healthy pieces of intestine from the same patients; and he found that there was an excess of lead in the blackened part, amounting in one case to as much as 320 times the quantity present in the uncoloured part.

Dr. DOUGLAS POWELL asked if Dr. Fagge had ascertained by microscopic examination in what part of the mucous membrane or of the submucous tissue the lead was deposited. The lead-deposit might be due either to the action of sulphuretted hydrogen on the metal within the vessels; or it might be produced by the action of that gas on the lead in the intestine. The importance of giving purgatives during the treatment of lead-poisoning by iodide of potassium was well known.—Dr. REGINALD THOMPSON said that there might be two causes for the deposit. The intestine might be saturated with lead, and a compound with sulphuretted hydrogen might be formed; or it might be formed as a sulphide through decomposing food. Bismuth acted in some circumstances in the same way, producing blackening of the large intestine by formation of sulphide; but he had never detected bismuth in the small intestine by chemical means, nor had he ever found this part stained by bismuth. It had been said that the immersion of subjects of lead-poisoning in a warm bath of alkaline sulphides caused a deposit of lead on the surface of the body. He had found that in such circumstances a deposit took place; it was not, however, lead, but copper from the bath.—Dr. DOUGLAS POWELL referred to a case in support of the view that the deposit of sulphide of lead on the gums was the result of the action of sulphuretted hydrogen. It was that of a man who had severe wrist-drop, but with no blue line on the gums; and his teeth were very free from tartar. Where the teeth were deficient, there was no lead-line.—Dr. JOHN HARLEY questioned whether the lead in the intestine could be regarded as the cause of the colic.—The PRESIDENT said that there were two points to be borne in mind. Lead was somehow absorbed, and produced dropped-wrist and other symptoms: its action was not merely local. Bismuth was supposed to pass to a great extent unchanged; but it was a question whether the lead was not all absorbed and again poured out. Sulphuretted hydrogen was rarely met with in the small intestine; it was more likely to exist in the large intestine, and to form there an insoluble compound with lead. He did not think that the deposit was the cause of the lead-colic, which, he believed, affected

the small intestines rather than the large.—Dr. HILTON FAGGE had made an examination of the intestine in his first case, and had found the black corpuscles around the capillaries in the villi. He was not aware that the blackening produced by bismuth could be traced in this way. There was a contrast between lead and bismuth; the lead was absorbed, while bismuth was not. He thought it certain that the blue line on the gums was due to a deposit of lead from the blood; and if there were so great a deposit on the gums, *à fortiori* there would be one in the intestine, where sulphuretted hydrogen was much more abundant than in the mouth. It seemed to him that the hypothesis of the formation of the sulphide in the blood was more probable than that which ascribed it to sulphuretted hydrogen in the intestine acting on the lead that was carried down; though, if a quantity of lead were taken by the mouth, some might be so formed. He did not attempt to explain the connection between the deposit of lead in the intestine and lead-colic; though a considerable deposit might have something to do with the pain.

EXPERIENCE AND SPECIMENS OF THE OX-AORTA LIGATURE, AND SOME REMARKS ON THE VARIABILITY OF CATGUT.

BY RICHARD BARWELL, F.R.C.S.

The objects of a paper read before this Society two years ago were: 1. To point out the cases of aortic aneurysm which might be benefited by deligation of the right carotid and subclavian; 2. To show the advisability of leaving all the coats of arteries tied in continuity intact; 3. To introduce a flat ligature to carry out this object. The experience which the author then adduced was now supplemented by two additional cases of aortic aneurysm treated by tying the above-named vessels with the ox-aorta ligature. Thus there were three in all. His own case lived sixteen months in fair health and comfort. A case of Dr. Lediard (now of Carlisle) lived ten months. A case of Dr. Wyeth of New York was now alive and in good health. Besides these, he reported a case in which he tied, for aortic aneurysm, the vessels on the left side of the neck. The operation failed to prolong, but Mr. Barwell did not know that it shortened, life. The patient survived thirty hours. The parts of his first case and of Dr. Lediard's case (by the kind permission of Dr. Hopkins) were shown; as were also certain specimens removed from the last case. The arteries of the first had been injected. The carotid ligature was *ab origine* tied too loose; it was the first artery he had tied with the ox-aorta, and he wrongly attributed the almost immediate return of temporal pulse to free collateral circulation. The loop of ligature (probably) remained on the vessel. The subclavian was quite closed, and, being slit lengthwise, showed the tunics entire. Collateral circulation was well established. Of the second case, Dr. Lediard wrote that the aneurysm was filled with very firm clot, and that nothing could have been more satisfactory than the action of the ligature in this case. The vessels were entirely occluded, there being no trace of the bands seen, but a firm clot above and below the seat of constriction, such as was usual in vessels tied in continuity. The parts from the last case were the subclavian, showing, where tied, no injury to any of the coats; the severed ligature from that artery; the other ligature with the knot entire, and showing no tendency to loosen. Four other vessels had been tied with this ligature: two iliacs (Mr. Holmes and Mr. Johnson Smith); two femorals (Mr. Bellamy and Mr. Barwell). In these four cases, the aneurysms did perfectly well; the wounds healed at once; and nothing more was seen of the ligature. The twelve deligations were more than sufficient to show that the ox-aorta ligature became absorbed with sufficient slowness to be perfectly reliable in tying vessels in continuity. They showed this with the more force, because this material was not prepared; the ligatures were cut from the fresh aorta, and dried; hence they were uniform. This power of becoming gradually absorbed was common to all the soft connective tissues, provided they were perfectly fresh. The submucous tissue of sheep's intestine, of which catgut was made, would, if it were dried while fresh, act like other soft connective tissues, with no need whatever for after-preparation. But, in the manufacture of catgut, this structure was separated from the rest by processes of scraping—a procedure which would be impossible unless the intestine were to some extent decomposed. The various modes of preparing catgut into ligatures were devices for getting rid of the results of this decomposition. Catgut sutures, more easily watched than ligatures, dissolved in very various periods, though prepared in identically the same way. One of the chromic acid processes gave cords dissolving, some in nine, some in nineteen days. The usual (old) method had supplied Mr. Barwell with sutures, some of which had dissolved in forty-eight hours; some remained persistent, and had to be cut away on the fourteenth day. This resulted from the various degrees of decomposition in the catgut itself; it could not happen with tissues that were fresh and required no after-elaboration. When a piece of catgut was buried for days round a large vessel, it was not more possible to be sure of its behaviour than to predict the duration of sutures. For tying large vessels near the heart, or lying deep, a material whose action was more uniform, which was therefore more reliable, was essential.

Mr. LISTER said that facts of great interest in Mr. Barwell's paper were the use of the ox-aorta ligature without preparation, and its long resistance of absorption. It was a mistake to say that decomposition was a necessary part of the process in preparing catgut by scraping the intestine of the sheep; the scraping could be done without putrefaction, and the fresher the intestine the better. It was a great fault in the manufacture not to insist on perfect freshness of the intestine. Mr. Barwell had referred to the essential unreliability of catgut; he could only say that he had arrived at an opposite conclusion. The liability of catgut to absorption was much affected by age; that which was old was less readily affected than the new. He had tried to ascertain whether any mode of preparation would give equally good results; and he had succeeded in bringing both old and new catgut to the same level. If Mr. Barwell would test catgut prepared by his new method, he would find that it could be relied on. He could not agree with Mr. Barwell as to the dividing the inner and middle coats of large arteries. Long ago, he had tied the vessels of a calf with strips of ox's peritoneum, without dividing the coats; and he had suggested that, with antiseptic applications, the division of the coats of the arteries was not essential. But more recent experience had shown that division of the coats of the vessel was desirable. There might be an opening up of the vessel, either from too early absorption of the ligature, or from the arterial walls not having been sufficiently injured. If the catgut were too soon absorbed, an extra injury of the vessels would be an advantage. He always applied catgut in such a way as to divide the inner and middle coats. Referring to the papers read at the meeting of the Society on February 8th, he said that in Mr. Treves's case the carotid and subclavian arteries were both tied antiseptically. The carotid ligature went on well; but the patient tore off the dressings from the subclavian wound; and, after his death some time afterwards, the carotid was found pervious at the point of ligature, with a kind of diaphragm, while the subclavian was completely obstructed. Mr. Treves had thought that the antiseptic dressing in the case of the carotid was almost too perfect, and that it prevented sufficient disturbance to cause adhesion of the artery. Mr. Lister showed an iliac artery which had been tied, for femoral aneurysm, with silk rendered aseptic by carbolic acid. The wound followed an aseptic course, without inflammation, suppuration, or fever; yet the artery was occluded from end to end—for two and a half inches. At the site of ligature was a portion of the silk knot lying in a small abscess. The patient lived a year after the application of the ligature. On the other hand, surgeons were familiar with cases of secondary hæmorrhage after the application of ligature in the ordinary way; the hæmorrhage occurring in the presence of suppuration, and perhaps the more readily because of it. Some of the failures from opening of the vessels were due to the catgut not being of proper quality; the uncertainty being dependent on the length of time required for its preparation. Although cases of failure of the catgut ligature were frequent, he believed that, if all the cases in which catgut ligatures were applied with strict antiseptic treatment were recorded, a striking improvement, as compared with ligature on the old principle, would be shown. But, if putrefaction were allowed to take place in the wound, the success of the catgut ligature would be a matter of good luck; the putrefactive process would be liable to affect the catgut. Surgeons were bound to adopt some means of preventing putrefaction. In a number of operations which he had performed, there had been no putrefaction. He did not say this in self-praise; for the result was to a great extent due to his house-surgeons and dressers. If such results could be obtained, it was worth while for surgeons to study the means of preventing putrefaction. The prevention of secondary hæmorrhage and diffuse inflammation after ligature was worthy of the best attention.—Mr. TREVES said that, in all the three cases reported at the former meeting, the same catgut was used; it had been procured from Glasgow five years ago. The coats of the artery in his case were divided; but not in Mr. McCarthy's case.—Mr. CHRISTOPHER HEATH said that in Mr. Barwell's preparation the carotid artery was quite pervious, and showed no trace of the broad ligature with which it was tied. He asked whether the subclavian artery showed any division of the middle and inner coats. He was a sceptic as to the possibility of so regulating the pressure of the ligature as to avoid cutting through the coats of an artery.—Mr. BARWELL said that Mr. Heath was quite right with regard to the carotid artery; the ligature was applied too loosely. The subclavian was quite occluded. Mr. Heath's remarks on the difficulty of regulating the pressure was quite correct as regarded the round ligature; but it was scarcely possible to divide the coats of the vessel with the flap ligature,

however tightly tied. The statistics of the ligature of the largest arteries showed a large number of deaths from secondary hæmorrhage; indicating the necessity of avoiding injury of the coats of the vessel. He did not suppose that ox-aorta was the only material that could be used. Mr. Pollock had used the tendon of the kangaroo's tail; and Dr. Wyeth of New York had used the whole thickness of the aorta. He scarcely understood how the mucous membrane of the sheep's intestine could be removed without some putrefaction. In the preparation of catgut, chromic acid was used in very various proportions. One surgeon used forty times as much as Mr. Lister; and yet both got reliable ligatures. A year ago, Mr. Bellamy tied the femoral artery for popliteal aneurysm with ox-aorta ligature: the wound healed. The other femoral artery was afterwards tied with catgut prepared according to Mr. Lister's method; the wound was nearly healed, when it reopened, and a large crack was found, leading down to the place of ligature, which no doubt would come away. Certain modes of preparation might not suit all forms of catgut; and hence catgut could not be reliable. Experiments with blood-serum did not help much. The only reliable experiments were those made on the living tissues; but it must be remembered that they were also made on the lives of men.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, MARCH 2ND, 1881.

J. MATTHEWS DUNCAN, President, in the Chair.

Interstitial Fibroid causing Retroflexion.—Dr. GODSON showed, for Dr. J. DEWAR, a specimen of interstitial fibroid. The patient was aged 43, a widow, sterile. Three years ago, Dr. Dewar attended her for retroflexion. She wore a Hodge's pessary with advantage for some time; it then began to give pain, and had to be removed. About a year afterwards, she had an acute attack of pelvic peritonitis, which left the uterus fixed. She died rather suddenly from a second attack of peritonitis. The specimen showed a small fibroid tumour in the anterior wall of the body of the uterus. The fundus was retroflexed, pointing downwards very markedly.

The PRESIDENT then delivered his inaugural address.

On so-called "Missed Labour", with a Case in Illustration. Dr. BARNES commenced a paper on this subject by stating that the term "missed labour", proposed by Dr. Oldham, was not justified by the facts of Oldham's case, which proved on necropsy to have been one of extra-uterine gestation. Discussing other cases of presumed missed labour, accepting the arguments of Stoltz and Müller, the author affirmed that no authentic example of missed labour—this term being taken to mean the prolonged retention *in utero* of a fœtus living at term—was yet known. He cited examples of retention of the ovum, which had perished *in utero* at a previable age for some time, and notably until the arrival of the natural term of gestation. He related a case which came under his own care. A lady, aged 39, had borne three still-born children, the last of them five years ago, before consulting Dr. Veitch of Penang, in December 1872. Pregnancy dated from early in the preceding November. The usual signs of pregnancy were manifested. She verified quickening; up to the seventh month, she felt movements of the child. About the eighth month, after a slight accident, a flow of blood came. Three weeks later, another bleeding occurred, but no labour-pains. Eleven months after the presumed date of conception, she came to England. There was an impression that she might be suffering from fibroids of the uterus. She came under the author's care in December 1873. Under chloroform, the cervix uteri having been dilated by laminaria tents, he felt what he took to be the interior surface of the uterus; the sound passed six inches. In January 1874, some coloured discharge went on. Pieces of bone, which turned out to be bits of the spinal column, passed by the vagina. After dilatation by tents, more bones were removed by the fingers and forceps. In February, this manœuvre was repeated, and, by craniotomy-forceps, the remaining parts of a fœtus, which appeared to have reached the eighth or ninth month of gestation, were extracted. Her health then improved, the discharge became less offensive, and the uterus gradually shrank, as in ordinary involutions, but more slowly, until it reached the common conditions of the non-pregnant state, and the patient perfectly recovered. The author submitted that this was a clear instance of the retention of a fœtus, dying *in utero* at a viable stage, for some months after the normal term of gestation had been reached; and that, in this sense, the term missed labour might apply. He cited the cases of Dr. M'Clintock and Dr. Hall Davis as corroborative.—Mr. SPENCER WELLS, who had seen the patient, asked if the case might not be explained on the assumption that the pregnancy was, what had been called by some, interstitial or mural, in which the ovum was arrested where the Fallopian tube passed through the uterine wall. He remembered that some attention had been given to this view at the patient's bedside, and thought that the subsequent history was quite consistent with this view. It was strengthened by a case he saw last year. A lady, who believed she was in the fifth month of pregnancy, was reduced to a state of extreme danger by constant pain and vomiting. An eminent man had said she could not be pregnant, because the cervical canal admitted the finger, and the sound could be moved freely to a depth of nearly five inches. Mural pregnancy was diagnosed, ergotine was injected into the substance of the cervix uteri, severe pains and the expulsion of the fœtus followed, with perfect recovery.—Dr. ROPER thought that a reasonable explanation of these cases of so-called missed labour might be given from a point of view hitherto unnoted. He believed that most of them were originally uterine gestations, which, during their course, became partially or wholly extra-uterine in consequence of a degree of rupture of the uterus from external injury, or of spontaneous giving way through degeneration of the uterine structure. The fœtus did not escape entirely, but to such a degree that, ultimately, a cyst was formed outside the uterus, the fœtus being partly within and partly without. The first symptoms were those of pains, coincident with some accident, and the pains of labour were always equivocal. The fœtus at this time died; the pains subsided; then followed the history common to all—fœtid discharge, putrilage, and bones. When a necropsy had been made, an aperture had been found connecting the cavities of the uterus and the cyst. The rigidity of the cervix in these cases was of interest, as illustrating uterine polarity. The fundus being injured, fundal polarity was arrested, while cervical polarity remained in full force.—Dr. GERVIS, in corroboration of Mr. Spencer Wells's suggestion, mentioned a case of extra-uterine pregnancy, in which, very unexpectedly, about the fifth month, delivery occurred *per vias naturales*. The practitioner in attendance, on introducing his hand, found a distinct cavity toward the left angle of the fundus, in which evidently the fœtus had lodged. He also referred to cases in which, when delivery was due, a few ineffective pains occurred, but delivery did not occur till three or four weeks later. He mentioned a typical case in which this occurred in successive pregnancies, with the result that instrumental aid was necessary, and the child was each time born dead. At her fifth confinement, the effort of nature was supplemented at the ninth month, and a living healthy child was born. In the sixth pregnancy, there was again protracted gestation, and a still-born child.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MARCH 15TH, 1881.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

Relations of Superficial Disease of Nipple and Areolar Cancer of Breast.—Dr. THIN brought forward two cases in which long-standing disease of the nipple and areola was followed by the development of tumours in the breast. The first case was that of a single woman, aged 49, whose breast was removed by Mr. Henry Morris. Six years before the tumour was observed, the nipple had been irritated for some weeks by a needle in the woman's stays. The irritation thus set up had never healed, and at the time of operation the position of the areola was marked by a bright red moist surface, two inches in diameter, a depression in the centre indicating where the nipple had been. The margin of this surface was sharply marked off from the healthy skin. On microscopical examination, it was found that the centre of this area was denuded of epithelium, the cancerous growth forming the surface of what was a superficial ulcer; at the outer part of the area the epithelium was entire, but thickened and with elongated papillæ. The papillary layer of connective tissue was here destroyed, and the space it should have occupied was filled with exudation cells. The distinguishing features of the breast tumour were an excessive development of fibrous tissue and rounded clusters of cells, with a columnar epithelium lining the cavities in which they lay. On the edge of the growth the new epithelium was seen as small round columns, with a central lumen, the condition termed by some pathologists *adeno-fibroma*. In the second case the breast was removed by Mr. George Lawson. The patient, an unmarried woman, aged 57, had suffered from the nipple affection for upwards of a year. There was no pain in the breast, no perceptible tumour, and no enlargement of the axillary glands. In the diseased skin in this case the epidermis was entire, but thickened, with long papillæ. The papillary layer of connective tissue had disappeared, and a stratum of exudation cells had taken its place. The breast consisted of a large mass of fat, permeated with narrow streaks of fibrous tissue. In these streaks a new epithelial growth was found in the form of tubes and round cell-clusters, with small cells and a distinct border of columnar epithelium. The narrow strips of fibrous tissue always separated the epithelial growth from direct contact with

the fat lobules of which the large breast was almost entirely composed. The tumour would probably be called an *adeno-lipoma*. These two cases completed six, which Dr. Thin had examined. Although these six cases all differed from each other in some respects they agreed in some essential points, and on these points of agreement Dr. Thin concluded that the affection of the nipple was neither eczema, as it was commonly called, nor psoriasis, nor any known specific skin disease. It was a destructive papillary dermatitis, and he proposed that it should be called *malignant papillary dermatitis*. The breast-tumours took their origin from the epithelium of the lactiferous ducts, and retained the specific characters of that epithelium, and might very properly be called duct-cancer. Dr. Thin added, in reply to the President, that a local affection of the points on the surface of the nipple, which correspond to the mouths of the lactiferous ducts, had preceded, in cases which had been well observed, the extension of the disease over the surface of the nipple, and over the areola; and that the hypothesis which best explained the fact that a malignant papillary dermatitis spread superficially from the mouths of the ducts, and that a growth of cancerous duct-epithelium spread downwards from them into the breast was, that the duct-epithelium at the surface underwent changes that were, even in the early stages, already cancerous in their essential nature.—Mr. MORRIS said that it was very desirable that examinations should be made at an earlier stage. Clinically the condition of the areola was undistinguishable from eczema, so that the only points which could guide in diagnosis were the duration of the disease and the failure of treatment. An analogous class of cases was that in which we see dilatation of ducts; such cases persist for years, sometimes the morbid condition disappeared, sometimes suppuration occured, sometimes a cancerous condition was developed. So this eczema, which appeared to be of an ordinary nature, existed for a time, and, three years later perhaps, a few nodules developed in the breast, and a little later there was undoubted cancer.

Cystic Degeneration of Breast.—Mr. MOULLIN showed a tumour, removed from the breast of a single woman; it had grown rapidly; it had a smooth surface, and did not, before removal, appear to contain cysts. On section, it was found to consist of a mass of fibrous tissue, studded with numerous cysts, which contained a gelatinous fluid, but no intracystic growths. Each cyst had originated from a single acinus, and the epithelium of the acini had grown in columns into the interlobular fibrous tissue. The basement-membrane of the smallest acini showed delicate nuclei, surrounded by a cell-substance, with an irregular outline, which, in larger acini, assumed a stellate form; in still larger, they had become spindle-shaped, lying parallel to each other, and connected by a delicate firm structureless membrane, which could be isolated in long strips, and appeared to be entirely unconnected with the fibrous tissue.—Dr. THIN had shown, at the Royal Medical Chirurgical Society, sections of a tumour removed from a woman's breast, in which the membrana propria was in this condition; and he had recurred to the subject during this session.—At the suggestion of Dr. Payne, the tumour was referred to the Morbid Growths Committee.

Cystic Disease of Kidney and Liver.—Dr. PYE-SMITH showed the kidneys and liver taken from a man aged 50, a drunkard, who had suffered for several years from cough, and died, under his care, from chronic interstitial pneumonia. During life, arterial tension was increased; and the urine was pale, of low specific gravity, and gave usually a trace of albumen. The two kidneys together weighed sixty-four ounces. On section, no renal tissue could be seen by the naked eye. The liver contained one large and several smaller cysts. This remarkable and rare condition had been recorded, first, by Virchow, who described it as occurring usually in the fœtus, but occasionally in adults: he said that children, subjects of this disease, frequently died from asphyxia, due to the diaphragm being pushed up by the enlarged kidneys. Bristowe, Wilks, Rokitansky, and others, had since described similar cases. It was remarkable that in this case, the patient, though he put his kidneys to severe trials by his drunken habits, yet never suffered from any renal symptoms, and died finally without any symptoms of uræmic poisoning. Dr. Pye-Smith added, that he believed the cases were always congenital; in this case, though no renal tissue could be seen by the naked eye, the microscope revealed abundance of tubular tissue and some glomeruli.—Dr. NORMAN MOORE had seen two cases, which had been thoroughly examined by Mr. Eve, who found abundant renal tissue. He had made a *post mortem* examination on a case in which there was one large cyst in the kidney, the rest of the kidney remaining quite healthy.—Dr. GOODHART had examined the specimen shown by Dr. Pye-Smith, and had concluded that this case was not congenital; active change was going on both in liver and kidney. In the portal canals was some cirrhotic-like tissue, which, however, had an unusually varied structure; in some places, it had the appearance of embryonic tissue, with nuclei of varying form, some elongated, some even rod-shaped, which might possibly belong to a muscular overgrowth. In the lobules, the hepatic cells were increased in size, and the nuclei seemed to be proliferating—so that there appeared to be a development of fibroid tissue going on at the periphery of the lobules from the cells themselves. He believed that vacuolation had occurred in the liver-cells, and gone on, not to solid growth, but to a cyst; in the kidney-structure, outside the cysts, there was fibrous tissue like that in the liver, with rod-shaped nuclei; and he thought that there had been an overgrowth of the epithelial cells of the tubes, which overgrowths softened in their centres, and so formed cysts. If this were so, a similar process had been going on in the liver and in the kidney. The number of Malpighian corpuscles in the kidneys was, he thought, diminished.—Dr. PYE-SMITH, in reply, said that in the liver there was a great deal of nuclear tissue, which he had set down to the alcoholism; but in the kidney he did not think there was any fibroid overgrowth. It was proper to add, that Virchow had found a great overgrowth of fibroid tissue in his cases of cystic disease of the fœtal kidneys, compressing the tubules, and so causing the dilatation. In reply to a question from the President, he said that he believed the condition of the liver to be congenital also, though the evidence was less conclusive than in the case of the kidney.

Cystic Disease of Ovary from a Fœtus.—Mr. ALBAN DORAN exhibited microscopic specimens of proliferating cysts in the ovary of a seven months' fœtus. The opposite ovary was healthy. The diseased ovary contained no Graafian follicles. The cysts were from one-twelfth to one-sixteenth of an inch in diameter, and contained abundant ingrowths lined with epithelium. There were also smaller tubular bodies lined with similar epithelium, but not containing ingrowths. The cysts probably originated in that part of the Wolffian body which is normally represented by epithelial cells loose in the stroma of the ovary. Mr. Doran exhibited some micro-photographs of the specimens, taken by Mr. Francis Fowke.—Dr. WILKS observed that the photographs were of great excellence.

Cancer of Mediastinal Glands and Pleura.—Dr. S. WEST showed this specimen, which was taken from a woman, aged 43. Seven years before death, a small tumour began to appear in the left breast. Five years later, it was removed, and there was no local recurrence. About a year later, she had all the signs of pleuritic effusion and mediastinal tumour. Later, nodules appeared in the cicatrix. Two ineffectual tappings were made, and the patient finally died of exhaustion. The whole of the anterior mediastinum was occupied by a cancerous mass, which had spread over the right pleura, had infiltrated the diaphragm, and had caused complete collapse of the lower lobe of the lung. There were numerous small cancerous nodules in the peritoneum, but only one or two small nodules in the liver. The failure of the attempts at thoracentesis was probably due to the rigid condition of the walls of the cyst, which would not permit of its collapse.

Localised Pneumothorax.—Dr. S. WEST also showed this specimen, taken from a lad, aged 22, who had begun to be ill about five months before admission. When first seen, he had a large cavity in the lung; soon after, he experienced a sudden pain in his side, and new physical signs developed, which might have been due to a large superficial cavity or a localised pneumothorax. *Post mortem*, the opening was found to be very large, measuring about two or three inches in diameter.

Thrombus in Pulmonary Artery.—This specimen, shown by Dr. B. G. MORRISON, came from a case in which there had been phthisis and gangrene of the lung. No symptoms of thrombosis at any time showed themselves. The right side of the heart was found to be hypertrophied. In the pulmonary artery, and extending to its minutest branches, was a long clot, partly recent and partly fibrinous. The lesion had probably commenced in the gangrenous area.

Specimens Shewn by Card:

Aneurysm of Aortic Valve.—The specimen was shown by Dr. S. WEST, for Dr. HUMPHRY. There appeared to be only two valves, and both were affected.

Arrested Development of Upper Limb.—Mr. SHATTOCK said that the limb had been amputated by Mr. Erichsen. The fingers had been webbed, and there was a curious muscular anomaly, viz., the flexor longus pollicis furnished the tendon of the index. This was the normal condition in some of the higher apes.

Cervical Polypus.—Mr. MORGAN showed a large polypus, recently removed from the cervix uteri.

THE treasurer to the Cardiff Infirmary, Mr. W. Done-Bushell, has been authorised to enrol the name of Mr. James H. Insole, of Ely Court, on the subscription-list towards the erection of a new infirmary in the town for £1,000, and the names of Mr. Insole's two sons for £250 each.





ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

WEDNESDAY, FEBRUARY 16TH.

THOMAS EDGELOW, L.R.C.P., President, in the Chair.

President's Address.—The President, taking the chair for the first time, declared that though he felt himself no equal in fame and experience to his very distinguished predecessors, he claimed to be no whit behind them in devotion to the objects for which the association has been founded. He deplored the results of the last meeting of the General Medical Council, which could not be regarded but with dismay by all interested in the welfare of the profession. The Dental Act had so signally failed that its very author must be heartily sick of it. It had even proved too comprehensive for its advocates, and a great number of names withdrawn from the *Dental Register*, at the suggestion of the British Dental Association, were to be triumphantly restored to the lists, one name alone being expunged. The law had shown that the removal of names from the *Register* could not be legally effected by the Executive and Dental Committees; proceedings to effect this object must be initiated by the General Medical Council. Since the Council met only once a year, as a rule, and could not delegate to the Executive Committee any duty declared to be, in its nature, judicial, the hope of ever purging the list, even from flagrant offenders, remained problematical. The exclusion of any entry of qualifications otherwise than dental, from the *Dental Register*, was a great abuse; that register now including two classes—dentists with a dental qualification, and dentists with no qualification at all. Thus, gentlemen with a general surgical qualification, which could not be entered, were mixed up, in the second class, with unqualified persons, the licentiates passing as the only true representatives of the *qualified* profession. It would be better if the licentiates withdrew from their unqualified associates on the *Dental Register*, and contented themselves with their position on the *Medical Register*. The Association was determined, on whatever action they might decide, to strengthen the bonds which connected dental surgeons with the rest of the medical profession, of which profession they ever had claimed to be an integral part. The President commended the righteous indignation of Mr. Harding, who expressed, in a letter to the journal of the British Dental Association, his deep indignation at the disgraceful advertising which still proceeded unchecked, and hoped that all advertisers may have their names expunged from the *Register*. His hopes had been disappointed. But the Association would adhere to its principles, and did not despair of seeing the time when dentistry would be recognised as standing on an equal footing with ophthalmic, aural, or any other speciality.

Cases.—Mr. E. T. M. PHILLIPS, of Liverpool, brought forward the following cases. Case I showed the models of the mouth of a boy, aged 14, from whom the two roots of the first right lower molar had been extracted, connected with which was a small cystic tumour, the result of an alveolar abscess. Cases II and III were examples of supernumerary teeth. Case IV showed the altered appearance of the upper laterals from enlargement of the basal eminences. Case V was a very curious condition, occurring in the mouth of a young lady, aged 14, where on the left side the canine and first bicuspid were missing, but were erupted and in normal position on the right. Case VI was one of rare occurrence, and was an example of the transposition of the canine and first bicuspid. Mr. Phillips thought the explanation of this transposition might probably be accounted for in the early removal of the temporary canine, thus allowing the first bicuspid to come close to the lateral incisor, and that the permanent canine, when erupted, not having room, had descended between the two bicuspids. This explanation seemed to him more likely than that the development of the teeth-germs had been altered. Case VII was that of a child, aged 5, and showed the presence of the supernumerary teeth ranged in regular order with the others in the dental arch; and it was a question which should be considered as the supernumerary ones.—Mr. W. A. N. CATTLIN exhibited four upper incisor teeth, with absorption of fangs, which were loose and were extracted from the mouth of a young lady, aged only 17.—Mr. FRANCIS FOX brought forward an example of a supernumerary tooth removed from the mouth of a boy aged 8. The tooth was placed in the centre of the upper jaw, in the situation between the two central incisors. He regarded this as somewhat uncommon, and raised the question whether it was a supernumerary tooth in relation to the milk or the permanent dentition. His opinion was that it belonged to the permanent set, as such teeth, when occurring in connection with the deciduous series, were generally found in the lower jaw.

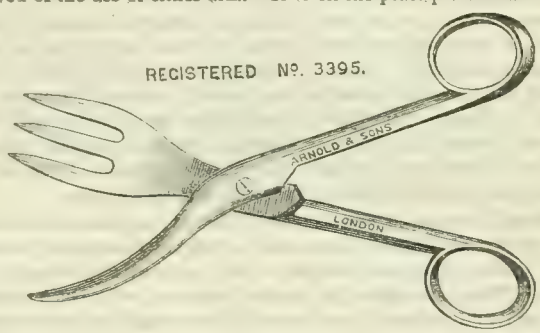
REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

COD-LIVER OIL EMULSION.

ONE of the most satisfactory cod-liver oil emulsions which we have seen is that which has been for some years manufactured by Mackenzie and Co., chemists, of Edinburgh, who claim to have originally introduced it. It is prepared with a pure cod-liver oil, pepsine, and hypophosphate of lime, and is a preparation which is pleasant to take, and more easily digested than either cod-liver oil itself, or some of the less palatable and skilfully prepared emulsions.

THE "DESIDERATUM."

THE instrument, of which the subjoined is an illustration (and which I have named "The Desideratum", for the purpose of registration), was invented by me to obviate, as far as possible, the awkwardness and inconvenience attendant on the eating of their meals, by persons deprived of the use of either arm. It is on the principle of the shears;



being formed of a fork and cutting blade, which enables the person using it, to divide at will, and raise his or her food. It can be had to suit either the right or the left hand, and with or without an indentation (which acts as a tooth) on the fork edge.

Messrs. Arnold and Sons of West Smithfield, have most intelligently carried out my design.

JOHN C. HOGAN, M.B., Sisters' Avenue, Lavender Hill, S.W.

STEAM-DRAFT BRONCHITIS-KETTLE.

THE principle on which the steam-draft inhaler was constructed has been applied to that of a bronchitis-kettle. The motive power of a steam-jet is used to produce a current of warm moist air, so that a vapour is obtained of moderate temperature, and easily respirable. The steam-draft inhaler is now so generally known to the profession, and used in so many hospitals, that the advantages to be obtained from a bronchitis-kettle will be readily understood.

MATHER'S POROUS AND OTHER PLASTERS.

MR. W. MATHER, Dyers Street, Manchester, has an old-established reputation for the excellence of his plasters. He has recently forwarded to us samples of a very convenient form of "porous plasters", capsicum, belladonna, and "strengthening plasters", in convenient sizes, and in two series; one set, made with an India-rubber composition, are particularly flexible, and adapt themselves adhesively to any surface, and are not liable to crack or peel. An excellent variety of mustard plasters are sold, cut in convenient lengths; they are made of pure mustard spread on flexible cloth, and are very cleanly and convenient in use.

IN his last quarterly report, the Health Officer of Derby reports, regretfully, a large increase in the number of cases of scarlet fever, the victims of this complaint being nearly double those of the previous three months. Typhoid fever was also extremely prevalent. With these facts before them it is difficult to understand the position of the Town Council in shelving the question of the erection of a proper infectious hospital, in the place of the wretched wooden "Sanatorium", which we have often condemned.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MARCH 19TH, 1881.

BOTANY AS A GUIDE TO THERAPEUTICS.

IN a recent number of the American *Therapeutic Gazette*, Mr. Spalding, the Professor of Botany in the University of Michigan, contributes an important and interesting paper on the active properties of plants considered as a feature of relationship. Recent investigations have shown that experiments in therapeutics might be instituted, with much greater chances of success, by attending to certain facts of relationship familiar enough to botanists, but little studied by those engaged in the active practice of medicine. There is reason to believe that botanical relationship indicates, and more or less perfectly defines, the active properties of plants. A study of a few familiar natural orders will illustrate this proposition, and may, perhaps, prove of practical value in reducing the number of fruitless therapeutic experiments by suggesting a reasonable basis on which to conduct such investigations.

First and foremost in our manuals of botany, we find the Ranunculaceæ or Crowfoot family, an order of highly developed plants, of clearly defined form and structure, and of marked physiological properties. The species belonging to this family are, with but few exceptions, acrid and poisonous, and many of them yield active principles which are of daily and hourly use in the treatment of disease. Thus the Aconitum Napellus, Aconite, Wolfsbane, or Blue Rocket, is of inestimable value in febrile affections. The Black Hellebore, famous, or rather infamous, from the remotest times, possesses powerful narcotic and irritant properties, and has often proved fatal when accidentally administered. The seeds of the various species of Larkspur are sufficiently active to render them efficient vermicides. The cholagogue properties of Podophyllum are well known; whilst the Hydrastis Canadensis, or Golden Seal, with its resin Hydrastin, is coming largely into use, and is likely to occupy a permanent place in our list of remedies. The Pulsatilla or Anemone, and the Actæa, exert a powerful action on the uterus; and, in America, are generally employed by the obstetrician and gynæcologist.

Passing by without special notice a number of smaller orders, we come to the Cruciferæ or Mustard family, represented by Mustard, Scurvy-grass, Radish, Cresses, and various other well known pungent herbs, constituting a decidedly marked family of plants, whose active properties are no less uniform than the cruciform tetradynamous flowers which indicate at a glance their botanical relations. There are no poisonous plants in this order, but all its representatives are characterised by the presence of a pungent juice, mild enough in the various cresses to produce an agreeable salad, but much stronger, and mixed with a powerful volatile oil, in Horse-radish, Mustard, and others, imparting to them decided antiscorbutic and rubefacient properties. So uniformly are these pungent properties present in plants of the mustard family, that their action may be calculated upon with certainty. This fact has several practical bearings. In the first place, it is not improbable that many more species of the family will be found to have a definite therapeutic value; as, for example, the common herb Shepherd's Purse, which has recently been favourably noticed as a diuretic. On the other hand, these same properties may occasion very deleterious effects; as, for instance, when even a small percentage of the seeds of any species of this family is introduced into linseed-meal when employed as a demulcent.

Passing on to another natural order, we find the Mallow family distinguished for their mucilaginous properties. The demulcent action of Althæa root has brought it into very extensive use; and its properties are shared, to a very great degree, by other species of the order, among them the Hollyhocks, which are sometimes substituted for it. The root of the Cotton plant, however, appears to be exceptional in its action, producing effects which have been compared to those of ergot, and believed by some to be quite as efficient. So marked a case shows plainly that, permanent and uniform as family characters may be, they cannot be followed blindly. As with all rules, prominent and undoubted exceptions occur.

The Cucurbitaceæ or Cucumber family, distinguished botanically by its gourd-like fruits and climbing habits, is noted therapeutically for an acrid, bitter, purgative property, which renders many of its species drastic cathartics. Citrullus Colocynthis, the "Wild Vine" of the Old Testament, and the "Bitter Apple" of the Materia Medica, possesses such properties to a remarkable degree, even the dust inhaled in handling the dried pulp revealing the intense bitterness of the fruit. The White Bryony root of Europe, and the Elaterium of the *British Pharmacopœia*, derived from the Squirting Cucumber, are both violent cathartics, and in over-doses poisonous. Luffa Purgans, and Luffa Drastica, sometimes called American Colocynth, are also violently purgative. However much the acrid purgative properties of plants of this family may become diffused and modified under cultivation, its species can never be entitled to perfect confidence. Green cucumbers, for example, are usually harmless enough, but the "old bitterness" in their nature is liable to reappear in unaccountable reversions to the ancestral character.

The Solanaceæ constitute a large and important order. Narcotic properties are exhibited by most of its species, though it is also the source of some of our most useful food-plants. Belladonna, Stramonium, Hyoscyamus, Duboisia, Pituria, and Tobacco, the sources of such principles as atropia, daturia, hyoscyamia, and nicotia, have exercised a potent influence on the human family: whilst the common potato, Solanum Tuberosum, has contributed in no small measure to its maintenance. This last species shares, to some extent, the narcotic and poisonous properties of the family; but the tuber, being merely a receptacle for starch, does not develop these unless exposed to the light. The stalks, leaves, and unripe fruits of the potato produce an active principle, apparently very powerful, which has not been fully investigated.

Several other orders well worthy of critical study must be briefly noticed. The Labiatæ are aromatic and stimulant: Spearmint, Peppermint, Pennyroyal, Sage, Lavender, Rosemary, and a host of other familiar examples, serving as illustrations. Wood Betony, Betonica Officinalis, is coming largely into use in America, and is said to be one of the most active of the new remedies.

Of the fungi, a large number of species have taken a prominent position as medicinal agents, notably the Claviceps Purpurea, the Ergot of Rye, Ustilago Maidis or Corn-Smut, and the Agaricus Muscarius or Fly Agaric. Here, too, belong the various ferments, such as ordinary yeast and others, not to mention the host of disease "germs", whose life-history and physiology constitute one of the great problems of modern science.

It will be seen from the study of a number of orders selected from the principal classes of plants, that active properties are often a marked and reliable feature of relationship; and that they constitute, in such cases, a family character nearly, or perhaps quite, as distinctive as the structural characters upon which the union of various species into families is at present based. A more careful and exhaustive study of all the leading orders from which therapeutic agents are derived, by the light of these principles, must, it would seem, result in eliminating a portion at least of the uncertainty under which new and often valuable

remedies struggle into recognition, and in ruling out more promptly the worthless species that are so often suffered for many years to encumber our Materia Medica.

THE PATHOLOGY OF GLAUCOMA.

AT the present time, a point has been reached in the discussion of the question of the pathology of glaucoma at which it is worth while to summarise the facts accumulated, and to estimate the value of the theories which have been based upon them.

Glaucoma, whether primary or secondary, and however caused, is the generic name for a state of increased tension of the eyeball, due to excess of the intraocular fluids.

The older writers of the present generation—Donders, Bowman, and Graefe—contented themselves with the explanation that the condition was due to increased secretion of the intra-ocular fluids, occurring under certain conditions of vascular turgescence.

In 1876, Max Knies announced the discovery that the angle of the anterior chamber is almost invariably found closed in glaucomatous eyes; a fact which derived its significance from the observations of Leber, that the aqueous humour escapes normally by that channel. Max Knies attributed the closure to primary inflammation in the part.

These observations were mainly confirmed by Adolph Weber, who, however, regarded the cause of the closure to be the swelling of the ciliary processes.

Mr. Priestley Smith made an important contribution to the question by establishing, by careful experiments upon the fresh dead eyes of pigs and human subjects, that a very slight excess of pressure in the posterior chamber suffices to drive the ciliary processes forward against the periphery of the iris, and to close the angle of the anterior chamber; he also showed that the fluid of the posterior chamber passes by osmosis through the suspensory ligament, where it stretches between the lens and the ciliary processes, and escapes with the aqueous by the angle of the anterior chamber. It therefore follows that, in the absence of any local obstruction by new growths, inflammatory exudations, hæmorrhage, etc., glaucoma may be mechanically caused by any increase of pressure in the posterior chamber.

Mr. Priestley Smith points out that this increase of pressure in the posterior chamber would be produced by any cause tending to diminish the "circumlental space" through which the fluid from the posterior chamber has to pass; and he suggests that this might be effected either by swelling of the ciliary processes alone, or by an increase in the diameter of the lens, or by a combination of these two factors. He has shown, by careful measurements of a series of lenses at various ages, that the diameter increases with the age; and the diameters of the lenses from three cases of primary glaucoma are given to show that they exceed the largest of the healthy series.

Dr. Brailey has contributed several papers to the pathology of glaucoma. He has drawn particular attention to the atrophy of the ciliary muscle, which in health has probably a regulating action over the blood-supply to the ciliary processes; he has also shown that the blood-vessels in the ciliary region are dilated and thin-walled. He attributes glaucoma to (1) increased inflow, due to "a visibly increased blood-supply, and sometimes to inflammation, especially of the ciliary body and iris"; and (2) to obstructed outflow, due to obstruction "in the region of the ligamentum pectinatum, or in some few to the exits from the perichoroidal space"; and to this not very clear statement he adds, "obstruction at the entrance of Schlemm's canal is ascribed, in most cases, to valvular action of the iris, induced either by its position or by the condition of it and the ciliary body".

After a careful consideration of the evidence, we think the following facts may be taken as proved. 1. The intra-ocular fluid has its sole channel of escape by the angle of the anterior chamber; 2. There is a normal current of fluid from the vitreous to the aqueous chambers through the suspensory ligament; 3. A very slight excess of pressure in the posterior chamber causes obstruction to the outflow of fluid by compressing the ciliary processes against the iris, so as to close the angle of the anterior chamber; 4. The angle of the anterior chamber in glaucoma is almost invariably found closed, or traces of its former closure may be observed; 5. The ciliary muscle is frequently atrophied; 6. The blood-vessels of the ciliary region are frequently dilated.

From these facts, we are warranted in concluding that the efficient cause of glaucoma is obstruction to the angle of the anterior chamber, which may be effected by the pressure of new growths, inflammatory exudations, hæmorrhage, etc., or by the mechanical action of excess of pressure in the posterior chamber. Increased pressure in the posterior chamber is caused by increased blood-supply, occurring under conditions favouring vascular turgescence, and promoted by dilatation of the vessels and atrophy of the ciliary muscle. Additional observations are wanting to confirm the view that an increase in the diameter of the lens plays an important part in the causation of glaucoma; so far as Mr. Priestley Smith's researches have been carried, there is nothing to contradict the hypothesis; but the number of cases hitherto examined is too small to permit of his conclusions being accepted at present. Should further investigations confirm the view, the existence of an all-important predisposing factor will have been established.

MR. BLYTH ON SCARLET FEVER.

IT will not be necessary to caution any number of the members of the profession against the views of Mr. W. Blyth on the subject of scarlet fever, as set forth in his letters to the *Times* during last January; but the public ought to be told that Mr. Blyth's position, as Medical Officer of Health for Marylebone, does not entitle him to speak with authority on the treatment of scarlatina; and they ought also to be told that his views are not the views of those familiar with the disease. His most serious error consists in his notion that "fever-free" and "disease-free" are one and the same thing; when, in point of fact, they are not. In a certain proportion of cases of scarlet fever, the elevation of the temperature reaches its height about the fourth day of the disease, and becomes normal about the seventh; but, in these cases, and often in the mildest of them, this fever is but the first stage of a disease which has to develop some of its most important features. There is a second stage of the disease, which occurs, usually, some time within fourteen days of the termination of the first or febrile stage, and consists, most frequently, of affections of the kidney, the lymphatic glands, and the mucous and serous membranes, any of which may have either immediately fatal results, or lay the foundation of permanent disease of the kidney, the heart, or the brain. It is on account of the changes which take place in this second stage that physicians recommend that scarlet fever patients should keep their beds, or, at least, their rooms, until this period shall have passed; because injudicious exposure—such, for instance, as to the recent inclement weather—might not only change into permanent disease morbid processes which are proceeding naturally to health, but be immediately fatal by the supervention of dropsy in every part of the body; by a laryngitis, with œdema glottidis; or by acute rheumatism, with pericarditis, pleurisy, or pneumonia. And these possibilities, it is to be noted, apply in an especial degree to the cases in which the first or febrile stage is mild, and where parents are naturally inclined to think that there is little need for particular care. If the disease were, as Mr. Blyth supposes it, simply an elevation of bodily temperature, which lasts for about a week, at the end of which it disappears, leaving the body pretty much as it found it, saving certain "dust" on the skin, his recommendation would have something to recommend it; but this is not the case; the first stage, which ends about the seventh day, has to be followed by the second stage, which ends, in the milder cases, towards the termination of the third or fourth week; and, until this stage be passed, there can be no question of disinfection.

In the foregoing remarks, it has been our object to point out the grave risks which the patient himself would incur by exposure, even in mild cases, so early as the eighth day. We have only to add that there is no ground whatever for the assumption that the infectious material of scarlet fever is confined to the skin and its cuticle. Leaving

out of account the discharges from the throat, the larynx, the bronchi, and the lungs, and the affection of Peyer's patches, there is a very frequent, if not, indeed, invariable and very abundant (in fact, in the current epidemic, universal) desquamation of the tubuli uriniferi, which takes place during the third and fourth week, and which there is no reason to believe to be less infectious than the desquamation from the skin. Will Mr. Blyth tell us how glycerine and carbolic acid soap are to be applied to these?

DURING the past ten weeks of the current quarter, the metropolitan death-rate has averaged only 24.1 per 1,000, against 26.3 and 28.7 in the corresponding periods of 1879 and 1880.

AT the meeting of the Academy of Sciences in Paris on March 12th, the Boudet prizes of 6,000 francs (£240) was awarded to Professor Lister, for his application of M. Pasteur's researches to the improvement of the art of healing.

IT is announced from Calcutta, says the *Globe*, that the Government has sanctioned the formation of a native army hospital corps, to be established on a footing similar to that on which the English army hospital corps is based.

El Liberal, a Madrid paper, calls attention to the fact that the medical men who conducted the *post mortem* examination of five persons, who died in the Madrid Hospital during the last fortnight, found abundant traces of trichinæ. The authorities have ordered very severe precautions to be taken.

IT is announced that the refusal of the Government to follow the example of France and other continental nations in placing restrictions upon the importation of American pork and bacon, is likely to be brought before Parliament in the interest of Her Majesty's troops, who will probably supply the chief number of victims of trichinosis, if American pork continue to be supplied for army and navy contracts.

MR. THOMAS MOORE, F.R.C.S., of Lee Terrace, Lee, S.E., was, on the 11th instant, elected Visiting Surgeon to the Dreadnought Seamen's Hospital at Greenwich, in the place of Mr. Davies-Colley, F.R.C.S., who resigned the appointment when he accepted that of Surgeon to Guy's Hospital. Mr. Moore was formerly a student of St. Bartholomew's.

A DEATH from ether is reported at Jefferson College Hospital, Philadelphia. The patient, a woman aged 26, was a patient of Dr. J. R. Levis, who was to operate upon her for fibrous ankylosis of the hip. She had taken ether previously without ill effects, and her viscera were all healthy. She took between two and three ounces of ether, and the operation was safely performed. She did not rally from the anæsthetic, however, and, in spite of stimulants, an hour and a half after etherisation commenced, she died. *Post mortem* examination revealed nothing abnormal. Shock may have had something to do with the fatal result.

MR. GLADSTONE received a deputation from the Parochial Boards of Scotland on Tuesday, who asked that the Medical Relief Grant to Scotland should be on the same scale as that given to England and Ireland. The Prime Minister expressed regret that nothing in the nature of an attempt to deal with the distribution of public grants could be made this session. He was of opinion, however, that the present system was an altogether erroneous one, as it tended too much to centralisation; and grants given in one direction were too large, while those given in other directions were too small—a result which gave rise to considerable jealousies. His own view was that, while the Government should control and regulate the amount and nature of the various grants in aid, the work of distribution should be confided to the various local municipal and county authorities.

THE WAR IN AFRICA.

IT is stated that, in pursuance of the system of alliance between the Army Medical Department and the National Society for Aid to Sick and Wounded in War, an officer of great experience in the special management of the work connected with the Army Hospital Department, Deputy Surgeon-General Young, has been lent by the Secretary for War to the National Society, that he may act in Natal as their representative. Mr. Young filled the same office during the Zulu campaign, and then carried out the somewhat difficult task of bringing the supplementary action of the National Aid Society into unison with the work of the Army Medical Department. By thus co-operating under the direction of the Army Medical Department, the waste arising from misdirected efforts is avoided, and special comforts and luxuries, such as the Government cannot undertake to supply, will be furnished to our sick and wounded soldiers. The National Society has also made a donation of £1,000 to the South African Relief Committee (of which Sir Henry Barkly is honorary treasurer) for the use of the colonial forces in the Basuto war.

GUY'S HOSPITAL.

THE nursing question at Guy's is virtually ended by the publication of a series of new regulations for the nurses, which have been submitted to and approved by the medical officers, and which concede all for which they had contended. Had these concessions, which the governors have now presumably satisfied themselves to be right and necessary, been made at an earlier period, we should have heard nothing of the lamentable dissensions which have so much lowered the reputation and dignity of that body, and impaired the hospital in the public esteem. Under the new regulations, the nurses are placed under the direction of the medical officers. Each ward is to be nursed by a lady-nurse, with two head-nurses under her; and, as under the old *régime*, these nurses are, as far as possible, to be considered attached to the ward and retained there—thus doing away with the frequent shifting and changing which was part of the new system to which the medical men objected so much. Again, the matron loses her new title of superintendent, and reverts to the old title of matron, under which designation she is once more to be known; the term superintendent, whenever it occurs in the regulations, designating, as heretofore, the medical superintendent, Dr. Steele. Finally, the probationer nurses, after serving for one year, will need to have certificates of efficiency signed by the medical officers as well as by the matron. Thus all the three main points at issue are virtually decided in favour of the medical men, as common sense should have dictated at an earlier period.

INTERNATIONAL MEDICAL CONGRESS, 1881.

THE Reception Committee are already in a position to give a fair idea of the nature of some of the entertainments and excursions which will take place during the week of the Congress, and which will be of a most attractive character, especially to our foreign visitors. On Tuesday, August 2nd, an informal reception will be held in the afternoon, at the Royal College of Physicians, which occasion, it is thought, will afford an excellent opportunity for introductions. On the evening of Wednesday, the English members will entertain their foreign *confrères* at a *conversazione* at the South Kensington Museum, the Lords Commissioners having most liberally remitted the charges for lighting usually made on these occasions. Entertainments will also be given on Thursday and Friday; but up to this time their nature has not been definitely fixed upon. On Saturday, August 6th, there will be no business meetings later than 1 P.M.; and excursions will be made to various places of interest in the neighbourhood of London. On this day, the Harvey Memorial Committee purpose that the statue of Harvey shall be unveiled at Folkestone; and for this occasion most liberal arrangements have been made by the South Eastern Railway Company. A special train will take between one and two hundred members of the Congress, with other distinguished persons, to Folkestone, free of cost, where they will be received by a deputation of local magnates, and conducted to the statue which will be unveiled. After the completion

of the ceremony, the mayor and corporation will entertain their visitors at a banquet in the town-hall. This visit will afford our foreign colleagues an excellent opportunity of seeing an English watering-place at its best. On the same day, a charming excursion has been planned by Dr. Langdon Down, who has generously invited five hundred members of the Congress to a garden party at Normansfield, Hampton Wick; Dr. Down will meet his visitors at Teddington station, and will guide them through Bushy Park to Hampton Court Palace. The party will then proceed by water to Normansfield, where a select party of Dr. Down's friends will meet them. On the same day Sir Joseph Hooker will receive a number of members at Kew Gardens. On Sunday special services will be held in St. Paul's Cathedral and Westminster Abbey, at which Canon Liddon and Dean Stanley will respectively officiate.

THE BIRMINGHAM SKIN AND LOCK HOSPITAL.

THE procedures of the promoters of this hospital have justly excited much comment and disapprobation in professional circles in Birmingham. A series of resolutions relating to the recent establishment of the new medical charity were submitted to the February meeting of the Birmingham and Midland Counties Branch of the Association by Mr. Oakes, treasurer of the Branch, and seconded by Dr. Sawyer. The resolutions, which have been published in the JOURNAL, dealt with the necessity, or rather the suggested non-necessity, for opening the hospital, condemned the method of appointment of the medical officers, and broached the advisability of developing a department for dermatology in the local clinical school. The notice of the resolutions attracted an unusually large meeting of the Branch, sixty-five members being present. After a full discussion, it was agreed to refer the resolutions to the Council of the Branch for consideration and report; and an amendment to that effect, moved by Mr. Lawson Tait, was accepted *nem. con.* At the March meeting of the Branch, the Council presented their report, which was adopted *nem. con.*, a resolution being subsequently carried authorising the honorary secretaries to send copies to the medical journals. The report of the Council is as follows. "That, in the opinion of this Council, the promoters of the Skin and Lock Hospital have acted irregularly, and prejudicially to the public interest, in the election of medical officers by mere nomination, at a private meeting convened by circular. The public and the profession have a right to require that public medical offices shall be publicly filled, and that they shall be open to competition." In their report, the Council have refrained from expressing an opinion as to the necessity for the establishment of the new hospital, and they are silent as to the desirability of opening a skin department in connection with the clinical hospitals, probably desiring to leave the initiative to the authorities of the medical school; but they have recorded an emphatic and unequivocal protest against the unsatisfactory manner in which the medical officers of the new charity have been appointed. Our brethren in Birmingham who have moved in this matter have sought to affirm, and protest against the infringement of, an absolutely unassailable principle of hospital administration, viz., that offices in public medical charities shall be publicly filled, and that they shall be open to competition. We are glad they have been so completely supported by the Council and members of one of the most influential Branches of the Association.

MEDICAL SOCIETY OF LONDON.

THE annual dinner of the 108th session of this Society was held at the Criterion on Tuesday, the 8th instant, Mr. F. J. Gant, President, in the chair. Among the guests were the President of the Royal College of Physicians and the President of the Royal College of Surgeons, the Presidents of the Obstetrical, the Hunterian, and the Pharmaceutical Societies, and Major Duncan. Major Duncan, in a few well chosen remarks, responded for the Army, Navy, and Reserve Forces. In proposing "The Prosperity of the Medical Society", the President referred to the large number of new Fellows who had recently joined its ranks; to the repayment of the balance of the loan obtained when its present premises were leased to it; and to the commencement of a reserve fund. In conclusion, he stated that the Society was never more prosperous or more vigorous than at the present time. Dr. Richardson, in proposing "The Health of the President", quoted the saying of Samuel Johnson, "That a physician in a great city was the mere plaything of fortune"; that his degree of reputation was for the most part casual; that they who employ him know not his excellence, they that reject him know not his deficiency. True as this might be in respect of the spoiled children of medical fortune, who in every age float, by accident, on the stream of public favour, and become forgotten even more easily than they became known, the statement did not include the whole historical truth. If the great moralist and biographer had looked a little deeper into medical life, he would have discovered men in the ranks of medicine who, making medical fortune and practice subordinate to wider and more public interests, had helped to advance every science, every social progression, every useful and enlightened project for the benefit of the commonwealth; and had left names in history familiar in our mouths as "household words". Or if he had looked deeper still into medical life, he would have found numbers of other men, the real sustainers of medical science itself in its true practical meaning, who, as backbones of the profession they loved and cherished, thought no labour too great, no self-sacrifice too severe, if medicine could thereby be advanced and utilised. These men, caring nothing for the "bubble reputation", and, comparatively little known, were, in fact, the true leaders and supporters of medical and surgical science and art; and if the illustrious and classic lexicographer could have been at this table to-night, he might have discovered one of these good men and true in the Chairman of the Medical Society of London. He (Dr. Richardson) could say nothing more faithful than this in commending most heartily and sincerely to the members and guests the toast committed to his charge, "The Health of their President, Mr. F. J. Gant". A silver medal was awarded to Sir Joseph Fayrer, for his valuable paper on "Hepatic Abscess", as well as to Mr. D. H. Goodsall, the retiring honorary secretary. The music was under the able management of Dr. Percy Boulton. It gave great satisfaction, and materially contributed to a most agreeable evening.

SANITARY INSPECTION OF LODGING-HOUSES AT OXFORD.

AT a Convocation, holden at Oxford on Tuesday, the following form of decree was proposed: "That the delegates of lodging-houses be authorised to make arrangements for a general inspection of licensed lodging-houses in the present year; and that the curators of the University chest be authorised to pay such sums for the purpose as the delegates may think necessary." Mr. Ogle, of Lincoln College, opposed the decree, because it did not define the extent of the sanitary inspection, nor the sum which was to be expended; and thought, under those circumstances, the University would be involved in a very large expenditure and a voluminous report, which had better be deferred until the Statute appointing a controller of lodging-houses was brought into operation. Dr. Acland supported the decree, and said that, as nearly £200,000 had recently been expended in the main drainage of Oxford, the University, in the face of recent criticism, should take every means to ensure that the best sanitary arrangements were carried out in the houses licensed to receive undergraduate members of the University. Mr. Kitchen said that the Council had no data on which to fix any definite sum which might be necessary to carry out the decree; but he thought it might very safely be left to the discretion of the delegates. The decree was passed without a division.

SMALL-POX IN LONDON.

THE fatal cases of small-pox in London, which had been 44 and 52 in in the two preceding weeks, further rose last week to 58, and exceeded the average by 14; 35 were recorded in the Metropolitan Asylum Small-pox Hospitals at Fulham, Homerton, Stockwell, and Deptford; 3 in the Highgate Small-pox Hospital; and 20 in private dwelling-houses. Of the 58 persons who died from small-pox, 22 had resided in

the South, 15 in the East, 12 in the North, 6 in the West, and 3 in the Central groups of registration districts. Ten were of children under five years of age, 23 of persons aged between five and twenty years, 20 of persons aged between twenty and forty years, and 5 of persons aged upwards of forty years. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had steadily increased in the nineteen preceding weeks from 77 to 779, further rose to 792 on Saturday last. The new cases of small-pox admitted to these hospitals, which had been 187 and 195 in the two previous weeks, were 186 last week. The Highgate Small-Pox Hospital contained 60 patients on Saturday last, against 43 and 56 at the end of the two preceding weeks; 25 new cases were admitted to the hospital during the week.

PUERPERAL FEVER.

THE deaths in London referred to puerperal fever, which had been 8 and 11 in the two preceding weeks, were 9 last week, and exceeded the corrected average by 3; during the past ten weeks of the current quarter, the deaths referred to this disease in the metropolis have been 97, and have exceeded the corrected average by 34, or more than 50 per cent.

TRICHINOSIS.

A CIRCULAR to sanitary authorities has been issued by the Local Government Board, in which they say there is no reason to believe that the disease at present exists in Great Britain; but they think it right to advise caution and vigilance in enforcing the Acts against the sale of unsound meat; to which is appended a letter from the medical officer to the board, stating that the only means of avoiding trichinosis is thorough and efficient cooking. Where, however, there is reason for suspecting the existence of the parasite in any particular sample of meat, he advises its destruction.

THE SPREAD OF SMALL-POX.

IN the report on public petitions just issued, is one from the Vestry of St. Martin's-in-the-Fields, calling attention to the spread of small-pox, and the general difficulty of checking infectious diseases. This arises, they say, mainly from the concealment of the sick commonly practised, it not being obligatory on medical men, or on the ôccupiers of houses or rooms, or on the sick themselves, to report the occurrence of illness to the local authority. The result is, that an epidemic like small-pox may continue for days or even weeks, until, in fact, a death has taken place, without its existence becoming known to the authority whose duty it is to take measures for the public safety.

CASE OF DEATH FROM CHLOROFORM.

A MAN, aged 60, a winder, was admitted into the Bradford Eye and Ear Hospital, under the care of Dr. Bronner, on February 28th, suffering from cataract in both eyes. One eye was to be operated on next day. The patient appeared to be a healthy man, so far as could be made out from the history, but it appeared subsequently that he had been somewhat intemperate in his habits. About a fortnight before admission, he had suffered a slight injury from a running vehicle, but this he had not thought of any importance. On the 1st of March, he came into the operating-room, after having had an ounce of brandy administered to him. Chloroform was administered by Mr. Denby on a funnel-folded towel. One drachm was carefully measured; and before commencing the administration the chest was examined, and the heart and lungs found to be in a natural condition. Dr. Bell had his finger on the pulse. The first drachm being exhausted, a second was dropped on the towel, and part of it escaped through the funnel opening. The patient then began to struggle, when Dr. Bell, not being able to examine the pulse satisfactorily, owing to the movements of the patient, removed his finger. Up to this time, the pulse had been natural. When Dr. Bell put his finger on the radial artery after the struggling ceased, he could not feel the pulse. The patient was still breathing, but very heavily, and as if expiring. Administration was at once ceased, the tongue was drawn out, and artificial respiration commenced, and vitality attempted to be aroused by the action of the electro-magnetic battery; but the patient only gave one or two expiratory gasps, although efforts at resuscitation were continued for over half an hour. The points seeming to call for remark in this case are: 1. The apparent healthiness of the man; no abnormality was detected by auscultation in the cardiac or respiratory sounds; 2. The small quantity of chloroform administered; the patient could not have had more than a drachm and a half, and probably had not so much as a drachm. His previous intemperance, no doubt, contributed to the fatal termination. It was stated, after the fatal event, that the patient was terribly frightened at the prospect of taking chloroform, and that he kept the men in the ward awake in the night by talking of the operation which was to take place on the morrow. No *post mortem* examination was made.

FAILURE OF THE ANTIVIVISECTION BILL IN AMERICA.

WE learn from an American contemporary that Mr. Bergh's Bill to prohibit experiments on animals, which was introduced into the New York Legislature during the present session, and referred in both branches to the Committee on Public Health, was reported adversely on February 18th by the Assembly Committee, and the report agreed to by the Assembly. This, it is presumed, will finish the business for the present session. The Bill was the same with that introduced last year, and which met with a similar fate in the Committee on Judiciary.

OPEN SPACES.

AT the last weekly meeting of the Metropolitan Board of Works, Sir James Hogg, M.P., presiding, a letter was read from the Bermondsey Vestry, calling attention to the expediency of converting the Bermondsey churchyard into an open space for the public. This would entail a cost of about £1,700. Although there were upwards of 100,000 inhabitants—chiefly of the working classes—in Bermondsey, there was no open space for those persons. The Vestry asked the Board to contribute a moiety of the cost of converting the churchyard as desired. The letter was referred to the Works Committee.

HEATING AND COOKING BY GAS AND WARM AIR.

As the summer approaches, the question of warming houses gives way in interest, in domestic economy, to that of more seasonable questions; nevertheless an article by Dr. W. O. Markham, our much esteemed associate, and former editor of this JOURNAL, in the current number of the *Sanitary Record*, on "Hot-air Stoves as House-warmers", will be read with great interest. Dr. Markham deals with the subject with characteristic force and practical skill, describing his own satisfactory experiences in picturesque language. Gas-cooking, another branch of the same subject, which is of considerable and increasing public interest in connection with an abolition of that smoky condition of the atmosphere from which we have all been suffering much in London, is well exemplified in the same number of the *Sanitary Record* by reports of the ingenious gas-cooking and heating apparatus of Messrs. John Wright and Co., and Messrs. Verity Brothers. The gas-heating and cooking appliances of Messrs. H. and C. Davis reach a high standard of excellence and simplicity. If such apparatus are brought into general use in our dwelling-houses, a step will be made towards purifying the atmosphere of great towns, and at the same time domestic economy, efficiency, and the saving of labour will be consulted. The kitcheners are the great offenders, both in the way of the enormous consumption and waste of coal, and of belching forth quantities of black smoke, poisoning the atmosphere in summer as well as in winter.

THE SPIRIT RATION IN THE NAVY.

ON Thursday of last week, a deputation from the National Temperance League waited upon Lord Northbrook, at the Admiralty, in respect to the spirit ration in the Navy. Mr. Samuel Morley, M.P., who introduced the deputation, said its object was to induce the Government to lessen the temptations to drink in the Navy by giving to those who abstained a greater money equivalent for their grog than they at present received. Admiral Fishbourne and Mr. Greer, M.P., having

spoken on the subject, Lord Northbrook said the Admiralty intended to stop the issue of the rum ration altogether to the officers, but give them some compensation, so as not to make money out of it. Then they were going to stop the rum ration to the boys up to the age of twenty; and to give further inducements to the men to give up their rum rations by giving them, besides the tea and sugar they were now allowed, a ration of soluble chocolate in the middle-night watch. He hoped that these measures might have some considerable effect in increasing the number of men who would not take the rum. The increase in the money allowance would mean a charge to the country of from £10,000 to £20,000 at the very least—the rum being issued to the Navy before payment of duty. At present, the money allowance was more than the real value of the rum, so that the country suffered a loss—so far as it could be called so—by those men who were abstainers. Even if the cost were increased, he was not saying that the real value to the country might not be in excess of the money loss. Without discussing that question, he had indicated what the Government were prepared to do; and he believed it would have a great effect in the direction which the deputation desired.

NOTIFICATION OF INFECTIOUS DISEASE IN MANCHESTER.

MR. DALTON, Inspector from the Local Government Board, held an inquiry at the Manchester Town Hall, on March 11th, into the proposed new by-laws which the Manchester Corporation are now seeking to obtain. Section v proposes to "require a notification from the occupier and also from the medical attendant of cases of infectious diseases" ..."and power to pay a fee to the medical man for such report". A deputation from the Manchester Medico-Ethical Association, consisting of Dr. J. Roberts (the President), Dr. Simpson, Dr. Lloyd Roberts (President of Parliamentary Subcommittee), Dr. Pierce (Secretary), Dr. Peatson, Mr. Fox, and Dr. Wahltuch and Mr. Broadbent (General Secretaries), waited upon Mr. Dalton, to give support to the general principle contained in Section v of the proposed by-laws. Dr. Lloyd Roberts informed Mr. Dalton that the Association agreed to the necessity of a medical certificate; and pointed out the desirability of placing the onus of forwarding that certificate upon the occupier alone, upon whom the penalty of £10 would fall in case of neglect. This method was compared to the forwarding of the certificate of successful vaccination by the parent or guardian, and the transmission to the registrar of the certificate of death by the nearest relative. After considerable discussion, in which several members of the deputation and of the City Council took part, a statement was made by the Chairman of the Health Committee that the fee for reporting cases should be 2s. 6d.; and this was inserted in Mr. Dalton's report. The inspector also desired to recommend a dual responsibility of reporting cases of infectious disease, as sought for by the Corporation, and specified the following—typhus, typhoid, small-pox, scarlatina, diphtheria, and cholera—as the diseases to be named in the first schedule.—The deputation thanked Mr. Dalton for his great courtesy during the inquiry, and withdrew.

ANÆSTHESIA BY PROTOXIDE OF NITROGEN.

M. PAUL BERT'S minute researches on the physiology of anæsthesia by protoxide of nitrogen, and also its therapeutic influence, are well known. Dr. Blanchard has recently summarised the results as follows. 1. Protoxide of nitrogen, administered under tension, and mixed with oxygen, produces, in a few seconds, profound anæsthesia. 2. In these conditions, life may be maintained indefinitely, and is completely protected from asphyxia. 3. By increasing or diminishing the pressure, the progress of the anæsthesia may be regulated at will, and with mathematical precision. No accidents can occur which are hazarded by making use of chloroform or ether. 4. So soon as the inhalation of protoxide of nitrogen is ended, the patient recovers consciousness in a few seconds, and experiences no subsequent discomfort. 5. Protoxide of nitrogen simply becomes dissolved in the blood-plasma; so soon as inhalation ceases, it is given off by the lungs. Its use does not, therefore, give rise to any disturbance of nutrition, or to any chemical change in the organs. 6. The necessity for the operator and his assistant placing themselves in an atmosphere of compressed air cannot be denied. Compressed air is very efficacious in the treatment of catarrh of the mucous membrane, of the Eustachian tube, and of the respiratory organs generally. 7. In virtue of all these facts, protoxide of nitrogen seems to be very superior to chloroform or ether, as much on account of the profound anæsthesia which it induces, as for its perfect harmlessness. If a pressure of thirty millimètres of mercury is not exceeded, it is absolutely impossible that the patient should run any risk from the mere fact of anæsthesia. 8. In all cases in which chloroform or ether is employed, and wherever it may be possible to employ protoxide of nitrogen, this agent ought definitely to replace the two first-named anæsthetics.

SCOTLAND.

AT the last meeting of the Glasgow Ophthalmic Institution, we observe that it was recommended to add Dr. J. R. Wolfe, Dr. Samuel Moore, and Dr. J. S. Cumming, to the Board of Directors, in virtue of their positions of acting surgeon, consulting physician, and acting physician respectively. We are glad to see the movement in favour of adding medical officers to the governing boards of hospitals extending. We feel sure that no other arrangement will ever be permanently satisfactory, and that it is only in this way that thorough harmony and efficiency can be secured in the work of hospital institutions.

ROYAL MEDICAL SOCIETY OF EDINBURGH.

THE Royal Medical Society of Edinburgh had its annual dinner on March 8th, in the Waterloo Hotel. The chair was occupied by Mr. Dobie, M.B., Senior President; the Croupier's position was fulfilled by Mr. R. A. Lundie, M.B., one of the presidents of the Society. Among the guests were several of the professors and teachers of medicine, and the presidents of the Royal Colleges of Physicians and Surgeons. The usual toasts were proposed and duly honoured. Professor Turner, in replying to the toast of "The Universities of Scotland", referred particularly to the harassment to which good students were submitted by the system of examinations prevailing in the present day; while Mr. Imlach, replying for the College of Surgeons, referred to the attacks made upon the College in connection with its diploma of Fellowship, and pointed out that its Fellowship did not confer the license to practice, as it was only granted to members of the profession already in possession of that right. Dr. Haldane said that the percentage of rejections of the Royal College of Physicians was as high as that of any other licensing body in the kingdom.

NEW TOWN DISPENSARY, EDINBURGH.

THE annual meeting of the subscribers to the New Town Dispensary, Edinburgh, was held on March 11th, and was presided over by Dr. Haldane. From the report of the secretary, read by Dr. Graham Weir, it appears that, during the year, 9,913 individuals had been treated by the staff of the dispensary, of whom 2,196 had been attended at their own homes. The dispensary was opened in 1815, and, during that time, has treated on an average over 8,000 cases yearly. It has also yielded the benefits of dispensary practice to many generations of students of medicine. It is to be regretted that the subscriptions have not kept pace with the necessities of so useful an institution, and the total income is somewhat under the expenditure.

ODONTO-CHIRURGICAL SOCIETY.

AN annual meeting of the Odonto-Chirurgical Society of Scotland was held on March 11th in Edinburgh. A paper was read by Mr. Wilson on Sectorial Teeth, and their Modifications in the Carnivora. A satisfactory financial report was submitted, and it was resolved to remit to a committee to purchase £20 worth of books on dental science, to be added to the library. Dr. John Smith was elected President for the ensuing year, and delivered a short address.

THE CHAIR OF PATHOLOGY IN THE UNIVERSITY OF EDINBURGH.

At a meeting of the Court of Curators of Edinburgh University, held last week, the vacancy in the Chair of Pathology, caused by the death of Dr. Sanders, was under consideration. It was resolved that applications should be submitted to the Curators on or before the 5th proximo, along with testimonials. The applications have to be sent to the following gentlemen, who constitute the Court of Curators :—Lord Provost Boyd, Sir Alexander Grant, Bart., Lord Curriehill, Mr. Campbell Swinton, Mr. Duncan McLaren, Bailie Colston, and Mr. John Boyd; also to Mr. R. Bruce Johnston, honorary secretary. Of course, various rumours as to intending candidates are being circulated at present. All to whom we can positively refer, are Dr. Charles S. Roy, of Cambridge, and Mr. D. J. Hamilton, M.B., of Edinburgh, who at present conducts the class; but doubtless, in a few days, we shall know authentically of more candidates for so important a Chair.

THE CHAIR OF MIDWIFERY IN ANDERSON'S COLLEGE.

By the recent death of Dr. J. G. Wilson, this chair has become vacant, and already there are several candidates in the field. Among the names mentioned are those of Drs. Samuel Sloan, Hugh Miller, and W. L. Reid. From their hospital experience and standing, any of these gentlemen would prove suitable occupants of the chair. Dr. Wilson's death was of a sudden nature, and was due to an affection of the heart, of which he had complained for some little time. He was highly respected in the profession, and his genial manners made him universally liked, while his experience and skill in the obstetric department, to which he specially devoted himself, were acknowledged by all.

GLASGOW PHILOSOPHICAL SOCIETY.

At a meeting of the Architectural Branch of the above society held on the 9th instant, an important paper was read by Mr. Honeyman, on "Legislation affecting Dwelling-Houses." The conclusions at which the lecturer arrived were, that in the matter of legislation concerning dwellings, this should be taken out of the hands of local authorities, and be dealt with by Parliament, and that what was needed was a General Building Act for Scotland. In the course of his address, he contended that great density of population was not necessarily an evil, but that there were many good reasons why we should regard it as the very reverse. Conditions unfavourable to health could, and ought to be removed without reducing the density of population.

THE PROPOSED FEVER HOSPITAL, EDINBURGH.

The Lord Provost's and Health Committees of the Town Council of Edinburgh resolved to offer the sum of £8,500 for the eastern block of the old infirmary buildings. At a meeting of the managers of the Royal Infirmary, held on Monday, March 14th, it was resolved to accept the offer; which, with £16,000 already accepted for the central portion, completes the sale of the buildings, which are now acquired by the corporation for the purposes of an epidemic hospital.

DEATH FROM EATING LUCIFER MATCHES.

A sad case of poisoning from the above cause has just occurred at Dumbarton. A child, aged six years, while apparently in her usual health, commenced to vomit in a very alarming manner. On medical assistance being obtained, the doctor expressed the opinion that she was suffering from phosphorus-poisoning, and, in spite of all remedies, she gradually grew worse, and died in great suffering. It afterwards transpired that she had swallowed the head of a match, along with some confections that were placed in a match-box.

THE HEALTH OF GLASGOW.

From the report of the medical officer for the fortnight ending March 5th, it appears that there were 529 deaths registered as compared with 607 in the preceding fortnight, being a decrease of 78, representing a death-rate of 23 in place of 26½. From a survey of the fortnight's mortality, it is evident that the improvement which followed the departure of the intense cold and fog of January has not yet been interrupted. There has been a further diminution in the fatality of diseases of the lungs, amounting to 18 per cent.; among aged people there have been 20 per cent. fewer deaths. The small mortality from infectious diseases continues remarkable, and the epidemic of scarlet fever seems to have, for the present, exhausted itself. Measles has its chief seat, at present, in the City Poorhouse, which has yielded 42 per cent. of the total deaths from that disease during the past six weeks. There are only 17 deaths from whooping-cough, against 42 at this period last year. Indeed, taken as a whole, the infectious diseases of children have not been so slightly fatal since the autumn of 1879. The hospital contains 25 fewer cases than at this time last year.

THE LARBERT IDIOT SCHOOL.

We regret to hear that the Directors of the Larbert Idiot School have elected the governor of a workhouse to the office of superintendent of that institution, vacant by the resignation of Dr. Ireland. The school contains upwards of one hundred and twenty idiot and imbecile children, whose education is really a physiological and scientific question, and whose state of health is such as to render constant medical supervision necessary. To place a Poor-law official at the head of such an establishment, is to betray a lamentable disregard of its requirements and objects. The action of the directors in this matter throws considerable light on Dr. Ireland's premature retirement from office, and on the fact that the subscriptions to the institution have been falling off of late years. It seems high time that the subscribers bestirred themselves to inquire into the management of the school, which ought to be a boon and a credit to "broad Scotland", but which will inevitably sink into insignificant incompetency if left in the hands of persons who regard a knowledge of pauperism as the best preparation for dealing with mental defects. It would seem that, under the Scotch lunacy law, the directors are bound to have a resident medical man in the school; and it is to be hoped that the Commissioners in Lunacy will lose no time in calling their attention to this fact, which they have apparently overlooked.

GLASGOW OPHTHALMIC INSTITUTION.

The twelfth annual meeting of the subscribers to the above institution was held on the 14th instant. From the report, which was adopted, it appears that there have been admitted during the year 3,702 new cases, of which number 3,329 were dispensary patients, and 373 were admitted into the hospital for treatment. This is the largest number ever treated at the institution in one year. The average period of residence in the house of each patient was twenty-one days. Of the 3,702 cases treated during the year, 3,520 were cured, 90 relieved, and 87 were dismissed incurable. A large number of medical practitioners and students have availed themselves of the advantages afforded by the institution for the study of ophthalmic surgery. Financially, there has been an improvement in the affairs of the institution, the deficit this year being very small; and the funds allow of an extension of the hospital accommodation, which is to be undertaken at once.

REGISTRAR-GENERAL'S RETURNS.

From the returns of the Registrar-General for the week ending March 5th, it appears that the death-rate in the eight principal towns was 22.9 per 1,000 of estimated population. This rate is 0.8 above that for the corresponding week of last year, and 0.4 above that for the previous week of the present year. The lowest mortality was recorded in Greenock—viz., 17.8 per 1,000; and the highest in Dundee—viz., 29.7 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.3 per 1,000, being 0.5 below that for last week. Whooping-cough in Edinburgh was the principal cause of the increase. Acute diseases of the chest caused 179 deaths, being an increase of 29 on the number for last week. The mean temperature was 30.2°, being 4.4° below that for the week immediately preceding, and 12.2° below that for the corresponding week of last year.

IRELAND.

DR. C. B. BALL has been appointed Medical Officer to the Grand Canal Street Dispensary District, Dublin.

TWELVE friends of the Home for Protestant Incurables, Cork, have undertaken each to obtain £25 *per annum* towards the support of twelve additional beds in the Home.

A GRAND fancy ball in aid of the North and South Infirmaries, Cork, will be held on the 24th proximo; and it is anticipated that a substantial sum will be added to the funds of two deserving institutions.

LADIES' SANITARY ASSOCIATION.

A MEETING was held last Tuesday, in Dublin, for the purpose of forming a ladies' association (in connection with the Dublin Sanitary Association) for improving the sanitary condition of Dublin poor, and for extending a knowledge of the laws of health amongst all classes.

ST. VINCENT'S HOSPITAL.

THE post of Physician to St. Vincent's Hospital, rendered vacant by the lamented death of Dr. Cryan, has been filled by the appointment thereto of Mr. Michael F. Cox. Mr. Cox received his education at the Catholic University of Dublin. He is a Licentiate of the King and Queen's College of Physicians, of 1877, and a member of the Royal Irish Academy; and for the last four years he has been engaged in practice in Sligo, previously to which he held the position of Demonstrator of Anatomy in the Catholic University Medical School. The appointment is made by the Sisters of Charity.

CORK FEVER HOSPITAL.

AT a meeting of the Cork Town Council last week, an application was made on behalf of the Cork Fever Hospital for a sum of £1,000, being £200 in excess of that applied for last half-year; and a deputation waited on the Council in support of the presentment. Mr. Scott, who formed one of the deputation, stated that the hospital had to depend nearly altogether on the corporation grant; and that, as a result of a decrease in the amount of subscriptions and donations, a debt had been incurred during the past year of £750. During the late session, they had treated 784 patients, being 200 above the number treated during the previous year, and hence their application for an increased grant. Of these 784 patients, 612 were sent in by the dispensary medical officers; and the feeling of the Council appeared to be that these dispensary patients should have been treated in the workhouse hospital, and not in the Cork Fever Hospital. A suggestion was made as to whether one of the wards in the Fever Hospital could be put under the control of the Poor-law Board; so that, if this took place, the landlords would be obliged to contribute towards the support of the patients; but it was shown that legal powers for this arrangement did not at present exist. It was pointed out that the grant was obtained under the 6th and 7th William IV, chap. 15, which authorised and required the trustees of the hospital to present half-yearly a sum not exceeding double the amount of subscriptions and donations of the hospital. This would, however, have given a very trifling amount to the hospital from the corporation, the subscriptions for the past half year only amounting to £42, had it not been discovered that another section of the Act stated that the corporation could present any sum for the maintenance of the Fever Hospital, not exceeding what had been granted on any occasion during the past five years. This would limit the grant to £800; and, after considerable discussion, it was resolved to refer the matter for the consideration of the Law and Finance Committee of the corporation, to ascertain what sum the trustees were entitled to ask for. At the same meeting, a sum of £350 was passed for the use of the North Infirmary, and a similar amount for the South Infirmary.

MAYO COUNTY INFIRMARY.

FROM the report of Dr. Middleton O'Malley Knott, surgeon to the infirmary, for the year ending January 5th, 1881, it appears that 541 patients were under treatment in the wards, of which number 525 were admitted during the year. Of these, 338 were discharged cured, 167 relieved, while 8 were incurable, and 4 deaths took place. Of the 325 patients admitted, 191 were medical, and 334 surgical, cases. There were also 151 attended to at the extern department of the hospital. Thirty operations were performed, all the patients making a satisfactory recovery.

SMALL-POX IN DUBLIN DURING 1880.

DURING the past year, small-pox caused 266 deaths, of which number 9 were of persons admitted from outside the Dublin Registration District; as compared with 520 in 1879, and an average of 270 for the ten years 1870-79. It must, however, be remembered that the first small-pox epidemic of 1871-73, which culminated in 1872, is included in the decade, and includes 1,350 deaths in 1872; there were none in 1870; and but 16, 2, 2, 9, and 38 in the years 1873, 1874, 1875, 1876, and 1877 respectively. The epidemic, which is now subsiding, commenced at the end of 1877, reached its height in the following year, continued with little abatement during 1879, and materially diminished in 1880.

ROYAL UNIVERSITY OF IRELAND.

THE Committee of Organisation appointed by the Senate met last Tuesday, and finally revised the scheme for the organisation of the University and its examinations. An unauthorised publication of the scheme, which has not yet been laid before Parliament, was made last week in one of the Dublin papers; but, although its complete accuracy, as published, was officially denied, it is believed in all essential particulars to be correct. It is further stated that the Government has intimated to the authorities of the Royal University their intention to give the scheme a fair trial. According to the scheme, the following degrees will be conferred in the Medical Faculty: Bachelor of Medicine (M.B.); Doctor of Medicine (M.D.); Master of Chirurgery (M.Ch.); in Obstetrics, a special diploma. All degrees in this University are open to persons of either sex. The examinations for women will be held apart from those of men, but upon the same days. Candidates for any degree must have passed a matriculation examination. Students from other universities and colleges are included in this rule. It is proposed that there shall be forty-eight Fellows of the new University, at a salary of £400 a year each, and holding office for seven years. The first set of Fellows is to be appointed by the Senate without competitive examination. The Fellows are to constitute a board of examiners; will be bound to conduct by themselves, or with such other persons as the Senate may add, the University examinations, without further payment, except for expenses. We will give the regulations in more detail in our next number.

HEALTH OF CORK.

FROM the report of Dr. John Wall, medical superintendent officer of health, for the month of February, it appears that the total number of registered deaths amounted to 162, of which 158 were due to general diseases, 14 to infectious diseases, and 24 were infants under one year. The births during the same period numbered 147. The annual death-rate per 1000 inhabitants gives a ratio of mortality of 26.07 from diseases of every description; 26.03 from general diseases; 2.3 from infections; an infant mortality of 3.9; and a birth-rate of 24.29. A marked diminution has taken place with regard to the amount of typhus fever in the city, there being but 34 cases now officially reported by the nine local dispensary physicians as having occurred in the urban part of their respective districts, as compared with 54 during the preceding month.

BELFAST ROYAL HOSPITAL.—The following have recently qualified as life-governors by a donation of £50 each—viz., Charles Workman, M.D.; John Moore, M.D.; R. A. Macrory; and John Campbell Lennoxvale, £100, to qualify for himself, and nominate Rev. A. Gordon.

THE SELECT COMMITTEE ON THE CONTAGIOUS DISEASES ACTS.

THIS Committee, which was reappointed some time since, commenced its sittings on March 2nd. We are glad to see that Dr. Farquharson and Dr. Cameron have recently been added to the Committee: for, considering the turn the proceedings are taking, and the intricate points in the pathology of venereal diseases which are being inquired into, some infusion of the medical element was greatly to be desired. Colonel Alexander, who took a prominent part on behalf of the Acts in the sittings of last year, has retired.

Dr. Routh, who is strongly opposed to the Acts, was the first witness called. His examination was commenced by Mr. Stansfeld, and afterwards taken up by Mr. Osborn Morgan, Mr. Cavendish Bentinck, and Sir H. Drummond Wolff. It was first directed to prove that the Acts had been a failure as regards the reduction of secondary syphilis in the army; and Dr. Routh referred to the returns of Inspector-General Lawson, to show that the ratio of 1878, which was 26.64 per 1,000, was higher than that of 1869, which was 26.22. This, however, can hardly be looked upon as a fair comparison, inasmuch as the year 1869 had the advantage of three years of the operation of the Act of 1866. If the year 1864, the last year before any Act was passed, had been taken, the ratio would have been found to be 35.06, which, as compared with 26.64, which was the ratio for 1878, would show a reduction of 24 per cent. When it is considered that these figures apply to the whole home army, of which only a section had the advantage of the operation of the Acts, this seems to be no inconsiderable result. If there has been no appreciable difference between 1869 and 1878, it should be remembered that great changes have been taking place. The army has been much increased in numbers, the increase commencing in 1866; recruiting, therefore, immediately became active; short service has been since introduced, causing a more rapid circulation through the ranks; and it is notorious that recruits are much more liable to contract disease than older soldiers, a large proportion of which latter have passed into the reserve. There appear, indeed, to be no sufficient grounds for the assertion, often made, that the Acts have had no influence in the reduction of secondary syphilis. Unfortunately, it has been found impossible to make a comparison, as to secondary disease, between stations under the Acts and stations not under the Acts; it being obvious that men will frequently contract their disease in one place, and develop it in another.

As regards "primary venereal sores", the reduction in which at the protected stations cannot be disputed, Dr. Routh's evidence was to the effect, that the classification was bad; and that the proportion of true syphilitic—*i.e.*, constitutionally infecting—sores must have been very small, otherwise there must have been a greater diminution of secondary disease—though why these infecting sores should have escaped observation, he does not explain. The majority, he says, are "dirt-sores"—a term introduced, we believe, by Dr. Nevins, and of which we should be glad to know the meaning. He admits, however, that "primary sores" have materially diminished; but thinks this owing to more cleanly habits on the part of the soldier. He attributes it to the tin-basins and foot-pans in the lavatories, adopted on the recommendation of Lord Herbert's Commission, rather than to the influence of the Acts. He ignores the fact, which, we think, might have been brought out most clearly in cross-examination, that the reduction has been peculiar to the protected stations; the ratio at which has, under the Acts, been less than half that at the unprotected ones. Dr. Routh thinks this class of sore, being entirely local, is comparatively unimportant; though it may be contagious, and may disable a man for a considerable period.

With respect to the examination of women, Dr. Routh's views are peculiar. He considers it impossible to discover with any certainty the presence of disease in women, especially the real chancre, which, he says, is often so small, and hidden in the folds of the vagina, that it is impossible to find it. He does not, however, offer any evidence to prove that this undiscoverable sore has any actual existence. He also stated, that, out of a given number of women actually diseased, he should not expect to be able to discover the fact himself in more than half, *except by inoculation*—in fact, he holds that any examination, not accompanied by inoculation, is useless. We hardly think that Dr. Routh's examination will have done much to advance the inquiry. He does not profess to have any special knowledge of the question, either in its bearings on the men or on the women; but, for the most part, gives merely his own general impressions—it is, in fact, conjecture, not evidence, which he offers.

THE MANAGEMENT OF HOSPITALS.

ON Wednesday, February 23rd, at 8 p.m., a general meeting of the Metropolitan Counties Branch was held at the rooms of the Medical Society of London, 11, Chandos Street, Cavendish Square, for the purpose of discussing the management of hospitals. Dr. HABERSHON, President of the Branch, occupied the chair.

The PRESIDENT addressed the meeting as follows. It is satisfactory to find that a subject of such importance as the management of hospitals is to be brought before this Branch of the British Medical Association, and that the discussion is to be opened by one who has had so much experience in the practical details, and who stands so high in the ranks of the profession, as Mr. T. Holmes, the Senior Surgeon of St. George's Hospital. I trust that the views of members of our profession on hospital management, and especially of those who hold hospital appointments, will be laid before the Association. The question to be brought forward, however, affects not only hospital physicians and surgeons, but the whole profession, and I might say every member of the community. The sphere of hospital work is amongst the sick and the suffering; the patients who seek to be relieved of their injuries, and cured of the varied maladies that affect human nature. To promote the well-being and the speedy restoration of the patients is the primary object; and this should be the first consideration in all hospital arrangements. In order to attend these patients a medical staff is necessary, either voluntary in its services, or receiving remuneration; the object being to place the patient in the most satisfactory condition for reparative action to take place, and for the exercise of medical and surgical skill. The whole of the arrangements for the sick, and everything that concerns him, come within the province of the medical man. It often happens, that the arrangements and condition of a hospital are so unsuitable, that they retard recovery and even increase the malady, so that the patients would be better at home. I have had personal experience of this at Guy's Hospital. Many years ago, when the new wards were built, the medical staff were not consulted, or they would never have sanctioned such a construction, namely, that four rows of beds should be placed in a ward. The governors so built them; but the wards cannot be well ventilated unless a draught is produced, and the air over the central rows of beds is liable to become stagnant. Some years ago, under my care, nearly all the patients in the central rows of beds died in a few days, when a case of typhus was inadvertently brought into the ward.

Again, the nurses, most valuable when properly trained, ought to be under the *direct* control of the medical man. Domestic rules, affecting their work for the sick without his sanction, become dangerous; the food, the ventilation, the rest of the patient, must be directed by him; and changes of nurses should be so arranged that the patients may not suffer, nor the medical attendant be hindered in his treatment. To change a nurse in the midst of a critical case, is often to injure the sufferer. If a patient with acute peritonitis be moved, his life may be jeopardised; one with acute inflammation of the lungs or acute renal disease should be kept warm, but, when orders are given that windows must be opened, and the patient becomes chilled, he had better be at home, for the chance of recovery is lessened. Order and discipline and regulations are necessary; medical men do not object to such things, and are most ready to facilitate them.

The question before us to-night is, how such rules can best be made and carried out so as to secure the greatest good to the patients and harmony amongst those who work for them. Without that harmony, the purposes of the hospital are interfered with, and the work is injured. Where there is strife and contest the difficulties of treatment are like those of the surgeon on the field of battle—he is hindered and mastered by his surroundings: but he will do his best. Harmony will never be maintained, nor the usefulness of hospitals promoted, if the wishes of the medical men be set aside and they be treated with contumely. When a medical man sees a patient, he may receive his payment, his fee; but he does not become the servant, he is rather the helper and the benefactor. So in a hospital, the staff are not the servants of the executive, though they receive, it may be, a small honorarium. It is that the governors and supporters ask the medical staff to carry out the benevolent purposes of the work, whilst they provide the means and regulate its affairs. The question, however, before us, is not that of Guy's Hospital, but of every hospital, how best its efficiency may be promoted by a wise government and an efficient administration.

To take the London hospitals, some are more liberal in their government than others; but it depends more on the manner and the spirit in which the affairs of a hospital are managed than on the rigid rules which have been devised. Let us take the several hospitals in London, and we

shall find that, with arrangements very diverse, excellent work may be done where harmony prevails and consideration is exercised. At my old hospital, the protests of the whole of the staff to the treasurer, then to the governors, then to the president, were all received with the same high-handed response, culminating in their resolution "to maintain in its integrity the power to govern the hospital entrusted to them by law; and this resolution must be accepted by the medical staff".

Dr. HABERSHON said that he had addressed a series of questions to gentlemen connected with the London general hospitals, and had embodied them and the replies in a table, which is here subjoined.

HOSPITALS.	Have the Honorary Medical Officers any Share in the Management of the Hospital, or have they a Seat on the Board?	Have the Acting Medical Staff any share in the Management of the Hospital, or have they a Seat on the Board?	Is there any Medical Committee? and, if so, what are its functions?	Is there any House Committee? and have the medical officers any place upon it?	Have the Medical Officers control over the Nursing arrangements, as regards the changing or retention of Nurses?	Have the Medical Officers any voice in the appointment of the Matron?	Are the Governors appointed by Election or by Subscription?
St. George's	Yes, if they have made themselves governors	Yes, if they have made themselves governors	School Committee, Finance Committee, Election Committee, Nursing Committee	Weekly meeting of governors	The staff are on the Nursing Committee	The staff represented on the Election Committee	Election and subscription.
St. Mary's	Yes, if they have made themselves governors	Yes, if they have made themselves governors	Yes; composed of whole of staff, to advise weekly board	Yes; House and Financial Committee; staff no place on it	Only by representation to the matron	Committee of twenty-five governors, eight of whom members of the staff	Both.
Westminster	Yes, if members of the House-Committee	Yes; all the physicians and surgeons, and some of the assistants, are members of the House-Committee	Yes	Yes	Nursed by outside institution; absolute obedience promised	Only through House Committee	Subscription.
King's College	No	Three surgeons, two physicians, physician-accoucheur, and dean, members of Committee of Management	Yes	Yes; Committee of Management	(Nursed by St. John's Home.) Only by representation to matron	No, except as members of Committee of Management	Subscription.
Charing Cross	Yes; both	Yes	Yes; management of hospital under authority of the Council	Medical staff are all on the Medical Committee	Not directly; St. John's Home sisterhood	No	Subscription, and subsequent election.
Middlesex	Not in virtue of their office	Yes, as members of the Medical Committee	Yes; whole of the staff and four outsiders; all medical matters under its control	Yes; staff not on it	Yes; through the Medical Board	No	Subscription.
University College	No	Yes; three delegates of the medical staff attend as members of the Hospital Board of Management	Yes	Yes; House and Finance Committee; and a member of the staff attends once a month	Yes; the medical men control the work, under sisters of All Saints' Home	Yes; through the Board of Management	Subscription.
St. Thomas's	Usually elected governors; at present time, seven; two of these gentlemen on the Grand Committee; two on House Committee, with power to vote	Only through representation on the House-Committee	No; only School Committee	Yes; includes two of the honorary staff and three representatives of acting staff, without vote	Only through the House-Committee	Through the House Committee	Election, and subscription of large donation (of £50)
St. Bartholomew's	Yes; elected as governors	They are consulted	Medical Council advise the governors	Yes; but the staff not on it	Not directly; but no new sister is appointed without the approval of the physician or surgeon	Consulted on the last appointment	Election, usually with subscription.
London	No; may make themselves governors	No; may make themselves governors	Medical Council, to which medical questions are referred	Committee of thirty, chosen by the governors annually; but none of the staff upon it	No	No	Subscription.
Guy's	No	No	No; medical examining Council for school	Court of Committees, consisting only of governors	Two representatives of the staff attend the new Taking-in Committee, consisting of ten governors, to deliberate on medical and nursing arrangements, to be confirmed by Court of Committees	No	Election.

Mr. HOLMES read a paper on hospital management, which is published at page 423. He concluded by proposing the following resolution: "That this meeting regards it as essential for the proper management of any hospital, that the medical staff should be efficiently represented in the government of the hospital".

Mr. JOHN WOOD seconded the resolution. He agreed with Mr. Holmes in almost all points. The position that the medical officers must have a share in the management of hospitals was incontrovertible. In King's College Hospital, all the senior members had a fair share in all affairs relating to the management of the hospital. It would be difficult to lay down a rule which should be applicable alike to the various circumstances of the different hospitals; and he would prefer that the management should be adapted to the circumstances, rather than that a rigid plan should be laid down. This might be done, while at the same time the principle of representation of the medical staff was carried out.

Mr. H. C. BURDETT (who was present as a visitor) said that he had for several years taken a deep interest in hospital management. Mr. Holmes had gone over much ground in his paper; but he had not exhausted the subject, which was surrounded with great difficulties. It would not be possible to get rid of abuses, until there was an authoritative statement of the expenses of the hospitals in London and the country. By the courtesy of the officials of the Hospital Sunday Fund, he had been able to collect information of this kind. He had calculated the expenditure of 249 institutions, and had arrived at facts which proved the necessity for inquiry. The cost for patients varied from 10s. 6d. to £1 6s. 0d. in hospitals of 50 beds and under; altogether, it varied from 10s. 6d. to £1 11s. 7¼d. On financial grounds alone, there was reason for the appointment of a Royal Commission. A senior governor of Guy's Hospital had recently remarked to him that the present plan of management was very unsatisfactory, and that he had arrived at this conclusion after having been in contact with other hospitals. As regarded special hospitals, there were no doubt great abuses, and they were sometimes established for private ends; but they had shown a practical way of dealing with the out-patient system by calling on the patients to contribute according to their means. The system,

however, was wrong when the rejected applicants were presented with cards containing the names and addresses of the medical officers. The out-patient departments of St. Thomas's and St. Bartholomew's Hospitals might not only be made self-supporting, but enough money might be raised by the payments from patients to supply the vacant beds. At the Seamen's Hospital, the sum of £1,710 was received last year in payments from patients. With regard to medical schools, he thought it an anomaly that the school on which the medical staff had spent money should become the property of the governors of the hospital. It should be under the control of the men who had worked, and had provided the funds; and the money raised for the school should be invested, and devoted to its improvement as a part of the property of the hospital.

The resolution was carried unanimously.

Mr. JOHN WOOD proposed: "That, in the management of hospitals, the necessary arrangements as regards medical treatment should be under the control of the medical staff".

The term "necessary arrangements" was somewhat indefinite, as these varied in almost every hospital and medical school. Treatment involved medical teaching, and the presence of students in the wards; but this interfered with other parts of the nursing arrangements. Whatever were the evils of division, such as had occurred at Guy's Hospital, it must be remembered that contests did not necessarily depend on any special system of nursing: they existed long before any of the new nursing systems were introduced. There had always been disputes between the medical staff and the matrons of hospitals. He believed that all that was required to make affairs work peaceably was direct means of ready access to the matron, and that the medical staff should be represented in the committee of management, and have complete control of all matters relating to treatment. At King's College Hospital, the medical staff was represented in the board of management, and made a report monthly on the nursing. Complaints were noted, and were at once attended to: no doubt through the representation of the chairman of the board to the sister in charge. There was, perhaps, more difficulty in large hospitals: but, in any case, the fewer the number of independent committees, the better would be the management.

Mr. SIBLEY seconded the resolution; he differed, however, in some respects from Mr. Wood. It was most essential that the medical element should be strongly represented. At the Middlesex Hospital, there was a separate medical committee, consisting of the staff and a few medical men not connected with the hospital, which took cogniance of all purely medical matters, such as the management of patients, the supply of drugs, etc. The general affairs of the hospital were managed by a weekly board, chosen by the governors. The members of the medical staff might be on this board; but practically they were not. He agreed with Mr. Wood that it was not desirable to lay down any absolute rule, provided that the medical element was well represented.

Mr. WOOD said that there was a medical board at King's College Hospital, to consider medical affairs.

Mr. SIBLEY, in reply to a question, said that the medical committee at the Middlesex Hospital had no direct authority. Its decisions might be overruled by the weekly board; but this had never occurred; and if it did occur, there would be an appeal to the quarterly court of governors.

Dr. R. BARNES said that the medical staff could exercise no control, and the management could not be satisfactory, unless they formed part of the governing board. The secret of the whole trouble lay in the giving over the nursing to bodies external to the hospital, so that no proper authority could be exercised over the nurses. He thought that there was a great want of unanimity—of *esprit de corps*—in the medical profession. If the whole staff of Guy's Hospital had resigned, their places would have filled—he would not say how.

The PRESIDENT said that the discussion had wandered somewhat from the subject of the resolution, which referred to such questions as the interference of nurses by opening windows, washing patients, etc., in spite of the orders of the medical staff. It should be a condition that every medical man should have control over his own patients.

Mr. ALMACK (secretary to King's College Hospital) said that the agreement between King's College Hospital and the St. John's Home nursing institution contained this provision.

Dr. GILBART SMITH said that one important object of large hospitals was to teach the profession how to deal with the sick and suffering. At the London Hospital, the school had been placed under the management of a board of twelve—six members of the staff and six laymen. As secretary to that committee, he had had an opportunity of seeing how lamentably deficient the layman was in the knowledge of medical matters; and, on the other hand, medical men were imperfectly acquainted with the general working of hospitals. Such a board as that at the London Hospital gave opportunities for mutual information.

Mr. RENDLE had been a student at Guy's Hospital fifty years ago. He thought that the public could take a stronger action than the medical staff in promoting the improvement of hospital management: and with this view he had agitated the question of Guy's Hospital in Southwark. The use of the hospitals as medical schools must never be considered their primary object: there was a large class of people who, though unable to pay ordinary medical fees, were not subjects for the workhouse, whose interests must be attended to. The governors of Guy's Hospital had departed from the Act of Parliament under which they acted. In the first committee there were four members of the medical staff; now all were eliminated. He thought that there should be a special inquiry into the management of Guy's Hospital. The matter had been much agitated in Southwark, and an appeal had been made to the Home Secretary for the appointment of a Royal Commission of Inquiry.

The resolution was carried.

The discussion on other resolutions, relating to the nursing arrangements in hospitals, was postponed, the hour of closing the meeting having arrived.

Mr. HOLMES moved, Dr. HEYWOOD SMITH seconded, and it was resolved: "That a sub-committee be appointed to collect information on the subject of hospital management, and to present the same at an adjourned meeting: the committee to consist of the President and Secretaries of the Branch, Mr. John Wood, Dr. Bristowe, Mr. Macnamara, Mr. Holmes, Dr. Mouat, Dr. Gilbart Smith, Dr. Heywood Smith, and Mr. H. C. Burdett".

THE GOVERNMENT CALF-LYMPH STATION.

A FIRST step has at length been taken by the Government towards the fulfilment of the pledge given by Mr. Dodson in the House of Commons nine months ago, that he would make arrangements for the supply of vaccine-lymph direct from the calf to practitioners who prefer it to lymph of long humanisation. In the just issued Civil Service estimates for the financial year 1881-2, appear sums of £400 for the salary of a director of the "Animal Vaccine-lymph Station", £150 for an assistant to the director, £100 for attendance, £300 for the supply of calves, and £250 for the keep of calves and incidental expenses. It is to be hoped that there will now be no further delay in perfecting the arrangements for the supply of animal lymph—a supply that is daily becoming more needed, in view of the extension of small-pox in the metropolis and various other parts of the kingdom. For the responsible and arduous post of director of the new station, Mr. Dodson has selected Dr. Robert Cory, who has now for some years held the appointment of principal vaccinator of the National Vaccine Establishment, in succession to the late Mr. Marson. Dr. Cory attended the conference on animal vaccination held by the Parliamentary Bills Committee last summer, which led to the present action of the Government, after a deputation to the President of the Local Government Board, headed by Mr. Ernest Hart, as Chairman of the Committee and Conference; and, subsequently, Dr. Cory accompanied the chief medical officer of the Local Government Board, Dr. Buchanan, on his tour of inspection of the flourishing animal vaccine stations on the Continent, the experience of which will naturally be of great value in making the necessary arrangements for the station in London. Dr. Cory has proved himself a successful and accomplished vaccinator by the ordinary arm-to-arm method, and will doubtless achieve equally satisfactory results in his new sphere of usefulness.

INTERNATIONAL MEDICAL CONGRESS, 1881.

WE have received the following communication from the General Secretary.

Preparations for the approaching International Medical Congress are being vigorously pushed forward by the Executive Committee, and the arrangements are now beginning to take a more definite form.

The inaugural address by Sir James Paget, the President-elect of the Congress, will be given in St. James's Great Hall, which has been already engaged for the purpose, on Wednesday morning, August 3rd. The following mornings will be devoted to the business of the various sections, while the afternoons (with the exception of Saturday afternoon, which will be left free for garden-parties, excursions, etc.), will be occupied by the general meetings of the Congress, at which four addresses will be given by distinguished men of four nationalities. Three gentlemen have already promised to give these addresses: Professor Huxley, probably on "The Connection of General Science and Medicine"; Professor Volkmann, of Halle, on "Modern Sur-

gery"; and Dr. Billings, of Washington, on "Medical Literature". The fourth address, to be given by a distinguished Frenchman, has not as yet been finally arranged. The meetings of the various sections will be held in rooms at Burlington House, courteously placed at the disposal of the committee by the University of London, the various Learned Societies, and the Royal Academy of Arts. This, however, not providing the required amount of accommodation, the committee have engaged Willis's Rooms for the occasion, and four of the sections will hold their meetings there. As stated in an earlier notice, no fewer than 40,000 individual medical men in various parts of the world received the original circular of invitation during August and September of last year, and since then the secretaries of the various sections have been actively engaged in circulating provisional lists of subjects which seemed, in the opinion of the committees of the sections, those best suited for discussion and papers. Numerous replies have been received in answer to these communications, in some cases leading to alterations in the subjects selected. These amended programmes have again been distributed among those most likely to take interest in them, and are now combined into a pamphlet, and issued, together with the rules of the Congress, printed in the three official languages, to any medical man making application for them to the Secretary-General.

Since the list of names published in November last, a large number of our foreign colleagues have definitely announced that they will come to the meeting, and there seems every prospect of the attendance from abroad being a full one. Meanwhile, depending on the number of names appearing as officially connected with the Congress, and on the subscription-list, together with the number of gentlemen from abroad who have positively stated their intention to attend, a certain estimate of one thousand members may be made, and it seems not unreasonable to assume that at least double that number will attend.

The Reception Committee are busily engaged, and have decided upon giving an evening reception at South Kensington, and perhaps a second in the Albert Hall; but at present the state of the subscription-list does not warrant them in making the arrangements definitive. The Lord Mayor purposes entertaining members of the Congress at dinner at the Mansion House, on August 4.

A temporary museum will be opened during the sittings of the Congress in the rooms of the Geological Society. All objects of novelty or rarity having reference to the processes of disease or the results of injury, will be acceptable for exhibition. The committee in charge of it will be especially obliged by the loan of drawings, photographs, and models, for the efficient display of which careful arrangements will be made. They will be glad to receive and exhibit all preparations and drawings used for the illustration of papers in the various sections, or having reference to the subjects discussed.

There will also be an exhibition of living examples of certain rare diseases.

Arrangements will also be made for the exhibition of a limited number of microscopic objects. In most instances, it will probably be found convenient for the exhibition of special series to take place at fixed times, previously arranged and announced, at which the exhibitor will probably attend to give explanation.

All communications regarding this Section are to be addressed to the Secretary, Mr. H. H. Clutton, 16, Palace Road, St. Thomas's Hospital, S.E.

BARNSLEY RURAL DISTRICT.—Dr. Sadler gives the death-rate of the entire rural district of Barnsley as 23.3 per 1,000, which is by far too large for a district so circumstanced. He gives also the death-rates for the individual parishes; but deductions from such figures, necessarily based on very small numbers, are, as we have often pointed out, inaccurate and delusive. The mortality amongst children was enormously high—the deaths of infants under one year of age amounting to 34.96 per cent., and of children under five years to 63.19 per cent. of the total. These figures indicate great ignorance or carelessness amongst parents as to the way in which children should be brought up and cared for; but it would have been satisfactory to have had more particulars on the subject, as well as the heavy mortality from diarrhœa. Of the total deaths, more than 23 per cent. were from zymotic diseases, the greater number being amongst children. Dr. Sadler says that the sanitary officers did what they could to check the spread of epidemics, but were seriously hampered by the difficulty in getting early information of the first cases, and the impossibility of securing proper isolation, owing to the carelessness of the parents in the classes in which they are most prevalent. A suggestive summary of sanitary progress, made since the appointment of the health-officer in 1873, indicates that the local authority is alive to its duties, though there are many matters still needing its early attention.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the offices of the Association, 161A, Strand, London, on Wednesday, the 13th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, March 15th, 1881.

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: WEST SURREY DISTRICT.—The next meeting of the above will be held on Thursday, March 24th, at the County Hospital, Guildford, at 3.45 P.M.; Dr. Morton in the chair. The following communications have been promised: 1. Mr. W. Rose: On the Treatment of Fractures of the Patella and Knock-Knee by Operation. 2. Mr. Henry Taylor: Death from Gall-stones. 3. Mr. Butler: A Case of Compression of the Brain from Contrecoup. 4. Mr. Roome: A Case of Cerebral Rheumatism. 5. Mr. C. J. Sells: A Case of Addison's Disease. Dinner will be provided at 6 P.M. precisely, at the White Lion Hotel; price 5s., exclusive of wine.—A. ARTHUR NAPIER, Honorary Secretary, Broad Oak, Cranleigh.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.—A special meeting of the members of this district will be held at the Rooms of the Medical Society of London, 11, Chandos Street, Cavendish Square, on Tuesday, the 22nd day of March, at 4.30 P.M., to consider the necessity of establishing a General Hospital for North London.—T. STRETCH DOWSE, M.D., Honorary Secretary, 14, Welbeck Street, Cavendish Square, W.—March 7th, 1881.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.—The next ordinary meeting of this district will be held at the house of Stephen Alford, Esq., 61, Haverstock Hill, on Thursday, March 24th, at 8.30 P.M., when the following papers will be read: Mr. Lennox Browne: On Tubercle and Syphilis of the Larynx, and show Drawings of the same by the Oxyhydrogen Limelight. Mr. Alford: On Defective Nerve-Power as a Primary Cause of Disease, with special relation to Dipsomania. Dr. Norman Kerr: On Heredity in Alcohol a Predisposing Cause of Dipsomania.—T. STRETCH DOWSE, M.D., Honorary Secretary, 14, Welbeck Street, Cavendish Square, W.—March 7th, 1881.

THAMES VALLEY BRANCH.—The next meeting of this Branch will be held at the Griffin Hotel, Kingston, on Thursday, April 7th, at 6 P.M. Dr. Urban Pritchard will read a paper on The Simples of Aural Surgery.—EDWARD L. FENN, M.D., Honorary Secretary.—Richmond, March 16th, 1881.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above will be held on Wednesday, March 30th, at the Burlington Hotel, Eastbourne, at 3 P.M.; Dr. Jeffery in the chair. The following papers are promised. 1. On Idiopathic Anæmia: by Dr. W. Withers Moore, President of the Branch. 2. Cases of Unilateral Hemiplegic Anasarca consequent on Scarlatina: by Dr. W. J. Treutler. 3. Case of Gunshot Wound of the Eye, with subsequent Correspondence about the Case: by Dr. Treutler. 4. Proposition to form an Ethical Committee of the Branch with a view to the Maintenance of the Interests and Good Relations of the Members: by Dr. Treutler. 5. Notes on a Case of Embolic Infarctions in several Organs following Ulcerative Endocarditis: by Dr. E. Fussell. Dinner at 5.30 P.M.; charge 6s., exclusive of wine. Notice of intended communications, to be inserted in the usual circular, is requested to be sent, not later than Tuesday next, 22nd inst., to the Honorary Secretary, THOMAS TROLLOPE, M.D., 9, Maze Hill, St. Leonard's-on-Sea.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE fourth ordinary meeting of the session was held at the Grand Pump Room Hotel, Bath, on Thursday, March 3rd; Mr. ALEXANDER WAUGH, President, in the chair.

New Members.—The following gentlemen were elected members of the Branch and of the Association: R. Roxburgh, M.D., Weston-super-Mare; G. M. Smith, Esq., Clifton; G. Smith, Esq., Westbury-on-Trym; W. Taylor, M.D., Westbury-on-Trym; C. H. Cattle, M.D., Midsomer Norton.

Papers.—The following papers were read:

1. On Primary Healing and Antiseptics. This led to a very lively discussion, in which Messrs. Prichard, Dobson, and Cross took part.

2. Notes on Antiseptic Ovariotomy: three cases. This also led to remarks from several members.

HOSPITAL FOR EPILEPSY AND PARALYSIS, PORTLAND TERRACE.—A series of lectures will be delivered at the hospital by members of the staff on the following Mondays at 5 P.M.: March 21st, Dr. J. Althaus, On the Physiology and Pathology of the Olfactory Nerve; March 28th, Dr. T. S. Dowse, On the Initial or Preataxic Stage of Locomotor Ataxia; April 4th, Dr. W. A. Sturge, On Some Points in connection with Muscular Atrophy; April 25th, Dr. Althaus, The Diagnosis and Treatment of some Forms of Paralysis from Brain-Disease; May 2nd, Dr. T. S. Dowse, On the Diagnosis and Treatment of Apoplexy; May 9th, Dr. W. A. Sturge, On some of the less Common Forms of Cerebral Paralysis.

SPECIAL CORRESPONDENCE.

MELBOURNE.

[FROM OUR SPECIAL CORRESPONDENT.]

Hospital Management.—An Unfortunate Case.—Training of Nurses.—Presentation to Dr. Stewart.

THE management of our hospitals has, within the last few weeks, been undergoing severe criticism. The Chief Secretary gave vent to strongly pent-up feelings on the mismanagement of these institutions. He has reduced the vote of money to all the charities, and seems to regard with feelings of satisfaction an expected climax in the affairs of the Melbourne Hospital, so as to give the Government a long sought for opportunity of controlling and directing the affairs of this institution. There seems no doubt that at present the management is lax, and that a large amount of extras and stimulants are condescended to for the sole purpose of popularity. The honorary appointments are renewed every four years; and, at the above institution, the elections are solely influenced by the votes of subscribers. The appearance at the hospital on election days resembles very much the political hustings. Sometimes, he who has the most money can add a few hundred subscribers to the list, and so easily increase his votes. At the Alfred Hospital, the power of election lies entirely with the Committee of Management, exclusive entirely of any external interference.

A case occurred a short time ago illustrative of the want of attentive interest on the part of honorary physicians towards their patients, whereby undue responsibilities are placed in the hands of their resident medical officers. A female patient, suffering from severe and extensive burns, extending from the right shoulder down the whole of the right side, arm, hand, and thigh, the left arm and left thigh, was admitted into the Melbourne Hospital. Shortly after her admission, pneumonia and delirium set in. Her wounds were dressed by one of the resident surgeons, it appears, at somewhat irregular intervals, some days even being allowed to elapse. The patient, becoming delirious, was ordered, by the resident, to the refractory ward; but, owing to the intervention of the matron, the directions were countermanded. The patient complained of a creeping sensation under the dressing; the nurse took the dressing off, and found a number of maggots. The matron, on her own responsibility, dressed the wounds; the resident thereupon complained of her interference to the committee. The Visiting Committee, who received a communication from the secretary, inquired into the whole affair, and expressed it as their opinion that the matron was deserving of thanks for the responsibility she had assumed. The patient shortly afterwards died, and a coroner's inquest was held; the following verdict was returned: "That the deceased died from burns accidentally received, and that the attention of the hospital committee be called to the state in which the deceased was found on the day she was dressed by the matron." In reviewing the facts of this case, and giving full acknowledgment to the most worthy intentions that the matron possessed at the time, we must still consider it highly dangerous that she should have been permitted independent action, and consider her procedure most certainly to blame, as some honorary physician ought, in this instance, to have been communicated with, and held responsible.

The institution for the training of nurses for the Alfred Hospital was duly opened in the presence of the Committee of Management, the members of the staff, the nurses, and a number of visitors. Mr. Ellery, F.R.S., took the Chair. Dr. J. Blair, the Chairman of the Staff, delivered an opening address, in which he alluded to the great progress lately made in the department of nursing. In expressive words, he spoke of woman as a natural nurse of humanity. He acknowledged the sacrificing and noble services of Miss Florence Nightingale; and he tried to arouse an interest among the female population of this country in what he considered the highest accomplishment of life, namely, an intelligent experience in nursing. He wound up by addressing himself to the nurses present, instructing them in the fundamental principles of their profession. The Chairman, in thanking Dr. Blair for his address, mentioned that the idea originated with Dr. Louis Henry, to whom some thanks were due for the active interest he had taken in the working out of the scheme. The first lectures begin with this year.

Dr. D. G. Stewart, late President of the Alfred Hospital, was invited by the staff, prior to his leaving for Tasmania, to a farewell supper, at which he was presented with a handsomely illuminated address.

PROFESSOR SKODA's eighty-first birthday was celebrated in Vienna on February 26th.

CORRESPONDENCE.

THE MIDDLESEX HOSPITAL.

SIR,—I see by an account of the annual meeting of the Middlesex Hospital, that the committee have decided to close certain wards if more funds are not forthcoming. My object in writing is to protest in the name of charity, and in the interests of sound clinical teaching, against any such course being adopted. I do so because I know the Middlesex Hospital is entitled to take a high place amongst similar charities on account of the excellency of its management. At the recent meeting of the Metropolitan Counties Branch, when Mr. T. Holmes's paper was read, the scheme of government at the Middlesex Hospital was deservedly extolled. It is an excellent, an ably conducted, and a most successfully nursed charity, and I make bold to say it is as easy to get money, not a little, but as much or more than is wanted from the charitable public for the Middlesex Hospital, as it is to make a reasonable profit in a well-managed business. I cannot for one moment allow that the fault of the diminished income lies at the door of those who have to give and to spare. On the contrary a knowledge of the excellence of the work done leads me to the conclusion that this model hospital only needs the minimum of financial energy and expertness at its back to secure the maximum of charitable revenue. I would, therefore, urge that a proper and an adequate system of raising the necessary annual income should at once be instituted at the Middlesex Hospital, and that the governors should insist upon increased exertions on the part of the managers, whilst firmly declining to allow a single bed to be closed. The poor deserve better and more just treatment than this unnecessary closing of wards.

—I am, etc., HENRY C. BURDETT.

39, Gloucester Road, Regent's Park.

ANIMAL VACCINATION.

SIR,—A great number of medical men apply to me for animal lymph from the Government institution of vaccine at Brussels. They are either not aware, or may have forgotten, that Mr. E. Darke, of 3, Hemming's Row, Charing Cross, London, W.C., is my only agent for that supply in the United Kingdom; and it is to him that all applications must be made.

If you will have the kindness to insert this letter in the next number of your JOURNAL, it will be the means of saving fruitless trouble to many members of the profession.—I am, etc.,

Brussels, February 25th, 1881. E. WARLOMONT.

N.B.—All orders must be transmitted before the Tuesday in each week. The price of the large tubes or points is two shillings each, and one shilling for the small ones. Payments to be made by post-office order.

ADMISSION TO COLLEGE FELLOWSHIPS.

SIR,—In the discussion which has been going on in the medical journals concerning the Fellowship of the Royal College of Surgeons of Edinburgh, the fact has been apparently lost sight of that it is quite open to question whether the admission to the Fellowship is best given by examination solely.

It appears to me that a college, which declares a candidate fit to practise the art and science of surgery, and, a few months afterwards, rejects him in the same subjects—as, I believe, not unfrequently happens at the Royal College of Surgeons of England, when a member presents himself for the final examination for the Fellowship of that College—simply stultifies itself. No doubt, I shall be told that this diploma is intended for consultants, and those who practise the higher branches of surgery; but, in the greater part of Scotland, and in many towns in England, the necessity for consultants, as a race apart, is not perceived. I fail, too, to see what operations, or what branch of surgery, a Fellow may be called on to undertake, which may not equally fall to the lot of a member or licentiate: hence I do not understand the necessity for a second examination in the same subjects for the Fellowship.

Should we not first set our own house in order before finding fault with our neighbours? Take, for example, the English College of Surgeons: it grants what it terms its membership (although the members of this college have no voice in its management), after two professional examinations—the first in anatomy and physiology; the second in surgery, pathology, and medicine, with a smattering of materia medica, totally ignoring therapeutics, clinical medicine, midwifery, and diseases of women; and with this qualification gentlemen are put on the *Register*, and allowed to practise any branch of their profession—

the public, meanwhile, being naturally led into the belief that they are fully qualified practitioners. Such a scandal as this does not, I am happy to say, exist in Scotland.

For my own part, I would desire to see the Fellowship given simply as a recognition of the status of a man in his profession. Whether this is carried out under the present regulations for the admission to the fellowships of the Royal College of Surgeons of Edinburgh may well be open to doubt; but I shall decidedly record my vote against admission to this honour by examination only.—I am, sir, yours obediently,

F.R.C.S.Edin., Member British Medical Association.

March 5th, 1881.

MILITARY AND NAVAL MEDICAL SERVICES.

THE long and distinguished services of Surgeon-General Thomas Longmore, C.B., Honorary Surgeon to the Queen, and Professor of Clinical and Military Surgery at the Army Medical School, Netley, have been recognised by his appointment to the distinguished service reward vacant by the death of Inspector-General Charles Whyte.

SURGEON-MAJOR F. B. SCOTT, M.D., has been selected by Sir Frederick Roberts as the medical officer to be attached to his head-quarters staff. He held a similar appointment on the staff of Lord Chelmsford during the Zulu campaign, and subsequently accompanied the Empress Eugénie on her mournful pilgrimage to South Africa.

WE hear that it has been decided to entrust Deputy Surgeon-General, J. L. Holloway, C.B., who has been some time Principal Medical Officer at the Cape, and who served as Second Medical Officer in the Zulu campaign, with the duty of organising the medical arrangements for General Sir F. Roberts' expedition to the Transvaal. Mr. Holloway is to be assisted by Brigade-Surgeons E. M. Sinclair, M.D., W. H. Corbett, M.D., and W. Skeen, M.D., and a large body of executive officers.

DEPUTY-SURGEON-GENERAL JAMES CARROLL DEMPSTER, M.D.—The death is announced, on the 25th February, of Deputy Surgeon-General James Carroll Dempster, M.D. The deceased served with the 46th Regiment in the Crimea, including the siege and fall of Sebastopol, and attack of the 18th June (medal and clasp and Turkish medal); accompanied the expedition into the Hazara district under Sir Sydney Cotton in October and November, 1857 (medal with clasp); was in medical charge of the movable column from Ferozepore after Tantia Topee in February and March, 1859; served in the New Zealand war of 1863-65, and was with the 50th Regiment at the storm and capture of Rangiawhia on the 21st February, 1864—mentioned in despatches (medal).

IT is reported that the Army Hospital Corps at the Cape is to be strengthened so as to complete it to two field hospitals. Twenty-seven men, under a lieutenant of orderlies, have been already sent out in the *Roman*, and an additional draft is being prepared to leave at an early date. Each field hospital will be equipped to provide for two hundred patients, and will be supplied with transport to enable it to accompany the troops in all their movements. The field hospital will be composed of two parts—a bearer company, which, when an action is about to take place, will follow the troops as closely as possible, the hospital itself remaining stationary, as near to the field of battle as is convenient. Fifty tents form part of its equipment. At the field hospital, however, only those who are likely to be soon fit for duty, or whom it would be dangerous to move, will be retained; the others being as soon as possible removed to the stationary hospitals established along the line of communication.

OUR TROOPS IN AFGHANISTAN.

OUR correspondent at Quetta mentions that Deputy Surgeon-General Simpson, Bengal Medical Department, has recently arrived at Candahar as Principal Medical Officer of the Field Force, relieving Deputy-Surgeon Bruce, of the Bombay Service, who will proceed to Quetta as Principal Medical Officer of the line of communication. There is every probability of an early evacuation, and Hashim Khan is expected from Farrah to attempt to form a government. Most of the troops will be glad to leave, especially the 2nd Battalion 11th Regiment, which has suffered severely from fevers and dysentery. The climate at present is charming, and it is to be hoped the Pisheen Valley and Quetta will be equally so during the summer, as it is believed a movable column of mixed troops will be kept in the former, and a large garrison, including two European regiments, will remain at the latter. The climate of Quetta has been very mild during the winter, no snow having fallen on the plain, and the health of the garrison has been excellent. In November and December there was a large mortality among invalids sent down from Candahar. At the suggestion of the senior medical officer, we hear, a sanitary committee has been appointed to secure, if possible, cleanliness (no easy matter when large numbers of natives are concerned) and freedom from epidemic disease, which may break out, as before, during the march of the force to India. It seems the idea of a railway has been abandoned; but, with a good road through the Bolan Pass, and a large garrison, Quetta will probably be the immediate base of any future operations. It is centrally situated, being only three marches from the Pisheen Valley and four from the Kojak Pass, with an arsenal and commissariat stores. The water-supply is copious, though difficult to obtain pure, except from covered wells or a *karèz* (an underground aqueduct peculiar to the country). There are large base hospitals for Europeans and natives, and medical stores for the division.

At the southern end of the Bolan Pass there is a field hospital, close to the railway terminus of Pir Chowkey, from which there is rapid communication through Sukkur with Lower Scinde and the Punjab. All the medical arrangements seem to work smoothly, though the officers and subordinates are collected from the three Indian presidencies, and amalgamated with those of the home service into one "Army Medical Department". We think it should be always so, and that the civil branch should be entirely separate and distinct from the military—one "Army Medical Department" and one "Indian Civil Medical Service".

THE NATIONAL SOCIETY FOR AID TO THE SICK AND WOUNDED IN WAR.

THE above society, of which Colonel Loyd-Lindsay is chairman, has, we (the *Broad Arrow*) understand, formulated a scheme whereby an efficient staff of nurses shall be at hand in our military hospitals to supplement whenever required at the seat of war, the regular nursing establishment. It has been arranged that a certain number of nurses, to be engaged under conditions framed by the society, shall be sent to Netley and Woolwich, there to undergo a regular course of training under the directions of Superintendents of Army Nurses. When the training is complete, they will for a specified time be eligible for duty in station hospitals, and will in the end form a valuable nucleus to fall back upon when emergencies arise. For all disciplinary purposes they will, whilst in the military hospitals, be entirely subject to the Army Medical Department, but they will be maintained and paid by the society. We understand that this plan will come into immediate operation, and we cordially wish it every success, as it is the first genuine attempt which has been made to associate private philanthropy with military organisation in the matter of nursing the sick and wounded. The measure, in fact, appears to give promise of removing all those causes of friction and those incessant misunderstandings which are inevitable when benevolent enterprise insists on making itself independent of the controlling authorities.

OLD SOLDIERS AND YOUNG SOLDIERS.

SIR,—In the controversy which is now being carried on as to the relative efficiency of old and young soldiers, it is interesting to draw upon medical statistics for some insight, at all events, as to their relative mortality and invaliding. In the long run, the question will resolve itself into this; for the amount of sickness and general inefficiency must bear a certain ratio to these two results. The latest authentic data which we possess on the subject are in the *Army Medical Report* for 1878; and a few of the returns are here extracted for consideration, dealing with the largest numbers of men, and including the army at home, as well as the whole European force in India, a total of 156,238 men.

In the United Kingdom, 1878, with a strength of 100,129, the annual death-rates per 1000 at the following ages were: under 20, 2.92; above 20 and under 25, 4.27; above 25 and under 30, 5.28; above 30 and under 35, 9.05; above 35 and under 40, 13.52; above 40, 21.54.

In the East Indies, three presidencies, with a strength of 56,109, in 1878, the annual death-rates per 1000 were: under 20, 6.55; above 20 and under 25, 19.82; above 25 and under 30, 20.93; above 30 and under 35, 22.71; above 35 to 40, 23.88; above 40, 63.46.

The annual death-rates for ten years, 1868 to 1877, in India, at the same ages as above, were respectively 8.17, 14.80, 17.46, 25.34, 31.55, 53.24.

The simple facts that seem to be deduced from these data are, that sickness and mortality are not to the greatest extent in the young soldiers; but rather, on the other hand, that they steadily increase by quinquennial periods; and that from 30 to 35, in what is called the prime of life, the death-rate of the soldier is more than double what it is from 20 to 25; and, from 35 to 40, mortality is actually trebled; and this is on home service. Taking the whole army of India—white troops—we do not find so great a contrast for the year 1878; but, on the average of ten years, as above, there is an excess of 10½ deaths per 1000 men between the ages of 30 to 35, over those of 20 to 25. And if we next look at the different arms of the service in India, and notice the relative proportions of deaths and casualties (per 1000), the disparity will be, perhaps, even more clear.

	Bombay (strength, 9,882).		Madras (strength, 10,880).	
	Deaths.	Invalids.	Deaths.	Invalids.
Cavalry	15.38	89.74	26.40	80.31
Artillery	23.91	66.97	23.74	48.24
Infantry	19.37	58.44	19.52	40.67

The inference from these Indian returns is that the corps with the longer service men had a much larger proportion of losses than the infantry, although these latter are, as a body, of a lower standard of physique, and younger on account of their shorter service; and the excess of invalids proves that these older soldiers broke down more decidedly than their younger infantry comrades. These remarks are thrown out merely as food for thought, and as a suggestion that there may be two sides to the question as to what is the period of life in which to secure most efficiency in the soldier; the above figures rather tend to show that the soldier is on the wane, and past his prime, by thirty years of age. When the Duke of Wellington wrote the accompanying letter (published in the *Times*, February 25th), no army medical statistics were made public, and little or no attention was given to hygiene; but still it is known as a fact that the mortality in those days was about 80 per 1000 among Indian troops.—I am, etc.,

SURGEON-MAJOR.

"London, July 25th, 1826.

"My dear Wynn,—I return Sir Herbert Taylor's letter and memorandum enclosed. I have always considered that men from thirty to forty years of age, particularly if they have been soldiers to that age, are the most efficient for soldiers, particularly in warm climates. As well as I recollect, we thought them so when I served in the East Indies; and I understand that they are still thought so serviceable as that men of the age of thirty-five are received from the King's service into that of the East India Company when the King's regiments are ordered home from India. If I am not mistaken, you will find, at the end of five years' service in the East Indies, or of ten years' service, more men alive who should commence their service at thirty or thirty-five years of age, than you would of the same numbers who should have commenced their service at the ordinary age of recruits—viz., from eighteen to twenty-two or twenty three. If I am right, it would be cheaper for the East India Company to send out the former.—Believe me, etc., WELLINGTON."

THE INDIAN ARMY MEDICAL SERVICE.

SIR,—Is the letter of Major-General R. Phayre, which appears in your issue of the 5th, bringing to notice the names of Indian medical officers which had been omitted from his previous despatch relative to the march of the Second Division of the Candahar Field Force, and expressive of regret because this had not been done before, exactly what it seems to be? or does it resemble the General Order of the Commander-in-Chief of India, dated October 28th last? This order asserts that the names of Surgeons-Major G. Farrell and C. P. Costello, of the Kurram Field Force, and of Surgeons-Major R. W. Cunningham, M.B., and G. Thompson, M.B., of the Southern Afghanistan Field Force—all four belonging to the Indian Medical Service had been omitted from a previous General Order of October 14th, 1879, "through an oversight". This last named order contained the names of officers who had been brought to notice during the campaign; and among them were several members of the Army Medical Department. It was notorious that the names of officers of the Indian Medical Service had also been submitted, though they had not appeared. It was further matter of notoriety in India that the attention of Sir P. Haines, the Commander-in-Chief, had been called to the subject; and that he must have been perfectly aware of the fact when he issued his General Order of October 28th, 1880, in which he calls the omission on his part of the names of the Indian medical officers "an oversight".

Until the Indian Medical Service is placed on a very different footing from what it has at present; has a proper head, who will assert and maintain the position of his officers; and until better faith is kept with its officers, and the rates of pension made at least equal to those of the Army Medical Department, young men should think twice before they enter it. At present, it is inferior in most respects to the sister service.—Yours faithfully, AN INDIAN MEDICAL OFFICER.

SIR,—Will "Surgeon" or "Indoctus" kindly say further, how is the financial position of a medical officer enhanced when serving in India with the British and native troops respectively?—I am, etc., ONE WHO DOES NOT KNOW.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

SUPERANNUATION.—At a largely attended meeting of the guardians of the Loughrea Union, on March 12th, it was unanimously carried that the full retiring allowance be given to their late medical officer, Dr. Francis James Lynch, who, for more than a quarter of a century, deservedly held in Connaught a leading place in medicine and surgery. On the same day, Dr. O'Donaghue, was appointed to succeed him as medical officer at the Union Hospital. Three candidates were in attendance.

POOR-LAW MEDICAL RELIEF IN SCOTLAND.

ON the 8th instant, a deputation, representing sundry parochial boards in Scotland, supported by several members of Parliament, waited on Mr. Gladstone, in his capacity as Chancellor of the Exchequer, for the purpose of urging on him the justice of increasing the Parliamentary grant in aid of medical relief from £10,000, at which it has stood for many years, to a much larger amount. Mr. Gladstone did not hold out much prospect of yielding to their wishes, intimating that the disposition of the Government was to abolish grants in aid, and in future to throw such expenditure on a county rate. Ultimately the deputation was referred to Lord F. Cavendish, who, in answer to the application of the requisitionists, said that the Government might be disposed to augment the grant if the various Scotch parochial boards would assent to the control of the Board of Supervision in the appointment and removal of parochial medical officers.

It is now upwards of ten years ago that the Select Committee on Scotch Poor Relief reported in favour of the introduction of the dispensary system, augmentation of medical officers' stipends, superannuation allowances, and permanence of appointments; and yet nothing whatever has been done to remove the disabilities under which the Scotch parochial medical officer labours.

To exhibit more clearly these disabilities, we may here state that the total expenditure on medical relief for an estimated population of 4,000,000 is under £40,000 a year; whilst in Ireland, for a population of about 6,000,000, some £145,000 is expended. Added to this, the Scotch parochial medical officer is dismissable at the caprice of his parochial board. It does not, therefore, admit of wonder, that the total expenditure on poor relief is infinitely greater per head of population in Scotland over that in Ireland.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Tuesday, March 15th.

Contagious Diseases Act.—Mr. HOPWOOD asked the Secretary of State for India whether he was aware that the Contagious Diseases Act was re-applied to Bombay early in 1880, in spite of strong objections expressed by a large number of influential natives and Europeans, including the Bishop of Bombay; whether the native justices and Municipal Council of Bombay had not declined throughout to vote money towards the expenses of the working of the Act; whether the Government of Bombay had deducted the sum of 15,000 rupees from the grant of 90,000 rupees usually paid by the Government towards the expenses of the Bombay City Police, although that grant was long previously agreed upon, after full discussion between the Municipality and the Supreme and Local Governments; and whether the Home Government approved the forcing of the Act in question upon a population so sensitive and peculiar as that of India in regard to the treatment of women.—The Marquis of HARTINGTON said he had received no formal information on this subject from the Government of Bombay; but their proceedings for last year contained references to it. He was aware that the Contagious Diseases Act was reintroduced last year in the city of Bombay, after having been dormant for some years, in consequence of the urgent representations of the military and medical authorities as to the prevalence of disease among the troops and the civil population. The measure excited some opposition; but he was not aware who were its principal opponents. The Municipality were called on to defray half the cost of working the Act, as they did when the Act was formerly in force. This they declined, expressing themselves as opposed to the Act, but offered to contribute 15,000 rupees a year towards the maintenance of lock hospitals. The Government called on them to pay this sum of 15,000 rupees, promising to devote it exclusively to the maintenance of lock hospitals. This they declined, and the Government then ordered that amount to be retrenched from the usual contribution made by Government to the cost of the Bombay police force. In the absence of a complete statement of the reasons which have influenced the Government of Bombay in the matter, he was unable to say whether their action could be entirely approved by the Government; but he observed that careful precautions had been taken to confine the operation of the Act to the class of public women; and that the Act had been long in force in the other Presidency cities, Calcutta and Madras. He would cause further inquiries to be made.

Thursday, March 17th.

The Indian Army Medical Department.—Sir TREVOR LAWRENCE asked the Secretary of State for India when the despatches regarding the reorganisation of the Indian Army Medical Department promised by him would be placed upon the table of the House; and when the Royal Warrant fixing the new scale of retiring allowances for Indian medical officers would be published.—Lord HARTINGTON said: Papers on the subject are being prepared for presentation to Parliament; but, in order to make the case complete, it is thought desirable to include a despatch from the Government of India containing a statement as to the nature of the improved scale of pensions for the medical staff. As soon as the despatch has been approved by the Council, the papers will be presented to the House.

Calf-Lymph.—Dr. CAMERON asked the President of the Local Government Board, whether any steps had been taken to give effect to his promise, made on the 11th of June last, that the Vaccination Department should supply calf-lymph as "stock" for vaccination to such medical practitioners as preferred it to ordinary humanised lymph; and, whether, in view of the alarming spread of small-pox in London, the department would consider the propriety of taking measures to secure a sufficient supply of vaccine lymph for the purpose of revaccination.—

Mr. DODSON: Steps have been taken. Careful inquiries have been made by the medical officers of the Local Government Board as to the supply of calf-lymph; but some time has been occupied in endeavouring to find suitable premises. It has been the work of some time; but I am happy to say that the matter is so far progressed, that I am able to appoint a medical director, and am in course of arranging with the Treasury as to the appointment of his staff. As to the last part of the question, I am afraid the department could not undertake to supply sufficient lymph for revaccination. The object for which the animal vaccine establishment was set up is limited to the supply of a sufficient quantity of "stock" lymph for primary vaccination.

MEDICAL NEWS.

UNIVERSITY OF DUBLIN.—SCHOOL OF PHYSIC IN IRELAND.—At the Hilary Term Examinations for the Degrees of Bachelor of Medicine and Bachelor in Surgery, the successful candidates passed in the following order of merit.

The degree of Bachelor of Medicine.

Godfrey Forrest Reid, Thomas Charles Moore, Hamilton M. Sproulle, John Rynne.

The degree of Bachelor in Surgery.

Godfrey Forrest Reid, Thomas Charles Moore, George de Joncourt Patterson and Richard Charles Studdert, equal, George Scriven, Hamilton M. Sproulle, John Rynne, Austin Cockle.

UNIVERSITY OF DUBLIN.—At the Hilary Term Spring Commencements, held according to custom on Shrove Tuesday, March 1st, in the Examination Hall of Trinity College, the following degrees in Medicine and Surgery were conferred by the University Caput.

Baccalaurei in Chirurgiâ.—Austin Johannes Cockle, Johannes Robert Fraser, Thomas Carolus Moore, Georgius de Joncourt Patterson, Johannes Rynne, Godofredus Forrest Reid, Georgius Scriven, Ricardus Carolus Studdert.

Baccalaurei in Medicinâ.—Johannes Robert Fraser, Thomas Carolus Moore, Godofredus Forrest Reid, Johannes Rynne, Jacobus Johnston Robinson.

Doctores in Medicinâ.—Gulielmus Butler Walsh, Johannes Fitzhenry Woodroffe.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, March 7th, 8th, 9th, and 10th, the following candidates were successful.

For the Licence to practise Medicine.—Henry Lysaght Hoops, Bridlington, Yorkshire; James Quirke, Wallslough; Henry James Wyatt, Dublin.

For the Licence to practise Midwifery.—Henry Lysaght Hoops, Bridlington Yorkshire; Clement Mallins, Surgeon H. M. Indian Army; Vincent Adolphe Passanha, Madras; Godfrey Forrest Reid, Londonderry; Frederick Thomas Skerrett, Dublin; Richard Charles Studdert, Dublin; Henry James Wyatt, Dublin.

For the Licence as Midwife and Nurse-tender.—Marion Gertrude Dalton Gleeson, Dublin.

The following Licentiates in Medicine of the College, having complied with the by-laws relating to Membership, have been duly admitted Members of the College.

John Joseph Duigenan, 1877, Edenderry; Richard Foster Owen, 1878, Liverpool; Richard Gelling Tyner, 1877, Colombo, Ceylon.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced:—

BICESTER UNION—Medical Officer. Salary, £60 per annum, with extra fees. Applications before April 1st.

*BOURNEMOUTH GENERAL DISPENSARY—Resident Medical Officer. Salary, £120 per annum. Applications on or before the 2nd April.

BRITISH LYING-IN HOSPITAL—Physician to the Out-Patient Department. Applications, with testimonials, to the Chairman of the Board of Management on or before April 9th.

*CARLISLE DISPENSARY—Assistant House-Surgeon. Salary, £90 per annum. Applications, with testimonials, to the Honorary Secretary.

*CHARING CROSS HOSPITAL, West Strand—Assistant Surgeon. Applications on or before Saturday, April 2nd, to the Committee.

*CLINICAL HOSPITAL AND DISPENSARY FOR CHILDREN, Park Place, Manchester. Honorary Medical Officer. Applications, with testimonials, etc., to the Secretary by Saturday, 26th instant.

DENBIGHSHIRE INFIRMARY—House-Surgeon. Salary to commence at £85 per annum. Applications, with testimonials, to be sent in by the 25th instant, to the Secretary.

*EASTERN DISPENSARY, Bath—Medical Officer. Salary, £100 per annum. Applications to the Honorary Secretary by April 1st.

ESSEX AND COLCHESTER HOSPITAL—Matron. Salary, £60 per annum. Applications on or before Wednesday, March 23rd.

*GLAMORGANSHIRE AND MONMOUTHSHIRE INFIRMARY AND DISPENSARY, Cardiff—House-Surgeon. Applications to the Secretary by March 29th.

*GREAT NORTHERN HOSPITAL, Caledonian Road, N.—Junior Resident Medical Officer. Applications to the Secretary on or before the 31st instant.

*GREENWICH UNION INFIRMARY—Assistant Medical Officer. Salary, £100 per annum. Applications, with copies of testimonials, to be sent in before the 31st instant.

*HULL GENERAL INFIRMARY—House-Surgeon. Salary, one hundred guineas per annum. Applications, with testimonials, on or before the 21st March next, to the Chairman of the House Committee.

KENT AND CANTERBURY HOSPITAL—House-Surgeon. Salary, £80 per annum. Applications, with testimonials, to be sent on Friday, March 25th, by 12 o'clock noon.

LEITH HOSPITAL—Assistant House-Surgeon. Salary, £60 per annum, with board. Applications, with testimonials, on or before April 8th.

*LIVERPOOL EYE AND EAR INFIRMARY—House-Surgeon. Salary, £80 per annum. Applications, with testimonials, to the Honorary Secretary not later than March 28th.

*PAROCHIAL BOARD OF CLUNY—Medical Officer. Applications to the Chairman of the Board.

*POPLAR HOSPITAL FOR ACCIDENTS—House-Surgeon. Salary, £100 per annum. Also Deputy House-Surgeon. Applications to the Secretary.

SCHOOL OF MEDICINE, SURGEON'S HALL—Lecturer on Anatomy. Applications by the 19th instant.

*SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY—Junior House-Surgeon. Salary, £50 per annum. Applications to the Secretary.

STOCKPORT INFIRMARY—Medical Officer—Salary, £70 per annum. Applications to the Honorary Secretary.

*ST. MARY'S HOSPITAL, Paddington, W.—Ophthalmic Surgeon. Applications to be sent in on or before the 31st instant.

*ST. MARY'S HOSPITAL, Paddington, W.—Electrician. Applications to be sent in on or before the 30th instant.

*TOTTENHAM TRAINING HOSPITAL—House-Surgeon (single). Salary, £150 per annum. Applications by April 30th.

*WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—House-Surgeon. Applications by Monday, the 28th instant.

*WEST SUSSEX, EAST HANTS, AND CHICHESTER GENERAL INFIRMARY—House-Surgeon. Salary, £80 per annum. Applications to the Secretary on or before April 9th.

*WHITEHAVEN AND WEST CUMBERLAND INFIRMARY AND FEVER HOSPITAL—House-Surgeon. Salary, £150 per annum. Applications, with testimonials, to the Secretary before May 1st.

WORKSOP DISPENSARY—Resident Surgeon. Salary, £120 per annum. Applications to the Honorary Secretary.

MEDICAL APPOINTMENTS.

CRAWFORD, C. H., M.D. (from Assistant-Physician), appointed Physician to the County General Infirmary, Stafford, *vice* J. T. Harland, M.D., deceased.

FAVELL, R., M.R.C.S.Eng., L.S.A., appointed Medical Officer to the Jessop Hospital for Women, Sheffield, *vice* E. Jackson, M.D., resigned.

PYBURN, G. W., B.A., L.R.C.P.Lond., appointed Surgeon to the Hull, Barnsley, and West Riding Junction Railway and Dockworks.

REID, G., M.B., C.M., appointed Physician to the County General Infirmary, Stafford.

ROBINSON, A. H., M.D., M.R.C.S., appointed Surgeon to the Hull, Barnsley, and West Riding Junction Railway and Dock Works.

RUSSELL, William, M.B., appointed Honorary Physician to the Carlisle Dispensary.

SAUL, W. Wingate, M.D., appointed Surgeon to the Duke of Lancaster's Own Yeomanry Cavalry, *vice* J. D. Moore, M.D., deceased.

POOR-LAW MEDICAL APPOINTMENTS.

JOHNSTON, H. M., M.D., L.R.C.S.I., appointed Medical Officer to Stranorlar Union Workhouse and Fever Hospital, *vice* James Love, M.D., resigned.

JOHNSTON, R., F.R.C.S.Eng., appointed Medical Officer of Health and District Medical Officer of the Wymondham division of the Melton Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

MARRIAGE.

RAE—DUNCOMBE.—On February 8th, at Christchurch Cathedral, Nassau, Bahamas, by the Rev. W. H. Strombow, Rural Dean, William Masters Rae, Esq., Surgeon Royal Navy, R. N. Hospital, Bermuda, to Beatrice de Saussure Kelsall, youngest daughter of the Hon. Frederick Duncombe, M.D., J.P., of Nassau.

AT Ripley, a few days since, a butcher named Langdon, was fined £130 for selling diseased meat. He had suffered previous penalties of £50 and £30.

CYRUS BIRKELL was fined £5 and costs by the North Riding justices at York, a few days since, for assaulting a lunatic patient who was under his charge while he was employed as an attendant at the North Riding Asylum.

LOCAL APPLICATIONS OF TURPENTINE IN DIPHTHERIA.—Dr. W. W. Cleave, writing in the *Louisville Medical News*, recommends the following as being a suitable form of application. It should be put on with a mop every two or three hours, until every vestige of the membrane disappears. It penetrates the deposit, lifts it off, and leaves a red shining base, that very soon gets well.

PUBLIC HEALTH.—The annual rate of mortality last week, being the tenth week of this year, in twenty of the largest English towns averaged 23.0 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Brighton 15, Bradford 18, Sunderland 19, Hull 20, Nottingham 20, Bristol 20, Portsmouth 21, Birmingham 21, Leicester 22, Salford 22, London 22, Sheffield 23, Wolverhampton 23, Plymouth 24, Newcastle-on-Tyne 25, Norwich 26, Oldham 26, Liverpool 26, Leeds 27, and Manchester 28. Scarlet fever showed the largest proportional fatality in Oldham, Leicester, Bristol, and Norwich; and whooping-cough in Nottingham, Manchester, and Leeds. Of the 12 deaths referred to diphtheria in the twenty towns, 9 occurred in London, and only 3 in the nineteen provincial towns. The death-rate from fever, although generally low, showed excess in Salford, Newcastle-upon-Tyne, and Leeds. Small-pox caused 60 more deaths in London and its suburban districts, and one in Manchester, but none in the eighteen other provincial towns. In London, 2,831 births and 1,590 deaths were registered. The deaths were 168 below the average, and gave an annual death-rate of 22.4. The 1,590 deaths included 58 from small-pox, 26 from measles, 20 from scarlet fever, 9 from diphtheria, 27 from whooping-cough, 17 from enteric fever, 8 from diarrhœa, one from dysentery, and none from typhus, simple continued fever, or simple cholera; thus, 166 deaths were referred to these diseases, being 71 below the average. The deaths referred to diseases of the respiratory organs, which had been 364, 367, and 419 in the three preceding weeks, declined again to 384 last week, and were 70 below the average; 242 were attributed to bronchitis, and 91 to pneumonia. Different forms of violence caused 58 deaths; 42 were the result of negligence or accident, among which were 17 from fractures and contusions, 3 from burns and scalds, 9 from drowning, and 10 of infants under one year of age from suffocation. Twelve cases of suicide were registered, which exceeded the corrected average by 5; four were effected by poison, and four by hanging. At Greenwich, the mean temperature of the air was 49.4°, and 8.7° above the average. The mean showed a considerable excess on each day of the week. The general direction of the wind was W.S.W., and the horizontal movement of the air averaged 20.0 miles per hour, which was 6.2 above the average. Rain fell on three days of the week, to the aggregate amount of 0.26 of an inch. The duration of registered bright sunshine in the week was equal to 21 per cent. of its possible duration. The recorded amount of ozone showed a considerable excess during the first half of the week.

THE office of medical officer of health is vacant at Hastings by the resignation of Mr. C. Ashenden. The candidates are: Mr. Francis H. Parsons, Dr. Bryan H. Allen, and Dr. Henry Humphreys, all well qualified for the post.

MILTON RURAL DISTRICT.—Mr. Sutton's report on this district is brief, and hardly sufficiently detailed. He records a birth-rate of 34·5 and a death-rate of 15.3 per 1,000; refers to the wave of scarlatina that passed over the district in 1880, appearing in almost every parish; and urges that the only way to cut short an epidemic of the sort is compulsory registration of infectious diseases, and isolation of the very first case that shows itself. Happily the last want is in course of being filled by the erection of a large fever hospital, now being built. The rest of the report is of purely local interest.

METROPOLITAN WATER-SUPPLY.—Dr. Frankland reports, as the result of his analyses of the waters supplied to the Metropolis during the month of February, that taking the average amount of organic impurity in a given volume of the Kent Company's water during the nine years ending December 1876 to represent unity, the proportional amount of impurity in an equal volume of water supplied by each of the other companies, and by the Tottenham Local Board, was:—Colne Valley 1.1, Tottenham 1.4, Kent 1.6, East London 4.9, West Middlesex 5.2, Chelsea 5.3, Southwark 5.9, Lambeth 6.0, Grand Junction 6.4, and New River 6.6. The average quality of the Thames water supplied was similar to that of the previous month; that distributed by the Chelsea and West Middlesex Companies showed, however, a marked improvement, while that of the Lambeth and Grand Junction companies was inferior. The only efficiently filtered water delivered by the companies drawing their supply from the Thames, was that of the West Middlesex Company; the water supplied by the other companies was slightly turbid. Of the water drawn from the Lea, that delivered by the East London Company was of slightly better quality than the Thames waters; the New River Company's water was, however, more impure than that delivered by any other of the metropolitan companies. The water supplied by this company, formerly so good, has of late occasionally shown marked deterioration.

POST HOC.—Called in to a case of typhus, a Turkish doctor examined the patient (an upholsterer), prescribed, and departed. Passing the house next day, he inquired of a servant at the door if his master was dead, and to his astonishment, heard he was much better. Indoors he went, to learn from the convalescent that, being consumed with thirst, he had drunk a pailful of the juice of pickled cabbage. Soon afterwards, a dealer in embroidered handkerchiefs, seized with the same malady, sent for the physician, who forthwith ordered him to take a pailful of pickled cabbage juice. The man died next day; and the doctor set down this memorandum in his book for future guidance: "Although in cases of typhus, pickled cabbage juice is an efficient remedy, it is not, however, to be used unless the patient be by profession an upholsterer."

THE joint Hospital Board of Sittingbourne and Milton have accepted tenders for the erection of a hospital for infectious diseases at a cost of £3,847; the site for which has been given without charge by Mr. G. Smeed of Gore Court.

A GOOD APPOINTMENT.—One of the most lucrative of medical appointments appears to be that of medical officer of the port of New York. The State Senate has passed a resolution, offered by Mr. Jacobs, calling on the Quarantine Commissioners to inform the Senate within ten days what amount of money had been expended by the commission since the date of the last appropriation, with detailed items of the same; also, what money was now due and owing by the commission; also, whether, in its opinion, the quarantine establishment should not be made self-sustaining by appropriating a portion of the large fees, now accruing to the health-officer of the port, to the maintenance of the same, without injustice to that officer. In the subsequent discussion, it was shown that, during the past year, from 75,000 to 100,000 dollars in fees went into the pocket of the health-officer. Yet, last summer, 5,000 dollars of the State's money was spent in repairing the house in which the health-officer lives, and pays no rent.

SANITARY INSTITUTE OF GREAT BRITAIN.—At a meeting of the Sanitary Institute of Great Britain, held on Wednesday, March 9th, Dr. B. W. Richardson in the chair, the discussion was continued upon the paper read at the last meeting by Mr. W. H. Michael, Q.C., upon the Law in relation to Sanitary Progress. The points to which attention was specially directed were: 1. The rearrangement of districts; 2. The reconstitution of authorities; 3. The extension of sanitary powers. With regard to the rearrangement of districts, there was very little doubt that for all sanitary legislation it was very desirable that the divisions should be in conformity with some natural or physical feature, such as river-basins. It was considered that the removal of urban and rural distinctions would be a great benefit; and that a Ministry of Public Health should be formed to guide, encourage, and control local self-government, and place it on a good basis. Most of the speakers agreed with Mr. Michael, that sanitary legislation to be effective must be compulsory, especially as regards the isolation of infectious diseases and the prevention of overcrowded dwellings.

ASTON MANOR.—Sanitary work in this extensive suburb of Birmingham seems to be proceeding with satisfactory speed, to judge by the minute and careful account of it given by the health-officer, in his last report. Mr. May is disappointed that there was not a still lower death-rate than 17.3 per 1,000, considering the recent growth of Aston, its healthy site and suburban character, and the absence last year of infectious disease and of extreme cold. The summer was, however, dry and hot; and, during that period, there occurred an unprecedented mortality from infantile diarrhœa and other diseases of early life. To this cause is attributed the undiminished death-rate, in addition to an increase of deaths from general causes, especially from mesenteric disease and marasmus, for which Mr. May can only account by the lowered social condition of the population through the continued depression of trade. The mortality under five years of age was very high, amounting to 52.8 per cent of the whole mortality. This high proportion was caused by the large number of deaths of children under one year, amounting to 36.4 per cent. of the total number of deaths. Mr. May thinks it probable that the class of people who allow their infants to die by reason of ignorance, carelessness, or neglect is increasing in Aston Manor. The total number of deaths from zymotic diseases was 163, or 17.8 per cent. of the total number. Of these, diarrhœa was responsible for 89 deaths, nearly all of which occurred in infants. The disease was not, however, confined to children, for it was the experience of many practitioners that it was very prevalent and severe amongst adults. The increased prevalence and fatality of diphtheria in the district is worthy of remark. The number of deaths rose from 11 in 1878 to 21 in 1879, and 23 in 1880; and, in addition, there were 5 deaths from tonsillitis, which the health-officer believes to have been of diphtheritic character.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th. 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. Spencer Watson: Unusual Affection of the Nose. Dr. Wynn Williams: Case of Rupture of the Perinæum in a Child. Dr. Gilbart Smith will exhibit a Specimen of Endocarditis with Embolism.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. C. Higgens: Case of Vascular Protrusion of the Eyeball. Mr. C. T. Dent: Case of Innominate Aneurism, treated by Simultaneous Distal Ligature of the Carotid and Subclavian Arteries; with Remarks on the Behaviour of a Tendon-Ligature.

WEDNESDAY.—Hunterian Society, 8 P.M. Adjourned discussion on Dr. Herman's paper (Prolapse of the Ovaries). Mr. McCarthy and Mr. Jas. E. Adams: Cases of Varicocele treated by Excision.

FRIDAY.—Clinical Society of London, 8.30 P.M. Mr. J. R. A. Douglas: Cases of Varix, treated by a new instrument for Obliterating the Veins. Dr. Whipham and Mr. Pick: A Case of Extirpation of the Larynx. Mr. Spencer Watson: A Case of Intracranial Disease, involving several Cranial Nerves. Dr. B. O'Connor: A Case of Syphilitic Psoriasis.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

DR. OGSTON'S REPORT ON MICRO-ORGANISMS.

THE following corrections are required in the plate illustrating Dr. A. Ogston's Report upon Micro-organisms in Surgical Diseases, in order to make it correspond with the text. For Fig. I read Fig. IX; for II, read XVII; for III, read XVI; for IV, read VIII; for V, read X; for VI, read I; for VII, read XI; for VIII, read VII; for IX, read II; for X, read III; for XI, read IV; for XII, read XII; for XIII, read V; for XIV, read VI; for XV, read XIII; for XVI, read XIV; for XVII, read XV.

BRITISH MEDICAL BENEVOLENT FUND.

THE following additional subscriptions have been received.

	£	s.	d.
A Friend	5	0	0
Surgeon-Major O. G. Wood, M.B., Morar	3	12	6
Surgeon-General S. C. Townsend (subscriber) ..	2	2	0
Surgeon-General R. Cockburn, Leamington Road Villas	1	1	0
W. H. Freeman, Esq., St. George's Square	1	1	0
J. A. Cameron, M.D., Bawtry	1	1	0
F. Stockwell, M.D., Bruton	0	10	6
Dr. Brandt, Oporto	0	10	0
T. Morgan, Esq., Montgomery	0	5	0
F. I. Flower, Esq., Salisbury	0	5	0

A. W.—We accidentally omitted to comply with our correspondent's request of giving the address of the inventor of the improved cylinder hot-water system, to which we recently referred as embodying the requirements of public and private buildings, and conferring perfect safety from boiler explosions in connection with water-supply. The cylinder to which we refer, and the system, is that of Mr. Frederick Dyer, 66, High Street, Camden Town. It is a distinct advantage of Mr. Dyer's system that hot water is at once drawn off from the taps in the upper rooms, as well as below. Mr. Eassie informs us he has now for many years employed this system, and recommends it as being thoroughly effective in furnishing a continuous hot-water supply without risk or inconvenience of any sort.

THE USE OF THYMOL IN RINGWORM.

SIR,—In answer to "Cui Bono", I have used thymol in the treatment of ringworm of the scalp at these schools with marked success. I am indebted to Mr. Malcolm Morris for the formula.—Yours obediently, JOHN WILTON, M.D.

South Metropolitan District Schools, March 7th, 1881.

SIR,—In answer to the query of "Cui Bono", permit me to remark that, from two years since, I have used the thymol ointment as made by Ferris and Co., of Bristol, for tinea and other skin-affections, with good results.—I am, etc.,

1, Norfolk Square, W., March 9th, 1881. P. HINCKES BIRD, F.R.C.S.

THE THERMOGRAPH.

SIR,—In your issue of March 5th, mention is made of a new thermograph which has been brought before the notice of the profession in America. As an instrument of this nature is doubtless of considerable value, I am tempted to remind you that I exhibited and described a thermograph at the Bath meeting of the Association in August 1878. My instrument is not much larger than an ordinary watch, and can be worn without inconvenience by the patient, being entirely self-contained, and requiring no accessories in the way of battery or wires. Ill health has prevented me from hitherto perfecting the instrument, and bringing it before the profession; but I am glad to be able to state that Messrs. Salt and Son of Birmingham have now made arrangements for its manufacture, and that it will be in the market within the next few weeks. By publishing this you will much oblige, your obedient servant, W. D. BOWKETT, M.R.C.S.

House of Recovery, Leeds, March 7th, 1881.

DANGEROUS GAS-BATHS.

SIR,—It would be interesting to know on what facts Mr. Turner bases his assertion, that the death of the late Mr. C. F. Deacon was due to poisoning by carbonic oxide. It is difficult to understand how the free combustion of coal-gas can produce this compound, which is always the result either of the decomposition of organic matter containing carbon when heated with a limited supply of air or oxygen, or of carbonic acid itself in the presence of carbon and heat. Whether coal-gas be burned with a luminous or a non-luminous flame, the product must in either case be carbonic acid. If a luminous flame impinge on a cool metallic surface, such as that of a bath in process of heating would be, soot will be deposited; but if a non-luminous flame of aërated gas be similarly treated, no soot is deposited, but imperfectly oxydised hydrocarbons are given off, of the aldehyde type, the odour of some of which is excessively depressing and suffocating. It is much more probable that the accidents referred to were caused by the presence of these bodies in the air of unventilated and overheated apartments than by carbonic oxide, which is by no means of easy spontaneous production. Anyhow, the moral of these accidents obviously is, that wherever gas is used, either for cooking or for heating water, the flame should not be allowed to impinge directly upon the surface to be heated; and that, under all circumstances, if the products of combustion are not carried at once out of the room by a flue, there should be provided the means of abundant ventilation.—I am, yours truly, FRANCIS T. BOND, M.D.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

CARRIAGES FOR MEDICAL MEN.

SIR,—Having bestowed some consideration on this subject, and having had more than twenty years' experience of different modes of medical locomotion, I venture to state the following propositions.

1. For many reasons, and chiefly for the sake of the horse, driving is to be preferred to riding. However carefully the saddle is adjusted, and however well the rider sits, the chief portion of the weight has to be borne by the fore legs of the animal; and the fore legs and feet quickly give way.

2. The "trap" ought to be light, strong, easy to ride in, roomy, comfortable, and safe.

3. There ought to be some simple means of making it covered, so as to provide shade in summer and shelter in winter.

I have at present a two-wheeled hooded "machine" such as one of your correspondents has described. I find it comfortable and easy, and a capital summer "trap"; but I am bound to say that it is a veritable trap for the wind, rain, and snow, in an inclement season; and I have reluctantly come to the conclusion that it must be modified. Again, in a case of a kicking or runaway horse, it would be very unsafe; and the getting in and out is not quite so easy as it should be where so much has to be done in that way by a busy practitioner.

The medical man should always have a coachman, and he himself should sit with his back to the horse. Egress would be safer and easier; his attention would be less distracted by the driver; and if a hood were in use, it would not catch the wind. Where the country is at all hilly, I am sure that a four-wheeled carriage would not only be safer, but also better for the horse. The seat of the four-wheeled "dogcart" should be divided longitudinally, and made to slide. In this way more room could be obtained for the legs by the coachman and doctor sitting in the same line, or both over the centre of the machine. The hood, if need be, might be made merely to cover the back part, and lie over, when not in use, by the side of the driver. Or, better, perhaps, some simple arrangement might be fitted on by means of movable rods only when required. In these days of steel, there ought to be no difficulty in making a four-wheeled dogcart sufficiently strong and roomy, and under four-hundredweight, and so at the lowest rate of duty.—I am, sir, yours obediently, RUS.

SIR,—I read Omega's letter, in the JOURNAL of the 12th February, with interest, because I have been thinking of having recourse to a hooded two-wheeled vehicle, but have been informed that in rough weather it is a failure; the wind, whether in front or behind, disturbing the balance. I shall therefore be glad to learn if any of my brother country practitioners have found the gig in question practicable in the stormy weather we have lately experienced; and also whether one so lightly built as to weigh only 2¾ cwt. is strong enough for the wear and tear of rough country roads.—I am, etc., LAMDA.

THE STOMACH-PUMP.

SIR,—In answer to "Quæstor's" inquiries as to the invention of the stomach-pump, I have always understood it was the invention of a gardener named Reed, in the first quarter of the present century.—Your obedient servant, THOS. GODFREY.
Mansfield, Notts, March 15th, 1881.

F. M. (Tiverton).—It is quite out of our power to give an opinion on the subject. The best course would be to take the opinion of a respectable agent.

GENU VALGUM.

SIR,—I should like to be enlightened as to the origin of the term "genu valgum", commonly used in the sense of knock-knee. Ainsworth's dictionary gives valgus as "bow-legged", and varus as "having crooked legs which bend inwards". Surgical authors appear to transpose these meanings, and the only solution of the difficulty I have as yet been able to get is, "that both words in their primary sense mean 'curved', and are used arbitrarily for out or in bending". This does not appear to me a satisfactory explanation, and I shall be much obliged if I can get a better one through your columns, with your kind permission.—I remain, sir, yours obediently, INQUISITOR.

THE DETECTION OF ARSENIC IN WALL-PAPERS.

SIR,—In to-day's JOURNAL there is a paragraph on the above important subject, quoting Dr. W. S. Hill's new method for testing arsenic in wall-papers. This is, no doubt, a good test, but it is far from being as simple as the following one, which was first proposed by Professor Siebold. I have found it extremely useful in testing the wall-papers of a new house I am taking; by its means much arsenic was shown to be present in two papers. "It can be readily applied by any builder, paperhanger, or person of ordinary intelligence." A small test-tube is filled to a depth of one to one and a half inches with a mixture of equal parts of pure hydrochloric acid and water; a piece of pure zinc, of the size of a pea, and a rolled-up narrow strip of the paper to be tested, are now added. While the gas is escaping, a loose plug of cotton-wool (about three-quarters of an inch in depth), previously dipped in a solution of acetate of lead, is quickly pushed down the test-tube for one or two inches; the mouth of the test-tube is then covered with a piece of white blotting-paper moistened with a solution of silver nitrate. If a round dark or black stain appear on the blotting-paper, corresponding to the top of the test-tube, the wall paper contains arsenic. The experiment is made more certain by previously going through the same experiment, but without the presence of the wall-paper, when no, or only a very slight, darkening is produced if the materials employed contain no, or only a trace of, arsenic. I first came across this simple test in the practical *Health Lectures* published by the Manchester and Salford Sanitary Association.—Yours, etc., BERNARD ROTH, F.R.C.S.Eng.
18, Grand Parade, Brighton, March 12th, 1881.

QUÆSITOR. The preliminary examination in general education of the Royal College of Surgeons of England is to be entirely discontinued after September next. That for the Fellowship has already been discontinued. There will be no distinction between those who have already passed for the Fellowship; but we understand that the subject of preliminary examinations is being considered by a committee appointed by the council of the College for that purpose.

THE DANGERS OF TOBACCO.

Karinari has a good hit at the anti-tobacco-societies, in the shape of the following fictitious notice:—"Still another catastrophe caused by the abuse of tobacco. Yesterday, on the Avenue de l'Opera, a gentleman was about to pick up a cigar that he had let drop. At the same instant an omnibus was passing. The driver had not time to rein up his horses, and the unfortunate gentleman was literally crushed. See whither the immoderate use of cigars may lead one!"

SCREW CLAMP.

SIR,—We will be glad if you will record in your JOURNAL that we have had on sale for over sixteen years a screw clamp almost identical with Mr. Benham's instrument (as noticed and figured in your issue of February 5th), and used in the same way for piles and other growths.—We are, yours, etc.,
W. B. HILLIARD AND SONS.
65, Renfield Street, Glasgow, February 16th, 1881.

DR. HOBBS.—There can be no question that the fee named, being at the rate of 5s. a visit, for sixteen visits, and 1s. 6d. for medicine, was a very moderate and reasonable fee; and we cannot help thinking that there must have been some misunderstanding on the other side, the gentleman named being well known to us as a highly cultured and considerate man, well-informed in professional matters, and having close relations with eminent medical men.

ERRATUM.—In the JOURNAL for March 5th, page 328, column 2, line 39, for "two drachms of iodine", read "two drachms of tincture of iodine".

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. Watson Cheyne, London; Mr. W. D. Bowkett, Leeds; Dr. David E. Flinn, Walsall; Our Aberdeen Correspondent; Mr. Richard Johnston, Wymondham; Dr. Crichton Browne, London; Dr. J. B. Sanderson, London; Dr. Thin, London; Dr. R. G. McCalman, Newbury; Mr. F. L. Stephenson, Bradninch; Mr. W. G. Green, Sandown; Mr. W. B. Lawrance, London; Inquirer; Dr. Fairlie Clarke, Southborough; Mrs. Strange Butson, London; Mr. C. E. Wright, London; Dr. Saundby, Birmingham; F.R.C.S.Edin; Mem. B.M.A.; Dr. Dawson Williams, London; Dr. David Drummond, Newcastle-on-Tyne; Dr. J. Hickinbotham, Birmingdam; Mr. J. H. Brown, Westgate; Dr. Rabagliati, Bradford; Mr. Henry Armstrong, Newcastle-on-Tyne; Mr. R. Wilson, Newcastle-on-Tyne; Mr. P. H. Bird, London; Mr. Eastes, London; Mr. Bermingham, New York; Mr. James Gooch, Windsor; Dr. Edis, London; Mr. W. Coxwell, Fawley; Dr. E. Gwynn, London; Mr. Wallace, London; Dr. P. H. Mules, Bowdon; Mr. J. Garman, Wednesbury; Our Edinburgh Correspondent; Mr. A. Cooper, London; Our Dublin Correspondent; Dr. Dickson, Constantinople; Mr. C. Scott Kilner, Bury St. Edmunds; Mr. S. B. Goslin, London; Mr. N. C. Dobson, Clifton; Dr. Goyder, Bradford; Mr. S. Thorp, Sible Hedingham; Dr. Duffey, Dublin; Mr. F. W. Lowndes, Liverpool; Mr. C. E. Strickland, Bournemouth; Dr. F. M. Pierce, Manchester; Dr. A. L. Archer, Devonport; Delta; Dr. Wingate Saul, Lancaster; Dr. E. Gwynne, Hampstead; Dr. Douglas Powell, London; Dr. John A. Byrne, Dublin; Dr. Bennett, Dublin; Mr. F. B. Fisher, Dorchester; Our Dublin Correspondent; Dr. A. Hollis, Yarmouth; Mr. O. C. Maurice, Reading; Dr. J. Mitchell Wilson, Doncaster; Mr. W. P. Nesbitt, Adelaide; Mr. MacCormac, London; Mr. John C. Hogan, London; Mr. Warrington Haward, London; Dr. McGown, Millport; Dr. Bernard Roth, Brighton; Dr. C. E. Glascott, Manchester; Dr. Dyce Duckworth, London; Dr. V. G. Webb, Coleshill; Dr. R. E. Heath, Torquay; Dr. Sydney Coupland, London; Dr. J. Wilson Paton, Birkenhead; Dr. J. Diamond, Lindley; Dr. Ernest Jacob, Leeds; Dr. Galabin, London; Mr. E. S. Dawes, London; Dr. Wolfe, Glasgow; Mr. W. Mather, Manchester; Dr. A. H. Robinson, Hull; Dr. James R. De Wolfe, Ilfracombe; Mr. W. P. Mears, Newcastle-on-Tyne; Dr. Ward Cousins, Southsea; etc.

BOOKS, ETC., RECEIVED.

Tasting and Feeding. By L. S. Forbes Winslow, M.D. London: Ballière, Tindal, and Cox.

Obstetrical Transactions. Oliver and Boyd. 1881.

Aphorisms in Fracture. By R. O. Cowling, M.D. Louisville, Kentucky: J. P. Morton and Co.

A Doctor's Suggestion to the Community. By D. St. J. Roosa. Philadelphia: Putnam and Son.

The Factors of Unsound Mind. By W. A. Guy, M.B. De La Rue and Co. 1881.

Fever; A Study in Morbid and Normal Physiology. By H. C. Wood, A.M., M.D. Philadelphia and London: Lippincott and Co. 1880.

Da Costa's Medical Diagnosis. By M. Da Costa, M.D. Philadelphia and London: Lippincott and Co.

Manual of the Physical Diagnosis of Diseases of the Heart. By A. E. Sansom. London: J. and A. Churchill.

The Bacteria. By Antoine Maquin, M.D. Boston: Little, Brown, and Co.

A Guide to Therapeutics. By R. Farquharson, M.P., M.D. Second Edition. London: Smith, Elder, and Co. 1881.

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THE GULSTONIAN LECTURES
ON
ANÆMIA.

Delivered before the Royal College of Physicians.

BY SIDNEY COUPLAND, M.D., F.R.C.P.,
Physician to the Middlesex Hospital.

LECTURE I.—PART II.

Etiology of Anæmia: Loss of Balance between Blood-Formation and Blood-Destruction; Deficiency in Income or Excess in Expenditure, or both combined. (a) *Defects of Blood-Formation:—Quantity and Quality of Food—Oxygen—Derangement of Digestion, Assimilation, Sanguification.* (b) *Excess of Blood-Destruction:—Prolonged Muscular or Nervous Activity—Excessive Secretion—Catarrh—Inflammatory Effusions—Suppuration—Hæmorrhage—Albuminuria—Malignant Growths—The Cancerous Cachexia—Tubercle—Fever—Special Blood Changes, as in Scurvy, Rheumatism, Syphilis, Malaria. Mineral Poisons: as Lead, Mercury, Phosphorus (?)—Parasites:—Anchylostomum Duodenale. The Influence of Age—Sex—Heredity—Occupation—Light, Air, and Temperature—Climatic Conditions.*

HAVING thus considered the chief points regarding the composition of the blood and its variations in anæmia, I pass now to inquire in what way and under what influences the anæmic condition is induced. This inquiry involves the whole subject of the nutrition and expenditure of the body, together with other factors which, inherent in the individual or operating from without, tend to place the organism in a state unfavourable to the complete performance of the functions of the blood. All the complicated processes of the living animal organism are comprised in a series of changes in composition of the elements of the body, and especially of the blood, for it is through that fluid that the normal balance between decomposition and reconstruction takes place. The cycle of changes must be complete, the amount of nutriment conveyed by the blood must be sufficient to replace the waste occasioned by tissue-change, and this latter must not be out of proportion to the amount of nutriment, if the balance is to be maintained. If there be defects in the supply, the blood and tissues suffer inanition; if excess in expenditure, they suffer undue consumption. In other words, in so far as its vital processes are concerned, the body may be regarded as a complex machine requiring a definite supply of oxidisable material and of oxygen for the performance of its functions—functions which may be expressed in terms of mechanical force and its correlative, heat. We have, therefore, to consider the means whereby such material is supplied, and its supply maintained and regulated; to deal with the manner in which the body takes in this material, and how it disposes of it. If the material itself be deficient in quantity or quality, or if the methods by which it is prepared for disposal be defective, the mechanism of the body will, *pro tanto*, be deranged. The blood will be poorer in the material to be disposed of. On the other hand, if the mechanism for the conversion of the material into force be faulty, so that an excessive amount is used up in the work of the body, the blood again will be impoverished. In seeking, then, for the known causes of anæmia, we may expect to find them in these two directions—deficiency of income and excess of expenditure. I will speak shortly of each of these in turn.

In dealing with the subject of food in relation to the blood and tissue changes, attention may be mainly directed to the nitrogenous ingesta, which serve the purpose of building up the tissues, whilst the waste of tissue is measured by the amount of nitrogen excreted in the form of urea. The other organic constituents of a mixed diet—fats, carbohydrates, and gelatine—do not directly influence tissue metamorphosis; but are none the less important in maintaining the body in a state of health, supplying by their direct oxidation heat and force, which otherwise would have to be furnished by the conversion of proteids. A sufficiency of water and of salts is also necessary to enable the processes of nutrition to go on normally, and indirectly their diminished supply induces blood-changes allied to those of hypalbuminosis. The whole blood is reinforced by taking food; both red and white corpuscles are increased, and the capacity of the blood for oxygen thereby augmented. There are differences of opinion as to the precise manner in which the proteid constituents of food are disposed of, but this much is clear: that part is directly converted into fats and urea, the former to be further oxidised and eliminated as carbonic acid, or stored up in the form of adipose tissue; part retained by the liver to subserve its glycogenic function; part devoted to tissue metabolism; and perhaps a further portion to remain in storage in the blood, to be utilised in case of need. This last-named destination of the proteids is disputed by Dr. Michael Foster (to whose work I am largely indebted for this portion of the subject) on the ground that metabolism does not take place in the blood itself, but only in the tissues; and that the comparative excess of consumption of proteids in the early days of inanition, as shown by Voit and others, only proves that there is a store of material above the immediate wants of the body, not that the place of this storage is the blood. It is found also that nitrogenous food directly provokes tissue-change up to a certain point, the limit being in great measure determined by the amount of oxygen available, so that the increased metabolism must be in relation to the increase of hæmoglobin in the blood and of its capacity for oxygen. Therefore, also, oxygen is as essential as food; and when, from defective blood-formation, the amount of oxygen in the blood is diminished, tissue-change is arrested, and certain retrograde metamorphoses take place which form the leading effects of the anæmic state. Quinquaud found in certain cases of inanition a reduction in the hæmoglobin to one-sixth of the normal, and proved also the rapidity with which this constituent is reinforced when food is taken by starving persons; and Voit's well-known experiments established the fact that, in starvation, the blood wasted in direct proportion to the loss of body-weight.

This obvious cause of anæmia finds abundant illustrations in disease. There is no anæmia so profound as that which accompanies grave organic disease of the stomach. Indeed, Dr. Fenwick is of opinion that the fatal forms of progressive anæmia, to which hitherto no satisfactory cause has been given, are due to atrophy of the gastric glands. That such an atrophy—if it be primary—would suffice to produce this grave anæmia, is possible; but it should also, one would think, be more often accompanied by general wasting of the body—a wasting which is not by any means a constant feature of "idiopathic" anæmia. When there is wasting, latent gastric disease may be suspected. A few weeks ago, there was admitted under my care at the Middlesex Hospital a man sixty-three years old, who had been attacked with hemiplegia the day before. For six months past, he had suffered from dyspeptic symptoms, and had grown very pale. The pallor had rather rapidly increased of late, and on his admission it was most extreme; but there was no history of any hæmorrhage, and only equivocal evidence of its occurrence in the blackening of the fæces. He was, further, much emaciated, but careful examination failed to detect any abnormal condition of the abdominal organs. One could only suspect some latent gastric disease—cancer or ulceration, with unnoticed hæmorrhages—and attribute the recent increase in the pallor to the supervention of a cerebral hæmorrhage. The number of corpuscles was 25 per cent. of the normal. For upwards of two weeks, he lay in an impassive, corpse-like state; and, on his death, we found a chronic ulcer of the pylorus, with general chronic gastritis. The hemiplegia was due to blocking of the left internal carotid and middle cerebral artery, the former vessel being much narrowed by atheroma at its origin. Such cases as this must be eliminated before diagnosing an idiopathic anæmia.

Any interference to the reception or proper digestion of food, as imperfect mastication, hindrances to deglutition, functional dyspepsia, and also irregularities in taking food, as well as deficiencies in its quantity or quality, rank among causes of anæmia needing no further illustration. And as oxygen is as necessary as the ordinary elements of food for tissue-metamorphosis, any interference with its due supply favours anæmia, as proved in the persons of those who habitually dwell under conditions of bad ventilation, or impurity of the atmosphere—conditions so universal and prevalent that they may fitly be included under predisposing influences. They explain the anæmiating influence of life in a crowded city, with its smoke-laden atmosphere, as contrasted with the conditions obtaining in the purer air of the country.

Derangements in digestion, especially those of simple functional dyspepsia, are maintained by the anæmic state they induce, and it is often difficult to find where the vicious circle commenced; hence the liability to mistake effects for causes, which is one of the chief problems connected with this subject.

Of the glands which aid the peptic in the labour of digestion, the liver and pancreas may severally, when deranged, be the cause of profound inanition and anæmia. The liver has so many other important functions, and is probably so directly concerned in the process of blood-destruction (and possibly of its formation also), that the manner of its action in producing anæmia is more complicated than that of the pan-

creas, which is more purely concerned in the digestive process. Of diseases of the pancreas, however, there is only one with which we associate definite symptoms—including a marked anæmia—and that is cancer; when we have introduced a new element, the abnormal cell-growth, aiding in the impoverishment of the blood. But the marked wasting and bloodlessness accompanying such disease are surely out of proportion to the development of the cancerous mass, and are readily accounted for when the large share taken by the secretion of the gland in the digestion of proteids is borne in mind.

Passing to the processes of assimilation and absorption, it would appear from physiological data that the lacteals are little concerned in the removal of products of proteid digestion, being mainly devoted to the absorption of fatty matters. This, however, is hardly consistent with the extreme degree of inanition associated with chronic mesenteric disease, which points to a lacteal as well as to a portal absorption of nitrogenous matters. We are thus led up to the final stage of blood-formation; for derangements of the whole lymphatic system, and of the allied blood-forming glands, play a very notable part in the etiology of anæmia from inanition. For, in the work of nutrition, the share taken by the lymph is hardly less important than that of the blood itself. Of the two fluids, the lymph, which has its analogues in the whole animal kingdom, would almost seem to be the more necessary. But the lymph contains no hæmoglobin. This special substance—found in all vertebrates—is that which gives the blood its distinctive character, and enables it to perform its respiratory function in the widest sense. The lymphatic system is not a mere appanage to the blood-system; it is an essential complement to the latter, and reinforces it in blood-corpuscles.

As I have previously pointed out, the process of blood-formation, in so far as its distinctive cellular elements are concerned, appears to take place in several organs and regions of the body, where blood and lymph-systems blend, and we look naturally to disorders in their mechanism to explain imperfections in the composition of the blood, not accounted for on more obvious grounds. Such derangement might result in the imperfect formation of corpuscular elements, in an over-abundant supply of leucocytes, or a relative increase in these, and of immature corpuscles failing to be transformed into the red corpuscles. Such conditions do occur; and until we are in a position to give a name to the morbid change in the cytogenic organs themselves, we are bound to use provisionally such terms as leukæmia and anæmia to denote the diseases of which the blood-state is only a secondary result. We may be able to distinguish a leukæmia due to splenic, lymphatic, or medullary disorder respectively; and the same may be possible as regards anæmia; and there is nothing incongruous in the idea, for example, that in Hodgkin's disease there may be sometimes a condition of lymphatic anæmia, and sometimes a condition of lymphatic leukæmia, the question as to the distinction between such forms being one of the relative degree to which leucocytes and red corpuscles are respectively increased or diminished in number. It is from the analogy afforded by the existence of such diseases that we are driven to conclude that cases where anæmia is throughout the leading and only symptom, depending on no derangement of normal nutrition, either in the way of income or expenditure, are due to changes in these blood-forming viscera. At present, but little progress has been made in this direction; and, as I hope to show, the derangement at the root of idiopathic anæmia is hardly more known to us than it was to Addison, who, in his search for some definite change in these organs in such cases, discovered the supra-renal disease, and brought to light a new clinical entity, whereby his name has become famous to all posterity.

Having thus slightly, and, I fear, imperfectly pointed out how the blood may be impoverished from defects either in the materials of its formation or in the manner in which these materials are converted into blood, I pass to the remaining and far more extensive causes of impoverishment, where there is undue expenditure of tissue and of blood.

The whole work of the body if effected by oxidation, not in a simple manner by the direct combustion of material contained in the blood, but of that which is stored up in the tissues to which it has been brought by the blood. Setting aside the conversion of carbon compounds, and considering only the subject of nitrogenous metabolism, we find that the nitrogenous matters brought by the blood are utilised to repair tissue waste and to aid in the actual production of energy—*i.e.*, mechanical motion and heat. Every molecular change is accompanied by the production of heat; and mechanical motion appears under different forms in many of the vital acts. Muscular action is the chief source of this expenditure. It is marked by heightening in temperature, the separation of carbonic and lactic acids out of proportion to the amount of oxygen consumed, indicating that some highly complex molecule is destroyed, the nitrogenous portion of which is retained by the muscle. Such changes go on, but to a lessened extent, in the muscle during rest. The nutrition of muscle, then, consists in a constant formation of contractile material periodically greatly decomposed, and as this decomposition is accompanied by heat, much force is expended. Over-work of muscle does not impoverish the blood so much as might *primâ facie* be expected, and this for several reasons. The circulation is accelerated by muscular activity, and tissue-changes go on more rapidly so long as a sufficient amount of oxygen and carbon compounds is supplied to the working muscle; and hypertrophy of a muscle called forth by extra work enables it to utilise more material. This, however, implies an increase in the intake of the blood; and were it not that a limit was placed by the condition of fatigue, the blood would be greatly impoverished. As it is, long-continued exhausting physical labour, and its frequent repetition, undoubtedly cause anæmia. I might remark in passing that, if any good is to be derived from the extravagant feats of physical endurance at present so popular, it should be by utilising them for physiological inquiry in these directions.

The opposite condition—that of lack of normal muscular activity—is a more prolific cause of blood-impoverishment than excessive action; but its mode of operation is, of course, very different. There is then diminished tissue-change, diminished oxidation, and the blood suffers from being imperfectly renewed, and not from being drawn on for extra supply. Conversely—inability to physical exertion, and the readiness with which this is followed by fatigue, are prominent features of the anæmic state, and are readily explained by the lessened power of oxygenation.

As regards expenditure in the production of nervous energy, there is less certain knowledge than is the case with muscle. The actual chemical changes taking place in a nerve during the passage of a nervous impulse are comparatively insignificant, but those which occur in the central mechanism are probably much greater. The complexity of the construction of a cerebral molecule, for example, is very great, and its activity must, no doubt, depend upon a due supply of oxygen, as in the case of other tissues; and it is probable that for every act initiated by the nerve-cells the energy must be supplied by oxidation changes in these complex molecules. More than this, however, is probably concerned in the question of the influence of the nervous system. Its intimate relations with all parts of the body point to an exercise of control over blood formation, as over nutrition and secretion, so that under certain conditions the nervous system may bring about an anæmia other than by the exhaustion of material supplied it by the blood. It is only on such an assumption that the occurrence of a profound, lasting, and even progressive anæmia following great mental shock or emotional disturbance can be explained. I am not prepared to say that this same influence does not operate in the production of anæmia from exhausting mental labour, from anxiety, or from want of sleep. It may be one factor of which the other is the disproportionate expenditure of material.

In the act of secretion, there is more obvious reason for believing that excessive function entails a loss of material from the blood. The secreting cell not only takes up material and converts it into its peculiar product, but such conversion often demands the destruction of the cell itself. Some secretions are composed of more complex substances than others; and the drain on the blood must be proportionately greater when these glands are too freely exercised. One of the best known instances of a symptomatic anæmia is afforded by such excessive and prolonged activity of the mammary gland, which yields a product rich in all the main elements of the blood. A like instance is afforded by the product of the male generative organs—a product of a peculiarly stable character, and endowed with highly specialised properties. It is plain, on mere *à priori* grounds, that an excessive production of this secretion must cause undue drain on the blood; and such is a well-recognised fact, although in both these instances the effect on the nervous system as the controller of blood formation must not be entirely lost sight of. Probably it is the same with every other secreting gland, in extent varying with the quality of the secretion. The transition from conditions of excessive discharge of normal products to those of perverted and abnormal discharges is slight. We may comprehend in one view all the abnormal fluxes—from a simple mucous catarrh to an abundant purulent discharge from a mucous tract, where the formed elements of the blood compose a great part of the discharged material. Such outpourings not only impoverish the blood directly, but where, as in the case of the intestine, they involve organs subservient to digestion and assimilation, they of course interfere with the formation of blood; and the rapidity with which a diarrhœa produces anæmia is well known.

Such causes of impoverishment of blood may lead us to other conditions, where either the blood itself or its albuminoid constituents are passed out from the vessels. Of hæmorrhage nothing need be said.

Even the monthly loss by the catamenia is represented by an actual fall in the richness of the blood. Inflammatory effusions into serous sacs, when abundant, must necessarily entail anæmia; but I do not know if the degree to which this occurs has been much studied. Quinquaud, in three cases of acute pleural effusion, found a marked reduction of hæmoglobin and of the solids of the serum, and also noticed that paracentesis was followed by the further reduction of these constituents. Large inflammatory exudations, such as occur in acute pneumonia, are also accompanied by a fall in these constituents, but, according to this writer (and in that respect the observations of Drs. Baxter and Willcocks coincide), not to a very marked extent, especially when the high degree of pyrexia is taken into account. And, passing from simple inflammatory exudations to suppuration, we meet with conditions of drain on the blood too obvious to require illustration.

The anæmia of chronic albuminuria forms another example in this lengthy category. A notable deficiency in red corpuscles has been shown to occur in chronic Bright's disease, whilst the supervention of dropsy is apparently due to the replacement of albumen by water in the blood.

The relation of malignant growths to the composition of the blood involves a subject complicated with the question of cachexia. Undoubtedly, when malignant disease is of rapid development, it must deprive the blood of much nutriment, perverting it to its own ends, and living on the body in a truly parasitic manner. Or if the disease involve organs essential to digestive or nutritive functions, it must obviously indirectly interfere with the formation of blood. It is said that in cancer the red corpuscles are not only diminished in number, but are smaller in size than the normal, and that the hæmoglobin in cancerous subjects becomes reduced in a very remarkable degree. But that this precedes the development of the disease there is no warrant for saying; or that there is in cancer a cachexia apart from the circumstances of the growth itself, and the additional drain frequently occurring from the ulceration and hæmorrhage of the diseased mass. I have seen cancer arise in the robust and plethoric, and in such subjects it grows with terrible vigour; but it is not, of course, always so, and the problem is to discriminate between an underlying blood-condition and that induced by the malignant growth itself. It seems to be otherwise with regard to tubercle; and amongst the numerous points in which medicine is indebted to Trousseau is that where he declared the fact of the existence even of marked anæmia in subjects of tubercular tendency, before the local manifestations of the diathesis appear. Whether it be that, in these individuals, the lymphatic system is primarily deranged, and the work of sanguification impaired, or whether we may look upon tubercle as a true blood-disease, I do not know. When, however, tuberculisation is declared, other factors come into play to aid in the production of the anæmic state; there are abundant cell-formation and destruction of tissue, whilst prominent among all the influences is *fever*. On the special influence which it has in inducing anæmia, I must now say a few words.

The central fact in the febrile process, next to the heightened body temperature, is the increased metamorphosis of the albumen of the body, as shown in the rapid wasting of the tissues and increased elimination of urea. When to this is added the impairment of the digestive and assimilative functions, we get in fever a combination of both the conditions of impoverishment of blood. The blood suffers as well as the other tissues; its corpuscles appear to be more rapidly disintegrated, their number is notably diminished, the hæmoglobin is reduced, and the pigment excreted in excess. Consequently, to maintain the increased oxidation, the circulation is accelerated, and the respiratory changes are more rapid. Wagner says (*Elements of General Pathology*, Seguin's edition, page 660): "Without any doubt, metamorphosis is increased in fever. This does not occur as a simple and uniform increase of the normal process of metamorphosis, but the process of oxidation of nitrogenous substances is made more active than that of the non-nitrogenous. More especially, there occurs a greater destruction of albumen, chiefly indicated by increased excretion of urea, and that, in spite of the fact that the conditions for its separation are less favourable in fever because of the diminution in the amount of urine. Even under the most favourable circumstances, we find in fever patients an average increase in the excretion of urea, amounting to more than double what is thrown out in non-febrile states under otherwise similar conditions. According to a number of investigations, it is the red blood-corpuscles—that is to say, those elements which we know to take up oxygen from the air and serve to transport it to the tissues—which suffer most in fever. If the organism in fever cannot appropriate as much oxygen as in the same dietetic conditions in the non-febrile state, it likewise cannot furnish as much products of oxidation. But, as larger quantities of oxygen are used in the formation of greater amount of urea, it is probable that an excessive formation of other products of combustion (so often asserted) does not take place." The present methods of blood analysis have not wholly substantiated these inferences (Baxter and Willcocks); but, as these methods take no cognisance of alterations in the density of the blood, these results can hardly be quoted against the manifest effects which fever produces in its subjects, and the plain evidence of increased tissue metamorphosis afforded by urinary analysis.

I must also enumerate—to complete the list of known causes of anæmia—certain diseases (in many of which fever plays a part) which are specially characterised by alterations in the composition of the blood. Scurvy is an example of such a disease. Arising in defects of diet, it is, as Dr. Ralfe has demonstrated, productive of a diminished alkalinity of the blood, which, in its turn, leads to corpuscular disintegration, and all the effects following upon this. These effects are probably then largely dependent on the anæmia of the disease, for the changes in the viscera and blood-vessels are similar to those met with in profound anæmia. Quinquaud has noted a very marked reduction of hæmoglobin in scurvy. In acute rheumatism, anæmia is a prominent symptom from the first, and it is an example of a disease in which the blood is directly influenced. Diminution in corpuscles has been noted both in acute rheumatism and in acute gout. The anæmia induced by the malarial poison is sufficiently accounted for by the degree to which the more important organs concerned in blood formation are influenced by it. The subject has been especially studied by Kelsch, who found in simple intermittent fever a considerable decrease in the number of red corpuscles after each febrile paroxysm, followed by a partial return to the normal—a renovation which was not accomplished, owing to the recurrence of the paroxysm, so that the anæmia is maintained and intensified as long as the fever lasts. The subsequent malarial cachexia is marked by a lowering in the number of blood-corpuscles. Quinquaud's estimations of hæmoglobin teach the same fact; and, in addition, he remarks upon the considerable diminution in the solid matters of the serum in malarial disease. Lastly, in syphilis we have an animal poison, probably directly affecting the blood, and showing its effect in diminution of the red corpuscles and hæmoglobin.

Amongst mineral poisons, lead and mercury are powerful agents in the impoverishment of the blood. Workers in lead are always anæmic, often to an extreme degree. This may be in part due to the direct action of the metal on the blood; but it is at least an open question whether, in view of its action upon the nerve-tissues, it does not also operate by impairment of sanguification through disordered innervation. Observations are not wanting to show that there is a considerable diminution in corpuscles and colouring matter in chronic lead-poisoning. I have included phosphorus in this category, although its precise mode of action is doubtful; acute poisoning by phosphorus leads to changes which seem related to deprivation of the blood of its oxygen; but whether this is in consequence of a directly noxious effect on the corpuscles, or not, I cannot say.

Lastly, some forms of anæmia in tropical climates, especially that form known as "Egyptian chlorosis", are explained by the discovery of a blood-sucking nematoid parasite, the *anchylostomum duodenale*, which may exist in large numbers in the upper part of the alimentary canal, where it is conveyed by the ingestion of impure water. The obscure disease which proved fatal to some of the workers in the St. Gothard tunnel has been shown to be due to the presence of this parasite, which "bites its way into the mucous membrane, pierces the submucous cellular tissue, and subsists on the blood. After its removal, there remains an ecchymosis, the size of a lentil, the centre of which presents a white spot of the size of a pin's head, with a fine hole. Out of these wounds the blood oozes into the intestinal cavity" (Wagner).

Having thus reviewed the conditions liable to lead to the impoverished state of blood known as anæmia—conditions of defective nutrition and impaired sanguification on the one hand, excessive expenditure and loss of nutritive elements on the other, and certain specific and other poisons, and parasites, there yet remain for consideration certain influences in the individual, or in his conditions of life, which operate powerfully to the same end. These influences—to which, for want of a better term, the word predisposing is usually given—include the factors of age, sex, heredity, and occupation; and the influence of light, air, and climate. With a reference to each of these in turn, I shall conclude this portion of my subject.

In the growing organism, the process of blood-formation is at its height. We have seen how, in fœtal life, the elements of the blood are developed from the mesoblastic tissues almost indiscriminately. As parts become more specialised, this function is limited to certain special tissues, which are embraced under the term "cytogenic". In infancy and childhood, the cytogenic tissues attain their acme of development, and share, with all the nutritive processes, in the work of building up the body. The whole organism is thereby modified; it is mobile and plastic; repair and renovation are more rapidly effected; tissue-change,

and therefore oxidation, are increased, the temperature of the body heightened, and circulation and respiration accelerated. I cannot forbear quoting the terse sentences of Dr. Michael Foster, as he sums up the nutritive conditions obtaining in the infant organism. He says (*Text-Book of Physiology*, 3rd ed., p. 633): "Metabolism is directed to constructive ends. The food taken represents, undoubtedly, so much potential energy; but, before that energy can assume a vital mode, the food must be converted into tissue; and in such a conversion, morphological and molecular, a large amount of energy must be expended. The metabolic activities of the infant are more pronounced than those of the adult; for the sake, not so much of energies which are spent on the world without, as of energies which are, for a while, buried in the increasing mass of flesh. Thus the infant requires, over and above the wants of the man, not only an income corresponding to the energy of the flesh actually laid on, but also an income corresponding to the energy used up in making that living sculptured flesh out of the dead amorphous proteids, fats, carbohydrates, and salts, which serve as food." Thus, then, in the growing organism, we have not only a greater instability in the nutritive processes, but also a direct source of expenditure in the very fact of growth itself. In consequence of that instability, we find how comparatively slight causative influences may lead to considerable defects in the blood, reducing it below the physiological standard; and, in the fact of growth, we see how the tissues may demand more nutriment than the blood can supply, and an anæmia special to the period of childhood and adolescence may readily be provoked.

At the other extremity of the cycle of life, when the demands are lessened, when all tissues and organs more slowly perform their functions towards the close of the long years of activity through which they have passed; when all the nutritive processes take place with a sluggishness in contrast to the period of active growth; the blood, too, no longer required for the purposes of growth or the renewal of tissues, loses in corpuscular richness and in hæmoglobin, so that one feature of the natural decline of life is the presence of slowly deepening anæmia, which in its turn, probably aids in the diminution of the vital powers. It is plain that a very slight derangement, either in the direction of intake or that of undue waste, must readily influence and intensify this senile anæmia and marasmus.

Turning now to the contrast afforded by the sexes, which up to the age of puberty advance almost in parallel lines, we find, in the first place, that there is a difference in the precise composition of the blood (see Table I), that of the female being notably less rich in corpuscles and hæmoglobin than that of the male; and although, of course, this difference in health is, doubtless, in precise relation to the amount of work called for in each sex, yet, in consequence of it, the female is rendered more liable to become anæmic. She is also subjected to influences special to her sexual function. Ovulation and menstruation go on in health with regularity, and the blood loss they entail is readily renovated. But they are most easily influenced by derangements in health and nutrition; and, on the other hand, when diminished or excessive, may be important factors in the production of anæmia. Pregnancy, the puerperal period, and lactation—severally subject the female to anæmiating conditions, and the cessation of the menstrual function is often the period at which anæmia is developed. Upon the special relations which this function bears to chlorosis I shall have to speak later.

I have no doubt that heredity plays some part in disposing the organism to anæmia, but it is not easy to give instances. A tendency to anæmia may certainly be transmitted, just as a tendency to hæmorrhage, in hæmophilia.

The other conditions, which I have included under predisposing causes, frequently co-operate. Occupation may involve deprivation of a due amount of light and air, the exposure to heightened temperature, and a want of due amount of sleep. I need hardly particularise them further; they are influences which are almost as much exciting as predisposing causes of anæmia; they stand, at any rate, on the borderland between the two groups in the etiology of the condition.

The influence of climate is well known as favouring the anæmic state, the subjection to prolonged tropical heat having a direct influence over and above that which is due to the inertia called forth by life under such conditions.

In conclusion, it must be borne in mind that any given anæmia may arise from a multiplicity of causes, each of which is sufficient of itself to have induced the state; and in the second place the impoverished blood itself reacts on the organism in such a way as to maintain and intensify the anæmic condition. For all the vital processes are influenced by blood defective in the oxygen-carrying substance -hæmoglobin. Hence the capacity of blood for hæmoglobin must be increased, as well as the removal of the primary cause or causes, if any given anæmia is to be remedied. Metabolism must be quickened, and oxygen supplied for that purpose. I should have hesitated about taking you over—in this hasty survey of the known causes of anæmia—ground so familiar, if this were all that the subject comprised; were that the case, there would have been no need to discuss the subject at all. But when the category of known causes is exhausted, there remain cases of more or less profound and progressive anæmia, to which hitherto no sufficient explanation has been given, leaving the question still open for inquiry and speculation. It is the existence of such a class of "idiopathic" cases that has made me feel it to be necessary that I should speak to day of the factors known to operate in producing the anæmic state, before proceeding to the consideration of that class of disease to which I shall invite your attention in my next lecture.

CLINICAL LECTURE
ON
FOREIGN BODIES WITHIN THE EYE,
AND
THE ELECTRO-MAGNET AS AN AID TO THEIR REMOVAL AND DETECTION: WITH CASES.

Delivered at King's College Hospital.

BY M. MACDONALD McHARDY, F.R.C.S.Ed.,
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TO-DAY, I wish to call your attention to the most serious class of injuries to which the eye is subject. Foreign bodies, buried in or within the organ of sight, are most fruitful sources of blindness, not only to the eye originally hurt, but to its fellow, through sympathetic mischief. You may take it as an established truism, that every eye, whilst lodging a foreign body, is threatened with destruction by its tenant. Neither the position nor the size of the foreign body negatives this, though both are factors of very material importance in estimating the degree of serious gravity attaching to such a case. Moreover, you must recollect that, as I have just hinted, the danger is not confined to the injured eye, the risk of blindness being shared by its fellow. Sympathetic ophthalmia, an affection indefinitely deferred, insidiously developed, obstinately progressive, and deplorably blinding, often attacks the fellow to an eye rendered useless by a penetrating foreign body, which may be located in any part of the globe.

You may judge, therefore, something of the importance attaching to the detection and removal of such foreign bodies, and the responsibility incurred by one who, undertaking to treat an injured eye, does not do his utmost to arrive at a correct diagnosis regarding the presence or absence therein of a foreign body.

The investigation of these cases should be commenced by the aid of focal illumination; the pencil of light being thrown from every direction on to every visible surface of the globe, so that the position of any superficial indication of a wound may be fully lighted up and searched for by the aid of a magnifying-glass. For this purpose, the two object-glasses commonly supplied in the case with many of the hand-ophthalmoscopes will answer admirably; but if, as I believe is the lot with most of you, your ophthalmoscope be one of those excellent *multum in parvo*, practically efficient, simple, and strictly economical instruments* which I recommended you to procure, then, using the single object-glass thereof for concentrating the light, you will need a second as a magnifier. This may be an ordinary pocket-lens, one of twenty dioptres from the trial-case, a common burning glass, or watchmaker's loupe. I mention this, lest the possession of only a single object-lens with your ophthalmoscope should be conjured into an excuse for the inefficient examination of these cases. The scrutiny, with the two lenses, of the superficial parts, must be extended to the anterior chamber and surface of the iris. Here let me remark on the importance of conducting the examination thus far before applying any mydriatic to dilate the pupil, as it happens at times that foreign bodies which penetrate the cornea, or corneo-scleral junction, remain partially bedded in the tract along which they passed, whilst projecting into the anterior chamber, where the interposition of the iris may serve to screen the capsule of the crystalline lens from injury.

In other instances, a foreign body may be so situated, loose in the anterior chamber of the aqueous humour, that it would be liable to

* Wecker's compounded metrical refraction ophthalmoscope by Créte, Paris, price forty francs; or thirty-five shillings, by Pickard and Curry, London.

fall through a dilated pupil into the posterior chamber, out of sight, behind the iris. Further, the smaller the pupil, the greater the assistance the iris may lend to the safe extraction of a foreign body projecting into, or loose in, the anterior chamber, as you will be able to infer from the two following cases, the narration of which will indicate how similar ones may be brought to a successful issue.

Case I.—A clerk, aged 33, whilst winding a spring skeleton-clock, the cord of which was frayed, was struck by a fragment, eight millimètres long, of the very fine brass wire composing the frayed cord, which had broken. I immediately examined the injured eye, and could see one extremity and about seven millimètres of the foreign body lying, perfectly straight, in or within the transparent cornea. One end of the wire was concealed beyond the corneal margin; the other was lying beneath the external surface of the cornea, close within the spot at which it was evident the missile had entered. It appeared that a portion of the middle of the fragment was within the aqueous chamber, whilst each end was held embedded in corneal tissue; and this proved to be the case. Having further exposed the visible end of the wire, by a section over it, into, but not through the cornea, I seized the hard body with iris-forceps, which did not grip sufficiently to assist its withdrawal by direct traction; I therefore attempted to turn the freed extremity of the wire forward, anterior to the corneal surface, to admit of its being gripped by dissecting forceps. But this manœuvre had to be abandoned, as the centre of the wire receded against the iris when the extremity was prised forward. I next made a puncture through the cornea, immediately opposite that portion of the wire which was in the aqueous chamber, about midway between the centre and margin of the cornea, in its upper and inner quadrant; and inserted a Tyrrell's hook through the puncture, beneath and around the wire, so that, when the hook was withdrawn, the portion of wire, bent like a hairpin, came with it. A small portion of iris, which was dragged through the wound between the ends of the wire, was caught in forceps, and removed with scissors, after sufficient had been withdrawn to obviate the risk of any remaining impacted in the corneal wound. Under the use of atropin and a compress, the eye recovered, with no greater impairment of vision than that which resulted from the small excentric corneal scars.

Case II.—On another occasion, I saw an engineer, aged 22, with a large-sized grain of gunpowder lodged between the cornea and upper part of the iris, the result of an accident on the afternoon of the previous day. There were intense ocular congestion, great photophobia, and discoloration of the aqueous humour. I made a large upward section in the corneo-scleral junction, by transfixion with a Grafe's knife, taking care not to displace the foreign body by the passage of the blade. A pair of iris-forceps, with points bent at right angles to the shaft, was introduced well into the anterior chamber, as widely open as the section would permit; and then withdrawn closed, so as to have in its grasp the foreign body wrapped around with a large piece of iris, which I cut off with scissors. A simple compress was applied, and nothing occurred to hinder complete recovery.

When the probability of the presence of a foreign body anterior to or in the iris has been excluded, the pupil should be dilated to its widest by the application of a solution of atropine (four grains to an ounce). For these cases, it is better to make the solution with castor-oil, rather than water, as patients with corneal wounds appreciate the lubrication afforded by the thick oil. The search by focal illumination has next to be carried through the wide pupil into the posterior chamber of the aqueous humour. Therein a foreign body may be discovered, resting on the anterior capsule of the crystalline lens, in a position which was completely concealed by the iris, prior to dilatation of the pupil. Though a missile can but very rarely penetrate to such a position without piercing the capsule of the lens, and occasioning opacity thereof by the admission of the aqueous humour, yet it has happened. A wound of the anterior capsule of the lens does not invariably lead to either immediate or complete opacity thereof, though both are its commonest consequences. Cases are on record, and I have met with one such, in which a particular section of an injured lens became opaque, whilst the remainder retained its normal transparency. Still rarer cases are those in which it is reported that foreign bodies buried actually in the substance of a transparent lens have become encapsuled, and surrounded by a but limited opacity; of these I have no personal knowledge. However, you must not be misled by the abundant reports of eyes remaining quiet for long periods whilst tenanted by a foreign body; for such come to crowd the literature of the subject, through being exceptional in the practice of ophthalmic surgeons, who, having to treat vast numbers of eyes with foreign bodies in them, would not report the great many that demand enucleation, whilst too pleased to record the few which furnish the exception needed to prove the rule. Moreover, it is noteworthy that very many of the reported cases, in which eyes have quietly lodged foreign bodies for several, upwards of twenty, and in one instance twenty-seven years, have attracted attention by the mischief they have finally occasioned. Very frequently, an useless irritable eye is enucleated, and the surgeon receives no clue to the character of the original injury until an examination of the interior of the globe reveals a foreign body.

Individual experience and the statistical investigation of recorded cases alike show that foreign bodies are least tolerated when situated in or upon the ciliary processes, or in contact with the choroid and retina, and are most tolerated in the vitreous or aqueous chamber. They may remain lodged in an old lens, causing complete cataract thereof, and give no further evidence of their location until discovered in the lens after its extraction. The larger a foreign body is, *cæteris paribus*, the more destruction its presence in an eye will work. Dense substances, such as chips of metal, or glass, are usually less mischievous, excepting that they often penetrate more deeply, than splinters of wood or thorns, which may create additional irritation by swelling with the absorption of moisture.

Every *blind* eye, reasonably suspected to contain a foreign body, should be promptly enucleated, whether it be or be not painful. This is more imperatively necessary with patients of the less educated class, for such will so superstitiously treasure an eye, though it be blind, that, despite every warning from the surgeon, who probably advised enucleation at the time when an accident spoilt the sight, they will seek advice and conceal the truth from a strange doctor when sympathetic mischief arises.

I had an example of this during the present month at the Royal South London Ophthalmic Hospital. Happening to be there on one of Mr. Morton's days of attendance, he called my attention to some symptoms of irritation in the single organ of vision of a young child, whose opposite eye was shrunken, and suggested that they were due to sympathetic ophthalmia. The mother blandly remarked to me, "Oh! sir, you remember the child, you took so much trouble when that eye was blinded two and a half years ago, and I ain't brought the child to you since, 'cos you said directly she suffered anything with either eye, the blind one ought to be took out." In this case, a foreign body had penetrated the sclerotic, and occasioned bleeding into the vitreous chamber, so as to frustrate any immediate search therein. When the extravasated blood became sufficiently absorbed, I could see nothing of the missile, but recognised distinct evidence of it having traversed the whole width of the vitreous chamber, and was therefore led to hope that its momentum had been sufficient to carry it, not only into and across, but also out of the globe; which I was loath to enucleate prematurely in a young child, as the subsequent contraction of the parts would prevent the wearing of an artificial eye, which might be fitted if the globe were enucleated a few years later. Mr. Morton enucleated the globe; it contained a small foreign body surrounded by firm exudation material, and lying at a point behind the ciliary processes, to which it had rebounded from the inner surface of the eye.

Having recommended you to enucleate in such cases, you will be right if you infer that I hold the operation of optico-ciliary neurotomy in no favour; indeed, I believe that, unless speedily abandoned, its introduction as an alternative for enucleation must result in the destruction by sympathetic ophthalmia of many eyes which would never have been exposed to the danger thereof, but for a misplaced confidence reposed in an operation which can offer no advantages compensatory to a diminution of the almost absolute safety securable by timely enucleation.

The following case, which is recorded in the ninth volume of the Clinical Society's *Transactions*, will serve to direct your attention to very many of the points associated with the subject under consideration, and records the occasion which led me to first apply electro-magnets in the treatment of eyes containing iron or steel bodies. It is, moreover, illustrative of the commonest cause of such injuries, and the happy issue which may attend your best efforts to avert their dire consequences.

Case III.—David B., aged 31, employed in a wood-working-machine shop, came under my care, at the Royal South London Ophthalmic Hospital, in consequence of an injury to his left eye, caused by a chip flying either from a steel tool or from the hammer with which he was striking the tool.

I saw him first on July 4th, 1877, twenty-four hours after the accident, when commencing iritis was indicated by slight ciliary congestion and moderate discoloration of the iris. An altered reflex from a portion of the cornea, below and external to the centre, indicated where the steel chip had impinged. Before dilatation of the pupil, no lenticular opacity could be detected, and the ophthalmoscope revealed nothing abnormal in the vitreous body. The tension was normal; there

was but insignificant tenderness. He stated that the eye was far easier than it had been on the previous night, and that he did not wish to remain in the hospital. Accordingly, as the patient had presented himself at the hospital just before my departure, I prescribed some atropin drops, two grains to the ounce, and directed him to keep his eyes shaded until the next day, when he was to be seen by me again.

On July 5th, the patient said that he had no pain in the eye. The congestion had diminished since the previous day. The pupil was widely dilated; vision equalled twenty-fortieths; the corneal surface was almost normal; but there was a shining, sharply defined opacity, evidently a fragment of metal, upon the anterior surface of the lens, occupying a situation downwards and inwards from its centre. The lens was perfectly transparent, except at the small area hidden by the chip, which was a narrow flat strip, about one-fourth as wide as it was long, and in length about equal to one-fifth the corneal diameter. The foreign body, lying in the direction of the downward and inward meridian of the cornea, had its peripheral end nearer to the margin of the dilated pupil than its other extremity was to the centre, and thus occupied a position which explained how it had been concealed prior to the use of atropine. Reluctant to deal at all precipitately with such a case, I enjoined absolute rest for the patient, took him into the hospital, and continued the use of atropin. From the situation and shape of the chip, if left alone, it was almost certain sooner or later to gravitate down behind the iris, and lead to destructive mischief in one or both eyes; hence its removal was imperative. I recognised the possibility of the lens-capsule being wounded, notwithstanding the continued transparency of the lens; for possibly the chip, by its very presence, was plugging a laceration in the lens-capsule, and thus excluding the aqueous humour. But I could not feel sure that the lens-capsule was so damaged as to necessitate the formation of cataract. I was loath to subject the eye to the dangers which attend the extraction of a transparent lens by the scoop, and could not feel that such a measure would insure the removal of the foreign body.

As the effect of mydriatics diminishes as the aqueous humour escapes, it would have been very difficult, if indeed possible, to keep the foreign body in view during an attempt to dislodge and secure it with forceps; and if, subsequently to effecting its removal thereby, the lens had become opaque, it would have been impossible to decide whether the original injury, or my manipulations, had induced the cataract.

Confronted with these difficulties, it occurred to me that a magnetic spatula would meet the requirements of the case, for thereto I could attach the chip, and watch its movement, if only a needle were matched to the spatula, so that the latter would plug the puncture made by the former, and thus prevent a loss of aqueous humour, and diminution of the pupil. These conditions would have been equally well fulfilled either by a permanent or an electro-magnet; but with the former I foresaw this danger, that the chip, in jumping towards an approaching magnet, might, by some sharp edge, lacerate the capsule. On this ground, an electro-magnet seemed preferable, as it could be applied to the chip before any attractive power was called into play; and this power could be interrupted at pleasure, during the manipulations, so that any undesirable position of the fragment, with reference to the spatula, might be altered before extraction was commenced. Messrs. Weiss made the electro-magnetic spatula, which I exhibit, and which, when connected with a six-celled Smee's battery, seemed likely to fulfil the indications of the case.

The instrument will be seen to consist of a straight piece of soft iron-wire, four millimètres in diameter, having one of its ends, for a distance of fifteen millimètres, dressed down to form a spatula of perfectly uniform stoutness, with a smooth, blunt, flat point, and having coiled upon it six layers of very fine insulated copper-wire, so that the coil extends over about three centimètres of the iron-wire from the spot where it is reduced to the spatula-gauge. This instrument, when connected with the above-named battery, lifted, by its spatula-point, a three-quarter-inch iron tack.

I related the particulars I have just mentioned to my colleague, Mr. Brudenell Carter, who then kindly saw the case with me, and suggested that, before introducing the spatula, it would be well to try what traction, if any, a powerful magnet held in front of the cornea might exert upon the chip—a suggestion so practical, that I was startled to think it had not sooner occurred to me.

On July 6th, the patient being seated in a chair, I held before his cornea this powerful electro-bar-magnet (one ten inches long and an inch in diameter, coiled with four layers of stout insulated wire, and connected with two pint Grove's cells), and gradually approximated one of its poles to the eye, until, when they were about four inches apart, the chip sprang from the lens to the inner surface of the cornea. Thereupon the magnet was withdrawn, and the chip fell into the anterior chamber. The patient was placed upon a couch, ether was administered, and an incision was made, through which the chip was evacuated; and a small piece of iris, which prolapsed, was excised. Immediately the chip left the surface of the lens, it revealed a patch of opacity precisely of its own magnitude; and it was, therefore, evident that complete cataract might be anticipated. This followed, and the injured lens underwent absorption, without any inflammatory reaction being produced. Atropin was applied until the absorption was completed; and the patient has normal distant vision with a lens of twelve diopters, and reads No. 1 of Jaeger's types with a lens of fifteen diopters.

This case aroused my desire to ascertain the fullest extent to which electro-magnets could be usefully employed under analogous circumstances, at a time when nothing but patient experimenting offered any hope of deciding what form or strength of electro-magnet might be most advantageously applied; and I became convinced that it was an error to suppose, that, by greatly augmenting the attractive power of a strong magnet, its influence on a minute particle of iron is not increased. This hypothesis demanded contradiction, on account of the frequency and confidence with which it was announced—notwithstanding that it would seem to be disproved by the single fact, that, in accordance with a certain ratio, the more powerful a magnet is, so much greater is the distance at which it will attract an iron filing.

Immediately after the occurrence of this last case, my attention was directed to a paper by Dr. McKeown, in the *Dublin Journal of Medical Science* for September 1876, wherein he narrates how he has successfully used permanent magnets for the diagnosis and treatment of cases of steel and iron within the eye.

Seeking enlightenment on the subject of powerful electro-magnets at a large telegraph-cable manufactory, I found that the *employés* there, when struck in the eye by a chip of iron or steel, intstead of seeking the aid of a reputedly dexterous mate, were in the habit of widely separating the eyelids, and approximating the injured organ to the pole of a colossal electro-magnet, with the common result that the chip, no matter how small, left the cornea.

The BRITISH MEDICAL JOURNAL for July 17th, 1880, gives the following quotation, bearing date A.D. 1745. "There was one in Salisbury, who had a piece of iron or steel stuck in the iris of his eye. The person was in very great pain, and came to me. I endeavoured to push the iron out with a small spatula, but could not, and then applied a loadstone to it, and immediately it jumped out." Thus, clearly, there is no novelty about the application of magnetic traction to the extraction of iron or steel chips from the eye. The Salisbury case reads as if the piece stuck through the cornea rather than in the iris. This, too, I think the more probable, as it appears impossible for a foreign body to remain sticking fast in the iris alone, if you consider the character and constant action of that muscle.

Whenever a case of injury to the eye presents itself, with a history that suggests the possible presence of a foreign body, no time must be lost in carrying out the examination as I have just now described; and, if necessary, supplementing that by a most rigorous ophthalmoscopic search through every exposable part of the interior of the globe, for such injuries are most liable to be quickly followed by loss of transparency in the media, either through bleeding or inflammatory exudation; and then ocular evidence of the chip is forbidden. Such a condition is too often present when the case first comes under the surgeon's notice; and then, if there be a possibility of the foreign body being either iron or steel, permanent, or better still, electro-magnets, may render most material assistance, both in its diagnosis and its extraction. You will be able to judge of this from the notes of the case to which I briefly referred at the close of my contribution to the ninth volume of the *Transactions of the Clinical Society*, as follows: "I have succeeded, by the aid alone of an electro-magnet held in front of the cornea, first in diagnosing the presence of, and then in extracting, through the track by which it entered, a fragment of steel, measuring 2 by 5 millimètres, which had been imbedded posterior to the iris for forty-eight hours, during which time the wound of entrance and the pupil had alike become closed with lymph."

Here is the chip in question, and the electro-magnet which extracted it is the same which worked so happily in the case (III) just narrated.

CASE IV.—The patient, a blacksmith, aged 53, was seen twenty-four hours after receiving a blow on the eye by a chip, which flew from his work when he was chipping cast-iron with a steel chisel and steel-faced hammer. He said the blow was a heavy one, and half stunned him; that he was confident he must have been struck with a fragment too large to be buried within the globe. His eye was acutely inflamed; just to one side of the corneal centre there was the scar of a recent wound, which was so plugged with soft lymph as to allow the aqueous humour to be retained. There was severe iritis, and the pupil was blocked. Atropine, freely used during twenty-four hours, did not open the pupil. Then, judging that it would be possible, by the aid of an

electro-magnet, to ascertain whether or not the foreign body, which, from the nature of the circumstances of the accident, was necessarily either steel or iron, and therefore especially susceptible of magnetic influence, had lodged itself within the globe which it had punctured, I proceeded as follows. Placing the north pole of the electro-magnet before the patient's damaged eye, I completed the galvanic circuit, when he immediately exclaimed that the pain of his eye was unbearably augmented. This clearly indicated, not only that the chip was buried within the eye, but that it was materially attracted towards the magnet without. With the patient lying on his back, I held the electro-magnet with its positive pole in close apposition, but not in contact with the wounded cornea; the eyelids being separated by a silver speculum. For about four or five minutes from the commencement of this procedure, the patient complained that the pain was constantly increasing. At the end of ten minutes, the iris was seen projecting forwards on a sharp point, directly behind and in contact with the back of the recently closed corneal wound. When the magnetic traction had been further applied for ten minutes (or for fifteen minutes in all), a metallic surface could be seen penetrating the iris, and becoming hidden in the track of the corneal wound. Five minutes later, a projecting point was visible on the surface of the cornea; but, on withdrawing the magnet to apply mechanical traction to the fragment, it was observed to immediately recede below the corneal surface. The administration of ether was then commenced, as I contemplated re-opening the corneal wound, and thus reducing the resistance opposed to the fragment when attracted by the electro-magnet. During the few minutes occupied in the administration of the ether, the application of the magnet was steadily continued; whilst I gave the eye a slight lateral, and up and down, movement beneath the magnet, for the purpose of causing traction upon the chip in alternating directions, and thus loosening it. Simultaneously with the patient coming fully under the anæsthetic influence, this fragment of metal, measuring 2 by 5 millimètres, weighing .0158 gramme, with sharp ends, passed out of the eye through the track by which it had entered, and fastened itself upon the pole of the magnet. From this time forth the ocular congestion gradually subsided; and there has been no further pain in the eye, which retains good perception of light and normal tension. There is a cataract, also numerous synechiæ; but he is too well satisfied with the present condition of his eyes to submit to the operative treatment necessary to restore useful vision in the damaged one.

In using magnetic traction upon similar cases, it is important to keep the same pole of the magnet towards the chip; for that is almost of necessity not truly soft iron; and therefore becomes, by induction, itself a permanent magnet, and is consequently attracted by and attracts with but one of its ends or poles at a time: hence, it was not merely a piece of good fortune which allowed the chip to come out point, rather than broadside, foremost.

It may be better to apply the north, rather than the south, pole of the magnet in the manner just described, as Drs. John Vansant (*Journal of Psychological Medicine*, New York, April 1870, page 264), and William A. Hammond (*New York Medical Journal*, November 1880, page 453) have stated that the north pole of a magnet does not cause pain when in contact with the conjunctiva; whereas the south pole, under similar circumstances, occasions a sharp sensation and involuntary twitch; but two or three of you, who made the attempt thus to distinguish between the poles of my large electro-magnet, failed to detect any difference.

Case v.—Last Tuesday week, this patient, a bricklayer, aged 30, of steady habits, whose left eye had been hurt by a chip on the previous day whilst he was cutting brickwork with a steel chisel and steel-faced hammer, consulted me. The vision was materially impaired, the corneal surface was disturbed at its centre, the lens was unusually visible; and far back, behind the very centre of the lens, a small opacity existed, which returned a metallic lustre when properly demonstrated by focal illumination. The most searching examination, both before and after dilatation of the pupil, failed to detect any further abnormal appearance. When examined through ophthalmoscopic illumination during vertical and lateral movement of the globe, the relative movement of the intra-ocular opacity, which was unquestionably an iron or steel chip, proved it to be situated in the optic axis, posterior to the lens, through the centre of which it had unquestionably penetrated. The foreign body rested just anterior to the globe's centre of rotation; viz., rather less than 14 millimètres behind the summit of the cornea. During the second twenty-four hours after the receipt of the injury, the lens had become slightly cloudy, though still readily permitting a view of the chip. Then was the time for any attempt, if such were to be made, to extract the foreign body, the exact size of which could only be approximately judged from the obliquity of its single visible surface. I will refer presently to the experiments I made to demonstrate, by the deflection of a suspended magnetic needle, the proximity of the ferruginous chip, both before and after magnetising it by induction. The patient's sensations with the north pole of the electro-magnet, the same as used in the two previous cases, just not touching the cornea, did not enable him to distinguish when the galvanic circuit was completed. The steady application of the magnet produced no visible effect upon the chip other than a questionable change in the amount of metallic reflex returned from it, which suggested that, if at all changed in position, the chip was lying more obliquely across, but just as far back along, the optic axis. I therefore abandoned all hope of extracting the body without the introduction of some instrument into the vitreous chamber; a proceeding not free from risk, but one which I would too willingly undertake with a reasonable prospect of thereby converting a most serious case into a simple one of traumatic cataract. The next question was, with what instrument and in what direction to attempt the extraction of the chip. Having well magnetised the chip by induction, through the proximity of the large electro-magnet, I similarly rendered a sharp lance-pointed cataract-needle a permanent magnet; selecting for this purpose a needle likely to be capable of making, during its withdrawal, a passage sufficiently wide for the chip. Introducing the point of this magnetised cataract-needle excentrically through the upper and outer quadrant of the cornea, over the still visible annulus of iris, I carried it through the wide pupil, across the aqueous chamber, to the anterior surface of the lens, through which it passed in a direct line to the chip. After making a little lateral movement with my needle-point against the chip, I gently withdrew the former, to which the latter clung through the whole length of the track along which the needle had been thrust, after it had entered the anterior chamber. Removing the cataract-needle from the eye, I left the chip, which declined to follow through such a minute corneal puncture, lying upon the iris. Making a peripheral corneal puncture with a non-magnetic bent broad needle, I passed in the round end of a non-magnetic cataract secondary knife, and, withdrawing the same, found that the magnetic chip had followed into the corneal puncture, whence it was washed either by the flow of aqueous humour or attracted by the approach of iris-forceps intended to grasp it. Here* is the chip, which weighs twelve ten-thousandths of a gramme.

The lens, which has since grown universally opaque, is becoming flocculent, and has not as yet, either by pressure or irritation, occasioned iritis. If the eye remain quiet another forty-eight hours—by which time the cataract will probably be very flocculent—I intend to then remove it by suction, as recommended by Mr. Pridgin Teale. The most opposite opinions exist regarding the merits of this mode of dealing with soft cataracts, as different operators have achieved most opposite results from it. I do not hesitate to recommend it most confidently, as being fraught with exceedingly little danger, provided a properly constructed instrument, properly cleansed and disinfected, be properly used. Those instruments are best to which the operator's mouth supplies the suction-power, as the working of a mechanically contrived suction-apparatus must necessarily hamper a hand already fully occupied in directing the orifice of the curette. The curette portion of the instrument should unscrew, so as to admit of its being cleansed more thoroughly than is possible when it is cemented directly on to the glass tube.

You may ask, why not leave this bricklayer's cataractous lens to be absorbed, just as happened in the sawyer, Case III, both patients being of the same age? You should remember—1. that the absorption of such a lens would necessarily occupy many weeks, probably months; 2. that so long as any considerable bulk of the traumatic cataract remains, it may swell, press upon and irritate either the iris or ciliary body, occasioning iritis or cyclitis; 3. that, consequently, the organ of vision continues in jeopardy whilst lodging the cataract, and renders the patient unfit to work. Thus there are at least three weighty facts in favour of the most complete and early removal of a wounded lens, consistent with safety to the eye.

The concluding number of the last volume of the *Boston Medical and Surgical Journal* furnishes an interesting report of cases, in which Drs. Joy Jeffries and Williams successfully utilised the traction of an electro-magnet to facilitate the extraction of steel chips, which had penetrated to the aqueous chamber. Dr. Bradford had furnished them with an electro-magnet, weighing but four ounces, which, when driven by a single bichromate of potash cell, sustained five times its own weight at a distance of one inch from the extremity of the core. Dr. E. Gruening, of New York, after experimenting to concentrate the greatest possible magnetic polarity in the least possible dimensions, has finally constructed a permanent magnet of six parallel steel rods, somewhat separated from one another, with their ends fitted into iron caps, one of which caps terminates with a delicate soft iron stem, thirty-two millimètres long by one millimètre thick and three millimètres wide,

which is capable of sustaining a weight of fifteen grammes. The Germans have been using a Janin's magnet, which is a permanent one composed of layers of watch-spring. By the introduction of the pointed pole of such an instrument between the lips of a scleral incision, Fraenkel was enabled to immediately withdraw from the vitreous chamber a concealed fragment of iron, over the suspected position of which he had cut down.

The examples could be easily multiplied; but, hoping I have said enough to induce you, first, to recognise the possible practical utility of magnetic traction in the extraction of chips of iron or steel within the eye, and, secondly, to produce the most handy and powerful electro-magnet, we will pass to the consideration of their use as an aid to diagnosis.

You are all aware that, in the presence of iron or steel, a delicately balanced magnetic needle is deflected; that a portion of iron or steel, whilst magnetised, is far more capable than previously of deflecting such a needle; that all steel, and such iron fragments as are not absolutely soft, are capable of being magnetised by induction, that is to say, by remaining in the magnetic circle evolved from a neighbouring magnet, with which they need not be in absolute or even approximate contact.

To test the practical applicability of these truths to the diagnosis of the special class of injuries under consideration, I conducted an experiment, of necessity omitting many important, but almost impracticable, precautions, with the bricklayer's eye (Case v), whilst it lodged that minute piece of steel in the vitreous chamber. Suspending a delicately balanced magnetised needle with one pole immediately over the chip, I in vain endeavoured to recognise some deflection of the former. After the chip had been magnetised by induction, and thus rendered more capable of deflecting the magnetic needle, the experiment was repeated, with a negative result. Here let me call your attention, as I demonstrated at the time, to the circumstance that, if the pole of the magnetic needle be allowed to touch the cornea or conjunctiva, the moisture thereon may cause a false deflection, which, unless assigned to the proper cause, might lead to the most erroneous deductions. Dr. T. Pooley, of New York, who has conducted some very interesting experiments on this aid to diagnosis (*vide* Knapp's *Archives* for 1880), believes that it may prove of real use. Though I fear that he is oversanguine on this point, I wish you to know that the negative result furnished by my experiment corroborates his deduction, which was that the test would fail to indicate a magnetised steel chip as small and as deeply placed as was that in the eye of the bricklayer (Case v).

For such investigations the needle must be highly sensitive, and its deflection often very slight. The delicacy of the needle necessitates its protection from the influence of draughts, and the adoption of some means to neutralise the earth's magnetism, whilst the insignificance of the deflection must be met by some such device as the observation of the reflected light in the focus of a concave mirror mounted on one pole of the magnetic needle. But, after providing all these requirements, how can the influence of jar be neutralised efficiently and consistently with the conditions of such a clinical investigation? These momentous strictures were made upon the occasion of Dr. Pooley contributing a report of his experiments; but an equally cogent and still more serious comment is, that even if this method demonstrated two intersecting axes in which the chip rested, it would not give the third axis needful to fix the position of the chip. However, the method is worthy of most careful, intelligent, and patient elaboration; and until success crowns the surgeon's efforts to diagnose intra-ocular fragments of iron or steel by the magnetic needle, recollect to make use of the aid of a powerful electro-magnet in the same direction.

You noted the pain experienced by the blacksmith when his injured eye was well within the magnetic range of the pole of the magnet. That pain enabled him to immediately recognise the completion or interruption of the galvanic current which induced the magnetic action, and therefore furnished conclusive evidence, not only of the lodgment of an iron or steel body, but also that the magnet was exercising a sensible traction thereon. I have used this pain-test, with the electro-magnet, on four other eyes in which the presence of iron or steel was suspected; two experienced pain immediately the galvanic circuit was completed, and these, upon being enucleated, verified the correctness of the diagnosis that they contained the foreign body; the other two being unaffected by the magnet were not enucleated, but were dealt with as the nature of the punctured wound demanded. Up to the present, the behaviour of each of these preserved eyes has confirmed the diagnosis that the projectile which wounded did not remain in the eye.

The facility which the electro-magnet affords of testing, by the making and breaking of the galvanic circuit, the real, as distinguished from the imaginary, pain caused by the proximity of its pole, affords a weighty argument for its selection in preference to the more handy permanent magnet. Moreover, whilst the latter only admits of saturation, the former can be supersaturated. "Quantity", as distinguished from "intensity", is needed in the current for working an electro-magnet; and this must be attended to in selecting the battery. Furthermore, when you experiment to deflect a magnetic needle with a minute influence, do not forget to remove from yourselves, and from everywhere near, all iron and steel bodies.

Having now narrated my personal knowledge of the value of the electro-magnet as an aid to the removal and detection of iron or steel within the eye, let me ask your best attention to its further development in that direction. Lack of time forbids my entering fully upon the wider subject of foreign bodies in general within the eye, they are very commonly fragments of copper percussion gun-cap and other substances insensible to magnetic influence.

One word of warning, in conclusion: when using powerful electro-magnets, do not wear a watch, lest it be stopped through the steel therein becoming magnetised, and baffle the skill of the would-be repairer.*

ABSTRACT OF LECTURES
ON THE
STRUCTURE OF THE SKELETON IN THE SAUROPSIDA.

Delivered at the Royal College of Surgeons of England.

By W. K. PARKER, F.R.S.,
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Lecture VII.

The extinct reptiles are divided into the Plesiosauria, Ichthyosauria, Dicynodontia, Ornithoscelida, Pterosauria, and a number of smaller groups. The Plesiosauria are interesting, from the variety of forms they present; in some, the head, which is not more than one-twelfth or one-thirteenth of the length of the body, is mounted on a neck as long in proportion as that of the swan; but, in others, the head is large and massive, and the neck much shorter. The hind limbs are longer than the fore limbs, and the tail is comparatively short. The cervical vertebræ may exceed forty in number, though generally there are fewer. The neuro-central suture persists for a considerable time, if not during the whole life of these animals. Their cervical ribs have a strong resemblance to those of the crocodile. The dorsal vertebræ number between twenty and twenty-five, and there are usually between thirty and forty caudal vertebræ. There appear to be no sternal ribs, but there are well-developed ossifications of the abdominal wall, arranged in transverse rows from before backwards. The snout is long and tapering, and the nasal apertures are not situated at its extremity, but in front of the orbits. The pectoral arch consists of two very large coracoids, the long axes of which are parallel to one another, while their inner edges meet through the greater part of their extent without overlapping. There can be little doubt that the bones of the limbs were, like those of the cetacea, covered over by integument, so as to form a paddle. They are long-extinct animals, confined to the mesozoic rocks, from the Trias to the chalk inclusive.

The Ichthyosauria resemble in appearance the cetacea; they possess large heads and short necks. The body is fish-like, and propelled by four paddles, the anterior pair being larger than the posterior, and situated close behind the head. The skull is remarkable for the great elongation and tapering form of the snout, the large orbits, the great supratemporal fossa, and the closing over of the infratemporal fossæ by plates of bone. Some attained gigantic dimensions, and are found abundantly in the lias and other mesozoic rocks.

The Dicynodonts present many points of resemblance to lizards, turtles, and crocodiles. The skull is massive, and like that of the lizard, as are also the limb-bones. The jaws are like those of the turtle, but in most forms there are two tusks in the upper jaw; the vertebræ are crocodilian.

* Since the above was delivered, Dr. Wylie, of Glasgow, has allowed me to test the electro-magnetic apparatus which has been supplied to him with the profession of it having received Dr. Hirschberg's approval. I have found it to retain some magnetism during a cessation of the galvanic current around it, thus showing that it is in part unsuitable, owing to the employment in its construction of iron that is not pure enough. Whilst anxious not to be hypercritical about the apparatus, another apparent oversight in its construction suggests itself to me; viz., the very large gauge of the insulated copper-wire, which, it would seem, must be a source of useless resistance to the galvanic current.

The Ornithoscelida present a large series of modifications intermediate in structure between existing reptiles and birds. This transitional character of the skeleton is most marked in the pelvis and hind limbs. The ilium extends far in front of the acetabulum, and furnishes only a wide arched roof to it, as in birds. The front acetabular process is reptilian, being prolonged downwards; the ischium resembles that of the birds, being much prolonged in some forms, as for example in the Iguanodon. The lower extremity possesses a large crest and edge for the fibula; the distal end of the tibia is exactly the same as in birds; there is a fossa for the reception of the ascending process of the astragalus; the distal end of the fibula is much smaller than the proximal. The astragalus seems to have remained distinct through life in some genera, but in others to have become ankylosed to the end of the tibia. The reptiles belonging to this group were for the most part of very large size, the Iguanodon being one of the largest known terrestrial animals. Their thoracic vertebral ribs are very strong, but the sternal ribs and sternum are unknown. The skull seems to have been intermediate between crocodilian and lacertilian forms.

The Pterosauria contain the flying reptiles, which were remarkable for their long heads and necks, and for the modification of the anterior extremity into a wing, like that of the bat. The ulnar finger was very long, and devoid of a claw; the tail was very short; the skull very like that of a bird; and, in some species, this resemblance was increased by the presence of wide lacrymo-nasal cavities, and the beak-like form of the upper jaw. The scapulæ and coracoids were bird-like. The long bones enclose a large cavity, which appears to have been filled with air. Throughout the body, on the other hand, there are characters essentially reptilian.

Lecture VIII.

The birds have been separated into three divisions by Professor Huxley: 1. The Saururæ, in which the metacarpal bones are separate; the tail is longer than the body; and the ploughshare bone, which consists of the last two caudal vertebræ ankylosed together, is absent. Of this order, the archæopteryx is the only known representative. 2. Ratitæ, or those with raft-shaped breast-bones, in which the tail is much shorter than the body; the toes in many instances are diminished in number; the metacarpals are ankylosed together; and the wings, from being feebly developed in proportion to the size of the body, are useless as organs of flight. To this order belong many gigantic birds now extinct, such as the dinornis, as well as the largest existing birds —for example, the ostrich, rhea, and cassowary. It also contains the apteryx, a bird now, unfortunately, becoming rapidly extinct. 3. The Carinatæ, in which the sternum is provided with a keel. This order contains all the flying birds. The wings are well developed, with a few exceptions, chiefly amongst extinct birds. In its development, the bird is closely allied to the reptiles, as was shown in the first lecture. Remains of the reptilian exoskeleton may be seen in the scales which cover the metatarsals and digits of the bird; but no bird possesses dermal ossifications, unless the spurs sometimes found on the legs and wings are considered as such. The feathers which cover the surface of the body are of various kinds. Each consists of a stem made up of a quill and a van or shaft, bearing lateral processes—the barbs—which consist of narrow plates, with their edges directed upwards and downwards. The spaces between the barbs are occupied by barbules—pointed processes which stand in the same relation to the barbs as the barbs do to the stem or rachis, as it is called. The spinal column consists of numerous and well-ossified vertebræ. The cervical region contains from eight to twenty-three vertebræ, which are, as a rule, large in proportion to those of the rest of the body, and, like those of the crocodile, bear cervical ribs. The dorsal vertebræ vary in number. The sacrum is composed of six or more vertebræ; but of these, not more than from three to five can be considered homologous to the sacral vertebræ of the crocodile or lizard. The remaining are caudal vertebræ. The sternum is a broad plate of cartilage, which is almost always more or less replaced in the adult by membrane-bone; it differs in most birds considerably from that of the reptiles; but in the cassowary it is rhomboidal in form, and differs most from the reptilian sternum in being longer posteriorly, convex on its ventral surface, and wanting median backward prolongations. The extent to which the keel is developed varies very greatly. The skull presents many points of resemblance to that of the reptiles, especially during its development. The brain-case is generally more arched and spacious, and larger in proportion to the face, than in the reptiles; there is a well-marked interorbital septum; the nasal apertures are almost always situated far back, near the base of the beak. The posterior nares lie between the palatines and the vomer; the nasal passage is never separated from the cavity of the mouth, as the palatine plates of the palatine and pterygoid bones do not unite. The bones of the skull, and most of those of the face, become ankylosed early, and are mostly undistinguishable from one another. The periotic capsule is completely ossified; the epiotic and opisthotic are ankylosed with the occipital segment before they unite with the pro-otic. The lacrymal bones are large. The frame of the tympanic membrane not unfrequently contains distinct ossifications, which represent the tympanic bones of mammals. The premaxillæ are triradiate bones of great size, which usually give off three processes—a frontal, a palatine, and a maxillary process; this latter forms the greater part of the margin of the beak. The maxillæ are usually slender rod-like bones, articulating in front with the premaxillæ, behind with the jugals. The quadrate bone is always movable upon the skull, articulating with the pro-otic, alisphenoid and squamosal, by a single or a double head. Each ramus of the mandible consists of six pieces, as in the other sauropsida; but the dentary pieces on each side unite very early, as in turtles. The mandible articulates with the quadrate bone, and not with the skull directly—in this respect agreeing with the other sauropsida. The hyoid bone is composed of basal elements, the anterior of which lies in the tongue; and of two short anterior and two longer posterior cornua, which are never united with the periotic region of the skull, and commonly remain quite free.

ON GOUT CONSIDERED AS A TROPHO-NEUROSIS.

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In this paper, I propose to consider such parts of the pathology of gout as may fairly be attributed to nervous influence.

In an essay published in *Brain*, in April of this year, I put forward some arguments which tended, in my opinion, to support views promulgated by Cullen and other writers, to the effect that gout was a malady of neurotic origin.

In seeking to re-establish the neurosal theory of gout, it became necessary to take full cognisance of the solid and accepted advances made during the last twenty-five years by Dr. Garrod, which go mainly to support the humoral theory of the disease.

It is plainly impossible to resist the evidence adduced in favour of the direct connection between an excess of uric acid in the blood, and manifestations of gouty disease. No part of the pathology of gout is so exact as this; and, whatever views may subsequently come to be entertained upon the whole of the pathology of the subject, the facts revealed by Dr. Garrod can never be set aside.

The uric acid theory of gout is held by many to be sufficiently evident, and explanatory of all its phenomena. Some physicians who have thought much upon the subject are, however, not satisfied that this theory covers the whole ground, and they go further back, and seek for the causes of the chemical aberration. If it be the case that full acceptance must be given to the teaching of Dr. Garrod, then it is certain that a part, at all events, of the pathology of gout is humoral, and it is vain to plead for a purely neurotic theory of the malady.

Dr. Garrod himself, with a degree of caution worthy of his truly scientific position, allows that his views are "in themselves insufficient to explain all the phenomena of gout". He has striven to meet every opponent to his opinions, with great power and ingenuity. He has, however, not attempted to combat Cullen's particular theory of the specific involvement of the nervous centres.

Sir Charles Scudamore, in his classical work on gout, paid no heed to this doctrine, and held a humoralistic theory. I am not aware that Cullen's neurotic views of gout have been anywhere particularly criticised. Senator, referring to the views of the solidists, represented by Cullen, remarks that it has never been able to hold its ground against the various humoralistic theories (Ziemssen's *Cyclopædia*, art. Gout, p. 101. English translation). Cullen's views tended to overthrow the theory of any special morbid state of the fluids in gout. This portion of his doctrine is now exploded; but the following sentences of his may, I believe, still serve as a text to assist in elucidating the pathology of gout. "Gout", he remarked, "is a disease of the whole system, depending upon a certain general conformation and state of the body"; and again: "Gout is manifestly an affection of the nervous system, in which the primary moving powers of the whole system are lodged. This leads us to look for an explanation of the whole of the disease in the laws of the nervous system, and particularly in the changes which may happen in the balance of its several parts. Gout shows more than any other pyrexia does of an affection of the nervous system" (*First Lines of the Practice of Physic*).

Cullen's pathological theory was not a narrow one in the sense of his taking the nervous system only into account, any more than was Sydenham's doctrine, which, though commonly regarded as humoral·

istic, has been pointedly shown by Dr. Ord to include both the solids and fluids of the body (Sydenham's *Treatise on Gout*, cap. xvii. *Vide* On the Relation of Gout to Uric Acid, by Dr. Ord, *St. Thomas's Hospital Reports*, p. 227, 1872).

At the present time, the purely humoral theory of gout is most commonly held. The late Dr. Murchison gave in his full adherence to it. "Gout", he remarked, "is merely one of the results of lithæmia; a gouty diathesis always indicates, and is the result of, hepatic derangement" (*Lectures on Disease of the Liver*, second edition).

The neurotic theory of gout appears to have been first promulgated by Stahl, in the earlier part of the eighteenth century. Cullen states that he adopted his views. Sydenham directed attention to the influence of mental exhaustion on gout. In more recent times, this theory has been held and discussed by Professor Laycock, by Dr. Meldon of Dublin, by Dr. Ord, and by Dr. Edward Liveing.

Concisely expressed, the views of these several writers are as follows.

Dr. Laycock maintained that excessive activity of the nervous system, or of portions of it, became a highly predisposing cause of the neuroses; that these excesses, when habitual or long-continued, were apt to develop hereditary tendencies, and thus, that great mental labour, drunkenness, strain on special nerves, and the like, of parents, were often manifested in children as neuroses. He taught that the trophic influence of the nerve-centres on the several tissues was shown in such affections as hereditary insanity, epilepsy, hysteria, angina pectoris, and upon gouty diseases in general, which he held to be "primarily, neurose degenerations in the nutrition, and transformation of certain tissues".

Dr. Austin Meldon published, in 1872, his objections to the uric acid theory as fully explanatory of gout (*Lancet*, vol. ii (1872), p. 115). Quoting cases to prove that urates may exist largely in the blood without giving rise to gout, he invokes, as a connecting link, the influence of the nervous system. He believes that the presence of uric acid and of soda in some form in the blood, are essential to gout; but he holds that "nerve-force, when in healthy condition, preserves these two in a fluid state, separately, in a condition fit for elimination by the skin, kidneys, or bowels. As soon as this nerve-influence is lessened, these two substances unite in the tissues most removed from the brain and circulation. The irritation and inflammation excite the nervous system to increased energy, and the disease for the time is arrested". Dr. Meldon lays stress upon the occurrence of gouty attacks during the night, when both the nervous force and the circulation are feeblest; upon the common affection of the great toe-joint; and he specially notes the marked effect of depression of nervous power as an important factor in the induction of attacks. This is a neuro-humoral theory.

Writing also in 1872, Dr. Ord, in the valuable essay already quoted, remarks that "the extension of gouty inflammation does not require the interference of uric acid for its explanation. As it is certain that, in many cases, simple inflammation is propagated from part to part by nerve-influence, it is not illogical to assume that this may occur in gout". He quotes a case, ultimately fatal, where non-gouty polyarthritis followed an injury to the left metacarpo-phalangeal joint; and expresses his belief "that reflex nerve-influence was the agency by which the local ailment became ultimately a general disease". He further believes that, "in gout proper, the influence of the part upon the system through reflex nervous agency must be regarded as most important".

Dr. Ord also acknowledges a direct action of the nervous system in gout, as inducing irregularities of the circulation, and thus disordered chemical relations of the tissues, maintaining that "the nutrition of the body is constantly affected in a visible way by the state of the nervous system". He quotes instances showing the effect of nerve-depression upon several tissues, and others in proof of the fact that a strong will can "fight down" or "walk down" the gout.

Dr. Edward Liveing has expressed himself very strongly in favour of the neurotic origin of gout. In his most able treatise on Megrim (*On Megrim, Sick-Headache, and some Allied Disorders*, London, 1873, p. 404), while discussing the alliances and various symptomatic forms of the disorder, he observes that "there is much in the history of gout—its hereditary character, limitation to particular ages and sexes, periodicity, explosive character, sudden translations, and remarkable metamorphic relations with nervous disorders—which seems to stamp the malady as a pure neurosis. .. On the whole", he remarks, "there is much to be said in support of the view that gout in its various forms is the manifestation of a disorder which has its primary seat in the nervous system itself; and there is no more difficulty in conceiving that inflammation and pain may be an effect of deranged innervation in the case of arthritis, than in the analogous case of herpes zoster; or that an excess of uric acid should be generated and retained in the system under a similar influence, than that sugar should, in the parallel case of the diabetes which follows a lesion in the floor of the fourth ventricle."

Dr. Liveing mentions that Dr. Todd used to compare a fit of gout, in respect of its sudden nocturnal invasion, with an attack of epilepsy or asthma.

In his masterly lectures on some of the surgical relations of gout (*Clinical Lectures and Essays*, second edition, 1879, p. 382), Sir James Paget remarks that, "disturbance of the nervous system in some form and part may be regarded as a factor in every case of gout. There are reasons enough for thinking that changes in the nervous centres determine the locality of each gouty process, while changes in the blood and tissues determine its method and effects; and that thus we may explain the symmetries of disease in gout—sometimes bilateral, sometimes antero-posterior—and thus its metastases. But these changes are a part of the pathology of gout which is not yet clinical."

Mr. Spencer Wells (*Practical Observations on Gout, etc.*, 1859, p. 21), has called attention to the highly developed nervous system of the gouty, and to the influence of the irregular exercise of it, in inducing paroxysms.

To demonstrate the part of gouty pathology that seems to be dependent on neuro-trophic changes, it is necessary to review the special characters of the neuroses in general, and then to examine how far the ascertained features of gout conform to these. It seems to be imperative to look beyond the mere chemico-pathogenetic theory, that would ascribe gout in all its aspects to the aberrant relations of uric acid. It is quite unsatisfactory to regard gout as an outcome of either gastric or hepatic distemper. In the last quarter of a century, the numerous researches made into the nature and functions of the nervous system come to our aid in this inquiry, and from these we have learned two main and important points respecting the neuroses in general. The first is, that they may be primary or central; and the other is, that they may be secondary or induced.

Thus, we may take it that a neurosis is implanted, or a tendency to it established, and that this shall be hereditarily passed on, and thus a diathetic state be formed; or, in consequence of some toxæmia or blood-degeneration, a secondary or induced neurosis may be established.

It is upon this basis that I seek to establish the neurotic position of gouty pathogeny; and I feel strongly that an effort should be made in this direction at the present time, because the influence of the nervous system can no longer be ignored in connection with this peculiar malady, and an attempt, though speculative and tentative, is herewith made and humbly offered for consideration.

The neuroses represent special conditions, or special morbid modes of evolution of nerve-force. They are implanted in individuals as part of their intimate nature. They are truly as characteristic of the individual, as are his features or other physiognomical traits. An implanted neurosis is, as it were, the representative of a morbid physiognomy for the cerebro-spinal axis. It is, then, a peculiar disposition or tendency on the part of the nervous system, or of some definite tract of it, towards morbid evolution, or manifestation of nerve-functions. It does not necessitate the existence of any gross or coarse disease, but it is a more or less abiding condition, ready to manifest itself on suitable provocation.

It is a special characteristic of neuroses that, being thus primarily impressed upon an individual, they tend to be transmitted by heredity. The female sex is alleged to be more neurotically disposed than the male, but proof of this is not forthcoming. Certain neuroses appear to prevail with greater frequency in males, and others in females; and not only so, but, in the case of those that are common to both sexes, the manifestation occurs at different epochs of life. Thus, some outbreaks are seen to occur at the several climacteric periods, and often at the grand climacteric. In this manner, an element of distinct periodicity attaches to neuroses in general. Further, a very marked feature in all neurotic affections is that of paroxysmal tendency. Thus, there is the abiding element, with proclivity to recurring outbreak. Again, it is certain that a law of alternation or substitution prevails in neuroses, and thus we meet with certain affections in the parents or ancestors, and with others, equally neurotic, in the collateral relatives or descendants.

It is not difficult to understand the course pursued by a neurotic taint once impressed; but it is less easy to conceive the original implanting of such a tendency. The mischief, however, is constantly being laid down in individuals, and as constantly undergoing further development, modification, or even repression.

Excessive activity of the nervous system, or of any part of it, is, according to Laycock, a highly disposing cause of the neuroses. Prolonged excess comes thus to develop hereditary tendency. Hence, undue mental labour, gluttony, alcoholic intemperance, debauchery, and other indulged evil propensities in the parent, come to be developed in the offspring as definite neurotic taints and tendencies. Particular

examples in illustration of this are unhappily not far to seek, and amongst them comes out, as I believe, the disorder we know as gout. According to this view, gout appears as a diathetic neurosis. This I term *primary gout*. The tendency may be transmitted or modified, or even allowed to die out.

Gout may, however, "grow up" or appear in individuals who have no neurotic taint or tendency. In such an individual, the disease is said to be earned by high living and over-indulgence of appetites; and in this case a morbid blood-state is induced—lithæmia and hyperinosis; but this is not gout. We must, at this point, drop the humoral pathology, and seek for the effects of the blood-dyscrasia upon the nervous centres. Guided by the analogy of other toxæmic states, we have full warrant for this course, and may believe that a secondary affection of some nerve-centre occurs in consequence of the altered blood-state *ab intra*, and that thus the order and particular phenomena of the gouty attack are evolved. I term this *secondary* or *acquired gout*. A diathetic neurosis is thus impressed upon the individual.

It becomes of deep interest to study, side by side with gouty processes, the several joint-affections which have come to be regarded of late as of spinal, or otherwise nervous, origin. I think it is hardly possible to separate gouty arthritis from this connection; and, if it be conceded that this particular form, which is but one of many, is truly and directly dependent upon nerve-influence, the greatest part of the difficulty in establishing the neuropathic origin of gout is forthwith removed. I suppose no greater obstacle has stood in the way of the acceptance of a nervous theory of gout, than the impossibility hitherto of connecting arthritic disposition with any form of neurosis. So many of the other and less obvious manifestations of gout are plainly dependent upon nevous influence, that the complete phenomena of the malady now appear to fall more naturally into their places.

The special action of nerve-influence upon joints has received attention from many physicians. Remak and Benedict were, perhaps, amongst the earliest to call attention to this matter. Charcot, Ball, Weir Mitchell, Ord, and Buzzard, have more recently added to our knowledge of neuro-arthritis; and Dr. Ord has contended for a more scientific revision of the present views upon the pathology of the states classed under the head of rheumatoid arthritis, based upon a full recognition of nervous influence.

The researches of Charcot, Dr. Buzzard, and others, into the nature of the peculiar arthropathy associated sometimes with locomotor ataxia, are signally suggestive in working out the neurotic theory of gout. Charcot believes that the anterior cornua of the spinal cord are implicated. Dr. Buzzard does not accept this opinion; and, guided by the frequent association of gastric crises with these arthropathies in locomotor ataxy—a fact previously noted by Ball—has suggested very ingeniously that the lesion may consist in a sclerosis involving the roots of the vagus in the medulla oblongata, in close relation to some trophic centre that may be localised there, presiding over the osseous and articular systems. And he further indicates the bond that may thus exist between the implication of joints and such metastasis as may occur to the heart in rheumatic fever; also the occurrence of hyperpyrexia, which is sometimes present in such cases. We have yet to seek for this hypothetical trophic centre for joints; but in the meantime we are fairly warranted in widening our conceptions, and in directing attention to the high significance of predicating such a centre in the nervous system.

The analogies of gout with the other neuroses may be now adduced, and prominent amongst these is the marked hereditary tendency. The sudden supervention of an attack is a noteworthy feature, recalling the onset of such neurotic affections as epilepsy, angina pectoris, asthmatic or neuralgic paroxysms. And, as is the case in many of these ailments, the patient has euphoria, or a sense of *bien être*, which delusive corporeal satisfaction is itself a nervous derangement. The time of the occurrence of the attacks, commonly in the early morning, is that at which other neurotic seizures are apt to occur.

The pyrexia of gout is paroxysmal, and so is the pain. These paroxysmal and periodic factors in the malady stamp a nervous character upon it, and ally it to the other nervous diseases.

Again, gout itself blends with other well-recognised neuroses. Many examples of this may be adduced: thus hemicrania is sometimes distinctly a manifestation of gout in both sexes, or may alternate with arthritic attacks of true gout in the same individual. It has been sought to explain the capricious metastases which are common to gout and rheumatism upon the humoral theory of these two affections; but it must be conceded that some nervous law regulates the phenomena of shifting inflammation.

Reflex influence, as suggested by Dr. Ord and others, has doubtless much to do with these phenomena. There is probably a distinct predisposition to suffer in the parts which come to be affected, and the same classes of tissue are apt to suffer. As shown by Laycock, these textures are related embryologically, and are thus prone to suffer when diathetically impressed.

Localised trophical changes follow locally acting causes of depressed nervous power. Thus impairment of certain centres may lead to the specific nutritional changes witnessed in metastases; and thus these caprices are explained.

The nervous symptoms which are readily observed in cases of gout, and which are fairly to be considered as part of the ailment, are many and varied. Amongst them may be enumerated certain perverted sensations, such as tinglings, numbness, and paræsthesia. Other maladies, such as cancer, are rendered more painful in the gouty than in other persons, as has been well pointed out by Paget. Grinding of the teeth, somnambulism, severe cramps in the muscles, priapism, and a well-marked variety of insomnia, are all recognisable in dependence upon gouty taint. Gouty neuralgia is largely manifested. The late Dr. Anstie denied this; but I can entertain no doubt as to the specificity of this form of disorder. It is more commonly occipital, according to my experience, than in any other locality, but is found in the heel, breast, tongue, and in the great sciatic nerve. That coarse changes occur in the sheath of the nerve, in certain cases, cannot be doubted; but the neuralgia is probably often independent of these. One proof, amongst others, of the truly gouty nature of these neuralgiæ, is gained from the fact that they yield best to anti-gouty treatment; and another lies in the fact that they are elicited by just such conditions as provoke other gouty ailments.

Amongst the strongest evidences in favour of the view that gout depends upon nervous influences, are the facts relating to the induction of its attacks. In the majority of instances, causes are at work which tend to *depress nervous power*. Exhaustion of any kind, whether caused by overwork of mind or body, excitement, rage, worry, is provocative of attacks. Sudden shock, injury, or powerful emotions, will elicit gout; and, indeed, any circumstances or conditions which are of a kind to break in upon the even tenour of life. Dietetic errors, excesses of all kinds, are well recognised factors.

Many of the causes thus enumerated are likewise efficient to produce other neurotic affections, such as epilepsy, asthma, hemicrania, or angina pectoris. Hence most neurotically disposed persons hold much of their comfort in life by pursuing a very equable routine. They are prone to give way under undue pressure. These considerations help to explain in part why men are more liable than women to gout. They carry on the world's rough work, are engaged in more exciting pursuits, and have much anxiety to bear. On the other hand, for the idlers of society, who cannot be said to live under pressure, save that of *ennui*, the tendency is maintained by over-indulgence of appetites, insufficient exercise, and resulting toxæmia. The more sedentary the occupation, the more intense the strain of life, the greater the tendency to nervous depression, and to the peculiar form of its expression in gout. If to these habits be added high living, as often occurs in the case of statesmen, lawyers, speculators, and those who, while working hard, are "exposed to luxury", no link is wanting in the chain of causation.

The influence of climate cannot be disregarded in relation to influences affecting the nervous system. Dull and "shifty" weather, cold east winds, and the negation of solar light and influence, are all bad for gout. These causes are too frequently at work in our latitudes. The action of the skin is much checked, and thus aberrant chemical changes are apt to be determined in various parts.

The unfrequency of gout amongst sailors is explicable, in all probability, by their free exposure to the open air, by their active lives, and by their diet, which is not excessive, and is void of malt liquors.

A consideration of the mental condition of the goutily disposed throws light upon the nervous pathology of the malady. Intense irritability of temper is proverbial, and an outburst of rage is sometimes a metamorphic substitution for a regular attack of gout. Hypochondriasis, low spirits, and grievous forebodings, sometimes give token of the approach of gout. Hysteria has been observed to precede attacks in women, and to disappear with the onset of them; and the same holds good sometimes of epilepsy.

There remains yet to be mentioned the remarkable relation between gout and glycosuria. Diabetes mellitus is met with in certain members of gouty families; some having regular arthritic attacks; others, incomplete gout; and others, again, gout alternating with glycosuria. The glucose alternates with uric acid. I believe that many cases of temporary glycosuria are due to gouty conditions, and the alliances between these two states are very intimate. In both the gouty and the diabetic, the law of heredity holds good, and the nervous system is involved. The same dietetic habits lead to each; the same classes of persons are affected; and the same exciting causes, such as tend to exhaust and depress the nervous system, will evoke both.

One is thus led to the belief, that the nervous central elements involved in each can hardly be far apart. The medulla oblongata, the sympathetic and splanchnic nerves, have been found chiefly affected, and sometimes the spinal cord, in cases of diabetes. The point for the diabetic puncture is believed to correspond to the vaso-motor centre in the medulla oblongata.

Guided, in part, by these facts, and by the knowledge that the glycogenic function of the liver is under nervous influence; as also by the theory which refers the special arthropathy of locomotor ataxia to a centre in the medulla oblongata; I am induced to advance the proposition, that the portion of the nervous system, which is specially disposed to the irregular mode of action known as gout, is likewise situated in the medulla oblongata, where, possibly, may be found a trophic centre for the joints.

The trophical results of gout may be described under two heads: first, according to the transmitted physiognomical characteristics; and, secondly, with relation to the tissue-degenerations characteristic of the malady.

Under the first head may be enumerated the large head, florid complexion, the strong well-enamelled teeth, little prone to decay, the strongly built and muscular frame.

Under the second, amongst the special degenerations due to gout, are the well-known tissue-changes of this cachexia. Thus, we find the hair often prematurely grey; marked tendency to tartar incrustation on the teeth; at times enlargement of the nose. Further are to be noted the general sclerosed condition of the whole arterial system, in association with both chronic interstitial nephritis, and changes in the walls and valves of the heart. The skin is soft and smooth, the veins are large and full, the fauces become coarse and granular, and the uvula glairy and much enlarged. The nails often become coarse, brittle, and lineated. Special arthritic changes, with deposits of urates, are present in varying degree. Some of these changes are more marked at times, and some are only found—as, for example, the unduly smooth skin—in association with excessive gouty deposits of urates. This action is truly specific. Colchicum does nothing, so far as I know, for any arthritis or ailment in which pain is a symptom, and in which gout does not take part; and this drug belongs to a whole class of agents which powerfully affect the nervous system. It appears to act upon the vaso-motor nerves.

Again, the effect for good upon gouty disease of all agencies which cheer and inspire the mental condition indicates the marked influence of the nervous system in this malady.

The theory that gout is a tropho-neurosis appears to correlate all the known factors concerned in the production of the varied symptoms of the malady. It certainly displaces the humoral pathology of gout from the pre-eminence it has so long held; but it takes full cognisance of it, and seeks to place it in a clearer relation to the overruling neurosis.

PATHOLOGY AND TREATMENT OF GOUT.

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From my earliest acquaintance with medicine, I have taken the greatest interest in gout, to which disease I myself have a strong hereditary tendency. In 1872, in a short article in the *Lancet*, and subsequently in a small volume in more detail, I published my views, derived from a note-book containing five hundred cases. Now, from an experience extending over three times that number, I see no reason to change those views, and once more place them before my professional brethren.

It is now more than two thousand years since Hippocrates first described gout; and since his time, every medical writer has devoted much space to its consideration. Many, too, have been the hypotheses concerning its nature; and yet it must be confessed that the progress made in two thousand years has been but very slight. Hippocrates believed the disease to be due to the retention in the blood of some natural humour which ought to have been eliminated.

At the present time, it is the opinion of most medical men that the disease is caused by the retention in the blood of uric acid or urate of soda; and all recent treatment has for its object its elimination. Thus it may be seen that the advance made in the course of so many centuries has been confined to the discovery of the particular matter retained in the blood of the gouty. That this is the sole cause of gout I have grave doubts, to prove which will be the object of this paper.

It may be thought that, although the pathology of the disease has progressed so little, we are much in advance of our forefathers in regard to treatment. Yet this is not so certain.

Dr. Garrod's opinions as to the relation of uric acid to gout have gained almost universal assent. Many medical men, indeed, do not believe with him that the kidneys are the organs whose functional impairment causes the undue accumulation, but refer it to derangement of the stomach, liver, or skin; yet it seems all but an acknowledged fact that the principle of the doctrine is correct. Nevertheless, I have not the slightest doubt that very little reflection will convince every practical physician that the presence of uric acid in the blood cannot be the sole cause of this distressing malady. It would be a satisfactory explanation were it not that, as is now a recognised fact, there are many persons whose blood is loaded with uric acid, and who are in perfect health. In Ireland, gout is one of the rarest affections met with in hospital practice; yet I have repeatedly found the blood of otherwise healthy men, lying in our accident-ward, loaded with urates. For some years past, my own blood has been in this condition, although I have never had the least symptom of the disease. Dr. Gairdner found urates in the blood of a boy four years of age, in whose family gout had never been known. Quite recently, I have had the opportunity of examining the blood of an elderly gentleman, who is subject to regular attacks of gout, and who, at the time of the examination, was just convalescent from a very severe attack, which he allowed to run its course without any treatment. I found the serum rich in urate of soda; which proved conclusively to my mind that Garrod's theory, that inflammation destroys the uric acid in the blood, is not correct.

It is, then, necessary to find some other explanation of the disease. My theory is as follows.

The condition of the liquor sanguinis I believe to be of the first importance in the production of this formidable malady. The disease cannot be developed unless the blood contained a considerable quantity of uric acid and soda in some form. Thus far the uric acid theory is correct; but, in my opinion, it is an error to suppose that these two exist in combination before an attack of gout; the moment they combine, the disease is produced.

Nerve-force, I believe, when in a healthy condition, preserves these two separately in a form in which they may be eliminated by the kidneys, skin, or bowels. As soon, however, as this nervous influence is removed or lessened, these two unite. Thus, when blood or serum is taken from gouty patients, the uric acid and soda, no longer retained separate by the nerve-force, unite and crystallise as urate of soda. In gout, when nerve-force is lessened, the circulation becomes languid, passive congestion occurs, and the uric acid, seizing on the soda, forms urate of soda. This is deposited in the tissues, generally in those most removed from the brain and centre of circulation; inflammation results, and an attack of acute gout is established.

The irritation produced by the disease excites the nervous system to unusual energy. This invigorates the heart to increased action, and a greater or less amount of fever is set up. This, for the moment, arrests the disease; but soon depressing reaction produces a second, a third, and even a fourth exacerbation, and then nature gradually restores the nervous system to its normal condition. The rapid circulation stimulates the almost congested organs; and the kidney, liver, and skin aid one another in eliminating the uric acid. Thus the fit passes off, leaving the nervous system in a more energetic condition than before, and the mental faculties clearer; and the patient finds himself in a far better state of health than previously to his illness.

In youth, before care, anxiety, and disappointment have well-nigh worn out the brain, the nervous system is active; and, in spite of dissipation and indulgences of all kinds, gout is rare; but, as soon as age and care lay their mark on the great nerve-centre, gout but too often appears. Every cause I know which is capable of exciting an attack of gout is such as would produce nervous depression. Air and exercise tend to invigorate the nervous system; the want of them must produce a depression. In this way, sedentary employment is one of the most frequent causes of gout.

In the present day, women are comparatively free from gouty affections. This immunity is in a great measure, if not entirely, owing to the fact that they seldom indulge in the excesses common with men. Hippocrates stated that women were free from the gout; but at a later period, when, during the Roman Republic, their habits had changed, Seneca wrote: "The nature of women is not changed, but their manner of living; for, while they come up to men in every kind of licentiousness, they equal them in their bodily disorders. Is it, then, surprising to find the most skilful physician (Hippocrates) in error, when we see so many women gouty and bald-headed? They have lost the benefit of their sex; they have cast off the woman, and are doomed to the diseases of men. Gout, moreover, is a frequent disease among prostitutes after a certain age."

The time that an attack generally commences is at night, when both nerve-force and circulation are weakest. The part, too, most usually

attacked—the great toe—favours my theory; and I need scarcely mention the numerous instances recorded where gout has been brought on by great nervous depression. It is, indeed, seldom that England has a Prime Minister who is free from gout; and my notebook furnished me with very many cases where I traced the disease directly to the depression of the nervous system. Not long since, after a prolonged trial, a verdict was returned against the plaintiff in a celebrated case. The same night I was summoned to his bedside, and on the following night to that of his wife, both struck down with gout; neither one nor the other having previously suffered from the disease. Such cases are familiar to all. Politicians and speculators are particularly liable to gout. I think the action of colchicum is one more proof: in small doses, I am convinced, a nerve-stimulant; in larger doses, it is sedative. I have on more than one occasion, whilst fasting, and in perfect health, taken doses of from ten to fifteen minims of tincture of the seeds of colchicum. Its first effect was to produce nausea, and then increased action of all the organs; the skin became moist; the secretion of the kidneys and liver was increased; and the mental faculties were invigorated. On some occasions, I have experienced severe palpitation consequent on its use. All these results can only be produced by a nerve-stimulant.

Looking, therefore, on gout as having a predisposing and exciting cause, it naturally follows that we may cure the affection by either of two plans, as directed against one or other cause. I invariably commence my treatment, when my patients are strong, by taking from four to eight ounces of blood from the arm; and repeatedly I have found the pain subside while the blood was flowing, and not again return. A purge then follows, with colchicum; and then I resort to more tonics. Phosphate of quinine is my favourite; but sulphate of nickel, phosphorus, strychnia, or copper, may be used in cases where quinine will not agree. I always order occasional doses of quinine as a preventive. I have found a ten-grain dose of sulphate of quinine cut short an attack.

In one case which fell under my notice, the patient stated that an electric shock had completely relieved him of pain; and in another case the patient was in the habit of inhaling oxygen, and stated to me that it always shortened the attack.

There is one more point on which I wish to touch; that is, the power of the skin to eliminate uric acid. If a considerable quantity of the cutaneous secretion be obtained and evaporated, abundance of crystals of urate of soda will be obtained. In a Turkish bath, with the aid of a watch-glass, this can readily be obtained.

The conclusions which I would draw from this paper are as follows.

1. The presence of uric acid and soda in the blood is not the sole cause of gout.

2. Want of exercise and animal diet will produce an accumulation of uric acid in the blood.

3. Uric acid and soda must exist in the blood before the disease can be produced.

4. There must be depression of the nervous system to cause an attack of gout.

5. Depression of the nervous system causes an union between uric acid and soda, forming urate of soda.

6. When an attack of gout has passed away, it does not necessarily follow that the uric acid has disappeared from the blood.

7. Uric acid may exist in the blood in considerable quantities, and for any length of time, without causing gout.

8. The use of nerve-tonics, as quinine, strychnia, and caffeine, and such-like, as well as the inhaling of oxygen and the use of electricity, are of much service in the treatment of the disease.

A COW-KEEPER, who had omitted to give notice of the outbreak of the foot-and-mouth disease in his herd, has been fined, at the Southwark Police Court, £12, with 12s. 6d. costs.

BEQUESTS AND DONATIONS.—A sum of £1,000 has been bequeathed to the Dingwall Hospital by the late Mr. Robert Ross. The hospital was erected in commemoration of his kinsman, Dr. William Ross of Dingwall.—The corporation of the City of London have given £105 to Queen Charlotte's Lying-in Hospital.—The Westminster Hospital has received £105, additional, from "a Friend to the Hospital".—Mr. Henry Roberts has given £100 to the Middlesex Hospital.—Mr. W. Fox Tibbitts has given £50 to the Sheffield Public Hospital.—Miss Barclay has given £50 to the North-Eastern Hospital for Children.—The Seamen's Hospital has received £35 2s. 10d. from the passengers, officers, and crew of the P. and O. Company's steamer *Poonah*, per Captain C. G. Perrin.

THE will of Sir Benjamin Collins Brodie, Bart., formerly Professor of Chemistry at the University of Oxford, has been proved, and duty paid on personal estate under £30,000.

CLINICAL MEMORANDA.

BACKACHE.

I AM certain that, in women, the most frequent cause of backache is leucorrhœa; and until this (whatever may be its cause) is cured, the backache will continue. My experience is that considerably more than half of married women, and very many unmarried ones, suffer off and on from leucorrhœa. I believe the most prolific cause of "whites" in unmarried women to be long standing on the legs and bodily fatigue. Another cause of backache is the wearing of high-heeled boots, which necessitates the continuous action of the muscles of the lower part of the spine, in order to maintain the proper balance and erect position. I have had four such cases, and I know of another, all cured by discontinuing the use of high-heeled boots. It is really surprising what very serious symptoms may arise from such an apparently trivial cause. The following is the first case about which I was consulted.

M. A., aged 17, an assistant in a large drapery-house in the City, a delicate-looking blonde, of pale lymphatic temperament, subject at times to hysteria, had been quite regular since she was fifteen; and occasionally the catamenia were very profuse. She complained of almost nothing except severe backache: "a feeling as if her back had been bruised", which frequently prevented her from sleeping at night. She had had "whites" on several occasions, even sufficient flow to make her think she was menstruating; but, at present, she had none, and felt better and stronger than for some time, with the sole exception of backache. Her appetite, though generally capricious, was now good. I prescribed rest, change of air, valerianate of iron, and a large belladonna plaster to the back, and directed her to lie at least an hour, morning and afternoon, on the sofa, with a cushion well pressed into the back, and to take a short walk twice a day. She obtained a fortnight's holiday, and went, I think, to Bournemouth. When she returned, the backache was no better; in fact, worse; so much so, that her mother was determined I should see it; she was sure "There must be something wrong with my daughter's back". She now also complained of aching in the calves of the legs, and great tenderness in both groins. Her mother said she had noticed that her daughter had always complained more on Sunday nights, and all day on Mondays; but, during the last week, every day was the same. Her daughter did not dislike her employment, and, indeed, was now most anxious to return. I examined the back carefully; nothing seemed wrong there, nothing was to be seen on the calves; there was no glandular enlargement nor any swelling in the groins, though there was tenderness to touch. Her urine was normal. I was about to leave the room, when I noticed that she was wearing very high-heeled boots. On my return to my room, I told the mother that her daughter must have another fortnight's holiday; must carry out my directions as to medicine, rest, etc., as before; and, in addition, must wear woollen stockings, a pair of soft-soled house-slippers always; and, when she went out, put a pair of goloshes over them, but at no time wear boots. In a fortnight, she called to tell me she was quite well, and intended to return to her employment on the Monday following. I then explained to her that the sole cause of her backache was the wearing of high-heeled boots. She had never suspected this, even when I had ordered her to wear slippers; for now, looking rather confused, she showed me that she was again wearing the boots which she said that she had put on again for the first time this morning to come into the City. She thought there was no harm now that she was quite well. Suffice it to say, she has not worn them since, nor has she suffered again from backache. Occasionally, young ladies from shops in the City come to consult me; if they complain of backache, my first two questions invariably are, whether they suffer from "whites", or wear high-heeled boots.

3, Bucklersbury, E.C. C. D. HILL DRURY, M.D.

TWO CASES OF DEATH FROM SUFFOCATION.

CASE I.—On November 6th, 1879, F. S. F., a builder, aged 32, went into a butcher's shop to buy a beefsteak. While waiting, he cut a piece of beef and commenced eating it; on receiving his purchase, he turned to the door and fell down. On my arrival, in about ten minutes, he was dead. At a *post mortem* examination the next day, I found the usual appearances of death from asphyxia; and on opening the larynx, there was a piece of raw beef, one ounce in weight, completely filling the larynx, and extending one inch into the trachea.

CASE II.—On March 9th, 1881, G. S., a rural postman, after going his morning round, went to a farm sale, spent the day there, went home and ate a hearty tea at 5 P.M., then went his evening round, and returned home about 9 P.M., in perfect health. He went to bed about 9.30 P.M., a brother sleeping in the same bed and an uncle in

another bed, in the room. In the early part of the night the uncle heard a groan, but took no notice, thinking that one of the brothers had nightmare. About 2 A.M., on the 10th, the brother asked G. S. what time it was, and getting no reply, put his hand on him and found him cold. He then roused his uncle and parents, and they found that G. S. was dead.

I made a *post mortem* examination on the 11th, and found deceased (who had not been moved) lying on his back. Rigor mortis was well marked: the body more livid than usual. The deceased was a well nourished muscular man. The viscera presented the usual appearances found in causes of asphyxia. There was also slight thickening of one segment of the tricuspid valve, and an old pleuritic adhesion at the posterior inferior portion of the lower lobe of the right lung; in other respects the organs were healthy. On opening the trachea and larynx, I came upon a large quantity of partially digested food; the posterior nares, throat, pharynx, and œsophagus being also full of the same matter. I consider that death was caused by an unsuccessful attempt at vomiting while lying on the back in a heavy sleep after a hard day, the food being drawn into the windpipe by the respiratory efforts.

VERE GEORGE WEBB, L.K.Q.C.P.I.

Coleshill, March 12th, 1881.

SURGICAL MEMORANDA.

SPINA BIFIDA TREATED BY INJECTION OF MORTON'S IODO-GLYCERINE SOLUTION.

I HAVE now treated three cases of spina bifida by injection, after the manner recommended by Dr. Morton of Glasgow. My first case was a complete success; the second was partially successful; and the third a failure, through my own neglect in not using more care to secure the closure of the opening, after removing the cannula, and thus preventing the escape of the cerebro-spinal fluid. It is for this reason that I am desirous of publishing this case, as it confirms Dr. Morton's words in his work. At page 16, he says: "Let me here repeat, however, that what occurred to me as the chief defect of former operations, was the absence of any provision for preventing the loss of the spinal fluid."

Martha A., aged 5 months, was a fine child for the age, but had a spina bifida on the lower dorsal vertebræ, measuring two inches by two inches and a half, and of the size of a small orange. The skin covered only a portion, the rest being thin and nearly transparent membrane. There was complete paralysis of the lower limbs. On February 19th, about two drachms of fluid were drawn off by a small trocar and cannula, and forty minims of Morton's solution were injected. A piece of dry lint and straps of plaster were applied over the opening. On February 21st, the child was restless, and appeared to have some little pain. The tumour was firmer and larger. A large quantity of fluid appeared to have escaped beneath the dressing. A piece of lint saturated with flexile collodion was applied. On February 23rd, the child appeared weaker, and did not take the breast so well. Cerebro-spinal fluid was still escaping; the tumour was smaller. Another dressing of lint with collodion was applied. On February 25th, I was sent for to see the child. The tumour had shrunk a great deal, and fluid had continued to escape. The opening was now completely covered with collodion painted over it. The child appeared very much exhausted, and refused everything. It sank exhausted, after what appeared to be a slight convulsion, on February 26th.

REMARKS.—In operating on cases of spina bifida, the less fluid allowed to escape the better; and the surgeon should not leave the case before he has sealed up the opening made by the trocar and cannula, or failure will follow. Usually, this is easily and effectively done by holding with the finger and thumb the opening in the skin, and painting on collodion and allowing it to dry. This case cannot be regarded as a failure of Morton's method, but it is a failure on the part of the operator to complete the operation.

WILLIAM BERRY, M.R.C.S.Eng.,
Surgeon to the Royal Albert Edward Infirmary, Wigan.

THE Wolverhampton Guardians still continue contumacious with regard to the payment for vaccination stations by public vaccinators instead of by themselves, as required by law (see p. 295). Although the Local Government Board have pointed out to them the illegality of their present position, they refuse to alter the existing arrangements, so that the unhappy public vaccinators will continue to be muleted of a considerable part of their already meagre fees, for the purpose of paying for stations which ought to be provided by the guardians. It seems strange that the Local Government Board should allow the law to be thus set at defiance.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

ST. THOMAS'S HOSPITAL.

LUMBAR ABSCESS CONTAINING FECULENT PUS: FREE INCISION: DRAINAGE: RAPID CURE.

(Under the care of Dr. ORD.)

WE are indebted for the notes of the following case to Mr. H. P. BUTLER, L.R.C.P., House-Physician, and Mr. W. FELL, Clinical Clerk.

This patient E. S., aged 25, male, was a street musician. His father died of bronchitis at 67; his mother of dropsy at 54; two of her children died of consumption of the bowels in infancy, and one of dropsy (probably scarlatinal). He said he was "born blind". For the last ten years, the patient had got his living by playing the concertina in the streets. He drank four or five pints of beer a day. The only illness he remembered to have had, before this present attack, was a quinsy, about five years ago, which laid him up for a week. There were no pains in the joints at that time.

His present illness began somewhat suddenly, about a fortnight ago. The pain he experienced was at first situated in the right lumbar region, "as if one rib were grating over another". For about two or three days before this, he had a sharp attack of diarrhœa, which was stopped by a single dose of medicine; his motions then were like curdled yolk of egg; there was no straining. The pain never ceased from the time when it first came on. In the recumbent posture, it was less severe than when moving about, but he managed to walk to the hospital on the day he was admitted (December 23rd, 1880). He said that he always carried his concertina on the right side, and that people often knocked up against it, not knowing that he was blind; still he did not remember ever feeling any tenderness in consequence of this, nor did he remember having received any blow of unusual severity.

On admission, the patient was found to be a fairly well-nourished man. He complained of pain and tenderness in the right loin, just above the centre of the iliac crest; pressure in this situation caused acute suffering, and the pain shot down the thigh to the front of the knee; occasionally, this shooting pain occurred spontaneously. There was little, if any, general distension of the abdomen; perhaps a little fulness in the right lumbar region. A distinct tumour could be felt to occupy the lower half of the lumbar and the upper half of the iliac regions, on the right; the abdominal wall moved freely over it, and the tumour did not alter its position with the respiratory movements; the tenderness over it extended outwards and backwards, to within two inches of the spinal column. On percussion, the abdomen was resonant, with the exception of the part occupied by the tumour. The tumour was hard to the touch; no fluctuation could be detected. Liver-dulness commenced at the sixth rib, and was continuous with the dulness over the tumour. The hepatic edge could not be felt. The tongue was red at the tip and edges, with a thick white fur in the centre. The bowels were open, the stools loose and dark. The urine was of specific gravity 1024, and contained a little albumen. The thoracic organs appeared to be free from disease. Pulse 120, full and compressible. His temperature, on admission at noon, was 102.6°; at 6.30 P.M. on the same day, it had risen to 104.2°. At 2.20 P.M. on the following day (December 24th), it had fallen to 101.8°, but rose again, reaching 103° at 7.40 P.M. His bowels had been open twice; his diet had entirely consisted of milk and beef-tea.

On December 25th, after a morning remission to 100.2°, the temperature rose in the evening to 102.9°. A simple enema was ordered.

On December 26th, there was distinct bulging in the right lumbar region, and indistinct fluctuation could be felt. The temperature at noon had fallen to 99.4°. It was determined to make an exploratory incision. With this object, Mr. Pitts made a horizontal incision, about four inches long, in the lateral lumbar region, and about two inches above the iliac crest. When this had been carried to a depth of two inches, feculent pus, having a very offensive odour, was reached. The abscess was of large size, reaching well down into the iliac fossa; the quantity of pus was about half a pint. The operation was commenced under antiseptic precautions, but these were given up when the feculent nature of the pus was discovered. The bowels were open after the enema.

December 27th. The patient had felt easier since the operation. Temperature, 102.2 at 7.45 last night; 100.2 at 12.45 to-day. The

discharges were still very offensive. The cavity of the abscess was washed out with carbolic acid lotion. Six silver sutures were introduced, a drainage-tube being inserted, and the wound was dressed with chlorinated soda. The urine was of specific gravity 1026, free from albumen; it contained some indigo.

December 28th. The temperature had not risen above 99° since the previous evening; at noon it was 98.4°. He felt easy. The urine was of specific gravity 1028, and contained a trace of albumen.

December 29th. Appetite was returning; he had no pain nor fever. The bowels were moved by enema.

Without entering into daily details, it is sufficient to note that, since the operation, he has made an uninterrupted recovery. The sutures were removed from the wound on January 2nd. On January 19th, the discharge had almost ceased, though the drainage-tube still passed in for about four inches. Ten days later, and about five weeks after the operation, the wound is reported to be nearly healed, the drainage-tube withdrawn, and the discharge very slight. There is no fulness or pain on pressure in the site of the previously existing tumour; and the bowels act well every day. The patient gets up, and is able to walk about the ward without difficulty. He is to leave the hospital in a few days; and indeed, were it not for the peculiarly precarious nature of his means of subsistence, would have been sent out before this.

SALFORD ROYAL HOSPITAL.

AMPUTATION OF PENIS BY A NEW METHOD.

(Under the care of Mr. A. W. STOCKS.)

THE patient was a scavenger, fifty-eight years old. He had had an epithelioma of the penis for four years; it had already been operated upon. It involved rather more than the glans and prepuce.

On November 16th, 1877, the penis was transfixed by a narrow-bladed knife, between the corpora cavernosa and the corpus spongiosum, about an inch behind the diseased part, and the corpora cavernosa were divided directly upwards. The knife was then placed in the base of the wound, and carried forward horizontally for about a third of an inch, and then diagonally downwards and forwards, making an inferior flap, taking care that the whole of the diseased part was removed. Part of the corpus spongiosum on each side of the urethra contained in the flap was then taken away, and the urethra loosened slightly from the integument. After the hæmorrhage had ceased, the skin-flap was turned upwards; and a small slit or "button-hole" made in it, in a convenient position, through which the denuded and loosened urethra was drawn by forceps, and held by an assistant, until the flap had been adjusted and secured to the upper edge and sides of the stump. The cut end of the urethra was then stitched to the edge of the "button-hole" with fine silk, and the operation was complete. The wound healed very rapidly, and the patient was discharged eleven days after the operation.

Two years after the above date, there had not been the slightest difficulty in the passage of urine, from anything like a contraction of the orifice of the urethra. There was a redundancy of skin; but this, instead of being an impediment, seemed rather to serve the very useful purpose of an ordinary prepuce—protecting, as it did most effectually, the tender end of the corpus spongiosum, which might be seen projecting slightly when it was drawn back; and permitting, when it was thus retracted, the urine to be projected without difficulty, in a full stream, to a fair distance from the body.

REMARKS.—It is not pretended that this operation is original. It is spoken of in Bell's *Manual of Surgical Operations*, in a quotation from the *System of Surgery* of the late Professor Miller of Edinburgh, as a "proposed operation"; but it would seem possible, from internal evidence, that Mr. Miller had never himself performed it, nor is a record of its performance to be found in any surgical work to which the writer has had access.

It is well known that the most frequent inconvenience, consequent on amputation of the penis by the ordinary method, is a more or less complete contraction of the orifice of the urethra. It would appear that this may be avoided by placing the truncated urethra in a small straight wound in a convenient position not liable to contraction, instead of allowing it to be dragged, to a greater or less extent, from its normal relations by its being involved in the irregular puckerings of an ordinary cicatrix.

UNIVERSITY OF ABERDEEN: HONORARY DEGREES.—The Senatus of this University, at its meeting on March 5th, conferred the honorary degree of LL.D. on the following gentlemen, amongst others: Dr. A. Leith Adams, Professor of Natural History in Queen's College, Cork; and Dr. David Ferrier, M.A., M.D., F.R.S., Professor of Forensic Medicine in King's College, London.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MARCH 22ND, 1881.

ANDREW WHYTE BARCLAY, M.D., F.R.C.P., President, in the Chair.

CASE OF INNOMINATE ANEURYSM TREATED BY SIMULTANEOUS DISTAL LIGATURE OF THE CAROTID AND SUBCLAVIAN ARTERIES, WITH REMARKS ON THE BEHAVIOUR OF A TENDON-LIGATURE. BY C. T. DENT, F.R.C.S.

THE chief object of this paper was to describe the changes observed in an artery tied with a tendon-ligature. The parts were examined ten days after death. The history of the case was as follows. S. L., an engineer, aged 37, was admitted into St. George's Hospital with an aneurysm of the innominate artery, the first symptoms of which had been noticed about twelve months previously. He improved at first, under rest and iodide of potassium; but then, as the growth increased, the carotid and subclavian arteries were ligatured subcutaneously by Mr. Pollock. For the carotid artery, catgut was employed, as well as the tendon-ligature; the subclavian was secured with a flat tendon-ligature only. Both arteries were healthy. The aneurysm improved; but the patient had at times very severe attacks of dyspnœa, and died ten days after the operation. A large ulcerated opening was found in the trachea, which did not communicate with the cavity of the aneurysm. The carotid artery was dissected out and examined. A very moderate amount of lymph was effused about the tied artery, though sufficient to bury the knot of the ligature. Well-formed clots were found in the proximal and distal ends of the completely obliterated vessel. No trace of the catgut-ligature could be found. Much of the tendon-ligature, where not in contact with the artery, was unaltered. The external coat of the artery was not ulcerated. This the author ascribed partly to the fact that tendon, like other animal ligatures, was capable of slight softening and swelling, and partly to the fact that new blood-vessels were early developed in parts lying close to the artery. The inner coats of the artery were ruptured. The tendon-ligature, in many of the sections, was in most close connection with the artery, and in these places was infiltrated with small, round, granulated cells, which in places split up the fibrous material into longitudinal bands. Some of the cells seemed to be more elongated than others. In connection with these cells, and formed by them, were seen new blood-vessels. Here and there it appeared possible, in the sections, to trace blood-vessels passing across the line of connection, extending into the artery on the one hand, and into the tendon on the other. In conclusion, the author stated that, though he did not share in the objection urged against catgut-ligature, still it seemed that tendon might furnish an animal material which would require less preparation than the carbolic or chromic catgut-ligature, and which would probably be more constant in its behaviour.

Mr. BRYANT thought that the application of flat ligatures involved an important principle. The question arose, whether surgeons were right in continuing to believe in the necessity of dividing the internal and middle coats of arteries in order to produce occlusion. Flat ligatures would not divide the coats, but would simply bring them into apposition; while round ligatures generally divided them, and thus tended to produce occlusion. He had several years ago come to the conclusion, from experimental observation, that division of the inner coats of an artery was necessary for its permanent closure; and, where this was not done, though in some cases there was sufficient time for coagulation to take place, yet generally the process was not to be relied on. Without going into the question whether the material used as ligature became organised (which he doubted), the flat ligature must be looked on as only a temporary means of arresting the passage of blood, and only available in cases where instrumental or digital pressure would be useful. The flat ligature he regarded much in the same light as the acupressure needle: it was a temporary means, but did not favour the permanent closure which was necessary for the cure of many cases of aneurysm. Acupressure would produce coagulation only so long as the needle remained; if it were removed too soon, blood passed again through the artery, and secondary hæmorrhage followed. The idea that permanent occlusion of an artery was not necessary, involved a change in what had been regarded as the elementary principle of the treatment of aneurysm; although in certain cases—for instance, where the subclavian was implicated—it might be desirable to produce only temporary obstruction. One way of doing this was by Mr. John Dix's plan of applying pressure by wire. He had examined several cases in former years in which ligatures had been applied to the arteries of animals, but he could not find anything like organisation of the catgut,

whether carbolised or not carbolised: it had entirely disappeared.—Mr. SAVORY thought that physiology and surgery must be entering on a new phase, if the doctrine were taught, that masses of dead tissue were converted into living tissue. When the dead tissue appeared to present signs of life, the question arose whether it had not been disintegrated, and the leucocytes had built up a new tissue beneath it. Much had been heard of the organisation of blood-clot; but he thought that the occurrence of this had been assumed on insufficient grounds. The matter had been investigated by John Hunter, and there were specimens in the museum of the College of Surgeons which apparently bore out his view that coagula became organised. But it must be remembered that the coagula in vessels were not actually dead; and, in cases where masses of blood lay exposed in large wounds, it was difficult to suppose that they became organised merely because no change was seen on the surface. Was it not possible that what appeared to be organisation of the clot was the substitution of new tissue beneath it? What was found was not formed of any of the constituents of blood-clot, but was a mass of fibrous tissue. He asked how the ligature in Mr. Dent's case had been prepared.—Mr. HOLMES said that his experience of the action of tendon-ligatures was opposed to that of Mr. Bryant; but he thought that too marked a distinction had been drawn between round and flat ligatures. Mr. Barwell had perhaps insisted rather too strongly on the difference in shape. Mr. Barwell's ox-aorta ligatures would, at least to some extent, divide the inner coats of the artery if used with sufficient force; and he differed from Mr. Bryant as to their producing only temporary occlusion. In a case of inguinal aneurism, apparently about to burst, he had tied either the common or the external iliac with one of these ligatures; the aneurysm at once collapsed, and the patient was after some time discharged with the aneurysm cured. He had been kept in hospital some time, as amputation of the limb had become necessary. In another case, where he had used the carbolised ligature, and the patient had subsequently died a week after the operation from a debauch, the artery was occluded. In another case, where carbolised catgut was applied both to the carotid and to the subclavian, it was found, on the death of the patient ten weeks afterwards, that both vessels were quite occluded, though only to a limited extent. He had had no opportunity of using tendon-ligatures; but he thought that the present evidence was in favour of the production of permanent occlusion by ox-aorta and tendon ligatures. As regarded the organisation of ligatures, he believed that Mr. Lister had made use of the expression, but that it had been explained that it was not quite what was meant—which was, that the ligature was absorbed, and replaced by a ring of newly formed tissue. This had been supposed by some to be a result of antiseptic dressing; but in Mr. Dent's case nothing but ordinary dressing had been applied. He believed that Mr. Lister and his followers now concurred that the ligature was absorbed; and he thought that blood-clot acted merely as a shield, allowing organisation to go on beneath it.—Mr. BARWELL could not altogether admit that tissues that had been dead could not be brought to life again. Skin-grafting was an instance in which this occurred; the transplanted epidermis was in fact dead tissue. In a very severe and hopeless case of burn now under his care, he had, after failure with skin-grafting, applied to the wounds portions of the inner layer of the aorta of the ox; and some of these had become adherent, while others had dissolved, forming pus. He thought that, if Mr. Bryant had heard his (Mr. Barwell's) former paper on the subject, he would not have spoken of the occlusion produced by the aorta-ligature as being only temporary. The flat ligature was quite a different thing from acupressure. With regard to the necessity of dividing the inner and middle coats, there was, of course, a difficulty in changing the principles which had been logically laid down sixty years ago by Dr. Jones. But it must be remembered that, when he wrote, the only ligatures which were used were those which must divide the external coat before they could be removed. Again, if such a ligature were tied too loosely, it would not come away; and it was held that the ligature was not tied tightly enough if the inner and middle coats of the vessel were not divided. But now ligatures were used which did not come away; and by their use the conditions were altered. Tendon was no doubt an useful material for ligatures, if used fresh, or dried without putrefaction.—Dr. B. O'CONNOR said that he was lately at King's College Hospital, when Mr. Lister removed a drainage-tube which had been about four days in a wound. The tube contained a plug of lymph, which, being isolated by the tube, might be regarded as dead matter. On examining this, he had found small vascular branches in it.—Mr. DENT said that it was evident that opinion was now very much unsettled on a matter which had been regarded as settled by Dr. Jones's observations. In Dr. Jones's work, there was a representation of an artery tied with a hemp ligature, in which a septum was found resembling that which had been recently described as found after a catgut ligature. The power of the tendon-ligature to produce occlusion was favoured by the condition of the subclavian artery in the case which he had related. The ligatures had been taken by Mr. Stirling from the tail of a marsupial—he believed a kangaroo; they were readily peeled off, and were preserved in an oily fluid. Some whale-tendon ligatures had been sent to him by a Japanese gentleman; but he had found that they were absorbed too readily. They consisted of fine threads twisted together. If a flat ligature were objectionable, it would be easy to twist the material into a round form.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MARCH 11TH, 1881.

JOSEPH LISTER, LL.D., D.C.L., F.R.S., President, in the Chair.

Case of Fracture of the Lower Dorsal and Upper Lumbar Vertebræ, treated with Sayre's Jacket: Recovery, with only slight Deformity of the Spinal Column.—Mr. BERKELEY HILL read notes of this case. The patient fell twenty feet, and sustained fracture of the laminæ of the tenth dorsal and other vertebræ, as far as the second lumbar. He had angular projection of these spines, and mobility of two of them, and severe concussion of the spine; paralysis was limited to loss of control of the left lower extremity for about thirty-six hours. Immediate relief to the patient's suffering was afforded by the jacket, which was put on twenty-four hours after the accident. The patient was exhibited one hundred and one days after the accident, having been able to sit up and walk about seven weeks after the injury.—Dr. BUZZARD demonstrated on the patient that the patellar tendon reflex on the left side was much exaggerated, the ankle clonus also being very marked. Dr. Buzzard likened this condition to that produced by Pott's disease of the spine, in which inflammation under the dura mater induced a slight myelitis, succeeded by secondary changes. The boy had interruption of motor impulses up the lateral columns of the cord; the growth of a callus at the point of fracture perhaps explaining the phenomenon. There was no apparent paralysis existing; but there was a history of impairment of motor transmission at a previous time. Dr. Buzzard thought the chief interest of the case was in this connection. It admirably illustrated also the beneficial effects possible when Sayre's treatment was adopted.—The PRESIDENT said it was interesting to note the mobility of the spinous processes and laminæ of the neural arch. Traumatic acute curvature was a common sequence to serious falls, but need not necessarily be accompanied by paralysis. There was no absolute proof that the patient had not received a direct injury over the spinous processes. The head had been undoubtedly struck, and probably also the back as well, as this only could produce the curvature presented after the injury. He had never seen a case of this kind in which there had not been direct injury of the part. The case was most satisfactory in regard to treatment.—Mr. HENRY BAKER inquired whether the jacket had been employed only while the patient was recumbent?—Mr. BERKELEY HILL said he had not noticed the particular reflex phenomena until Dr. Buzzard pointed them out. He thought it probable the boy had, in falling, struck his spine against the sides of the flaps, so receiving direct injury. The jacket had been worn seven weeks only.

Excision of the whole Tongue by means of a Small Supra-hyoid Wound, with Remarks on the Best Material for the Loop of Ecraseurs.—Mr. BARWELL gave particulars of this case. The patient was James A., aged 60, who, without parental history of cancer, had enjoyed good health till a year ago, when a small lump appeared at the side of his tongue; this was twice removed by ligature, probably inadequately, since on each occasion it quickly recurred. When admitted into Charing Cross Hospital, on February 11th, the whole tongue, almost to the foramen cæcum, was covered by an ulcerated very dendritic growth, interspersed with deep ulceration. Saliva was constantly flowing from his mouth, and wetting his clothes. He was feeble from difficulty in eating, and had lost flesh; the pulse was 108, small and weak; he had no enlarged glands. The growth was the result of less than seven months. The tongue was excised on February 13th. An incision, about one-third of an inch long, just in front of the hyoid-bone, exposed the raphé of the mylo-hyoid, which, being divided, bared the edge of the genio-hyo-glossus; these muscles, separated with the handle of the scalpel, enabled the operator to feel the base of the tongue and the deep surface of the buccal mucous membrane. A Liston's needle passed into the wound, entered the mouth just behind the left last molar tooth, the thread being left. The same was done on the right side, the loop of the cord being in the mouth. To the first cord the end of an *écraseur* wire (to be described immediately) was tied, and so drawn into the mouth; its end, being freed from the first thread, was hooked into the loop of the second, and drawn round the back of the tongue, out of the wound, and fastened to the *écraseur*. A Liston's needle was then passed into the wound through the middle of the

tongue, and, guided by the operator's finger, was made to emerge well behind the disease. This needle guided the wire as it was tightened along the required line. As soon as the back of the tongue was thus severed, another *écraseur* was placed behind the incisor teeth, and its loop pressed well down in the previous section. Thus the tongue was freed from the floor of the mouth, and taken out from between the lips. Mr. Barwell said of his method, that, if the *écraseur* were slowly used, it was almost bloodless, left no mutilation, and that he could remove the tongue from immediately in front of the epiglottis with as much ease as the tip. Moreover, as the sensory nerves of the organ were divided close to the jaw, the patient suffers hardly any pain afterwards, as exemplified by this case. The wires supplied by instrument-makers were of steel, and were tempered; they were too stiff, and indeed the twisted cords of that material were not reliable. He recommended that soft iron cords be used. From Messrs. Newall, Mr. Barwell obtained the wire rope used for path fencing and for cables, and separated the strands; each strand consisted of six soft iron wires, twisted round a thread; it made a very strong *écraseur* loop, and was so flexible as to be very manageable. Mr. Barwell also gave reasons for using an *écraseur* which tightened the loop, not as was usual from one end only, but from both. The patient was shown, the stump of the tongue in very good condition, cut off clean and abruptly at the back. The man was in far better health than before the operation. He had got up from bed on the seventh day; and would have been discharged two days afterwards, had it not been thought that the feebleness resulting from the disease might be reduced by a little longer stay in hospital. —Mr. HEATH observed that the chief objection to Nunneley's operation was the obliquity of the cuts employed. He thought Mr. Barwell's plan possessed but little advantage over it, however, especially in regard to the division of the sublingual tissues, which, by the latter operator, were last severed, instead of first, as by Mr. Nunneley. If the operation was carefully carried out, the tongue could be drawn well forward before the *écraseur* was applied. Mr. Barwell's case illustrated the remarkable rapidity with which the tongue remaining after the operation grew afresh. He himself had, ten years ago, removed the tongue of a man as completely as possible; and, when examining him recently, he found the organ again almost its normal size. It would be difficult to imagine, from the appearances presented by Mr. Barwell's patient, that so great an extent of tongue had been cut away.—Mr. MORRANT BAKER explained that the difficulty of operation would be increased by disease of the organ; degenerated tissue would permit the dropping of the needles through it on traction being made, and in the same way disadvantages would attend the introduction of a wire, as suggested by Mr. Barwell. It would be serviceable, when the disease was confined to movable parts; but when extensive cancerous degeneration had advanced, the difficulty would be much increased. Such cases were best operated on by stripping up the parts diseased, beforehand. Mr. Baker could not quite understand how the gustatory nerve could be so divided that the remaining portion should be insensible.—DR. POORE drew attention to the comparative fluency with which persons, on whom excision of the tongue had been performed, were often able to articulate words of speech.—MR. BARKER inquired why it was claimed that Mr. Barwell's operation possessed improvements on the usual one adopted. How, too, did it differ from Cloquet's supra-hyoid operation? Further, he asked if the form of papilloma described was at all common. He had met with it but once; the patient died, and there the growth was found to be epitheliomatous; it was more pedunculated than in Mr. Barwell's case. He would like to hear the opinion of pathologists on the question of character of the growth.—DR. DOWSE asked if the disease were malignant.—DR. GILBART SMITH described the condition of a patient in the London Hospital, with a papillomatous growth in whom the epiglottis was affected. In another case he had met with, in a lady, the epiglottis was curved up and back by a papillomatous growth on the tongue.—The PRESIDENT said Mr. Barwell had rendered good service by introducing an improved *écraseur*-wire. He, himself, had frequently been disappointed with wires used in this way. The large amount of tongue possessed by Mr. Barwell's patient was surprising, on the supposition that the organ had been so extensively removed as described. The operation was a great improvement on Nunneley's. In operating for cancer, he (Mr. Lister) divided the jaw in the middle line, and excised the tongue through the opening. This plan afforded an opportunity of leaving so much of the tongue as was unaffected by disease, and further, permitted the easy control of the lingual artery. With the *écraseur* he always felt uncertain.—MR. BARWELL, in reply, said he had never performed Syme's operation, but had seen it done several times. Though convenient for the surgeon, it left the patient in a miserable condition, often interfering with deglutition, and so hastening death by exhaustion. Paget's operation involved a large amount of hæmorrhage, sufficient, at any rate, to seriously embarrass the operator. In his own cases, as a rule, only three or four drops of blood were lost. The gustatory nerve was divided as it left the gustatory groove at the back of the hyoid bone, and the severed end retracted in the groove. The form of the needles served to prevent their slipping; they were large Liston's needles, which were held firmly in place while the *écraseur* was fixed. In one instance, where slipping seemed probable, he introduced a forcep, with which the tongue was firmly held. The base of the portion of tongue removed was quite flat; not slanting, as it would have been, if it had moved during the operation. The portion left in the mouth had grown very considerably since the patient left the hospital; at that time there could be seen only a square gap, at the hinder border of which the tip of the epiglottis was distinctly visible. Cloquet, Mr. Barwell thought, had tied the tongue through the middle with a thread; he did not recollect that his operation resembled the one described. Such growths as that to remove which the operation had been performed, were of very rare occurrence.

Case of Round Celled Sarcoma of the Thigh, Removed by Amputation of the Hip.—MR. BERKELEY HILL described this case. No repetition of the disease took place during the remainder of the patient's life, namely, for six years; death being caused by tuberculous pyelitis which, during the last three months of her life, formed an abdominal tumour, this was mistaken for a new formation of the original growth. There were no growths of sarcoma found in any of the organs or tissues.—The PRESIDENT said the case was very interesting, as showing that the remedial measures adopted sufficed for the cure of this most malignant form of disease, and proved that our knowledge of such structures was, at present, by no means adequate to enable a definite prognosis to be made of the course of these tumours.

A Case of General Bronzing of the Skin Without Constitutional Symptoms.—DR. RADCLIFFE CROCKER read notes of the case which had been shown at a previous meeting. The patient was a sailor, and a native of North Sweden, aged twenty-two, stoutly built, and in good health; and the pigmentation came on after exposure to severe weather eight years ago, attained its full development in a few days, and had not extended or diminished since the first week, though he thought he was paler at some times than at others. The hands, backs of the forearms, legs below the knee, and mucous membrane, were unaffected, but all the rest of the body was darker. The pigmentation had no sharp line of demarcation on the limbs and face, shading off to the normal. The general line was a yellowish brown, but the neck, axillæ, nipples, umbilicus, penis, and scrotum, were black. The abdomen, bend of the elbow, and interscapular region were somewhat darker than the general line; while the face and limbs generally were paler. On the face, the forehead was most affected. On the neck and axillæ were closely aggregated papillary growths about one-eighth of an inch long, and the natural lines of the skin everywhere were deepened. Repeated alkaline baths and friction had no effect upon the discoloration. Microscopical examination of the skin of the abdomen showed the pigment to be deposited in the deepest cells of the rete, though pigment granules were to be seen both in the layers and in and about the papillary vessels of the corium. The corneous layer encroached upon the interpapillary part of the rete mucosum, so that that part formed a narrow layer of uniform thickness moulded upon the papillæ: these were elongated, apparently by the protrusion downwards of the interpapillary processes. The papillary growths upon the neck consisted of an outgrowth of the papillary layer of the corium, involving several elongated papillæ. The pigment was in the same position as elsewhere, but there was no alteration in the arrangement of the epidermic layers. Dr. Crocker was unable to offer any satisfactory explanation of the pathology of this condition, but negatived the idea of its being due to phtheiriasis, as was suggested when the case was shown to the Society. —Dr. CARRINGTON showed and described a similar case. J. B., aged aged 25, a native of Dantzic, was admitted into the Seamen's Hospital on February 16th, 1881. He did not become a patient on account of the condition of his skin, but for an attack of acute bronchitis. The patient left India during July 1880. He had a very rough and lengthened voyage, and was continually wet through. About the eighth or ninth week out, he began to suffer from severe pruritus; the parts affected being the back and arms. At this time he changed his clothes; and he maintained that his skin was then white as usual. On the second day, he again changed his clothes, and he then found that his skin had changed brown. It was also dry and stiff; and, on attempting to nip it between the fingers, it cracked. His gums and teeth at the same time were perfectly normal. About a fortnight after, he noticed an eruption of small pimples on his arms and legs; these became little blisters, and exuded fluid on their rupture. These latter ran together. His limbs assumed the appearance of being scalded. The weather was very wet and cold at the time of the attack, and there was no sunshine. The patient remained much the same up to the fif-

teenth week, when swelling of the legs supervened. In October 1880 he landed at Rotterdam, and was there treated for three weeks by arsenic. He again took ship; and, in October 1880, he became a patient in the Newcastle Infirmary. He was there told he was suffering from scurvy; but none of his shipmates had contracted that disease. Whilst in the infirmary, he was treated with sulphur-baths twice a day for a month, and was made to lie in bed between blankets. The colour of his skin did not alter during his stay. On February 16th, 1881, he was admitted into the Seamen's Hospital for an attack of acute bronchitis. There was no history of syphilis. A year ago, he had an attack of ague, lasting three days. On admission, he presented the appearance of a well-nourished muscular man, with black hair and blue eyes. His skin was dry and harsh. It was, with the exception of the face, hands, and feet, stained of a medium walnut colour. There was a diffused uniform tint, mottled with a darker shade of brown. Coloration was more uniform on the trunk than on the extremities, where it became somewhat patchy. The areolæ of the nipples were very dark, and the axillæ and genitalia were also somewhat more deeply stained, but certainly not to a marked extent. He had also a well-marked attack of scabies, affecting his feet, and hands, and buttocks. There was no pigmentation of the mucous membrane of the mouth and pharynx. The heart-sounds were well marked and distinct. He had the physical signs of bronchitis; the liver-dulness reached two inches below the costal margin. The spleen was not enlarged. The above description applied to him now (March 11th) equally as well as on admission, except that the scabies had been cured with sulphur ointment and baths. He felt perfectly strong and well, as, indeed, he had all along, with the exception of his pulmonary trouble. A thin section of the superficial part of the skin showed abundance of the pigment in the epithelial cells, but no fungus. A patch on each side of the chest had been well treated with saturated solution of hypophosphite of soda, but without effect. With regard to a possible suggestion that the coloration was due to the irritation of the scabies, Dr. Carrington did not think this probable; both because the limits of the pigmentation far exceeded those of the "itch", and also because it was almost certain that he could not have been suffering from this affection all the time, as the baths at Newcastle would have cured it. This was the more probable, as he had rapidly recovered from this part of his trouble whilst under treatment at the Seamen's Hospital. The scabies had most probably been contracted at a later date. On his admission at Greenwich, he was certainly not scorbutic; his gums were perhaps a little pale, but there was no hæmorrhage, neither was it possible that the coloration was due to the slight attack of intermittent fever contracted at Lisbon, for this was only slight, and of three days' duration; whilst it is only in severe and long continued cases that pigmentation results.—The PRESIDENT thought both cases very remarkable, from the sudden advent of the bronzing without any constitutional disturbance.

OPHTHALMOLOGICAL SOCIETY OF GREAT BRITAIN.

THURSDAY, MARCH 10th, 1881.

WM. BOWMAN, F.R.S., in the chair.

Optic Neuritis in Intracranial Disease.—The discussion on this subject was opened by Dr. HUGHLINGS JACKSON, who began by saying that optic neuritis interested him much as an important incident in many cases of intracranial disease, and comparatively little as an eye-affection. He divided his paper into five sections: 1. Optic neuritis from the ophthalmoscopic point of view; 2. Clinical facts in connection with optic neuritis; 3. Association of optic neuritis with other symptoms; 4. On the diagnostic and non-diagnostic value of optic neuritis; 5. Various hypotheses as to the mode of production of changes in the optic discs by intracranial adventitious products. 1. *Optic neuritis ophthalmoscopically.* Optic neuritis, although a continuous process, varies exceedingly in degree at different times, which has caused many young ophthalmologists to believe that there are several varieties of the condition. There are distinguished ophthalmoscopists who make a distinction between the "choked disc" and "descending neuritis"; but some of them admit that it is often difficult to tell one from the other, and that there may be mixed conditions. He himself believed that there is but one variety of optic neuritis from intracranial disease; but in cases where the possible distinction was important, he would, to avoid begging the question, use the general term "swelling of the disc". Swelling of the disc may occur in several different affections; *e.g.*, in some cases of Bright's disease, usually the granular kidney; in most cases of intracranial tumour; in some cases of meningitis; and it is worthy of special note that it is found in some cases where the symptoms point to intracranial disease, but where no gross lesion can be discovered *post mortem*. Hulke, Soelberg Wells, and others, speak of a recoverable optic neuritis in young women suffering from uterine derangement. Hutchinson has pointed out that swelling of the disc occurs in some cases of lead-poisoning—the appearances in one case being similar to those seen in optic neuritis from intracranial tumour. —*Bright's disease.* In many cases, there is no difficulty in making a diagnosis of Bright's disease from the ophthalmoscopic appearances alone; but, in a few cases, the appearances of the fundus are exactly like those seen in some cases of intracranial tumour without Bright's disease; for in each there may or may not be the well-known white streaks in the region of the macula; in each there may be great swelling of the discs, and blotches, not only streaks, of blood. In each, the general symptoms may be the same, viz., intense headache and vomiting. The general course of the disease may be the same. A distinction can in such cases only be drawn by an examination, on the one hand, of the urine and vascular system; and, on the other, for certain localising symptoms. Such symptoms are often absent in the early stages of the disease; and one of the localising symptoms, hemiplegia, with or without apoplexy, might occur in either disease. The most trustworthy localising symptoms leading to the diagnosis of tumour are such as convulsions beginning unilaterally, and paralysis of cranial nerves. Unilateral convulsions may, however, co-exist with Bright's disease. In cases where Bright's disease is associated with hemiplegia, and where the optic discs present all the appearances seen in connection with cerebral tumour, he would ask whether there are any means of saying, by reference to the ophthalmoscopic appearances, whether the neuritis is an outcome of Bright's disease, or is secondary to the clot, which the hemiplegia implies? He believed he had never seen neuritis resulting from a clot in the brain, although he had seen the two things coincident. He would ask further, What is the pathogenesis of the changes when no local organic disease is found in the brain *post mortem*? It had been suggested that the changes in Bright's disease are directly consequent on changes in the brain occurring with kidney-disease.—*Meningitis.* He would speak of three kinds of meningitis. 1. *Tubercular meningitis.* As a rule, optic neuritis comes on at a time when the diagnosis has been made from other symptoms; though occasionally it is useful in helping to a diagnosis of some acute intracranial disease. The swelling is slight, and the disc succulent-looking. It is like the earliest stage of optic neuritis from intracranial tumour. 2. *Traumatic meningitis.* 3. *Cerebro-spinal meningitis.* He knew nothing of the occurrence of optic neuritis in these two diseases; but Dr. Stephen Mackenzie had seen optic neuritis in two cases of the latter disease. As intracranial tumour might produce an acute, perhaps a fatal illness, not distinguishable by its symptoms from meningitis, tubercular or traumatic, it was important to know whether there were any ophthalmoscopic signs which might be trusted in the diagnosis; apart, of course, from the presence of tubercle in the choroid. He himself knew of none, beyond the degree and inferred long duration of the stages. What signs, if any, enable us to distinguish between swelling of the discs in the three kinds of meningitis? What is the frequency of occurrence of changes in the discs, and in their appearance in traumatic meningitis, and in the allied meningitis from ear-disease? In some of these cases, there is pyæmia as well. When swelling of the discs is found, is it part of, or a result of, the meningitis? or is it ever a result of pyæmic blocking of veins? Is there thrombosis of the sinuses in any of these cases? It is well known that sight may be good in severe neuritis, and that the neuritis, with or without treatment, may pass off. Do the cases in which the sight is unaffected differ essentially from the cases in which it is defective or lost? He believed that there was no difference. Some say that the former are cases of "choked disc", and the latter of "optic neuritis". Is this an inference from the state of the vision, or is the distinction to be made by the ophthalmoscopic appearances? He himself knew of no difference in the kind of disc seen in cases in which sight is good, and those in which it is defective or lost; the difference being, in his opinion, one of stage of changes only. Optic neuritis may pass off under treatment, leaving the sight good, even where there has been complete blindness. It may be important in certain cases to say whether there has been neuritis at a former period. He would ask, What are the ophthalmoscopic signs by which we may ascertain that there has been a former neuritis? He had seen many cases in which the relics of past well-marked neuritis were very slight, and some in which, were he seeing the patient for the first time, he should not dare to say that there was anything abnormal. Not unfrequently, patients come to physicians for such a nervous symptom as localised convulsion, giving a more or less vague account of some illness, with headache and vomiting, months before. The discovery of relics of past neuritis might help us in determining whether the symptom for which we are consulted depends on gross organic brain-disease or not. Is it possible to distinguish traces of

swelling of the discs caused by brain-disease, from those left by swelling of the discs caused by the prolonged use of the eyes in some cases of hypermetropia, as pointed out by Mr. Couper? Unfortunately, however, the discs do not always go back to health after neuritis, but the condition passes on to atrophy, partial or total. In most cases of atrophy, we can tell by the ophthalmoscope whether the atrophy is the sequel of some neuritis, although it may not be possible to say that there has been what is commonly called "optic neuritis". He would ask, What are the ophthalmoscopical signs to be relied on in the diagnosis between the atrophy after neuritis and atrophy in locomotor ataxy, disseminated sclerosis, etc.? The signs generally given as diagnostic of past neuritis are, veiling of the lamina cribrosa, white marks along the vessels, ill-margined disc, irregularity of veins. Are such signs always present in very long-standing cases of postneuritic atrophy? 2. *Clinical Facts.*—Optic neuritis is usually double—in physician's practice nearly always. He had seen two cases of intracranial disease in patients who had uniocular neuritis. In each case, there was a tumour of the opposite cerebral hemisphere; and, in each, hemiplegia of the same side as the neuritis. The eyes from one of the cases were examined microscopically by Dr. Pagenstecher, the left eye being found normal, as it had been declared during life. A single tumour of the brain, if it produces optic neuritis, nearly always produces double optic neuritis; the neuritis beginning nearly at the same time on the two sides, although it may be unequal in degree; and there is often great difference in the sight. What does uniocular optic neuritis signify? Has it been found in cases of tumour of one cerebral hemisphere which had not produced any localising symptoms? Does uniocular neuritis result from pressure or involvement of the optic nerve? Does it ever result from local organic disease in the cerebellum? Can we distinguish ophthalmoscopically between uniocular neuritis resulting from tumour or aneurysm in the orbit or near the cavernous sinus inside the cranium, and uniocular neuritis arising from disease of the great centres? Is there anything in the degree of the swelling to be relied on? The diagnostic value of optic neuritis is not different, whether sight be good or lost. In more than half the cases, there is no defect of sight. When sight fails, at what stage does it fail? Does sight in some cases fail before any neuritis is discernable; and, if so, are these cases of pressure on the optic nerves? Such patients might be supposed to be hysterical; he had seen an instance of this kind, and Mr. Hutchinson has mentioned cases of similar bearing. In some cases of optic neuritis, the sight fails for a time totally or partially, although at most times it is good. The patient may be able to read the smallest type, and yet occasionally becomes quite blind. What do these sudden and temporary failures of sight in neuritis with good vision signify? Do they occur most often when the disease is of the cerebral hemisphere? Do sudden temporary total failures of sight, or—the functionally opposite thing—projections of colour, sometimes precede neuritis? Excluding cases of migraine, he should fear they heralded neuritis, if there were intense pain in the head. In some cases sight, having been for some time good in neuritis, may fail very rapidly—in a few hours, the failure being permanent. Such failure may be ascribed by patients to the instillation of atropine, to galvanism, to blisters. Hence the importance of recognising such occurrence. He would ask: Do the ophthalmoscopic appearances change much at the time when the rapid failure occurs? He had hitherto failed to recognise any such change. What is the significance of the rapid failure?—3. *Association of Optic Neuritis with other Symptoms.*—Good general health goes practically for little in our estimation of the gravity of the situation in many cases of optic neuritis, even when sight is good. We see healthy-looking, robust children and adults, who have double optic neuritis with good sight, who may nevertheless have intra-cranial tumour. It is safest to take good general health with optic neuritis as going for nothing in young people; they may have vascular gliomata, and if so are thus always on the brink of death. Symptoms may be divided into two groups—(1) localising, (2) non-localising. *Optic Neuritis with Non-localising Symptoms.*—In most cases optic neuritis goes with headache, and often with vomiting; all three belong to one clinical group. Very often these symptoms come first, or are the sole symptoms up to the end of the case. Sometimes the headache precedes the neuritis, and very often indeed it precedes failure of vision. The three symptoms point to local gross organic disease within the cranium, but do not help us to determine the particular seat of the disease. The headache is intense; often it is paroxysmal, the patient being in the intervals apparently quite well. The vomiting is without apparent cause, and bile is often brought up. Hence the frequent diagnosis of liver-derangement, and in acute cases the occasional diagnosis of bilious or gastric fever. Sometimes, if the patient be a woman, she is said to be hysterical until some unmistakable intracranial symptom, such as convulsion, suddenly alters the diagnosis. The routine use of the ophthalmoscope would save us from many of these errors in diagnosis. There is sometimes an acute illness as our first evidence of tumour. But there are all varieties of mode of onset upwards, from great chronicity with slight accentuation of symptoms. It is very important to bear in mind that optic neuritis may occur without any headache, and without vomiting, or that the headache may be slight and vomiting absent. In cases where a patient has had either an acute or a chronic disease from which he has recovered, but which was associated with optic neuritis, the question arises: What was the nature of the disease; was it an attack of meningitis, or was it a case of local gross organic disease, such as tumour? He himself inclined to the latter belief. He felt sure that facts show that even complete recovery with good sight does not negative local gross organic disease still present within the cranium. This is strikingly true of some cases of syphilitic tumour; the symptoms pass off under treatment, but the patient may come again and again for the same localising symptom, showing disease persisting in one place. He would therefore ask: Have traces of meningitis been found after such recoveries when patients have died later on of some other disease? Prompt recovery from such conditions under antisyphilitic treatment is not, as a matter of fact, to be confidently explained on the supposition that the case was one of syphilitic brain-disease. From any one or from all of the three symptoms occurring either acutely or chronically, we cannot be certain of tumour; but in a chronic case we are, in most cases, right in predicting it. Suppose we were to feel certain of the existence of tumour, unless the headache were persistently one-sided, we should have, from the symptoms mentioned, not a particle of evidence, so far as he knew, as to the locality of the tumour beyond the fact that it was intracranial. Hence he called these symptoms non-localising. He would ask: Are there any means of ascertaining the position of local intracranial disease by any peculiarities in the neuritis, headache, and vomiting? He would ask further: Does the degree of pain and vomiting depend especially on the acuteness of the case, or on localisation in grey matter, rather than in white? or has it relationship with both these conditions? *Optic Neuritis with Localising Symptoms.*—These symptoms are of no rational value in the diagnosis of the *presence* of organic disease, although this may have some empirical value. They point to *position* alone. He would ask: Are not optic neuritis and headache often absent, or of late occurrence, in cases of hemiplegia developing very slowly? Hemiplegia having this mode of onset is, by itself, strong evidence of cerebral tumour. 4. *The Diagnostic and Non-diagnostic Value of Optic Neuritis.*—Optic neuritis, although often found with disease of the cerebrum or cerebellum, does not occur from mere destruction of any particular part of the encephalon. It mostly occurs with intracranial tumour or some other adventitious product. The mass may be in any part of the encephalon, anterior, middle, or posterior lobe of the cerebrum, the pons Varolii, the right, left, or middle lobe of the cerebellum, or at the base of the brain. He had not yet seen it in tumour of the medulla oblongata, of which disease, however, he had only seen one case. In the next place, it is equally true that it may be absent in connection with tumours of many parts of the brain. A further fact is, that optic neuritis may occur late in cases of cerebral tumour. Again, optic neuritis may appear late and pass off, the patient dying ultimately of the tumour. Optic neuritis exceedingly rarely occurs in cases of extensive destruction of brain by softening or clot; hence it is rare with complete aphasia, and with ordinary hemiplegia, or both together. Broadbent and Stephen Mackenzie have, however, each recorded a case of double optic neuritis in connection with local softening from embolism or thrombosis. All these facts, taken in conjunction with the fact already mentioned, that optic neuritis may be present without any impairment of vision, point to the conclusion that the neuritis does not depend on destruction of any part of the nervous centres. Nevertheless, there is a relation of some kind betwixt the tumour or other gross product, and the neuritis. The relation is indirect; the tumour produces neuritis secondarily. There is no difference in the neuritis produced by tumours of different kinds, by abscess, by cyst, or by almost any other foreign body in the brain. This statement does not imply that some adventitious products may not more often produce optic neuritis, or produce it sooner, or produce a greater degree of it more rapidly, than others. It is believed by some that vascular gliomata produce more headache, and more paroxysmal headache, and altogether a more acute disturbance, than an indolent mass of tubercle. Optic neuritis, as already remarked, very rarely occurs from clot in the brain. It is important to emphasise the distinction between the development of neuritis from the presence of a foreign body, and the loss of sight due to a destructive lesion, such, for instance, as is seen in hemiopia. In cases of hemiopia, with rare exceptions, there is no atrophy of the discs, nor any other change in the fundus. In most cases of hemiopia, in physicians' practice, the lesion is presumably central; for there is nearly always hemiplegia on

the side of the blind half-fields. The condition of sight in hemiopia is very different from the defect of sight ensuing on changes induced in the optic nerves, or their centres, by some "foreign body" in the brain; strikingly different when we note that sight may not be affected during such changes. Occasionally, hemiopia and neuritis are present together, and the difference in their several modes of affecting vision is then most strikingly shown; for the neuritis may, for a time, add nothing to the defect of sight (hemiopia) dependent upon the destructive nature of the lesion. All the evidence points to the conclusion that optic neuritis, in connection with intracranial adventitious products, is to be looked on as resulting secondarily from such products in the character, common to them all, of foreign bodies. The question next arises, What is the secondary process? There is the hypothesis of Gräfe, that one variety of optic neuritis, or of swelling of the disc, is produced by raised intracranial pressure—the choked disc of Clifford Allbutt. Against this hypothesis is the fact that the tumour or other adventitious product may be very small. A small tumour may produce just the same kind, and probably the same degree of neuritis, as a mass weighing many ounces. Again, swelling of the disc is not found in cases of vast cerebral hæmorrhage when the intracranial pressure is suddenly greatly increased, and it may be absent in the case of large cerebral tumours. Next, there is the hypothesis of Schmidt, which ascribes some cases of swollen disc to distension of the optic nerve-sheath. The evidence in support of this doctrine is at least conflicting. There is the hypothesis of reflex vaso-motor action. He (Dr. Jackson) favoured this theory in a modified form, and he quoted Pagenstecher, who writes of it: "The irritation conveyed through the nerve-track of the sympathetic to the disc, induces the changes in the nerve-fibres, the hyperæmia, and even the development of new vessels, and in this manner is brought about a swelling and obfuscation of the disc, and of the adjacent parts of the retina." —*Treatment.*—In one regard, it may seem absurd to speak of the treatment of optic neuritis. We treat the patient, and the local internal disease which we suppose to have caused it. If that local internal disease be syphilitic, we may hope, supposing the changes to be recent, to clear them away by mercurial inunction and iodide of potassium. Supposing, however, the intracranial disease be a non-syphilitic tumour, according to current opinions we can do nothing for it. We can, however, even in these cases, endeavour to do something for the neuritis. It is obvious that the best time for treatment is when the neuritis is in its earliest stage, in the præ-amaurotic stage, although it is certain that recovery may follow treatment of neuritis when sight is almost lost. Dr. Jackson, himself, always gave iodide of potassium, whether he suspected syphilis or not, and frequently prescribed mercurial inunction in addition. He knew of no treatment which did any good in atrophy, partial or total, after neuritis.

SUNDERLAND PORT.—Dr. Yeld's report for 1880 shows continued activity in the sanitary arrangements of the Port of Sunderland. The number of vessels inspected was 112 more than in 1879, this increase being due to the large number of foreign vessels inspected. Of the 2,020 vessels examined, 603 were steamships, 1,417 sailing vessels, 1,663 British, 357 foreign, 1,277 coasting, and 743 bound for foreign ports. The number of vessels found in good sanitary condition was 1,238, passable 490, and in an unsanitary condition 292. The percentage of ships in an unsanitary state has been steadily decreasing year by year since the Port Sanitary Authority was constituted five years ago, until the percentage of such ships is now only 15 per cent., or a quarter of the proportion of 1876. In 222 instances the cabins, forecastles, and peaks were in an unsanitary state, whilst in 79 cases the closets and conveniences attached to the vessels were in such a state as to be a nuisance and injurious to the health of the crew. Of the foreign ships, the Dutch and Danish were kept in the best sanitary condition; but much improvement was shown during the year in the condition of all foreign vessels. Dr. Yeld adds the gratifying statement that since the inspection of ships belonging to the port has been systematically carried out, sickness amongst the crews has steadily diminished, and only one case of fever occurred during last year.

NEW FOREST RURAL DISTRICT.—Mr. R. W. Jenkins, reporting upon this district, records for 1880 a death-rate of 16.0 per 1,000, against 15.3 in 1879. Of the 223 deaths, as many as 64 were of persons over 70 years. Zymotic diseases proved fatal to 16, and pulmonary affections to 47 persons. The only disease calling for notice is German measles, which was prevalent more or less over the whole Union for over a year. Certain cemetery questions seem to be receiving attention; but the drainage of Totton is still *in statu quo*, and Mr. Jenkins says of the plea that the general healthiness of the village should be a reason for doing nothing, that it is equivalent to the proposition that the only guilt of sin is the being found out.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MARCH 26TH, 1881.

THE HAMPSTEAD HOSPITAL APPEAL.

IT may be doubted whether the Metropolitan Asylums Board is well advised (and encouraged, as would appear from the answer given by Mr. Dodson, on Tuesday, to the question of Mr. Firth, by the Local Government Board) to continue the protracted and vexatious litigation on the Hampstead Hospital case, which most people thought to be finally closed by the recent decision of the House of Lords. It seems, however, that this decision covers only one of the appeals of the Asylums Managers; and that the first appeal, which was for power to proceed to a new trial without the condition attached to it by the Court of Appeal respecting payment of some of the plaintiffs' costs, is still undealt with. This appeal the managers have, though only by the casting vote of the chairman, now resolved to prosecute; so that, if the House of Lords yield the point, the whole business will have to be gone over again. It was felt by many at the principal trial that the managers' case was badly put forward; and that, confident of success, they allowed evidence which dangerously affected the decision to remain unrebutted and unchallenged. This, however, is an affair of the past; there has been appeal after appeal, and now the highest judicial authorities in the land have decided on the merits of the case against the managers. It would seem wiser and better for them to accept the decision, and not to prolong further the bitter feelings which have been engendered by this controversy. The belief amongst *cognoscenti* is, however, that the litigation is to be continued in order to gain breathing time; so that the effects of the Lords' decision in the future may be considered and weighed before further steps are taken in the matter. As Lord Blackburn hinted, the necessity of further legislation as to this matter is becoming evident. What form that legislation will eventually take, it would be premature at present to speculate; but some such Bill as that referred to by the Rev. Darby Reade in the amendment which was rejected at the Asylums Board meeting by the casting vote of the chairman, seems urgently called for. The resolution of the managers asking for the advice of the Local Government Board "whether they are to receive any more small-pox patients into the hospitals; and what, if any, steps the Local Government Board propose to take with a view to give the managers authority to carry out their duties without further molestation and litigation", is, perhaps, rather spitefully worded, and imposes a serious responsibility upon the Local Government Board in framing their answer. The Board, on their side, seem disposed to shift this responsibility upon the managers. Mr. Dodson, in replying on the 18th instant to a deputation which came to interview him on the subject of the continuance or abolition of the Fulham Hospital, adroitly evaded the inquiry of his interlocutors by saying that, until the managers had decided what course to adopt, it would be premature for him to express any opinion upon the subject one way or the other. He talked, at the same time, a quantity of harmless rubbish about the relative merits of large and small hospitals; and said that, if each of the thirty-nine sanitary districts in the metropolis contained a small-pox hospital, "he did not know if the risk of the propagation, whether they took the germ-theory or the contagion-theory" (whatever, if anything, this may mean), "would be less than by the larger hospitals". All this is begging the question. It is impossible to continue the

official fencing of a difficult and unpleasant subject much longer. The position must be faced, and a way found out of the slough into which the unhappy managers now find themselves plunged. There is now more than usual need for promptitude of action, in view of the dimensions which small-pox is assuming. There must be some way out of the difficulty if the matter be really earnestly gone into; and it is now rapidly becoming of imperial importance that the question should, without delay, be set at rest. Otherwise, infectious hospitals, which have had very gradually to win their way against the distrust and dislike of the populace, will be more than ever discredited in the eyes of the people; and the repression of epidemics will, in the absence of isolation, be even more difficult than at present.

RECENT STUDIES IN THERAPEUTICS.

X.—CHAULMUGRA OIL.

CHAULMUGRA oil is obtained from the seeds of *Gynocardia odorata*, a large tree, much branched, with ash-grey globular fruit, some three or four inches in diameter. It is a native of Pegu, Tenasserim, and other parts of the Malayan peninsula, whence it extends into India, being found in Assam, Khasia, and Sikkim, but not in the central or western parts. The seeds (*Gynocardiæ semina*) are officinal in the *Indian Pharmacopœia*, and are popularly known as chaulmugra, chaulmogra, or chaulmoogra seeds. The oil expressed from these seeds has been known for centuries to the Fakirs of India, by whom it is largely used in the treatment of leprosy, and skin-diseases generally. There is evidence to show that it has been employed by the aboriginal tribes in certain parts of India from the remotest times.

At the ordinary temperature, the oil is solid, has a light-brown colour, and a decidedly disagreeable taste and smell. It may be readily melted by placing the bottle in hot water, or allowing it to stand for a few minutes in front of the fire. It has been analysed, and is found to consist of palmitic, gynocardic, hypogæic, and coccinic acids. The palmitic constitutes sixty-three per cent.; but the gynocardic acid, which is found in a much smaller proportion, is probably the active ingredient. The oil is given internally, and is also used as an external application. It is most conveniently administered in empty capsules, or in *perles;* but many patients take it well in milk, cod-liver oil, or almond-oil. The usual dose is from five to fifteen minims. It is best to begin with a small dose, say two or three minims, three or four times a day, gradually increasing the quantity as the patient becomes accustomed to it. Dr. Murrell, as the result of a large number of observations, found that, when administered in milk or cod-liver oil, ten minims very frequently upset the stomach, giving rise to nausea and vomiting, and not unfrequently diarrhœa. The chaulmugra oil *perles* contain four minims each, and most patients will take from one to four of these at a dose. When it is desirable to vary the dose frequently, the empty gelatine-capsules will be found useful. It is almost essential that some such special mode of administration should be adopted, as few patients like the taste of the oil, or will consent to take it by itself for any length of time. It must always be given after meals.

Chaulmugra oil has long been used in India in the treatment of leprosy, and has acquired a high reputation as a remedy for that disease. From the comparative rarity of true leprosy in England, much difficulty has been experienced in collecting a sufficient number of cases in which to try its effects. This difficulty is increased by the fact that, in temperate climates, the disease often exhibits long periods of comparative rest or subsidence, quite apart from any special treatment. Dr. Robert Liveing has published a record of six cases of elephantiasis Græcorum, in which he was able to give the chaulmugra a long and continuous trial. He found that all six cases were decidedly benefited by the treatment, and the patients themselves were strongly impressed with the belief that they had decidedly improved under its internal use as a medicine. Mr. Wyndham Cottle has also published two cases in which equally good results were obtained. The oil was here given either as a mixture suspended in gum, or in the form of emulsion. Unusually large quantities were administered, the dose being gradually increased to as much as a drachm three times a day. Moreover, an ointment, consisting of twenty grains of chaulmugra oil to the ounce of lard, was applied freely to the skin. Quite recently, Dr. David Young of Florence has published a more extensive series of cases in which most striking results were obtained. The forms of the disease noted were: macular leprosy, four; anæsthetic leprosy, twenty-three; tubercular leprosy, fifteen; and mixed cases, eleven. The patients were all adults, the proportion of males to females being about three to one. The treatment consisted in the internal administration of doses varying from five to twenty drops, three times a day, commencing with the smaller quantity, and gradually increasing it until the latter was reached. Externally, a liniment, composed of an ounce of the oil, mixed with a drachm of rectified spirit, was applied to the diseased surface. Dr. Young found that, in the macular and in the early stage of the anæsthetic forms of leprosy, the chaulmugra was of decided value. The good results appeared earlier when the powdered seeds were given in addition to the oil. A liberal milk-diet was found to be a valuable auxiliary. Several of the cases were complicated with bronchial affections, which were markedly benefited during the treatment, all the patients gaining flesh rapidly.

In many skin-diseases, the chaulmugra oil treatment proves beneficial. It has been tried with success in psoriasis, lupus, and obstinate cases of scabies and ringworm.

Chaulmugra oil was originally introduced as "a specific for consumption"; but there is certainly as yet no evidence to show that it deserves this distinctive title. Dr. Burney Yeo has reported nine cases of phthisis in which it was given internally with little or no benefit. He considers that it gives no promise of help in well marked cases where the disease has reached the stage of infiltration and softening of any considerable portion of the lung. Dr. Murrell, as the result of a series of observations extending over two years and a half, arrives at a somewhat different conclusion. In thirty-one of his cases, the chaulmugra oil was given in milk, in doses ranging from three to ten minims, four times a day; and, in twenty-four of these, decided benefit was experienced. The chaulmugra seemed to act, first, as an expectorant; then the cough became less troublesome; and, finally, a gradual improvement took place in the general symptoms. The best results were obtained when, in addition to the internal administration, from two to four ounces were rubbed into the chest weekly for two or three months. The inunction never upsets the stomach or gives rise to unpleasant symptoms. The smell is not very agreeable, but is readily covered by using a little violet-powder. The oil may be employed alone or simply as an adjunct to other treatment.

It is found that children, as a rule, take the chaulmugra without difficulty; and its internal administration, combined with inunction, has been employed with benefit in scrofula and in cases of marasmus.

In chronic rheumatism and in rheumatic gout, it is most useful. A patient, recording his own experience, says: "A month since, I was suddenly seized with a severe attack of rheumatism; and so acute was the pain, that, for two days and nights, I could not sleep, and the swelling of my hands made me quite helpless. I could neither dress nor feed myself. Having had a sharp attack of rheumatic fever about twenty years ago, I was very much afraid that I was again to be laid aside from business; and you, I fear, will hardly believe that, within three hours of the application of the oil, the use of my hands was restored to me; and that, from that day to this, I have had no return of the pain." Non-professional testimony is not, as a rule, very trustworthy, but there are occasions when it cannot be ignored. For stiff joints, sprains, and bruises, both in men and horses, the oil is said to be equally efficacious.

For neuralgia and sciatica, the chaulmugra oil is generally mixed with camphor and chloroform, or with an equal weight of a saturated solution of menthol in chloroform, and then rubbed in over the painful part.

TUTORIAL CLASSES IN EDINBURGH INFIRMARY.

It will be remembered that, about two months ago, notice was taken in the JOURNAL of the subject of tutorial instruction in the Edinburgh Royal Infirmary. Since that time, the subject has been inquired into by a committee of the medical members of the Infirmary board of managers. Their report has been submitted to the managers, and has, together with the resolutions of the managers on the subject, been printed. The committee reported that they had examined teachers, nurses, tutors, and patients; and in the report they give the opinions of various of the Infirmary staff, a history of the subject, statements regarding the duties and emoluments of the tutors, the advantages and the disadvantages of the system, etc. They state that, after full consideration of the evidence, they have come to the following conclusions: 1. That the system of tutorial instruction, as at present conducted, is highly advantageous to the students, while it is practically unattended by any danger or inconvenience to the patients. 2. That, while it might in the abstract seem desirable that the services of the assistant physicians and surgeons should be made available for purposes of tutorial instruction, we do not see how such a scheme could be successfully carried out. In conclusion, they recommend—1. That the tutorial system be continued on its present footing, the tutor being selected by the physician or surgeon under whom he is to act. 2. That no tutor be permitted to enter upon his duties until his appointment has been formally approved of by the managers; and in the event of his remaining on duty for more than a year, that such approval be annually renewed. 3. That no tutor be allowed to charge a fee from students, provision for his remuneration being made either by the university or by the physicians or surgeons under whom he acts. The managers of the Royal Infirmary, at a meeting held on Monday, March 14th, approved of the report of the committee; and it is a matter of satisfaction that the examination into the subject of tutorial instruction has been such as to lead to its proper recognition—a result that could not be doubted by those who are best aware of the usefulness of such teaching, and which will be welcome to Edinburgh students.

THE MEDICAL SERVICE IN THE FRENCH ARMY.

We hope to be able to announce, very shortly, that the independence of the medical officers of the French army, and the right to conduct the internal administration of their own departmental affairs, for which they have been contesting during the last thirty years, are at last accomplished facts. One of the sections of the projected law on the administration of the army, which is now under discussion in the Chamber of Deputies, rules that all established military hospitals, as well as movable hospitals in the field in time of war, shall be under the direction of their respective medical officers, subject only to the orders of the officers in general command of the district where the hospitals are placed, or of the troops for whose service the field hospitals exist. The medical officers are charged, acting under the same authority and orders, with the command, organisation, constitution, and employment of all the necessary means for executing the medical service and duties, whether these means consist of persons or of materials. That there may be no misunderstanding regarding this very great innovation on the previous arrangements of the medical service, the assignment of functions to the medical officers, which hitherto have been entirely in the hands of the officers of the *intendance*, the *projet de loi* further particularly specifies as follows. "The members of the corps of military surgeons are armed with authority, in whatever concerns the discharge of their medical duties, over all the personal staff, military and civil, attached to their service, both those permanently and those temporarily employed in it. They issue orders, in consequence, to the apothecaries, the purveyors, the soldiers of the army hospital corps, as well as to the troops of the military train, and others who may be detached for the time to do duty with the hospital or ambulance establishments." The new law merely lays these down as general principles, on which the medical service of the army is to be carried on in the future; it leaves to the War Minister, by a special order, to regulate the details of the manner in which they are to be put into practice. Now, that, by a majority of eighty-six votes in the Chamber, the dual authority, which has hitherto existed in the army on the part of the officers in military command and the officers of administration, the combatant generals and the intendant-generals, has been put an end to, and that the intendance has been definitely subordinated to the military authority, there can be little doubt about a similar solution being adopted in the reorganisation of the medical service. When this is accomplished, a great reform, full of promise of sanitary improvements for the French army, will have been achieved; for nothing in medical history has been rendered more clear than has the fact that the frightfully excessive losses which the French army has notoriously sustained from the ravages of disease in the successive wars in which it has been engaged during the last quarter of a century—losses which in a great degree have been manifestly caused by neglect of the first principles of sanitary science—have been due, not to the want of scientific capacity, nor the absence of adequate representations, on the part of the medical officers of the French army, but solely to the circumstance that these officers have been utterly powerless to avert or to control the evils which they saw before them; that they have been, in short, reduced to the position of being a mere appendage to another department—the *intendance*, wholly incompetent in subjects of hygiene, and too much intent on other employments, or too overbearing, to attend to the appeals of their subordinates on such matters.

THE Indian papers report an outbreak of scurvy in the Naga Hills Force, attributed to insufficient and improper food.

M. PASTEUR has been appointed a member of the French Consultative Committee on Health. The eminent chemist will doubtless be a great acquisition to the Committee.

BY an order appearing in the official *Gazette* of the 16th instant, the importation of all kinds of pig's flesh from the United States is forbidden in the Austro-Hungarian Empire.

DURING the past eleven weeks of the current quarter, the metropolitan death-rate has averaged only 23.8, against 26.6 and 28.0 in the corresponding periods of 1879 and 1880.

WE understand that the inquiry into the high death-rate of Ashton-under-Lyne, recently promised by Mr. Hibbert in the House of Commons, will be undertaken by Dr. Edward Ballard, of the Medical Department of the Local Government Board.

WE would remind our readers that the discussion on the paper read by Dr. Hughlings Jackson at the last meeting of the Ophthalmological Society, on "Optic Neuritis", was adjourned until Thursday evening next, March 31st, at the Medical Society's Rooms in Chandos Street, at 8.30 P.M. It is intended to hold a special meeting of the Society on April 7th, to receive and discuss the report of the Committee on Colour-blindness.

PROFESSOR BILLROTH'S case of excision of the pylorus and part of the small intestine, for cancer (of which we lately published interesting details communicated by him in a letter to Sir Henry Thompson, which was kindly forwarded to us by Sir Henry), has continued to follow a satisfactory course. The patient has been able to take not only a milk-diet, but also lately white meats, and has left the hospital convalescent.

THE forthcoming report of the Registrar-General will contain a feature of novel and unusual interest. For the first time, each month will be divided into certain periods, and the prevalence of every disease will be shown for each of these periods, according as it exceeds or falls below the average of the past forty years. The advantage of

this series of tables is obvious, as it will be possible, by means of it, for the most inexperienced student of statistics to tell in what months of the year each disease is most dangerous.

A BILL has been laid before the French Chamber of Deputies by M. Farcy, providing that a pension on the same scale as that granted to the family of a soldier killed in battle—that is to say, double the ordinary pension—shall be awarded to the widow or children of every French citizen who shall be killed in saving life from fire; of every medical man who shall die in the hospitals while treating an epidemic disease; and of every person who shall lose his life in endeavouring to save that of others.

THE large gold medal of the Agricultural Society of France has been awarded to M. Pasteur for his researches on fermentation and contagion, regarded in the light of their application to medicine and agriculture.

THE HAMPSTEAD HOSPITAL CASE.

ON Saturday, at a meeting of the Asylums Board, in regard to the recent decisions by the House of Lords upon the Hampstead Hospital case, at which Dr. W. Brewer presided, Mr. Galsworthy, Chairman of the General Purposes Committee, brought up the report of the solicitors, stating what had been the decision of the House of Lords in the matter. The solicitors reminded the Board that two appeals had originally been taken, but appeal No. 1, which was for a new trial, had been placed in suspense, and it was only appeal No. 2, on the mere question of law, which had been brought before the House of Lords for decision. Mr. Galsworthy moved the adoption of the report, and also that the solicitors should be directed to proceed with appeal No. 1 in the House of Lords, *i.e.*, that the House of Lords should be asked to give the board the power to proceed to a new trial without the condition attached to it by the order of the Court of Appeal respecting payment of a certain amount of the plaintiffs' costs. Mr. J. G. Talbot, M.P., seconded the motion. The Rev. Darby Reade moved, as an amendment, "That a memorial be addressed to the president of the Local Government Board, pointing out to him the serious consequences which will result to the inhabitants of the metropolis in consequence of the recent decision of the House of Lords, and strongly urging the Government immediately to pass a Bill amending the Metropolis Poor Act of 1867 in such a manner as may be necessary to surmount the difficulty which has arisen as to the power of the managers to provide and carry on these hospitals in different parts of the metropolis." This amendment was seconded by Mr. Bengough; but, on a division, Mr. Galsworthy's motion was carried by 20 to 19. The Rev. H. I. Cummins moved, as an amendment, "That a memorial to the president of the Local Government Board be presented, pointing out to him the serious consequences which will result to the inhabitants of the metropolis in consequence of the recent decision of the House of Lords, unless some immediate steps be taken by the Government to make provision for preventing the spread of fever and small-pox in the metropolis." Dr. Griffiths seconded this amendment, and Mr. Robins supported it. On a division, however, this was rejected by 20 to 18, and the original motion was carried. Mr. Proudfoot then moved: "That the resolution just adopted be embodied in a letter to the Local Government Board, with the following rider added—'The managers, however, desire to be now advised by the Local Government Board whether they are to receive any more small-pox patients into the hospitals; and what, if any, steps the Local Government Board propose to take with a view to give the managers authority to carry out their duties without further molestation and litigation'." This was carried unanimously. The fever returns showed that, in the Stockwell Asylum, there were 151 cases of fever (136 of them scarlet fever cases), and 173 in Homerton (155 of which were scarlet fever cases). The total was 324, a decrease of 28 on the numbers at the end of the previous fortnight. The small-pox returns still showed an increase. During the fortnight, 426 cases had been admitted to the four asylums, against 412 in the previous fortnight. During the more recent period, 57 had died, 311 had been discharged, and 862 remained under treatment, against 804 a fortnight ago. The Board had only 68 beds available on Friday. Among other matters which came before the Board was the presentation of a memorial by a deputation from inhabitants of Homerton, in regard to the approaches and entrances to the asylums. The deputation having been thanked for the information which had been afforded, the memorial was referred to the Homerton Asylums Committee.

COMPULSORY VACCINATION AND REVACCINATION.

THE Bill of Dr. Liouville, as amended by the Special Committee, proposing to make vaccination and revaccination compulsory in France, has advanced a stage in the French Chamber of Deputies by 253 votes to 142. This is regarded as a good augury for its eventual success.

SURREY CHAPEL.

THE demolition of Surrey Chapel in the Blackfriars Road is to be deplored for other reasons than the memory of Rowland Hill. Surrey Chapel is bound up with some of the very earliest recollections of vaccination in this country. Within a short time of Jenner's discovery, a station for gratuitous vaccination of all applicants was established there; and when the National Vaccine Board was created, early in the century, Surrey Chapel became one of its most important stations. Under that Board, and subsequently under the Medical Department of the Privy Council, and the Local Government Board, the Surrey Chapel station has maintained its separate existence as a station paid for by Government, and attended by a salaried Government official. When public vaccination stations were established by Boards of Guardians, the need for the stations supported by Government gradually declined, so that of late years, a policy of extinction has been followed. Only two of the original stations, one at the Surrey Chapel, and one at the Tottenham Court Chapel, have survived up to the present; and, of the once numerous staff of Government vaccinators, Mr. W. E. G. Pearse and Dr. Robert Cory are now the only representatives. Surrey Chapel has for a very long series of years, maintained without serious diminution its regular series of applicants for vaccination, despite the facilities offered at the ordinary public stations; and it has also been, since 1860, the chief London station for the instruction and examination of medical students and practitioners in the principles and practice of vaccination. A place with so distinguished a history deserves a word of obituary notice before it is ruthlessly sacrificed to the tutelary genius of bricks and mortar.

SMALL-POX IN THE METROPOLIS.

ALTHOUGH the actual number of deaths from small-pox was last week fifteen less than in the week previous, the epidemic shows no real signs of diminution. For the number of patients in the Metropolitan Asylums Hospitals, which had steadily increased in the twenty preceding weeks from 77 to 792, further rose last week to 853; and the new admissions, which had been 195 and 186 in the two previous weeks, rose to 265. In these circumstances, and looking to the probability of the further extension of the disease (even leaving out of consideration the difficulties which must in the future be experienced in securing the isolation of the sufferers), it becomes of paramount importance that vaccination and re-vaccination should be performed on as many unprotected persons as possible. It has been found to be of immense help in discovering unvaccinated persons to have an inquiry made from house to house as to the vaccination of the inmates; and in many unions and parishes of the metropolis this course has been followed. But a difficulty has been felt in securing the vaccination of all those who are unprotected, through the inability of the visitors, in the time at their disposal, to combat the frivolous objections which parents are constantly urging as reasons why they do not bring their children for vaccination. Recognising this difficulty, the National Health Society (44, Berners Street, London), which is always forward in works of practical philanthropy, has prepared a leaflet on the merits of vaccination, which in plain yet striking language, disposes of the various objections of the anti-vaccinators, and puts the real facts about vaccination in their true light. This leaflet, which has been printed and circulated amongst the various Boards of Guardians in the metropolis, is intended to

be left by the visitors appointed by the local authorities at all houses where there are unvaccinated children, so that the parents may ponder at their leisure on the great prophylactic value of vaccination against attacks of small-pox. Spaces are left in the leaflet for the insertion of the times and places when vaccination can be procured at the public expense, as well as of the addresses of the sanitary officers. The leaflet will be of unquestionable service, not only as a material help to visitors for whom it was in the first instance designed, but also for general use as a plain and succinct statement of the truth about vaccination.

NAVAL MEDICAL SCHOOL AT HASLAR.

We hear that the candidates for commissions in the Medical Department of the Royal Navy, who succeed in passing the competitive examination in London, will subsequently go through a course of instruction in naval hygiene and other special subjects at Haslar, where a Naval Medical School will be established on the same principles as the Army Medical School at Netley, which the successful candidates have hitherto attended. We shall watch with interest the manner in which this new establishment is organised and conducted. We hear that Inspector-General Dr. Macdonald, R.N., who has been the Professor of Naval Hygiene, and who has ably taught the subject for some years past at Netley, is not to be one of the teachers at the new school at Haslar.

VACCINATION WITH CALF-LYMPH.

Dr. C. Renner gives notice (and we think it a public duty to assist him in making known) that a private establishment for vaccination with calf-lymph has been opened by him at 228, Marylebone Road, London, where children can be vaccinated and adults revaccinated direct from the calf every Monday, Tuesday, Wednesday, and Thursday, from two till three o'clock. A calf vaccinated with original animal vaccine will afford lymph in the most efficacious state of its development on the days named. The calves are carefully selected, and remain under constant supervision of a qualified veterinary surgeon. Their temperature is noted, and they are fed exclusively on pure milk, and every care is taken to keep them in good health and order. The stables are fitted with approved sanitary arrangements. The establishment is open throughout to medical gentlemen, as well as to others interested in the subject, to afford every opportunity of examination. The advantages of this method, which has been amply tested by millions of cases on the Continent (Belgium, Holland, Germany, Austria, Italy, France, Switzerland, Russia) and in America (F. Martin, *Transactions of the American Medical Association for 1877*) are stated briefly as follows. The danger of imparting infectious and other diseases, the most important and well-founded objection to vaccination from human beings, is absolutely avoided. On the other hand, there is no fear of communicating any disease from which the calf may suffer; for of these very few only are at all transferable to man, and are so easily discovered, that no calf suffering from any of them is likely to be received for vaccination. Besides, it is a general experience that, whenever the vaccinated calves get out of health, the pustules fail to appear. Under no circumstances will lymph be taken from either babies or adults in this establishment. Therefore, the inconvenience of opening the pustules is avoided. Erysipelas, which sometimes, though rarely, follows vaccination, is of still rarer occurrence after vaccination with fresh animal lymph. Dr. Martin of Boston, *loc. cit.*, says: "I decidedly assert the immunity from erysipelas of true animal vaccination." The experience of many physicians goes to indicate that lymph of long humanisation loses some of its efficacy. Consequently, though successful vaccination frequently occurs from this kind of lymph, yet it may have lost much of its protective property, and thus leave the patient liable to the disease against which the precaution had been taken. Animal lymph is decidedly stronger in its action and produces a stronger reaction in the human body, and it appears to be proved that it affords a more thorough and more durable protection. The whole of these facts and the data on which the conclusions rest were set forth in the report on animal vaccination drawn up by Mr. Ernest Hart, as Chairman of the Parliamentary Bills Committee, for the use of the Conference on Animal Vaccination, July 1879, and published in the British Medical Journal of November 9th, 1879. This report has since been republished. There will be no practical limit to the production of lymph at Dr. Renner's establishment, as arrangements are made to meet any sudden extensive demand. No previous appointment is required. On Fridays and Saturdays, there will be vaccination with calf-lymph at a reduced fee.

INDIAN MEDICAL SERVICE.

The fact of the authorities at the India House not having published the results of the last competitive examination of candidates for commissions in the medical service, as usual, has given rise to a good deal of comment. It is generally believed that the publication has been withheld on account of the inferior qualities displayed by the candidates who presented themselves for examination, and the failure in getting the declared number of vacancies filled. If it be true that the list of successful competitors, and the numbers of marks gained by them, have been withheld from hesitation on the score mentioned, it certainly shows very strongly what a remarkable change has come over a branch of the public service which, for a great number of years past, and even until very recently, was the most keenly sought after of any open to the junior members of the medical profession; and this change the authorities have only to attribute to their recent ungenerous treatment of this admirable and valuable service.

THE ARTISANS', LABOURERS', AND GENERAL DWELLINGS COMPANY.

The fourteenth annual meeting of the shareholders of this company was held at the Westminster Palace Hotel on March 11th, Mr. Ernest Noel, M.P., in the chair. A large number of shareholders were present. The annual report stated that the number of houses on the Shaftesbury Park Estate was 1,199; while on the Queen's Park, where building is now going on on an extensive scale, the number of houses completed reached a total of 1,248. An interim dividend of 2 per cent. had been paid since the last annual meeting; and the report recommended the payment of a further dividend of 3 per cent., making a total of 5 per cent. for the year. The chairman, in proposing the adoption of the report, stated that, since the issue of the report, which only took them up to December 31st, 1880, the directors had decided to appoint a consulting architect to the Company; and they hoped thus to introduce considerable improvements, both as regarded the plans and elevations of the houses, and their construction. The report was unanimously adopted, and the retiring directors re-elected.

WOOLSORTERS' DISEASE AT WINDHILL.

At an inquest held at Windhill, on Saturday last, before Mr. Taylor, coroner, upon the body of Samuel Oddy, aged 45, a woolsorter, whose death was attributed to woolsorters' disease, the following evidence was adduced. The wife said her husband was a healthy man, and had been so since she first knew him. On Tuesday he came home from work earlier than usual, complaining of pains in the head and chest, and was very cold. He went to bed, and would take nothing but a little tea. He was restless during the night, but would not allow witness to send for a medical man. During the early part of Wednesday deceased suffered greatly, and his countenance was of a blue colour; he vomited many times thick, black crudded matter. Dr. Rutherford (Shipley) was sent for in the evening, and his opinion then was that deceased would not live two hours. Dr. Bell (Bradford) was sent for towards midnight, and saw deceased, with Dr. Rutherford; deceased succumbed the following morning at half-past two. Dr. Rutherford deposed to visiting deceased about eight o'clock on Wednesday evenning last, when he found him suffering from laboured respiration, and pain in the head and chest. His face was livid, his ears blue, and the discoloration extended over the neck and chest. He was also pulseless on the left side, the lower extremeties being icy cold. There was also a clammy sweat on the trunk of the body, and the temperature under the tongue and armpits was three degrees be-

low animal heat. He ordered stimulants to be applied. Shortly before midnight Dr. Bell arrived, and they saw deceased together, when it was evident that he was dying fast. In company with Drs. Bell, Goyder, Rabagliati, and Appleyard, he made a *post mortem* examination of the body on Thursday afternoon, which they found well nourished and developed, all the internal organs being in a healthy condition. In his opinion the deceased died from blood-poisoning, but his knowledge was not sufficient to justify him in defining the particular species. It was different from ordinary pyæmia, because upon microscopic examination a limited number of anthrax bacillus were found in the blood. Medical research had not yet been carried far enough to secure unanimity among medical men as to the exact nature of the disease from which deceased died, but it was undoubtedly that usually known as "woolsorters' disease". From the evidence of his employer, it appeared that the deceased had been engaged at work from about January 11th to February 14th, in sorting Van mohair. Andrew Sutcliffe, a woolsorter, said, that at Saltaire there were from a hundred-and-thirty to a hundred-and-sixty woolsorters employed upon Van mohair and other kinds of Asiatic wools, and since August 1870, not fewer than forty-three woolsorters working at Saltaire had died. Of that number, seventeen clearly died from woolsorters' disease. No deaths had occurred from that disease, however, since 1879. This he attributed to the precautions taken by the firm in accordance with the recommendations agreed to by the jury in Firth's case, and since circulated under the direction of the Sanitary Committee of the Bradford Corporation. He did not think respirators were practicable, as they soon became clogged. It was stated that an interval of a month elapsing between the time of the victim leaving off work and subsequent death had never been known, four days being the general time. The Coroner, in concluding the inquiry, remarked on the endeavours now being made by the medical profession to ascertain the possibility of a remedy being provided, especially in Bradford, where there was a medical organisation for that purpose. Until the subject was thoroughly understood by medical men, therefore, there was no likelihood of any legislation on the subject. As the law stood there was nothing to prevent a man from taking employment in sorting wool believed to be dangerous; he did it as a matter of trade, and at his own risk. The jury found that Oddy had died from woolsorters' disease. They added as a recommendation that precautionary measures similar to those adopted at Saltaire be taken in all warehouses where dangerous wools were used, and expressed the belief that such measures were the best preventive of the spread of the fatal disease.

SANITARY ARRANGEMENTS OF HOUSES.

ON Tuesday last, a deputation waited upon the President of the Local Government Board at Whitehall, for the purpose of advocating sanitary legislation by the amendment of the Public Health Acts, and the appointment of qualified inspectors to guarantee by frequent inspection that the sanitary arrangements of every building are constructed and maintained in proper order. Mr. Dodson was accompanied by Mr. J. T. Hibbert, M.P. The deputation, which was introduced by Mr. Staveley Hill, Q.C., M.P., consisted of the following, among others: Lietenant-Colonel Thornycroft, Captain Galton, C.B., Professor F. Jenkin, Mr. J. Whichcord, Mr. Eastlake Thoms, C.E., Mr. Ernest Hart, Mr. G. Hurst Stanger (Wolverhampton Sanitary Protection Association, and Mr. Kennington (Birmingham). Colonel Thornycroft, in the course of his remarks, said that several sanitary protection associations had been established. In Wolverhampton, they had one on the voluntary principle; the payment being 15s. for the first year, and 5s. afterwards; and a person went round to examine the houses, and made a report of what alterations were necessary. They desired to make sanitary inspection compulsory; and that there should be a properly qualified inspector, to be appointed by Government or by the local authorities. Due time should be given for the carrying out of the alterations deemed necessary. Should the Government take up the movement, one good effect, he hoped, would be the destruction of sewer-gases; and another would be the lowering of the poor-rate. Professor F. Jenkin made reference to the progress of the work in Edinburgh. Mr. Hurst Stanger contended that, with reference to inspection, the by-laws should be made compulsory, in which case the inspectors would have to take care that they were carried out efficiently. He should be glad to see the regulation applied to old and new houses. Captain Galton said he had been in America recently; and in New York there existed the power of inspecting every house, and requiring traps to be put in proper order. The President of the Local Government Board said that he was summoned to attend a Cabinet Council. He would not, therefore, enter into a detailed statement on the subject; but he would consider the representations which had been made. Having thanked Mr. Dodson for his courtesy, the deputation retired.

PROVIDENT MEDICAL ASSURANCE.

A LARGE meeting of the working classes was held, on Friday, March 18th, at the Croydon Public Hall, under the presidency of Dr. Alfred Carpenter, for the purpose of hearing an address by Mr. James Stansfeld, M.P., on a new and important social movement to enable the working classes of the metropolis and suburbs to obtain, on provident principles, medical aid for themselves and their families. The scheme is under the immediate support of the Duke of Westminster, the Duke of Bedford, Lord Derby, Sir Charles Trevelyan, and other well-known public men. Mr. Stansfeld said that the movement originated from the evils of the out-patient system of the hospitals, concerning which a long correspondence had appeared in the columns of the *Times*. In order to determine what steps were necessary to be taken, representative working men from the friendly societies had been called into counsel, and it had been arranged that provident dispensaries, managed by the members themselves, with the advice and assistance of the medical men whom they might select, should be established in different parts of London and the suburbs. The capital for the first establishment of the buildings and the purchase of the drugs was to be afforded by a joint-stock fund raised by noblemen and gentlemen interested in the wellbeing of the working classes. Independence and freedom from charity would be secured by the aid being paid for at a fair rate. Mr. Radley, Mr. Bonn, Mr. H. Solly, Mr. Taylor, and other members of friendly societies, spoke. It was shown that the proposed scheme would be a system of assurance for medical aid, the subscriptions ranging from fourpence a month, in the case of single men, to one shilling a month in the case of married men with families. It was also stated that the aid of the specialists at the hospitals would be afforded to the members of the association when the cases were of a kind to require such aid as the upper classes obtained from consulting physicians. The speakers were well received, and resolutions were unanimously passed in favour of the proposed system being established in Croydon; and it was decided that a committee of delegates of friendly societies should be appointed to act as a provisional committee. The efforts of Sir Charles Trevelyan, Mr. Stansfeld, and Dr. Carpenter, to encourage provident habits in the working classes, were warmly acknowledged.

AN APE-HEADED NATION.

AT a meeting of the Anthropological Institute, held on March 22nd, Professor Flower exhibited a collection of crania from the island of Malli-collo, in the New Hebrides, which had been lately presented to the Museum of the Royal College of Surgeons by Mr. Luther Holden. The peculiar conformation of the heads of the people of this island attracted the attention of Captain Cook, and the naturalist Forster, who accompanied the great navigator on his second voyage, and who writes that "the depressed and backward inclining forehead causes an appearance in the looks and countenances of the natives similar to those of monkeys". Yet Cook bears testimony to the activity, intelligence, and honesty of this "ape-like nation", as he calls them. A few years ago, Mr. Busk described some skulls collected in the island by the late Commodore Goodenough, and found that they all showed signs of having undergone alterations in form, from pressure applied in infancy. The present

collection corroborates Mr. Busk's views; some of the skulls being deformed to a remarkable degree, and closely resembling the well-known ancient Peruvian crania from the neighbourhood of Lake Titicaca. This is the more remarkable, as on no other of the numerous islands in the neighbouring ocean is this practice known to exist. Besides the deformed crania, the collection contained several monumental heads, said to be those of chiefs. In these, the features are modelled in clay upon the skull, apparently with the intention of preserving a likeness of the dead person. The face is painted over with red ochre, artificial eyes are introduced, and the hair is elaborately dressed and ornamented with feathers. In one case, the hair has been entirely removed, and a neatly made wig substituted. The head thus prepared is stuck upon a rudely made figure of split bamboo and clay, and set up in the village temple, with the weapons and small personal effects of the deceased. This is a custom not hitherto known to exist among the Mallicollese, and its motive is not completely understood; but it is obviously analogous to many others which have prevailed throughout all historical times and in many nations, manifesting itself, among other forms, in the mummified bodies of the ancient Egyptians, and the marble busts over the mouldering bones in Westminster Abbey.

SMALL-POX IN SOUTH LANCASHIRE.

THE Local Government Board are bestirring themselves as to the prevalence of small-pox in South Lancashire, which is assuming somewhat serious proportions. They have written to several of the local boards of guardians, asking that their attention may be specially given to the state of vaccination and revaccination in their respective unions, and suggesting that instructions may be given to the vaccination officers to use special efforts for securing the vaccination of all children, and the revaccination of all adolescents. The board also recommend that the public vaccinators should take measures, by the vaccination of some selected children, for securing an extra supply of lymph, so as to provide for the increased number of persons that will come to the stations through the exertions of the vaccination officers.

THE NOTIFICATION OF INFECTIOUS DISEASE.

A CASE of considerable importance with regard to the compulsory notification of infectious disease was heard in the Jarrow Police Court a few days ago. Under the now well-known Jarrow Improvement Act of 1878, it is obligatory on a medical practitioner, attending a case of infectious disease (defined in the interpretation clause to include "small-pox, cholera, and fever") to send to the corporation a certificate or declaration stating the name of such inmate, the situation of such house, the name of such occupier or person, and the nature of the disease from which such inmate or person is suffering. One of the medical men in the town seems of late to have considered that he was sufficiently fulfilling this obligation, if he reported a case as being one of infectious disease, when in reality it was a case of typhus. The contention of the medical man was that, at the time when he sent in the certificate, he could not tell from what disease the patient was suffering, and this plea was successful in securing a dismissal of the case. The main question, therefore, as to whether a medical man sufficiently fulfils the requirements of the law, as to the notification of infectious cases, by reporting a patient to be ill of "infectious disease," without specifying the nature of his complaint, was left undecided. Looking to the terms of the local Acts which have been passed with regard to this question, as well as to their obvious intention, it seems to us clear that a medical man is bound to specify in the certificate which he sends to the local authority, (and for which he is paid) the exact nature of the disease from which a patient is suffering; since to report him as having infectious disease is of no practical use for the purposes of the public health, in the interest of which the Acts have been passed. It is far from satisfactory to find difficulties placed in the way of the smooth working of these local Acts by medical men. It was not long since that, in a town where "scarlet fever" and "scarlatina" are both mentioned in the local Act as to be reported to the authority, a medical man sent in two certificates with regard to each of a number of sick persons, one set reporting that they were suffering from "scarlet fever," and the other, that they were suffering from "scarlatina." This was very discreditable to the practitioner concerned, as evincing an obvious intention of making pecuniary capital out of the terms of the Act; and it behoves medical men to be on their guard not to offend against the spirit of a requirement which the profession is practically unanimous in desiring to see general, by taking unfair advantage of the letter of the law.

CHEAP OFFICIAL ANALYSES OF FOOD.

THE laboratory which the Municipality of Paris has set up for the analysis of articles of food and drink was opened to the public on the 1st instant. Qualitative analyses, with the simple report "good", "bad", or "adulterated", are free; quantitative analyses are charged from five to twenty francs. It would be an advantage if opportunity for these analyses, free of charge to the applicant, could be given in in England as well as France.

SCOTLAND.

IN place of the late Dr. Handyside, Mr. C. W. Cathcart, M.A., M.B., F.R.C.S., has been elected Lecturer on Anatomy in the Royal College of Surgeons of Edinburgh. Mr. Cathcart is at present Second Demonstrator of Anatomy in the University of Edinburgh.

THE CHAIR OF PATHOLOGY IN EDINBURGH.

TO the official list of candidates for the post of Professor of Pathology in the University of Edinburgh must now be added the names of Dr. Greenfield, Superintendent of the Brown Institute, and Lecturer on Pathology at St. Thomas's Hospital; and Dr. Rabagliati of Bradford. Dr. Greenfield has achieved so high a special reputation as a pathologist and original investigator of the first order, that it is unnecessary to refer to his qualifications. He has for some time past stood in the front rank among pathologists in this country, and has done much to consolidate and increase the reputation which is already European. It is understood that Dr. Greenfield desires, in coming forward for this appointment, not altogether to divorce pathological research from clinical practice, but to retain so much of clinical consulting practice in future years at least as may, when duly subordinated to the claims of a great chair, as that at Edinburgh, assist and illustrate the work of the chair. Dr. Rabagliati is less known to fame, but undoubtedly possesses qualities of a high order. He is a distinguished graduate of Edinburgh, and a physician of rare ability and distinction. His claims are fully set forth in a letter which he has addressed to the Curators. Those of Dr. Hamilton, the active assistant in the chair, are universally recognised, and are, of course, especially well known in Edinburgh, where he has proved himself to possess great qualities both as a pathologist and as a teacher. Dr. Roy, the fourth candidate, is well known to our readers, as having undertaken the pathological research on pleuropneumonia for the Scientific Grants Committee, which he carried through with the utmost diligence and skill. Dr. Roy is known in the laboratories of Cambridge and Strasburg as one of the most distinguished and promising of European workers. The work which he has already done is of a very high class, and he is certain to occupy a highly distinguished place in the future. Thus Edinburgh can boast that for this important chair it has already a series of candidates, any one of whom would do honour to the University, and would assuredly succeed in maintaining the reputation which this great school has already achieved for its high scientific as well as its practical teaching.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending March 12th, it appears that the death-rate in the eight principal towns was 23.4 per thousand of estimated population. This rate is 1.0 below that for the corresponding week of last year, but 0.5 above that for the previous week of the present year. The lowest mortality was recorded in Greenock—viz., 17.2 per thousand, and the highest in

Perth, viz., 31.2 per thousand. The mortality from the seven most familiar zymotic diseases was at the rate of 3.2 per thousand—almost the same as for last week. Acute diseases of the chest caused 168 deaths, being 11 less than the number for last week. The mean temperature was 41.2, being 11.0 above that for the week immediately preceding, and 1.6 below that for the corresponding week of last year.

POISONING FROM BICHROMATE OF POTASH.

A CASE of poisoning from the above substance occurred recently at Shotts, resulting in the death of a child aged two years. It appears that his brother, who had found some of the bichromate, gave him a piece of the size of a pea. The child, thinking it was a sweetmeat, put it into his mouth and swallowed it. Symptoms of irritant poisoning soon showed themselves, and notwithstanding medical attendance and the administration of suitable remedies, the child died, after suffering for nine hours.

IRELAND.

DR. CHAPMAN, President of the Irish Medical Association, has been elected Medical Officer to the Hospital for Incurables, Dublin, in place of the late Dr. Peele.

A CASE of small-pox was admitted into Kinsale Workhouse last week from one of the crew of a French fishing lugger recently arrived there; but the remainder of the crew have refused to take the vessel into quarantine.

SANITARY OUTRAGES IN IRELAND.

MR. W. D'ESTERRE PARKER, one of the guardians of the Cork Union, writes to us a long letter under this heading, to express the hope that, now that Parliament has passed an Act to prevent agrarian outrages in Ireland, attention will be turned towards the greater importance of passing a Coercion Act to compel the public health authorities to carry out the Public Health Act, with the view of protecting the health and lives of the Irish people from the fatal effects of those outrages on the sanitary laws, which are in perpetual and unchecked operation. Mr. Parker adverts to the well known fact that fever in all its varied forms is one of the greatest scourges which afflicts the poor in Ireland; and observes that, in almost every instance, it is produced by palpable neglect of some or one of the provisions of the Public Health Act. The number of cases attended by the dispensary medical officers during the twelve months to September 30th, 1879, was 3,008 of scarlatina, 1,344 of small-pox, and 10,999 of fever. Mr. Parker asks whether, if these were all agrarian outrages, there would not be, and very properly, immediate inquiries into the cause, and remedies at once applied to prevent a repetition of them. He condemns the Irish Local Government Board, as being utterly unmindful of using the ordinary means in their power of ascertaining the cause and applying the remedy. He has suggested to the Board that, with the view of their obtaining the most reliable and immediate information on the outbreak of fever, the several medical officers should be furnished with printed forms to be answered by them, and sent direct to the Local Government Board, whenever a case of fever occurred; such forms to give information as to the name and age of the patient, the nature of disease, and its probable cause. Mr. Parker's plan would be that, on receiving this information, the Local Government Board should send a copy to the sanitary authority of the district, with directions to have the causes at once removed, and the house made fit for habitation. Since the Poor-law medical officer is the medical officer of health appointed under the Act, Mr. Parker has pointed out to the Board that an outbreak of fever entailed on the officer a great deal more trouble and anxiety of mind than the filling up of the simple forms suggested; but, up to the present, the Local Government Board "have failed to see the importance of making some effort to have the provisions in this particular question of the Public Health Act enforced; and hence the vital necessit which exists of Parliament introducing a Sanitary Coercion Bill, to compel them to do their duty". Undoubtedly it would be an advantage if, throughout the kingdom, every case of fever and other infectious disease could be made known to the authorities; though probably the particular plan recommended by Mr. Parker would be found administratively unworkable.

COUNTY KILKENNY INFIRMARY.

THE half-yearly report of this institution from May 1st to November 1st, 1880, shows that the patients under treatment numbered 139, of whom 8 were admitted for fractures, 9 for dislocations, and 98 for other causes, while 28 remained over from the previous half-year. Ninety-three patients were discharged cured, 7 deaths took place, and 17 were under treatment at the termination of the half-year. The receipts amounted to £685 8s. 5d., which included a grant of £400 from the county grand jury at the spring assizes of 1880, and the expenditure to £523 15s. 11d., leaving a balance to credit of institution of £161 12s. 4d.

QUEENSTOWN INTERCEPTING HOSPITAL.

AT a meeting of the Cork Board of Guardians last week, a discussion took place as to a sum of £10 granted to each of the dispensary medical officers at Queenstown for their services in connection with the Intercepting Hospital. It was ultimately resolved that the annual sum of £10 proposed to be paid to each of the dispensary medical officers in charge of the hospital should commence from the date of the resolution; and that the medical staff should take charge of the hospital, and make such arrangements as might be necessary for the care of any patients who might be sent there.

ADULTERATION IN THE COUNTY DOWN.

FROM the report of Dr. Cameron, Public Analyst for the County of Down, presented last week to the Grand Jury, we learn that, from June 25th, 1880, to February 25th, 1881, 143 articles of food, drink, and drugs were analysed. Of these, the following were adulterated: seven samples of milk; two specimens of flour, adulterated with foreign materials, including alum; three of coffee, adulterated with chicory; two coffee and chicory mixtures, which contained a mere trace of coffee; three mustards, adulterated with from 15 to 60 per cent. of flour, cayenne pepper, and turmeric; three whiskeys, adulterated with excessive quantities of water, and containing various objectionable ingredients; four samples of brandy, composed chiefly of raw grain spirit; and three drugs largely adulterated. The total number of adulterated articles was twenty-six.

CORK WORKHOUSE.

AT a recent meeting of the Cork guardians, Dr. Brodie, Local Government Board Inspector, called attention to the condition of the female lunatic ward. There were, he said, at present ten beds lying on the floors between the other beds. The only way in which the guardians could remedy this state of things, and provide proper accommodation, was to build a nursery; and he suggested that a committee should be appointed for that purpose. Mr. Parker, one of the guardians who had recently drawn the attention of the Local Government Board to the present condition of the nurseries, the mortality in that department of the workhouse being as high as 35 per cent., remarked that idiots, epileptics, and lunatics were all stowed together in an insufficiently spacious room. It was most inhuman, and discreditable to the guardians and the Local Government Board who permitted it. The matter has been referred to Dr. Cremen, one of the medical officers, for his report on the matter.

SYPHILITIC INFECTION IN DENTISTRY.—A case is related by Dulles (*Memorabilien*, 1879, quoted in the *Annales de Dermatologie et de Syphiligraphie*, vol. i, No. 4, new series), in which a chancre of the lower lip was produced by the medium of a dentist's instruments—an illustration of the necessity of a precaution doubtless not often omitted, namely, to cleanse all instruments used in operations on the teeth in a 5 per cent. solution of carbolic acid, or in absolute alcohol.

SELECT COMMITTEE ON THE CONTAGIOUS DISEASES ACTS.

On March 7th, Dr. Drysdale was called in, and examined by Mr. Stansfeld; and afterwards by Mr. Osborne Morgan, Sir H. Wolff, Mr. Cavendish Bentinck, Mr. Hopwood, Mr. O'Shaughnessy, and others. Like Dr. Routh and Dr. Nevins, he is strongly opposed to the Acts; and, like them, he has no practical experience of their operation, either on the men of the army and navy, or on the women at the subjected stations.

Dr. Drysdale was questioned at great length on the pathology of syphilis. He is strongly dualistic in his views, and admits no relationship between the hard and the soft sores. He asserts that a non-indurated sore is never followed by constitutional disease. Those who hold the contrary must have been mistaken in their diagnosis, or the cases are explainable by the theory of the "mixed chancre". Induration, in his view, is necessary to further infection, and must have been present; also, the further infection must necessarily follow the induration, —all treatment notwithstanding.

The Acts, he thinks, should be tested by their effect in reducing the true syphilitic sore and its consequences; the soft sore being comparatively unimportant. Their inefficiency, he argues, is shown by the non-reduction of secondary disease, the ratio of which has not appreciably diminished in the whole army during the last eight or ten years. He admits, however, that the Acts were intended to increase the efficiency of the army and navy; and that constitutional syphilis is the form of disease which least interferes with that efficiency, being surpassed in this respect by soft sores, and, he thinks, still more by gonorrhœa. The soft non-infecting form of sore, it is urged, was diminishing for some years before the Acts were introduced, in consequence of increased habits of cleanliness in the men, through the facilities for ablution introduced by Lord Herbert; and it would by this time have been still much further diminished, under the same influences, without any Acts at all. With respect to this argument, we submit that it is not quite consistent with the other position, that the Acts do not prevent primary indurated sores, and their consequent secondaries. It is an admitted fact, shown by the returns, that, for many years past, there has been a diminution of primary sores both at the protected and unprotected stations; but the reduction has been slight at the latter, while it has been strikingly marked at the former—so much so, that their ratio has persistently been less than half that recorded for the others. If, therefore, as Dr. Drysdale contends, it is the non-infecting sores only which have been reduced by cleanliness and like causes, which operate equally at both sets of stations, the number of cases recorded must have contained a greatly increased proportion of infecting sores; from which it follows that less than half as many men must have contracted secondary disease at the protected stations as at the others. If it were really a fact that the proportion of infecting sores has been thus greatly increased of late years, a corresponding increase of secondary disease might have been expected; and as this has not taken place, it may be fairly argued, in favour of the Acts, that they have at least kept the ratio for the whole army stationary; and this they can only have brought about by the diminution of infecting sores at the protected stations.

Dr. Drysdale considers the comparison between fourteen subjected and fourteen unsubjected stations to be unfair—because, for instance, a large city like London cannot be compared with a small protected station like Shorncliffe. No one that we know of, except Dr. Nevins, ever thought of comparing London with Shorncliffe. The intention was to take the aggregate result obtained at the fourteen subjected stations, and compare it with that at fourteen principal stations which were unsubjected. The latter included large towns, such as London and others: but Dr. Drysdale was probably not aware that the unfairness, if any, was really the other way: for the average ratio of four years, 1860-63, before any Acts, was, at the fourteen stations since subjected, primary syphilis 130, gonorrhœa 135; and, at the fourteen stations not subjected, primary syphilis 122, gonorrhœa 112. The Acts, therefore, started to that extent at a disadvantage.

As regards the women, Dr. Drysdale thinks the soft sore is easily discoverable by examination, and gonorrhœa equally so, in ordinary cases; but it may be easily overlooked in chronic cases, or when injections are used with the view of concealing it. As regards the primary indurated sore, he does not agree with Dr. Routh, that it is often hidden in the folds of the vagina, and undiscoverable; but that it usually takes place on the external parts. He thinks it is rarely seen, because it has passed away before the woman comes under observation. It causes her so little inconvenience that she does not apply, under ordinary circumstances, until secondaries have appeared. Secondary disease, he thinks, would usually show some signs of its presence either on the genital organs or elsewhere, at all events in its early stages, say during the first four or five months; but a woman would be liable to communicate disease, although showing no outward symptom, for about two years. He believes in mediate contagion, and seems to think it frequent; whereas the general opinion is, we believe, that, though possible, it is a very exceptional occurrence.

Dr. Drysdale is strongly in favour of voluntary hospitals, and thinks they would almost entirely do away with soft sores, because women with that form of disease would at once go to hospital on account of its painfulness. His experience, in this respect, is contrary to that of most surgeons connected with voluntary lock hospitals; and we remember that very strong evidence was given, by experienced witnesses, before the Royal Commission, that the women did not apply until they had become severely diseased. Dr. Drysdale admits that women very often do not know that they are dangerous, and would therefore have no motive for submitting to examination voluntarily; and that these would, for the most part, be cases of primary indurated sore, or of true syphilis in some form or other. Now, since we are told that true syphilis is the only disease of any material importance, and that soft chancres are of little consequence, surely this part of Dr. Drysdale's evidence, instead of demonstrating the advantage of a voluntary system, tells very strongly in favour of the compulsory examination and detention which are enforced under the Acts.

MEDICAL EDUCATION AND MEDICAL REFORM.

The following circular has been issued by Mr. P. E. Miall, President of the Yorkshire Branch of the British Medical Association; Mr. C. G. Wheelhouse; and Mr. Arthur Jackson, Secretary of the Branch.

"At a meeting of the Council of the Yorkshire Branch of the British Medical Association, held in the Medical School at Leeds on Friday, March 11th, 1881, we were desired respectfully to request your attendance at a meeting of the members of the Association, *and of the medical profession* (without regard to Association) *in the county of York*, to be held in the Philosophical Hall, Leeds, on Wednesday, April 6th, 1881, at 5 P.M., to consider and discuss the Report on Medical Education, recently issued at considerable cost, by the Committee of Council, to every member of the profession; and to pass resolutions thereon. The Committee of Council are earnestly desirous to obtain the opinion *of the profession* on the matter; and, as the success or otherwise of the movement seems to depend greatly on the interest shown in the matter *by the profession*, your attendance, if you can possibly accord it, is very specially requested."

We publish, in another column, a detailed discussion of the report in a letter by Dr. Quain, whose long and prominent connection with the General Medical Council, and unwearied labours in promoting conjoint examinations, and a high standard of minimum preliminary and professional education, entitle him to the thanks of the profession, and to a respectful hearing on this subject. Dr. Quain's letter is partly of historical interest; but it is of especial value in emphasising the extent to which the General Medical Council and the Conjoint Committee of Reference of the English colleges and universities have anticipated, and, therefore, confirmed, the educational views put forward in the report which is now under discussion.

THE INTERNATIONAL MEDICAL AND SANITARY EXHIBITION.

The arrangements for this exhibition are progressing so satisfactorily that it promises to be the most important sanitary exhibition hitherto organised in this country. Applications for space are now being rapidly sent in, as the 31st inst. is the last day fixed by the committee for receiving them. Up to March 15th, applications for 984 feet had been received by the committee. The Certificates of Merit which are to be given will be valuable awards to the public and to the successful exhibitors, on account of the high character of the list of jurors, which already includes, among many others, the following:—*Medical Section*: Christopher Heath, F.R.C.S., Wm. S. Playfair, M.D., C. Higgens, F.R.C.S., C. S. Tomes, F.R.S., John Marshall, F.R.S., Dr. Robert Farquharson, M.P.; the President of the Pharmaceutical Society, C. H. Golding-Bird, F.R.C.S., Lionel Beale, F.R.S., W. B. Carpenter, C.B., F.R.S., J. S. Bristowe, M.D., Major Duncan, R.A., Surgeon-General Longmore, C.B., E. H. Sieveking, M.D., etc. *Sanitary Section*:—Sir Joseph Fayrer, K.S.S.I., M.D., F.R.S., Geo. Aitchison, F.R.I.B.A., E. C. Robins, F.S.A., T. Roger Smith, F.R.I.B.A., F. J. Mouat, M.D., Alfred Waterhouse, A.R.A., Captain Douglas Galton,

C.B., F.R.S., Ernest Hart, M.R.C.S., W. H. Corfield, M.D., Wm. Eassie, C.E., Rogers Field, M.Inst.C.E., R. Thorne Thorne, M.B., Professor Prestwich, F.R.S., etc. In addition to the interest taken in the exhibition by medical men, architects, and manufacturers, the general public have recognised the importance of the work thus initiated by the Executive Committee of the Parkes Museum of Hygiene, by subscribing to the Guarantee Fund, which at the meeting of the committee last Tuesday was reported to amount to £1,026 7s. At this meeting the secretary read a letter from Mr. Mac Cormac, the honorary secretary-general of the International Medical Congress, forwarding the following resolution, which had been unanimously passed by the Executive Council of the International Medical Congress at their last meeting:—"That the sum of fifty pounds be guaranteed to the committee of the International Medical and Sanitary Exhibition to be held at South Kensington in connection with the Parkes Museum of Hygiene on the occasion of the International Medical Congress."

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the offices of the Association, 161A, Strand, London, on Wednesday, the 13th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, March 15th, 1881.

BRANCH MEETINGS TO BE HELD.

THAMES VALLEY BRANCH.—The next meeting of this Branch will be held at the Griffin Hotel, Kingston, on Thursday, April 7th, at 6 P.M. Dr. Urban Pritchard will read a paper on The Simples of Aural Surgery.—EDWARD L. FENN, M.D., Honorary Secretary. Richmond, March 10th, 1881.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above will be held on Wednesday, March 30th, at the Burlington Hotel, Eastbourne, at 3 P.M.; Dr. Jeffery in the chair. The following papers are promised. 1. On Idiopathic Anæmia: by Dr. W. Withers Moore, President of the Branch. 2. Cases of Unilateral Hemiplegic Anasarca consequent on Scarlatina: by Dr. W. J. Treutler. 3. Case of Gunshot Wound of the Eye, with subsequent Correspondence about the Case: by Dr. Treutler. 4. Proposition to form an Ethical Committee of the Branch with a view to the Maintenance of the Interests and Good Relations of the Members: by Dr. Treutler. 5. Notes on a Case of Embolic Infarctions in several Organs following Ulcerative Endocarditis: by Dr. E. Fussell. Dinner at 5.30 P.M.; charge 6s., exclusive of wine. Notice of intended communications, to be inserted in the usual circular, is requested to be sent, not later than Tuesday next, 22nd inst., to the Honorary Secretary, THOMAS TROLLOPE, M.D., 9, Maze Hill, St. Leonard's-on-Sea.

BATH AND BRISTOL BRANCH.—The fifth ordinary meeting of the session will be held at the Bristol Museum and Library, on Thursday evening, April 7th, at 7.30; Alex. Waugh, Esq., President. The following communications are expected: 1. A Case of Pregnancy complicated with Hydatid Mass: J. Hinton. 2. Two Fatal Cases of Injury to the Spine: F. R. Cross, M.B. 3. Unusual Features in Typhoid Fever: G. F. Atchley, M.B. 4. A Case of Lymphadenoma: R. Shingleton Smith, M.D.—E. MARKHAM SKERRITT, R. S. FOWLER, Honorary Secretaries.—Clifton, March, 1881.

YORKSHIRE BRANCH.—A meeting of the Branch will be held at Ripon on Wednesday, April 27th, at 3.15 P.M. Members intending to make communications are requested to write at once to the Secretary.—A meeting of the Branch and the profession will also be held at the Philosophical Hall, Leeds, at 5 P.M., on Wednesday, April 6th, to consider the report on Medical Education; P. E. Miall, Esq. (President), in the chair.—ARTHUR JACKSON, Secretary.

PETERBOROUGH.—The introduction of main sewerage and pure water-supply into this city seems to be already manifesting good effects. Last year the death-rate was 20.3 per 1,000, against 22.4 in 1879, and 24.1 in 1878. Dr. Thomson speaks of zymotic diseases as conspicuous by their absence; but there were more cases of enteric fever than could have been wished. There appears still to be a good deal of impure water drank in the city, and efforts should be made to close all polluted wells, and to lay on the town's water with as much speed as possible. We do not quite understand what Dr. Thomson intends to convey, when he speaks of its being easy to refer cases of typhoid fever to the use of impure water when such water contains the germs of typhoid fever, since the only way in which the presence of typhoid poison in water can be guessed, is, by its setting up fever in the persons drinking it. Water analysis is all very well in its way, but the surroundings of wells will usually give a much more trustworthy indication of the purity of the water than mere deductions from its chemical constituents.

CORRESPONDENCE.

REPORT OF SUBCOMMITTEE ON MEDICAL EDUCATION.

SIR,—I had looked forward with considerable interest to the publication of the report on medical education, which had been for some time promised to us by a Committee of the Association, and of which I have recently received a copy. Though fully aware of the extent to which this subject has been discussed for several years; though acquainted with the valuable reports which had been published by the General Medical Council, by the Medical Teachers' Association, and by others; though familiar with the elaborate care which had been taken by the Committee of Reference, in preparing a scheme of medical education and examination under a conjoint board for England; I had indulged a hope that the Committee of the Association would be able to add something new and instructive to our previous knowledge. I thought it possible that new minds, approaching this subject from a new point of view, seeking information from fresh and extended sources, might discover some points which had been previously overlooked. This expectation seemed to be confirmed, when it was stated that the Committee of Council were about to circulate this report throughout the profession, and were prepared to incur considerable expense in doing so. I have to confess to grievous disappointment on reading the report which I have received. The information it conveys is most scanty; the opinions it expresses and the ideas it suggests are few and not new. The impression left on my mind on reading the report is, that the gentlemen who have taken the trouble to prepare it, had not made themselves acquainted with what had been previously said and done on this important subject. They refer to matters which are almost prehistoric, and they write as high priests and prophets when they might better have assumed the character of historians. They might have purchased for half-a-crown at the Queen's printers, a *Report on Professional Education*, prepared by a committee of the General Medical Council, of which Mr. Syme, and subsequently Dr. Andrew Wood, were chairmen; and of which Dr. Sharpey, Sir Robert Christison, and Dr. Parkes were members, amongst many others. They would there have seen, emanating from that Committee and founded on the elaborate statements of 130 teachers of every branch of medical science throughout Great Britain and Ireland, their opinions of the best system of education for medical men. They would also have found reports on the same subject by the Medical Teachers' Association, of which, first, Mr. Simon, and subsequently Sir William Jenner, were presidents. They would likewise, in the same volume, have been able to learn and follow the course of medical education and examination required in Germany, in Austria, and in France; and they would have found, likewise, other instructive educational documents. Besides the knowledge contained in this volume, they might also have made themselves familiar with the recommendations of the General Medical Council now in force, on the subjects of preliminary and professional examination. Lastly, if they had examined the scheme above alluded to, prepared by the Committee of Reference for the Conjoint Examining Board, they would scarcely, I think, have felt it necessary to issue the present report. It seems to me a matter of very great regret that the report, such as it is, was not published in the columns of the JOURNAL, or submitted for discussion to the general meeting of the Association, prior to its being so universally circulated as it has been.

It would require more space than I could expect from you, if I were to go through this report, and attempt to show how all the suggestions and recommendations of the Committee either are already in actual operation, or have been accepted and agreed upon. I shall, therefore, merely select a few examples. Thus, the committee say: "We have clear proof that there is a very strong opinion among professional men as to the necessity of a liberal education for intending medical students, latin [*sic*] and mathematics being held to be the most efficacious of mental gymnastics." Surely this idea is not new? Within my personal knowledge, it is a fact that, fifty years ago, the Society of Apothecaries in Ireland held a preliminary examination in Greek, Latin, and mathematics. The Committee go, however, a step further, and, in a subsequent part of the report, say that, "if the General Council of Medical Education has not the means, it seems to us absolutely necessary for them to apply to Government for powers, to enable them to prevent intending medical students from entering their names on the *Register* of the General

Medical Council until they have been proved to possess a sound knowledge of English, arithmetic, and in mathematics, and Latin up to a certain standard." Why, the very first regulation of the General Medical Council, with which this Committee seem to have been entirely unacquainted, says that—"No person shall be allowed to be registered as a medical student unless he shall have previously passed a preliminary examination in the subjects of general education."

Again, but now in reference to the subject of professional education, the Committee recommend—

"That no student should be admitted for his final examination until he has completed his fourth year of medical study, and not until the expiration of three years from the time of passing his first professional examination, and two years from the time of passing his second examination."

This might be compared with the first regulation of the General Medical Council, which says:—"The course of professional study required for a licence shall occupy at least four years, of which at least three winter and two summer sessions shall be passed at a school recognised by any of the licensing bodies mentioned in Schedule (A) of the *Medical Act*."

Lastly, it appears that a majority of the Committee recommend: "That before a student receives his licence to practise he should produce a certificate of having studied for six months with a general practitioner, or in a public institution, where he has personal charge of patients at their own homes." The recommendation may well be compared with the regulation of the Conjoint Examining Board, which says that, "Of the four years devoted to professional study, one winter and two summer sessions may be passed in one or more of the following ways: (*a*) Attending the practice of a hospital, infirmary, or other institution duly recognised; or (*b*) Receiving instruction as a pupil of a legally qualified practitioner, having opportunities of imparting a practical knowledge of medicine, surgery, or midwifery, etc."

Having thus alluded to the Conjoint Board and its regulations, and intending presently to refer to this subject as the best means for carrying out the objects, which not only this Committee, but the whole profession have at heart, I venture to ask you to afford space for the publication of the regulations which have been prepared by the Committee of Reference on the subject of professional education. They may advantageously be contrasted with the recommendations of the Committee of the Association as a whole, and an acquaintance with them will greatly aid in the discussions which must arise on this subject. [A copy of the regulations is subjoined to this letter.]

Passing then from this head, where we recognise great unanimity of opinion, as regards the subjects of education and examination, we arrive at the question why these principles, which have been universally acknowledged to be right, have not been carried out. Of the value of the conjoint scheme, the Committee thus speak: "It is essential to the success of any scheme devised for the improvement of medical education that a Conjoined Board of Examiners be appointed in each division of the United Kingdom. To these Boards must be delegated the power of conducting the final professional examination of medical students; certificates granted by the Conjoined Board should alone entitle the recipient to a licence to practise medicine, surgery, and midwifery."

The answer to the inquiry, why this important subject, which in many minds is the very turning-point of the whole question, should be allowed to remain so long in abeyance, can be found without going beyond the report of the Committee itself. Thus we learn from the introductory statement which precedes the report that, "With the object of lessening some of the irregularities incident to the nineteen Licensing Bodies created by the Medical Act of 1858, the General Medical Council passed the following resolution on the 26th of February, 1870: 'That this Council is of opinion that a joint Examining Board should be formed in each division of the kingdom, and that any person who desires to be registered under any of the qualifications recognised in Schedule (A) to this Medical Act, shall be required previously to such registration to appear before one of these Boards, and be examined on all the subjects which may be deemed advisable by the Medical Council; the rights and privileges of the authorities and corporations being left, in all respects, the same as at present.' Seventeen members of the Council voted for the resolution, and only one vote was recorded against it." We are thus told by our Committee that, eleven years ago, the General Medical Council had all but unanimously made a declaration in favour of the adoption of a single examining board for each division of the kingdom. It is an historical fact that, acting subsequently upon the recommendation of the General Medical Council, Lord Ripon, in 1870, introduced a Bill, which passed the House of Lords, for the compulsory establishment of a conjoint examining board in each division of the kingdom. Why that Bill did not become law, and why for the last eleven years we have not had what has been called a "one-portal system" of admission to the medical profession, will be found in the evidence taken in 1879 before the Select Committee of the House of Commons. Mr. Forster, in whose charge, as vice-president of the Council, the Bill of Lord Ripon was, asks Mr. Simon the following questions.

"592. The Bill of 1870 got through the House of Lords, did it not?—Yes, it did.

"593. It then came under my care, as vice-president, in the House of Commons. ... ... I should like to know whether you think I am right in saying that I was obliged to drop it, not because there was opposition to the conjoint board, but because the fresh question of direct representation was introduced, and it would have been impossible at that time of the Session to have got the Bill through fettered with that question?—Yes, most decidedly; that was my understanding of the state of the case, as explaining why the Bill dropped."

But notwithstanding this obstruction offered to legislation—legislation which would have made the formation of conjoint boards compulsory amongst all the licensing bodies, the English Universities and Corporations, anxious to promote the welfare of the profession, met, and with patient perseverance framed a conjoint scheme for England, which, the Committee of the Association truly inform us, was sanctioned by the General Medical Council in the following resolution. The Committee tell us:—

"On May 24th, 1877, the following resolution was agreed to by the General Medical Council: 'That the sanction of the General Medical Council be given to the union of the Universities of Oxford, Cambridge, Durham, and London, the Royal College of Physicians of London, the Royal College of Surgeons of England, and the Society of Apothecaries of London, for the purpose of co-operating on the basis of the amended scheme herewith presented in conducting the examinations required for qualifications to be registered under the Medical Act.'"

This is the scheme of which I have asked you to publish a portion, and which may be put into operation at any moment, for it only awaits the adoption of like schemes in Scotland and Ireland, a result which would have been accomplished had the Bill of the late Government, in the hands of the Duke of Richmond, become law. Still, the darkest night is followed by a dawn; and I read with satisfaction the following paragraph in which the Committee speak of future legislation:—"To remedy this state of things, a large number of the members of the British Medical Association are prepared to exert all their legitimate influence to urge on the Government the necessity for the re-introduction of a modification of Lord Ripon's Medical Act of 1870, which would create an examining and licensing board for each division of the United Kingdom".

In this lengthened communication I have endeavoured to show (1) that there is an almost complete unanimity of opinion on the subjects of medical education, both preliminary and professional; (2) that the formation of examining boards is an essential feature in carrying out any system of improvement; (3) that the difficulties which have prevented the formation of these boards, have originated chiefly, if not entirely, with members of our own Association.

The subject of this communication having special reference to medical education and examination, I feel it unnecessary to do more than allude to the concluding paragraph of the report of the Committee, on the question of the constitution of the Medical Council:—"That, to effect the object above referred to [a conjoint board], it is necessary to modify the constitution of the General Medical Council, and to endow it with the responsibility and real powers of a 'Council of Medical Education'." On this point I would merely say that throughout the report there is no fact and no evidence brought forward in support of this opinion.—Yours obediently,

March 23, 1881. R. QUAIN, M.D.

*** The following are the proposed regulations respecting the professional education and examination of candidates desirous of obtaining qualification to register under the Medical Act of 1858, through the conjoint examination in England, instituted under Section XIX of the Medical Act (1858), by the following medical authorities:—The University of Oxford, the University of Cambridge, the University of Durham, the University of London, the Royal College of Physicians of London, the Royal College of Surgeons of England, and the Society of Apothecaries of London.*

SECTION I. *Professional Education.*—Any candidate for a medical or surgical degree or licence granted by any of the English universities co-operating in the formation of the conjoint board is required to go

* It is understood that the obstacle to carrying out the regulations is the hesitation of the Scotch and Irish bodies in framing like arrangements.

through the course appointed by his university, and to pass the third or final examination of the conjoint board. Any candidate not coming under the preceding regulation, who desires to obtain the licence of the Royal College of Physicians of London, or the diploma of Member of the Royal College of Surgeons of England, or the Licence of the Society of Apothecaries of London, or any two or all of these qualifications, is required to comply with the following regulations, and to pass all the examinations of the Conjoint Board. Every such candidate who shall commence professional study after the issue of these regulations will be required, at the times prescribed in Section II for the respective examinations, to produce satisfactory evidence: 1. Of having passed, before the commencement of professional study, one of the preliminary examinations on subjects of general education recognised by the General Medical Council. [*See* Regulations of the General Medical Council, to be obtained of the Registrar, 315 Oxford Street, London, W.] 2. Of having been registered as a medical student, in the manner prescribed by the General Medical Council, at least forty-five months previously to admission to the third or final examination, unless specially exempted. [Note.—Professional studies commenced before registration, except in the cases of chemistry and botany, will not be recognised. 3. Of having been engaged in professional studies at least forty-five months, during which not less than three winter sessions and two summer sessions shall have been passed at one or more of the medical schools recognised by any of the co-operating medical authorities. One winter session and two summer sessions may be passed in one or more of the following ways:—*(a)* Attending the practice of a hospital, infirmary, or other institution duly recognised as affording satisfactory opportunities for professional study; *(b)* receiving instruction as a pupil of a legally qualified practitioner having opportunities of imparting a practical knowledge of medicine, surgery, or midwifery; *(c)* attending lectures on one or more of the required subjects of professional study at a duly recognised place of instruction. 4. Of having attended a course of lectures on chemistry. 5. Of having received instruction in practical chemistry. 6. Of having attended a course of lectures on Materia Medica. 7. Of having attended a course of lectures on botany. 8. Of having received instruction in practical pharmacy. [By this is meant instruction in practical pharmacy by a registered medical practitioner, or by a member of the Pharmaceutical Society of Great Britain, or in a public hospital, infirmary, or dispensary.] 9. Of having attended a course of lectures on anatomy during not less than six months or one winter session. 10. Of having performed dissections during not less than twelve months. 11. Of having attended a course of lectures on general anatomy and physiology during not less than six months or one winter session. 12. Of having attended a separate practical course of general anatomy and physiology during not less than three months. [In this course it is meant that the student shall be engaged in the necessary experiments and manipulations; but it is not hereby intended that he shall perform vivisections.] 13. Of having attended a course of lectures on the principles and practice of medicine during not less than six months or one winter session. 14. Of having attended a separate course of practical medicine during not less than six months or one winter session. [This course is intended to embrace instruction in which each student shall be exercised in practical details, such as:—The application of anatomical facts to medicine, on the living person or on the dead body. The methods of examining various organs in order to detect the evidence of disease. The employment of instruments used in diagnosis. The examination of diseased structures, whether recent or in a museum. The chemical examination of morbid products.] 15. Of having attended a course of lectures on the principles and practice of surgery during not less than six months or one winter session. 16. Of having attended a separate course of practical surgery during not less than six months or one winter session. [This course is intended to embrace instruction in which each student shall be exercised in practical details such as:—The application of anatomical facts to surgery, on the living person or on the dead body. The methods of proceeding on the living person, or on the dead body, necessary in order to detect the effects of diseases and accidents. The use of surgical apparatus. The examination of diseased structures, whether recent or in a museum. The performance, where practicable, of operations on the dead body.] 17. Of having attended a course of lectures on midwifery and diseases peculiar to women during not less than three months. [Instruction in the use of Obstetrical instruments must be included in this course. A certificate must also be produced of attendance on not less than twenty labours, which certificate must be signed by one or more legally qualified practitioners. It is desirable that the labours should not be attended by students actually engaged in dissecting or in making *post mortem* examinations or in operating on the dead body.] 18. Of instruction and proficiency in the practice of vaccination. [The certificate must be such as will qualify its holder to contract as a public vaccinator under the regulations, at the time in force, of the Local Government Board.] 19. Of having attended a course of lectures on pathological anatomy during not less than three months. 20. Of having attended demonstrations in the *post mortem* room during the whole period of attendance on clinical lectures. (See Clause 24). 21. Of having attended a course of lectures on forensic medicine during not less than three months. 22. Of having attended a course of lectures on the principles of public health, unless it is certified that this subject is comprised in the course of lectures on the principles and practice of medicine, or in the course of lectures on forensic medicine. 23. Of having attended, at a recognised hospital or hospitals, the practice of medicine and surgery during three winter and two summer sessions. [No metropolitan hospital is recognised which contains less than 150, and no provincial or colonial hospital which contains less than 100 patients.] 24. Of having attended during nine months clinical lectures on medicine, and during other nine months clinical lectures on surgery, and of having been engaged during a period of three months in the clinical study of diseases peculiar to women. 25. Of having discharged the duties of a medical clinical clerk during six months, and of a surgical dresser during other six months. [These duties may be discharged at a general hospital, infirmary or dispensary, or parochial or union infirmary, duly recognised for this purpose, or in such other manner as shall afford sufficient opportunity for the acquirement of practical knowledge.]

The certificates of attendance on the several courses of lectures must include evidence that the student has attended the examinations in each course.

(Signed) James Paget, Chairman; Henry W. Acland, George Rolleston, G. E. Paget, G. M. Humphry, G. H. Phillipson, George Y. Heath, Richard Quain, W. B. Carpenter, J. Risdon Bennett, Henry A. Pitman, John Marshall, Edward Bradford, George Corfe.*

* The signatures to this document are those of two representatives from each of the English universities and corporations.

HOSPITAL AND DISPENSARY MANAGEMENT.

BIRMINGHAM AND MIDLAND COUNTIES SANITORIUM.

THE report for 1880, just issued, shows that during the past year, the object for which the institution was founded—viz., the relief of such convalescent and debilitated persons of both sexes as required pure air, rest, and nourishing diet for their recovery—has been pursued with success. Compared with 1879, last year shows an increase in the number of patients admitted, of from 768 to 846; in their aggregate stay of from 15,302 to 16,321 days; in the average number of beds occupied at one time of from 41.8 to 44.5; and in the subscription list, of from £815 to £846. The total weekly expense per bed had diminished from 15s. 4¾d. to 15s. 2d., although the total cost of maintenance had slightly increased. Five additional beds had been added during the year, so that the institution now can accommodate forty male and forty female convalescents. Sir Richard Temple, Bart., has been appointed president for the ensuing year.

THE WORTHING INFIRMARY.

SOME weeks ago we alluded to the refusal by the governors of this institution of a legacy of £2,000 which a lady offered to give to the Worthing Infirmary, providing her medical attendant, a graduate of St. Andrew's, was appointed one of the physicians. Dr. Goldsmith, the gentleman referred to, wrote to us to say that he had persuaded his patient to withdraw the conditions, and to give the £2,000 to the charity, notwithstanding the action of the governors. Unfortunately one of the committee had the indiscretion to write an intemperate and quite unnecessary letter to a local paper. This has re-opened the whole question, which had much better have been allowed to rest; and it will not surprise us if the letter in question costs this useful institution quite £2,000.

THE MEDICAL CHARITIES OF BELFAST.

IT appears, from a circular signed by Dr. W. Whitla, Honorary Secretary of the Ulster Medical Society, that, on the 8th ultimo, a committee was appointed to examine into, and report upon, the abuses existing in the administration of the hospitals of Belfast, and notably in the out-patient departments. It was full time that something should be done; for, setting aside the large number attended under the Medical Charities Act, which should provide efficient medical relief for the largest proportion of the sick poor, and the persons alleged to be relieved at certain special establishments, apparently founded solely to advance individual interests, no less a number than 42,876 persons are annually

under treatment in the out-patient departments of the eight hospitals of Belfast—a proportion of the entire inhabitants so large, when those treated under the Poor-laws are taken into account, as to make it doubtful whether any margin can be left from whence the practitioners in Belfast can get any income at all. After drawing attention to the provision made by the Poor-law system for the medical treatment of the poor: 1. At the dispensaries; 2. By visiting at their own homes; 3. By hospital accommodation at the Union Infirmary; the report passes on to state: "That while it is necessary, in a large town like Belfast, to have a general hospital, with departments for the treatment of special diseases, for the reception of urgent cases, and for the purposes of clinical instruction"; yet "that some effort should be made to check these abuses", "which foster deception, and destroy the spirit of independence"; "besides unduly adding to the labours of the physicians and surgeons, and curtailing the means of the general practitioners". The committee also recommend: "That an examination into the means of the applicants should be instituted; and that some competent person should be appointed to exercise supervision over all those applying for out-patient relief; and that a copy of their report be sent to the managing body of the different hospitals in Belfast".

We sincerely trust that the suggestions contained in the committee's report may be productive of benefit; at any rate, it will draw attention to the fact, that the abuses, which we have so repeatedly complained of as existing in the metropolis, and many of our large towns, are just as rampant in Belfast—a city in which there has been, for thirty years, an admirably efficient system of Poor-law medical relief.

BRIGHTON AND SUSSEX COUNTY HOSPITAL.

At the Annual General Court of this institution, held lately, under the presidency of the Mayor of Brighton, the fifty-third annual report showed a remarkable improvement in its financial position. A special appeal made last year resulted in an income of nearly £17,000,—being double that of the previous year, and the largest amount on record—additional annual subscribers alone giving £1,000, and all other sources of income proportionately increased. The in-patients numbered 1,350; the daily average being 126; and the average stay 37½ days. The out-patients were nearly 7,000. The total expenditure was £9,000. A special building close to the hospital contains the nucleus of a good museum and library; and we are glad to see that a resolution was carried with reference to utilising this still more, and providing room there for six resident pupils and an assistant house-surgeon. There is certainly ample room for further development of the great educational resources of this hospital.

From the Ormerod Exhibition Fund, £20 has been voted by the Hon. Medical Staff to Mr. E. W. Phillips "for exemplary conduct".

THE LONDON FEVER HOSPITAL.

The annual meeting of governors of this institution was held on February 11th, the Earl of Devon presiding. Dr. Cayley presented a report, which showed that during the year 1,011 patients had been under treatment, of whom 887 were admissions during the year. For the year, 855 patients were discharged; 75 died; and at the end of the year 81 remained under treatment. Of the cases treated, 3 were of typhus,—two admitted from other hospitals; there were 75 cases of enteric fever, and 598 cases of scarlet fever. There were also 158 cases of measles during the year. During the year a medical officer had been attacked by measles, and two nurses had suffered from fever.

The Earl of Devon, was re-elected president. In returning thanks, his lordship said that it was wonderful to him to think that the wealthy inhabitants of London and its suburbs did not pay more attention to the protective care given by this institution against pestilence. Only £2,690 had been subscribed in the year. He trusted that some effort would be made to draw forth from the public a greater acknowledgment of the benefits of the hospital. He also expressed regret at the resignation by Mr. Hugh Owen of the office of honorary secretary which he had held for 23 years. Mr. Owen and Lord Balfour of Burleigh were elected vice-presidents, and Mr. Chalmers was appointed honorary secretary. It was resolved that an address should be inscribed on vellum and presented to Mr. Owen.

VACCINATION.—Mr. T. Lawrie Gentles, public vaccinator to the Fourth District of the Derby Union, has received (fifth time) a Government grant of £60 16s. for efficient vaccination.—The Local Government Board have awarded to Mr. J. H. Gornall, of Warrington, public vaccinator for the borough of Warrington, £89 8s. for successful vaccination. This is the fifth occasion on which he has obtained the grant in ten years.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Friday, March 18th.

Vaccination from Pure Lymph.—DR. CAMERON asked the President of the Local Government Board, whether any steps had been taken to give effect to his promise, made on the 11th June last, that the Vaccination Department should supply calf lymph as "stock" for vaccination to such medical practitioners as preferred it to ordinary humanised lymph; and whether, in view of the alarming spread of small-pox in London, the Department would consider the propriety of taking measures to secure a sufficient supply of vaccine lymph, for the purpose of revaccination.—MR. DODSON replied that steps had been taken to supply calf lymph as stock, and for some time they had been engaged in endeavouring to find suitable premises for the establishment of a farm, and the matter was so far advanced that Dr. Cory had been appointed medical director of the establishment. With regard to the last question, the Department could not undertake to supply a sufficient quantity of lymph for revaccination.

Monday, March 21st.

Medical Officers in the Army.—MR. FINDLATER asked the Secretary for War, whether, having regard to the cases of wounds and sickness which have occurred amongst medical officers during recent campaigns, he will take into consideration the justice of extending to the Army Medical Department the privilege of counting as full pay service towards retirement any time on half-pay, not exceeding one year, when such half-pay has been necessitated by sickness, incurred in and by the service; also of such half-pay as results from reduction of the department, not exceeding two years, as laid down in army circulars, March 1st, 1880.—MR. CHILDERS—In reply to my hon. friend, I fear I cannot undertake to lay down the broad proposition, that non-combatant officers are to have all the advantages of combatant officers, unless the converse be also accepted—that is to say, that they are to have all the disadvantages. The regulations as to the retirement of medical officers have been so recently settled that I cannot undertake to open the question; but when I have more leisure I will look into it.

Tuesday, March 22nd.

The Hampstead Hospital Case.—MR. FIRTH asked the President of the Local Government Board, whether the decision arrived at by the Metropolitan Asylums Board, on Saturday last, to continue legal proceedings in the Hampstead Hospital case, had the sanction and approval of the Local Government Board; and whether the estimated cost of the legal proceedings already incurred, and at present paid or payable by the Metropolitan Asylums Board out of public funds exceeds £20,000.—MR. DODSON said he had expressed his acquiescence in the decision of the Metropolitan Asylums Board, not to abandon their second appeal in this case. He had no information as to the estimated costs of the legal proceedings instituted against the managers of the hospital.—MR. FIRTH gave notice that when the Metropolitan Board of Works Money Bill came before the House, he should oppose the granting of the power therein sought to lend £50,000 to the Asylums Board.

London Lock Hospital.—Mr. HOPWOOD asked the Judge Advocate-General whether his attention had been called to the doubt which existed whether the certifying of the London Lock Hospital, and the detention of patients therein, under the Contagious Diseases Acts 1866 and 1869, was legal, inasmuch as that institution was not situated in any "place" to which those Acts applied.—Mr. O. MORGAN said that his attention had only been called to the doubt referred to by the question of his honourable friend, and he did not think that doubt was well founded. The Acts alluded to gave the fullest power to the Admiralty and the Secretary of State for War to provide and certify any building whatsoever, without restriction of place, for hospital purposes under the Acts; and he did not think that those general words could be held to be cut down by the previous section, limiting the operation of the Acts for police purposes to certain specified areas. He might add, that this interpretation was borne out by the mode in which the schedules to the Acts were framed.

Non-Animal Lymph.—Mr. P. TAYLOR asked the President of the Local Government Board whether he could state to the House the source whence the new animal lymph was to be obtained—that is, whether the calves were now inoculated from a diseased horse, or from a human being suffering under small-pox, or from what other source.—Mr. DODSON: The Medical Department hope to commence their series of calf-vaccination from a well-ascertained case of spontaneous cow-pox. If such lymph cannot be obtained, they will commence by taking their supply from the well-known lymph from the Hague or Brussels stations, where it has long been in use.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

DIAMOND v. MILLAR.

We congratulate Dr. Diamond on the success of his suit against Mr. Millar, in the Perth Small Debt Court, decided recently, as it appears to us, from the statements that have come before us, that he has been subjected to much loss owing to his having faithfully performed his duty as parochial medical officer and officer of health for Muthill, which place abuts on and forms part of the estate of Lady Willoughby d'Eresby. It would appear that, two years ago, Dr. Diamond's attention was directed to an outbreak of diphtheria in some houses tenanted by sundry poor persons, and which, in his judgment, was traceable to the overflow of water from some uplands, which brought with it the ordure, etc., of some dirty piggeries. An attempt, it would appear, had been made to remove the piggeries, but none whatever to prevent the flooding of the cottagers' residences with water. Dr. Diamond, persistently urging an alteration, was met by an attempt to show that he had mistaken the nature of the disease he had been called upon to treat, and that it was not diphtheria at all. In this attempt, the factor of the owner of the estate, Lady Willoughby d'Eresby, was supported by a local medical man, who, it appears, did not see either of the cases until after convalescence had taken place. Armed, however, with this opinion, the factor advised her ladyship to dispense with Dr. Diamond's attendance on certain of her *employés;* and ultimately the doctor was compelled to leave Muthill.

The case just decided was that of a small farmer at Muthill, who, acting doubtless upon the previous action of the factor, disputed his liability for attendance on his daughter, on the ground of mistaken diagnosis. The case was remitted to Dr. James P. Bramwell for examination and arbitration, who, in a very luminous report, gives the grounds on which he held that Dr. Diamond was correct in his judgment, and, therefore, entitled to his debt and costs, which the sheriff forthwith decreed.

The case is a melancholy illustration of the danger incurred by medical officers of health when, in the conscientious discharge of their duty, they happen to come into collision with factors in Scotland, or their analogues, in the south, the various English and Irish boards of guardians. It also supplies another instance, also too frequent, where a medical man has given an opinion, hostile to a professional brother and seriously injurious to his reputation and position, on a subject on which he could not, in the nature of things, be in a position to judge rightfully.

FEES FOR CERTIFYING PAUPER LUNATICS.

Delta asks if a parochial medical officer in Scotland is entitled to the usual fee from the parochial board, of which he is officer, for filling up the ordinary lunacy certificate for admitting a patient (who is to be maintained by the board) into an asylum?

*** Our querist would be entitled to the fee allowable by the statute in that behalf for certifying in a case of pauper lunacy, provided he has not entered into a specific engagement, for a stipulated annual stipend, to meet all the obligations which are attachable to his office.

OBITUARY.

FRANCIS GODRICH, M.R.C.S.

The death of Mr. Francis Godrich of West Brompton, one of the seniors of the profession, was announced last week. He was a man who throughout a prolonged practice of sixty years had exercised a great and just influence in his neighbourhood, and was universally respected. Mr. Godrich was a typical general practitioner of an excellent school, of which the traditions will, it may be hoped, never die out. He took a thoroughly humane interest in his patients, and a thoroughly scientific interest in the progress of his art. Active in following the movement of his knowledge, he was nevertheless conservative and self-respecting in trying it by experience. Independent in character, far-reaching in sympathies, of inexhaustive kindness to the poor, he held necessarily all the leading public appointments in his district, and was regarded by the inhabitants of Kensington and Brompton as a principal authority on all public matters relating to health and social progress. Keenly alive to professional interests, he did not fail to take an active part, in his earlier life, in all the movements which have aimed at improving the condition of the Poor-law medical officer, and strengthening the medical man in his public appearance in courts of law. Latterly he manifested an indefensible hostility to the small-pox hospital in his neighbourhood; and, although we have more than once combated his views, it is only just to recognise the ability, the singular energy and power with which, up to the day of his death, at the advanced age of eighty-five, he made a movement which aimed, in his opinion, at the benefiting of his neighbourhood, and has certainly succeeded in drawing attention in the most forcible manner to the necessity of a most careful administration of infectious hospitals planted in the midst of crowded neighbourhoods. Few men have pursued a career of such vigour and undiminished energy to the last day of an unusually prolonged life. His memory will be cherished by the inhabitants of his district, and to those who knew him will remain as a type of a high-minded, able, and most useful member of the profession. Mr. Godrich became a Licentiate of the Society of Apothecaries in 1818, and a Member of the Royal College of Surgeons in 1819.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentleman passed his Examination in the Science and Practice of Medicine, and received certificate to practise, on Thursday, March 10th, 1881.

Pigott, Peter, Dulwich.

The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, March 17th.

Atkinson, Thomas Ruell, 32, Fleet Street, E.C.
Haggard, Robert, George Street, York.

The following gentlemen also on the same day passed their Primary Professional Examination.

Neale, George, London Hospital.
Roberts, Henry, St. Bartholomew's Hospital.
Taylor, Thomas, Middlesex Hospital.

MEDICAL VACANCIES.

The following vacancies are announced :—

BETHLEM HOSPITAL—Two Resident Medical Students. Applications by April 9th.

BICESTER UNION—Medical Officer. Salary, £60 per annum, with extra fees. Applications before April 1st.

BIRMINGHAM BOROUGH LUNATIC ASYLUM—Assistant Medical Officer. Salary, £120 per annum. Applications by April 2nd.

BOURNEMOUTH GENERAL DISPENSARY—Resident Medical Officer. Salary, £120 per annum. Applications on or before the 2nd April.

BRITISH LYING-IN HOSPITAL—Physician to the Out-Patient Department. Applications on or before April 9th.

CARLISLE DISPENSARY—Assistant House-Surgeon. Salary, £90 per annum. Applications to the Honorary Secretary.

CHARING CROSS HOSPITAL, West Strand—Assistant Surgeon. Applications on or before Saturday, April 2nd.

CLINICAL HOSPITAL AND DISPENSARY FOR CHILDREN, Park Place, Manchester—Honorary Medical Officer. Applications by Saturday, 26th instant.

EASTERN DISPENSARY, Bath—Medical Officer. Salary, £100 per annum. Applications by April 1st.

GLAMORGANSHIRE AND MONMOUTHSHIRE INFIRMARY AND DISPENSARY, Cardiff—House-Surgeon. Applications by March 29th.

GREAT NORTHERN HOSPITAL, Caledonian Road, N.—Junior Resident Medical Officer. Applications on or before the 31st instant.

GREENWICH UNION INFIRMARY—Assistant Medical Officer. Salary, £100 per annum. Applications before the 31st instant.

HOLLOWAY AND NORTH ISLINGTON INFIRMARY—Two Medical Officers. Particulars from the Resident Medical Officer.

LEITH HOSPITAL—Assistant House-Surgeon. Salary, £60 per annum, with board. Applications on or before April 8th.

LIVERPOOL EYE AND EAR INFIRMARY—House-Surgeon. Salary, £80 per annum. Applications not later than March 28th.

POPLAR HOSPITAL FOR ACCIDENTS—House-Surgeon. Salary, £100 per annum. Also Deputy House-Surgeon. Applications to the Secretary.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, Charing Cross—Two Assistant Surgeons. Applications by April 1st.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields—House-Surgeon. Applications by March 28th.

ST. MARY'S HOSPITAL, Paddington, W.—Ophthalmic Surgeon. Applications on or before the 21st instant.

ST. MARY'S HOSPITAL, Paddington, W.—Electrician. Applications on or before the 30th instant.

ST. MARYLEBONE GENERAL DISPENSARY—Obstetric Physician. Applications by April 4th.

SUNDERLAND INFIRMARY—Two House-Surgeons. Applications by May 4th.

TOTTENHAM TRAINING HOSPITAL—House-Surgeon (single). Salary £150 per annum. Applications by April 30th.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—House-Surgeon. Applications by Monday, the 28th instant.

WEST SUSSEX, EAST HANTS, AND CHICHESTER GENERAL INFIRMARY—House-Surgeon. Salary, £80 per annum. Applications on or before April 9th.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY AND FEVER HOSPITAL—House-Surgeon. Salary, £150 per annum. Applications before May 1st.

MEDICAL APPOINTMENTS.

Carden, G. Arthur, M.R.C.S., appointed Honorary Medical Officer to the Branch Dispensary of the Cheltenham General Hospital and Dispensary, *vice* C. Spurway, resigned.

Meeres, Edward E., M.D., appointed Physician to the Plymouth Public Dispensary, *vice* Ellis F. Thorold, M.D., deceased.

Patton, W. J., B.A., M.B., L.R.C.S.I., appointed Assistant Medical Officer to the Three Counties Asylum, Stotfold, Baldock, *vice* J. S. Buck, M.R.C.S.Eng., resigned.

POOR-LAW MEDICAL APPOINTMENTS.

POTTER, Samuel R., A.B., M.B., appointed Public Vaccinator for the Collumpton District of the Tiverton Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

MARRIAGE.

DOUGLAS – FULLER.—February 24th, at St. Andrew's Church, Pittsburg, U. S. A., by the Rev. Reese F. Alsop, Rector, William Douglas, M.D., of Belfast, Ireland, to Anna Marie, youngest daughter of the late Captain S. J. Fuller, H.E.I.C.S., of Canada.

DEATH.

DANIELL.—On the 23rd March, at 29, Cathcart Road, South Kensington, S.W., Sarah, the beloved wife of Richard Thomas Daniell, M.B., F.R.C.S.I.

THE Hon. Lewis Wingfield is engaged on a thrilling story concerning lunatic asylums in England, under the title of *The Haven of Unrest*, which will appear in prominent papers.

IT is announced that the State Department finds, after a week's thorough investigation, that the sanitary condition of American hogs is at present remarkably good. It has accordingly instructed the United States representatives abroad to protest against the reports current respecting hog-cholera, as being without foundation. The department has further addressed an official communication to the British Legation in this city, requesting that a denial should be given to the report recently sent to England by the British Consul at Philadelphia, announcing the prevalence of an epidemic among American hogs.

IN MEMORIAM.—The following lines have been sent us (*Church of England Pulpit*) by the Rev. Chancellor Tisdall, of Dublin. Dr. Edward Peele, on the occasion of whose widely lamented death they have been composed by Sir Francis William Brady, Bart., was formerly, before he entered the medical profession, an accomplished member of the choirs of Christ Church and St. Patrick's Cathedral, Dublin. He died of malignant typhus fever, caught in the discharge of his duty as a physician.

"Hushed is the voice so lately raised
In sweetest notes of sacred song;
Those notes, that God so oft have praised,
To God, for evermore, belong.

Cold is the hand that oft has led
The weary sufferer back from death,
When, by some lonely pain-racked bed,
Each moment seemed the last of breath.

Still is the heart, so warm and true,
That ever beat at Honour's call,
Whate'er was Right, 'twas his to do,
To Duty live, to Duty fall.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN.—Monday, the 9th of May, is the day fixed by the Prince of Wales for the festival dinner of the above hospital, at which his Royal Highness will preside.

PUBLIC HEALTH.—The annual rate of mortality last week, being the eleventh week of this year, in twenty of the largest English towns averaged 20.6 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Bradford 15, Hull 16, Plymouth 16, Birmingham 17, Leicester 17, Sunderland 18, Leeds 18, Brighton 18, Salford 19, Sheffield 20, London 20, Norwich 20, Bristol 21, Nottingham 21, Newcastle-on-Tyne 21, Portsmouth 22, Oldham 22, Manchester 23, Liverpool 25, and Wolverhampton 26. Scarlet fever showed the largest proportional fatality in Leicester, Portsmouth, and Newcastle-upon-Tyne; and whooping-cough in Bradford and Liverpool. The death-rate from fever was highest in Leicester, Newcastle-upon-Tyne, and Manchester. Small-pox caused 46 more deaths in London and its suburban districts, one in Liverpool (of a coloured seaman recently landed from New York), but none in any of the eighteen other provincial towns. In London, 2,709 births and 1,459 deaths were registered. The deaths were so many as 275 below the average, and gave an annual death-rate of 20.5. The 1,459 deaths included 43 from small-pox, 44 from measles, 22 from scarlet fever, 9 from diphtheria, 27 from whooping-cough, one from typhus fever, 14 from enteric fever, 5 from ill-defined forms of continued fever, 8 from diarrhœa, 2 from dysentery, and none from simple cholera; thus, 175 deaths were referred to these diseases, being 64 below the average. The deaths referred to puerperal fever, which had been 11 and 9 in the two previous weeks, further declined to 7 last week; these, however, exceeded the corrected average by 2. The deaths referred to diseases of the respiratory organs, which had been 419 and 384 in the two preceding weeks, further fell to 345 last week, and were no fewer than 109 below the average; 217 were attributed to bronchitis, and 77 to pneumonia. Different forms of violence caused 48 deaths; 37 were the result of negligence or accident, among which were 14 from fractures and contusions, one from burns, 7 from drowning, and 9 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 44.8°, and 3.7° above the average. The direction of the wind was variable, and the horizontal movement of the air averaged 10.1 miles per hour, which was 3.0 below the average. No rain was measured during the week. The duration of registered bright sunshine in the week was equal to 47 per cent. of its possible duration. The recorded amount of ozone showed an excess on Monday and Friday, while it was below the average on each of the other days of the week.

HEALTH OF FOREIGN CITIES.—From the most recent weekly returns published by the Registrar-General, the following facts regarding the sanitary condition of foreign cities may be noted. The death-rate in the three Indian cities averaged 37.4, and was equal to 33.1 in Calcutta, 34.1 in Bombay, and 44·5 in Madras; fevers, mainly remittent, were very fatal in all these cities, and small-pox caused 10 deaths in Calcutta, and 23 in Madras. In 22 European cities the most recent weekly returns showed an average annual death-rate of 31.3 per 1,000, which stands out in strong contrast with the average rate in the 20 large English towns last week, which did not exceed 20.6. In St. Petersburg the rate was equal to 52.6, and no less than 74 deaths were referred to typhus and typhoid fever. In the three other northern cities of Stockholm, Copenhagen, and Christiania, the death-rate did not average more than 24.8; in Stockholm the rate was, however, 32.2, owing partly to an epidemic of scarlet fever and diphtheria. The Paris death-rate continues excessive, and was equal to 30.5 last week, against 20.5 in London; 31 deaths resulted from small-pox, and 44 from typhoid fever. The death-rate was equal to 24.3 in Brussels, and 19.0 in Geneva, both cities being comparatively free from zymotic fatality. The Registrar-General's list included seven German and Austrian cities, among which the death-rate averaged 29.0; the rates averaged from 24.8 and 26.4 in Hamburgh and Dresden, to 35.5 in Breslau and 37.5 in Buda-Pesth. Small-pox caused 30 deaths in Vienna, and 12 in Buda-Pesth. In the four Italian cities still higher rates prevailed; they were, 25.4 in Vienna, 33.0 in Rome, 33.5 in Turin, and 36.2 in Naples; small-pox caused seven deaths in Rome, and enteric fever was very fatal in Turin. In four of the largest American cities the death-rate did not average more than 24.6, although scarlet fever and diphtheria were fatally prevalent in New York and Brooklyn, and in Philadelphia 44 fatal cases of small-pox were recorded. The last return of the Registrar-General contains no mortality statistics for the Dutch towns, Lisbon, or Alexandria, although these towns usually contribute to his table of mortality in foreign cities.

THE IRISH GRADUATES' ASSOCIATION.—The Annual Metropolitan Dinner of the Irish Graduates' Association was held at the Holborn Restaurant, on St. Patrick's Day, Dr. Paget, F.R.S., in the chair. Fifty-four guests and members sat down. Among them were Sir J. R. Bennett, President of the Royal College of Physicians; Mr. Erichsem, F.R.S., President of the Royal College of Surgeons; Sir James Paget, Bart., Dr. Matthews Duncan, Dr. Quain, F.R.S., Dr. Habershon, etc. An excellent *menu* was supplied. A selection of Irish music was performed during dinner. The Rev. W. H. Stokes said grace before and after dinner. The President proposed the first toast, "Our Rulers; the Queen and Royal Family". The honorary secretary gave "*Our* Home-rulers, the Ladies", coupled with the name of Mrs. Garrett Anderson, who called on Dr. Andrew Clark to respond. The President then gave "Our Professional Guests", calling on Sir Risdon Bennett, Dr. A. Farr, and Dr. Bristowe. Dr. Foster followed with "The Unprofessional Guests", to which replied Messrs. Frazer and Bullock. Dr. R. Quain, F.R.S., proposed "Ourselves", coupled with the "Health of the President, Dr. Paget, F.R.S."; the toast being drunk with a bowl of punch. The honorary secretary then proposed "Our Defenders", and called on Captain Jervis White, of the 77th Regiment, to reply. "Our Next Meeting" was then proposed by Dr. Partridge, when it was mentioned that it would be at Ryde, in August. A most enjoyable evening was spent, and everything passed off well.

EARLY PREGNANCY.—The York correspondent of the *Northern Echo* vouches for the fact that a girl, nine years of age, residing at Rillington, near Malton, was last week safely delivered of a child.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th. 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. The President will exhibit a Case of Paralysis in an Adult, simulating Hypertrophic Paralysis; and a Case of Double Facial Paralysis. Dr. J. Milner Fothergill will make a few remarks upon the Digestion of Fats, and exhibit some specimens of Oils. Dr. Stephen Mackenzie will give the Notes of a Case of Syphilitic Disease of the Spinal Cord. Dr. Day: Tubercular Meningitis, and the Mode of Treatment.

THURSDAY.—Ophthalmological Society of the United Kingdom, 8.30 P.M. Adjourned Discussion on the Relation of Optic Neuritis to Intracranial Disease; Dr. Stephen Mackenzie, Mr. Hutchinson, Mr. Couper, Dr. Gowers, Mr. Nettleship, Dr. Walter Edmunds, Dr. Buzzard, Dr. Brailey, and others, are expected to speak. Living specimen at 8 o'clock. Mr. Sebastian Wilkinson: A Case of Retinal Hæmorrhage.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE LATE MR. CEELY'S DRAWINGS.

SIR,—To those, like myself, who have devoted attention to vaccinia, it would be a matter of interest to know what has become of the very valuable collection of water-colour drawings from nature which the late Mr. Ceely of Aylesbury possessed, and some of which he exhibited last August in Cambridge. Such an unique set of historical drawings will probably never again be gathered together by one man; and it seems to me a pity they should be lost sight of. Can you, or any of the readers of the BRITISH MEDICAL JOURNAL, inform me where they are to be seen? and oblige, yours truly, P. M. BRAIDWOOD.

17, Rodney Street, Liverpool, March 21st, 1881.

STEAM-DRAUGHT BRONCHITIS-KETTLE.

SIR,—In last week's issue of the JOURNAL, on page 435, under New Inventions, you call attention to a steam-draft bronchitis-kettle. The notice does not say who are the makers; so we cannot tell if you are referring to our apparatus, or to that of some other maker. If the latter, may we point out that we have made this article, under the name of "Ventilating Croup Kettle", for two years; and that, as described in your notice, a steam-jet is used to produce a current of warm moist air. A notice of this apparatus appeared in the JOURNAL for March 1st, 1879. The last clause of that notice says: "Having seen it in use, we can say it is a most excellent and convenient apparatus." In addition to the draft-tube for supplying the warm moist air, we have a tube and cup to receive any condensed vapour that may accumulate, to prevent it from falling on the bedclothes or surroundings.—Yours respectfully, J. ALLEN AND SON.

64, Marylebone Lane, London, W., March 22nd, 1881.

THERMOGRAPH.

SIR,—I have been much interested in reading a description of a thermograph in the JOURNAL of March 5th, as, some months since, I myself devised an instrument almost identical with that described by Dr. A. W. Adams of Colorado Springs. The instrument, however, did not prove sufficiently accurate for delicate thermometry; for the varying strength of the battery, and even the length and conducting power of the wires, seemed to have as much effect upon the tracings, as did the expansion and contraction of the spiral spring of the thermometer. As the battery became weakened, as it must necessarily do when used continuously for any length of time, the variations in the pressure on the contents of the vulcanite-tube are disarranged, the markings of the style upon the paper showing as much the degree of battery-power as of the temperature to be registered.

For the above reasons, I have devised another form of instrument more simple in its construction, which can be used with any form of battery and at any distance, and which, although roughly made, appears to register the degrees of heat accurately. I hope soon to have a perfect instrument constructed, as there seems to be no doubt that medical science would be greatly benefited by a process of continuous thermometry.—I am, sir, yours obediently, JAMES W. GOOCH.

Eton, March 8th, 1881.

J. A. D.—We cannot agree that the standard of examination for naval cadets is fixed at all above the standard of education which any reasonably intelligent lad ought to have reached without effort. There is much more idling than overwork, in our experience, in public schools; and the instances in which either boys or girls have been injured by mental overwork are rare indeed, and for the most part wholly fabulous and fanciful.

A QUESTION REGARDING INQUESTS.

SIR,—Will you kindly give me your opinion on the following case? A. is called to see a child suffering from severe burns, dresses the wounds, and directs the parents, as they are poor people, to obtain a letter for the general dispensary. This they do; and B., the dispensary surgeon, attends the same day. The child dies at night. Under the circumstances, should A. or B. be summoned to give evidence at the inquest.—Faithfully yours, M.R.C.S.

, We think that B., having been in attendance at the time of death, should be summoned.

DR. M. M. BRADLEY.—Better do nothing. The proposal is a visionary one, which is not likely to commend itself for general approval. Moreover, we have the strongest doubts whether a medical man (however young) could be found willing to give up his whole time in such a capacity for the salary indicated.

ABSENCE OF SEXUAL APPETITE.

SIR,—Do any gynæcological authorities treat of the absence of sexual appetite, or can any of your correspondents offer any hints as to treatment in the following somewhat curious case?

A. B., a young woman, buxom, good-looking, with mammæ well developed, has been married six years, has conceived three times, and borne two living children. She menstruates rather freely, and rather more frequently than usual (every three weeks). Vaginal examination discovers only a somewhat patulous os and rather shortened cervix. Her husband is about her own age, good-looking, entirely competent, but forbearing as to the wife's peculiarity, which is, that she has no pleasure in sexual intercourse, that she has not had any sexual appetite before or since her marriage, and that coitus is positively distasteful to her. She has no religious scruples on the subject, has great affection for her husband, and, for his sake and her own, wishes she were as other women. There is no glycosuria.—Yours, etc. BRITISH MEDICAL.

T. M. S. A.—We will gladly consider the paragraph as withdrawn from our notice and disavowed.

A QUESTION OF TREATMENT.

SIR,—I should be glad if you would kindly insert the following, hoping one of the numerous readers can suggest a successful treatment.

I have under my care a most troublesome case, and it has resisted the treatment and skill of several medical men, including one or two specialists. The disease is simply a discoloration (yellowish) of the skin between and extending into the eyebrows on either side, and also down the nose for about three-quarters of an inch. It does not shed its surface, and has been present for about four years. It occurs in a child aged 13. Among other remedies, boracic acid, lig. carbon deterg., chrysophanic acid, sulphurous acid, hyposulphite of soda, have been tried; the only one combating the disease is chrysophanic acid, but it does not cure it. Under all the other remedies it has continued slowly to spread.—Yours truly, ENQUIRENS.

THE STOMACH-PUMP.

SIR,—The inventor of the stomach-pump was the late Mr. Jukes, who was a surgeon then in practice in London. The late Sir Astley Cooper introduced him and his instrument to his class at one of his lectures, about the year 1830.—I am, etc., STOMACH-PUMP.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

THE DISCOVERY OF TRICHINA SPIRALIS.

SIR,—I should be very unwilling to strip an Irishman of his laurels, or question his right to any discovery; but I fail to see, after some patient searching, why the late Professor Harrison should get the credit of being the first to recognise, in a Dublin dissecting-room, the "trichina spiralis", as mentioned by your correspondent in the JOURNAL of March 12th. It was seen by Tiedemann in 1822; and, again, attention was drawn to it in 1833 by Hilton and Wormald. I also find that Sir James Paget, Knox, and others, called attention to it. Now, as the jubilee of the British Association is to be held this year at York, and as it was originally instituted in 1831, and if in 1822 Tiedemann described it, although imperfectly, how could Harrison, as your correspondent states, be the first discoverer of the nematoid? Your correspondent's words are: "As a fact not generally known, it may be interesting to note that the disease was first recognised, in a Dublin dissecting-room, by the late Professor Harrison, and described by him at a meeting of the British Association in the same city."

I am sorry to contradict the assertion of your correspondent so flatly; and, if he had only read Cobbold's lectures, or referred to the JOURNAL of April 22nd, 1871, he would not have been led into making a statement totally erroneous. Harrison has as much right as I have to lay claim to the discovery, simply because I possess many excellent specimens of "trichina spiralis". If the claim of any man is to be advocated, do not let us forget our old acquaintances. To Dickinson, of Worthington, belongs the honour of describing, in England, the first cases of trichinous disease; but this statement has nothing to do with the fact that, in the muscles of man, the parasite was discovered years before. I hope, therefore, your correspondent and I will not quarrel over this point, as I am prepared to give him dates and names which he cannot refute, as I have Cobbold at my back—no mean authority—as well as Owen.—I am, etc.,

Northallerton, March 14th, 1881. HENRY BROWN.

*** With reference to the foregoing letter, our correspondent desires to state that he unhesitatingly accepts Mr. Brown's correction, and regrets that, acting on what he believed to be irreproachable testimony, an erroneous assertion was unwittingly made by him in the JOURNAL. It has been a tradition in the Dublin School of Physic that Professor Harrison originally described the trichina spiralis; and one of the Professor's drawings of a biceps muscle affected with the disease is preserved in the museum of the school. A reference to the Report of the Fifth Annual Meeting of the British Association, held in Dublin in August 1835 (part ii, Transactions of Sections, p. 84), shows that this tradition is incorrect. At that meeting, Professor Harrison "exhibited preparations and drawings of a speckled appearance not unfrequently met with in different parts of the muscular system, and detailed the particulars of several cases in which it had existed". At the same time, "he expressed his full concurrence with the opinions advanced by Mr. Owen as to the animal or vital character of the bodies to which the appearance is owing", thus acknowledging his priority in description. Professor Owen's paper was read at a meeting of the Zoological Society of London, held on February 24th, 1835 (*Proceedings of the Royal Zoological Society*, part iii, 1835, p. 23 and *Transactions of the Royal Zoological Society*, vol. i, 1835, p. 315). It is entitled "Description of a Microscopic Entozoon infesting the Muscles of the Human Body". The existence of the entozoon was, Mr. Owen stated, at the same time satisfactorily determined by Mr. Paget, with the assistance of Mr. Brown and Mr. John Bennett at the British Museum. The peculiar speckled condition of muscles infested by the parasite had been more than once noticed by Mr. Wormald, Demonstrator of Anatomy at St. Bartholomew's Hospital, in subjects dissected there during previous anatomical seasons; and it was from Mr. Wormald that Mr. Owen received portions of the affected muscle on which his observations were made. Mr. Owen further states (*Transactions*, *loc. cit.*, p. 321) that: "Mr. Hilton, Demonstrator of Anatomy at Guy's Hospital, who appears to have first recorded this affection of the human muscles (*Medical Gazette*, February 2nd, 1833, p. 605), ascribed it to the presence of a minute species of cysticercus." The title of Mr. Hilton's paper, which was read at a meeting of the Royal Medical and Chirurgical Society on January 22nd, 1833, is: "Notes of a Peculiar Appearance observed in Human Muscle, probably depending upon the Formation of very small Cysticerci". Dr. A. Farre's "Observations on the Trichina Spiralis" are also published in the *London Medical Gazette* (December 1835, p. 382).

A. R. (Keighley).—We would suggest that the communication should be addressed to the gentleman named, who is probably best able to give information of his own opinions; we are not aware, however, that he is an authority on the subject.

IS ALCOHOL A FOOD?

MR. WILLIAM CARTER, the coroner for the Eastern Division of Surrey, held an inquest recently on the body of Mr. John Burridge, aged 76, who died suddenly at his residence. It appeared from the evidence of several witnesses that the deceased had for upwards of forty years been in Her Majesty's service, and at the time of his death was in receipt of £60 *per annum*, and was altogether in good circumstances. For the past twenty years, the deceased had become a recluse. He was very eccentric in his manner, and at all times refused to take any meat. On the 7th of January last, after having remained in his room for nearly three months, he said he should have a walk, and obtain his pension. He did so, and on his return home he went to his room, where he drank a quantity of rum and milk. From that time till his death, which took place on the 3rd instant, he remained at home, passing the principal time in bed. He existed on milk, tea, and rum. At times the landlady beat up an egg in his tea, but he refused to have it, and after throwing it away he would send out for more rum, which he drank in a cup of tea. In answer to the coroner, one of the witnesses said that his usual quantity of rum was five quarterns a day. Mr. Hadwen, surgeon, said that he was called to attend on the deceased, whom he found in a dying state. Witness ordered him beef-tea, but was given to understand he would not drink it, but threw it away. Although deceased had not partaken of any solid food for some length of time, he did not appear emaciated. Death resulted from exhaustion consequent upon old age and the want of solid food. The jury eventually returned a verdict in accordance with the medical testimony.

DR. P. O. CONNELL (Sioux City). —*The Truth about Vaccination*, by Mr. Ernest Hart, is published by Messrs. Smith, Elder, and Co., 15, Waterloo Place, London. The price is one shilling.

A NOISELESS COAL-BOX.

SIR,—I understand that my friend Mr. J. Gillespie has forwarded one of his patent noiseless coal-boxes, and I can testify myself to its great value and comfort during my wife's illness. The extreme facilities with which the fire has been kept up, without all the terrible scraping of the shovel, so very trying to many a nervous invalid, will, I am sure, recommend it to the notice of the profession, and to any whose sleep is easily disturbed, and to whom I am sure the coal-box will prove a very great boon.

Apologising for troubling you, I am, dear sir, yours faithfully,

The Hill Top, Gipsy Hill, S.E. WILLIAM GANDY, M.R.C.S., L.S.A.

INQUIRER asks what is the difference between the ordinary tincture of the muriate of iron and that of the *Edinburgh Pharmacopœia*, so strongly recommended in many cases of septic origin.

GELSEMINUM IN FACIAL NEURALGIA.

SIR,—In reference to the use of gelseminum in facial neuralgia and neuralgia arising from dental caries, I have used Richardson's tinctura gelsemini in fifteen-minim doses, repeated every three or four hours until relief is obtained. Three doses generally suffice. When tincture of gelseminum has failed, I have generally used a pill containing gelseminum, croton-chloral-hydrate, and monobromide of camphor. This pill Messrs. Richardson keep pearl-coated as Form 598. This latter I have found of great value also in "cold in the head", with or without neuralgia. A recent case I had was one of dropsy of the antrum. The patient had previously been operated on by Sir J. Paget some years ago, but is liable on catching cold, when the mucous membrane swells up, to have retention of the fluid. On this occasion, the fluid had evidently managed to find its way also up the lachrymal canal into the cellular tissue on the face, which was very swollen and infiltrated with fluid. The supraorbital nerve, as it emerges on the forehead, was particularly victimised by the infiltration, which, by increasing and decreasing, caused paroxysms of the most intense neuralgia, due to pressure. After trying quinine, arsenic, iron, morphia, and the pills above-mentioned, "Tonga" was used, and the effect was almost instantaneous.—I am, etc.,

KENNETH W. MILLICAN, B.A., L.R.C.P.Ed.

NATURAL CAUSES.

"AUDI ALTERAM PARTEM" states that, in this case, the coroner was a medical man, and the medical witness had failed to intimate before the inquest that he considered a *post mortem* examination necessary. But, even in this case, we do not understand why an adjournment of the inquest should not have been had for the purpose.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. G. E. Herman, London; Dr. H. Schmitdorff, St. Petersburg; Mr. Sydney-Turner, Gloucester; Dr. Sawyer, Birmingham; Dr. O'Donaghue, Loughrea; Our Glasgow Correspondent; Our Edinburgh Correspondent; Dr. F. H. Parsons, Hastings; Dr. J. Allan Gray, Leith; Mr. Edgar Thurston, London; Dr. M. M. Bradley, Jarrow-on-Tyne; Our Dublin Correspondent; Messrs. Roberts and Co., London; Dr. T. Trollope, St. Leonard's-on-Sea; Dr. W. Evans, London; Mr. S. Fisher, London; Dr. W. Donaldson, Llanidloes; Mr. Johnston, Glasgow; Mr. J. B. Simonds, London; M.D.; Mr. Henry Brown, Northallerton; Mr. Simeon Snell, Sheffield; Dr. W. R. Gowers, London; Mr. H. H. Clutton, London; Mr. F. H. Hodges, Leicester; Mr. S. D. Wells, Haslar; Mr. W. Ladell, Hoxton; Nemo; Mr. G. Eastes, London; Mr. G. W. Fyburn, Hull; Dr. J. Rogers, London; Our Paris Correspondent; Dr. A. S. Myrtle, Harrogate; Mr. W. Gandy, London; Dr. T. C. Fox, London; Mr. A. Hamilton, Chester; Dr. C. Holman, Reigate; Mr. B. Humpage, London; Dr. G. H. R. Dabbs, Shanklin; British Medical; Mr. A. Jackson, Sheffield; Mr. R. Cooper, London; Mr. A. H. Benson, Dublin; Mr. S. Hutchinson, Sittingbourne; Dr. Robert Saundby, Birmingham; Dr. James Thompson, Leamington; Dr. P. Schiardi, Milan; Dr. Ward Cousins, Southsea; Mr. H. Dodd, Rillington; Dr. Markham Skerritt, Clifton; F.R.C.P.; Brigade-Surgeon Corbett, St. Vincent; Mr. J. A. Digby, London; Dr. Braidwood, Liverpool; Sir E. B. Sinclair, Dublin; Dr. Murrell, London; Mr. F. T. Paul, Liverpool; Dr. W. A. Duncan, Croydon; M.K.Q.C.P.I.; Dr. E. Monius, Paris; Mr. A. Roberts, Keighley; Dr. J. W. Langmore, London; W. M. O.; Mr. G. C. Harding, London; Mr. W. F. Phillips, London; Dr. A. Wise, Geneva; Dr. G. C. Duncan, Rome; Dr. Wilbe, London; Dr. William Carter, Lixerpool; Dr. Campbell, Cardiff; Mr. E. D. Bauer, London; Enquirens; Dr. J. Fraser, Wolverhampton; Mr. C. G. Wheelhouse, Leeds; Dr. Heywood Smith, London; Messrs. Arnold and Sons, London; A Senior Student of the Hospital; L.R.C.P.; L.R.C.S.: Mr. R. Philpot, Poole; Dr. A. C. Howard, Boston; Dr. P. O'Connell, Sioux City; Mr. G. O. McKane, Spennymoor; Studens: Messrs. Samuel Law and Sons, Cleckheaton; Mr. S. R. Potter, Cullompton; Mr. J. S. Turner, London; Mr. F. P. Staples, Chester; etc.

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THE CROONIAN LECTURES
ON THE
INFLUENCE OF THE CIRCULATION UPON THE NERVOUS SYSTEM.

Delivered before the Royal College of Physicians.

By WALTER MOXON, M.D., F.R.C.P.,
Physician to Guy's Hospital.

Lecture I.

An essay might well be written on the consequences to medicine of the rise and expansion of the science of biology; to show how it affects medical study that the physiology of man has become a special branch of a physiology of living things. This is not the occasion for such an essay, nor even for such a remark; but the remark arises because, in beginning these lectures on the behaviour of the human brain under varying states of the circulation of the blood within it, I was of course induced, as a first step, to bring forward the natural history of the subject. But when I referred to the excellent and ably written text-book which is now universally employed as a student's manual in physiology, and searched in it for the physiology of the circulation in the human skull, I did not find a word upon the subject. I found a full and very interesting account of the falling off of ranine intelligence which reveals itself when the several parts of the brain of a frog are successively cut away; but no notice of the curious and very important mechanism whereby the human brain is made secure within the skull, under the varying stress of blood-pressure that accompanies bodily or mental exertion. I observed that the biological physiologist regards the human brain as at one with the vertebral brain—a general kind of thing, more easily studied in the frog, the dog, or the monkey, on account of its simpler development in these animals. The biologist thus takes vertebrate brains at large; and it appears that to him the blood-supply of the human brain is a detail respecting one kind of brain only, and he cares nothing for its congestion, and giddiness, and insensibility; such particulars are lost sight of in the large scope of biological science. For biology tends to wideness of scope and generality of principle. Indeed, it appears not to be quite happy far out of sight of protoplasm; it goes back to protoplasm to trace up the general nervous system, and says nothing about the cerebro-spinal fluid. But it cannot be conducive to clearness of medical thought upon the circulation in the brain, that protoplasm should have displaced the cerebro-spinal fluid from works in which medical students learn human physiology. It is not as though protoplasm were better founded than the cerebro-spinal fluid. It is not so well founded. For there can be no doubt that there is such a thing as the cerebro-spinal fluid; nor is there any doubt that it fulfils vitally important functions, which greatly concern those who are called upon to be clear about the causes of giddiness or insensibility. But it is by no means certain that there is such a thing as protoplasm.

The biologist reduces the various behaviour of the nervous system to what is called the irritability of what is called protoplasm. He regards protoplasm with the same undoubting confidence in its reality as the physical philosopher has in the reality of motion, when he, on his part, reduces all the kinds of activity in unliving matter to terms of what he calls motion; so that heat is a mode of motion, and electricity a mode of motion, and light a mode of motion. Other philosophers, less restrained by fixation in the science, either of living or of unliving matter, generalise one sweep more widely, and tell us that vital motion is a mode of motion; so that we may take out all things knowable, even to human thought, in terms of motion, much in the same way as all kinds of value, even to human motive, might be taken out in terms of pence. But of course it is true that, just in the same way as all kinds of value might equally rightly be taken out in terms of shillings or of pounds as in pence; and just in the same way as all kinds of activity in unliving matter might equally well be taken out in terms of electricity, or in terms of light, as in terms of what is called motion; so also the behaviour of living matter might as rightly be taken out in terms of the brain-cell or of blood, as in terms of what is called protoplasm. For the only basis of knowledge in all these systems is equivalence in convertibility. The capitalist knows that his pound is convertible to so many shillings, or may be expressed in terms of shillings. The physical philosopher that his foot-ton is convertible to so much electricity, or may be expressed in terms of electricity. And the biologist thinks that the nerve-cell is convertible to so much protoplasm, or may be expressed in terms of protoplasm. And the other philosopher, less restrained by fixation in the science, either of living or of unliving matter, thinks he knows that vital motion, even to human thought, is convertible to so much motion. Meantime, the physical philosophers have been led to say that heat is a mode of motion, only because mechanical motion is more universally appreciated by our senses; so that it is natural to employ it as a standard. And, for all we know, the higher animals in the planet Jupiter may be so organised that they obtain mechanical motion only by difficult experiments, as we do electricity; whilst in their hot region they have electricity always obvious to their senses. In this case, we may depend upon it they would naturally say mechanical motion is a mode of electricity; for there is no sense of reality in which electricity is not as real as mechanical motion; and it would be quite as right to adopt electricity as the standard, and say motion is a mode of electricity. In fact, electricity reveals the nature of motion, and motion reveals the nature of electricity. They mutually reveal their common nature: under certain conditions, the one becomes the other. And the physical philosopher, for purposes of exposition, chooses mechanical motion, which is the most tangible and the best known, and adopts it as the common standard for his reference, and the basis of his thought and reasoning. But the biologist, in his field, reverses this plain method of dealing, and makes his thought and reasoning rest on protoplasm, which is not the most tangible and the best known of the things with which he deals. Indeed, it is so far from being so, that it does not exist at all. There is no such thing as protoplasm. I have watched what is called protoplasm, in what are its most nearly pure forms, at work, and it was plain that its properties depended altogether on whose protoplasm it was; and that, when anything is to be done with it, or by it, you must accept it with its own peculiar powers, as it is at work before you; and that, if you act towards any living thing in terms of protoplasm, with the idea of in that way getting a product of its life and nature, you find you have got hold of the wrong end of the stick, and that your abstract idea of protoplasm does not fit to the vital faculty, which acts in, and I may say is, the living thing.

And whereas every living thing or part of a thing is held by the biologist to be a specialisation of protoplasm, in the same way as light and galvanism are held to be specialisations of motion by the physical philosopher, there is no parallel at all in the sureness of the tenets in the two cases; for, although motion, considered apart from any moving thing, is an abstraction, like protoplasm, yet it is a simple abstraction, which we can use in calculation, and verify our calculated results by experiment. But protoplasm is a very complex abstraction, theoretically endowed with all the properties of living matter; and there are no means of testing how far this complex of properties, when worked out theoretically, in combination with other simple abstractions—like mass, velocity, etc.—would be found, on experiment, to correspond with the calculated result; so that the conception of protoplasm has no stable basis, like that of motion. And by means of it we do not get any established ground wherefrom to consider the phenomena of life; and we only spin out speculations by means of it which, when finished, are no more realisable than the hypothetical conception with which they begin. Therefore, I do not think it any real gain that the biological teacher of the medical student has displaced the cerebro-spinal fluid by protoplasm. And I am begging you to fix your attention particularly on this fluid, because it is upon this fluid that a great deal of what I have to say to-day centres itself.

It has long been known that the watery fluid within the ventricles of the brain finds entry and exit from the brain into the spinal canal, so that it comes and goes from spine to brain, according as the pressure of blood in the brain is less or more; and this way there is provision for a change in the quantity of blood which can circulate in the brain. The degree in which the nervous system can exercise its special power, independently of direct action of its supplying vessels, is a question very important for the obtaining of clear views upon the complicated phenomena of nervous disorders. In these lectures, I am going to endeavour to estimate the extent of disturbance of the nervous system, which can be fairly ascribed to changes in the calibre of the blood-vessels, and in the blood-pressure within them, so as to ascertain what is the true value of the main "congestion of the brain", and to show the relation of the epileptic fit to vascular action, and of angina pectoris to high tension within the vessels.

This kind of question has been a great deal lost sight of by the pure physiologist, who seems to me, if I may humbly say so, to have let pass the consideration of some most interesting and important branches

of specially human physiology in the modern pursuit of fundamental vertebrate life, in that convenient victim and martyr, the common frog.

I am now concerned with one such branch, and it is the study of the means whereby the circulation in the human brain is made secure, so that no augmentation of pressure in the brain, either from changes in the force of the heart, or from changes in the atmospheric pressure, or from changes of posture, ever produces any ill effect. Our best modern text-book on physiology scarcely deigns to notice the group of mechanical contrivances whereby the human frame is adapted to go upright. The text-books of twenty years ago used to set forth the several points in the human organism, whereby the erect posture is made possible. Dr. Carpenter used to give a list of these, which I will not recount, but will only mention that he left out one essential to the erect posture in man, necessary, at least, to his long maintenance of it, and that is the ambition that induced him to get upon his legs. Now for this a relative increase in the size of his brain was required; so that, after vitalising and giving energy to brace up all Dr. Carpenter's mechanisms, there might be left enough nervous power to be willing to take the trouble to be upright.

But this increased size of brain necessitated an increase of blood-supply; a great increase it must be, considering how richly blood is given to nerve.

Meantime, the same erect posture placed the brain so much aloft, that blood-supply to it is less easy. For consider the difference in hæmostatic conditions which arises, when a column five or six feet long, containing fluid, is suddenly raised to the vertical, or suddenly lowered to the horizontal position. Imitate the case with a model of some spongy material soaked in liquid, and of course, as you raise the column of sponge, the liquid in it will collect below, and as you lower the column the liquid will go to both ends equally. And of course it need not be said that the physical forces which act in dead matter act equally in living; so that this tendency of the blood in the living sponge which composes our frame has to be met and counteracted, or all the mechanism for the erect posture would be of no avail.

The problem, then, is how to prevent the sinking down of blood from the brain. That there is risk of at least inconvenience from such mere opposition of gravitation to circulation, is experienced very often by many persons in delicate health, who suffer a certain giddiness on rising from a stooping posture; a giddiness, which may be accompanied by slight loss of sight. But this occasional and trivial inconvenience to some would, of course, be constant in all, unless there were provided a large means of checking the great tendency of the blood to act in obedience to hydrostatic laws, and sink to the lowest possible level. The principal means whereby this is accomplished is doubtless the suction exerted by the practically closed cavity of the skull. Allowing all the considerations which render this cavity less securely closed than a metal globe, pierced only for entry and exit of to-and-fro pipes, would be, the cranium, nevertheless, composes a very large space inaccessible to external pressure, except, firstly, by means of the blood in the vessels which enter and leave it; and, secondly, by means of the cerebro-spinal fluid. Let us remember the relatively not very large amount of this fluid in a healthy brain, and we must allow that blood within the skull is, to a very large extent, prevented from leaving the skull by the impossibility of air or any other substance than blood finding its way in to supply the place of the blood that would go out. And, doubtless, no part of the whole system of contrivance is equal in its efficiency to this suction. But whilst it is true that by far the greatest part of the blood would then be retained by suction in the brain, it is also true that the incompleteness of the closure of the cranium does allow some amount of variation in the quantity of blood which it can hold. This variation is chiefly allowed by the variation in the amount of the watery liquid in the ventricles.

Now the part of the cerebro-spinal fluid which is within the cranium amounts in most persons to about two to three ounces, and it is, to a large extent, capable of being pushed out of the cranium or drawn into it. This gives us a variable margin of sufficient importance to call for arrangements that may meet such sudden changes in the amount of blood, as would arise in virtue of variations in this fluid. For, though it may seem that three ounces do not amount to much when compared with the whole capacity of the skull, yet there is evidence that the quantity of blood in the cranium is only capable of small changes; and that not very large changes of quantity of contents in the skull are required to produce fatal symptoms. I used to weigh the amount of blood which had escaped into the brain in cases of apoplexy; I never met with more than three and a half ounces of it. This had been sufficient to take away sense and life, that is, so far as quantity is concerned; when the tendency was to a greater bleeding, this showed itself in density or hardness of the clot, not in increase of it. In fact, there was no room for more, and the three ounces and a-half correspond nearly with the three ounces of cerebro-spinal liquid, especially when we observe that apoplexy occurs in anæmic brains, in which the cerebro-spinal fluid is present in more than the natural quantity. That apoplexy occurs in anæmic brains, I shall prove in my second lecture. Thus, an amount of change in the contents which bears but a small proportion to the whole capacity of the cranium, estimating that at about fifty-five ounces, is all that is observed in case of fatal pressure on the brain. It is true, that somewhat more of extraneous substance can be introduced gradually into the cranium without destroying mental life. Thus I have weighed tubercle to the extent of five ounces from the brain of a child, who showed intelligence up to the time of a fatal meningitis, which had come on in consequence of the tubercle. But it is certain that a change of about three ounces is all that can be borne suddenly by the brain; and common movements of the frame must be supposed to be quite equal to produce a change of that extent. For, when a person rises suddenly from the stooping posture, the blood which was favoured by gravitation in its flow towards the brain when the head was down, has now to run up to the brain through narrow pipes of blood-vessels, and against friction and gravitation. But if the circulation be feeble, the pressure of blood towards the cranium may be deficient. One may estimate the great and important extent to which sudden uprising tends to reduce blood-pressure towards the brain, by recalling how raising the arms will impair the power of circulation towards the hands, and how raising the legs will reduce the circulation towards the feet; facts of which the practitioner avails himself in checking hæmorrhage, and in reducing inflammation or ulceration of the extremities. And it is well known that a person may even be led to feel faint by raising both arms for a long period. Now, the brain is being constantly put into the position of a raised arm or leg; and although, by the suction to which I have referred, it is kept from such extreme changes as the hand or foot undergoes, yet the cerebro-spinal fluid allows changes to the amount of about three ounces. Now, the way by which this watery liquid enters the cranium and brain is, as I shall show, a wider and freer passage; whilst the way in which the blood reaches the texture of the brain is by the narrow passages of the capillary arteries; and if the circulation be feeble, the heart may drive the blood less forcibly to the texture of the brain than the venous pressure in the spinal canal drives the cerebro-spinal fluid into its cavities, so that, when the head is raised and the venous blood falls away more readily from within the skull, the cerebro-spinal water may outstrip the arterial blood in the race to supply the place. And thus the ventricles of the brain may tend to fill with water more quickly than the substance of it with blood, and so the brain blanches and the person feels giddy. And this is especially the case when a permanent anæmia of the brain has led to an increase in the capacity of its ventricles. Many elderly people with poor circulations feel, during a large part of the day, more or less giddiness from this cause; and if the circulation have become, through age and high arterial tension, very inefficient, every oscillation of the head, even in ordinary walking, will, if the heart's power be at the time rather lower than usual, keep the person distressed with giddiness or a sense of insecurity, which makes him justly rather afraid of apoplexy, but which is a sign of anæmia of the brain. Apoplexy, however, occurs in anæmic brains.

This kind of giddiness, which is characteristic of age with its failing circulation, would keep the human race on all fours during the whole of existence, if it were not for certain beautiful automatic mechanisms, which tend on the one hand to automatically diminish outflow of blood from the brain; and on the other hand to automatically diminish the entry of blood into the brain, so as to automatically keep the brain under all conditions at a certain state of pressure of blood. These mechanisms depend on elasticity of artery and general goodness of venous circulation; and it is the failure of elasticity of artery and the increasing lack of free venous circulation which cause giddiness so readily to appear in old age.

First, as to the mechanism whereby the entry of blood into the brain is automatically checked. For this end, it is necessary that means of lowering the rapidity and force of the current in the vessels should be found. The researches of physiologists have shown of late years that there is such a relation between blood-pressure and the heart's action, that they must infer the existence of a self-acting mechanism which tends to preserve at a certain level the pressure of the blood. The seat of this mechanism is traced by experiment to the neighbourhood of the origin of the pneumogastric nerves. This inferential mechanism is doubtless the more fundamental and effectual of the automatic means of checking excessive entry of blood into the cranium.

But anatomists have hitherto overlooked a very interesting mechanism in the human brain which must plainly tend to check excessive entry of blood, and which, although not the most fundamental, let alone the chief or only means of automatically checking entry of blood, yet I think must be seen as a superadded contrivance necessitated by the large development of the brain in man, and the consequently large volume and large change of volume of blood to be provided for. I refer to the mass of choroid plexus of the fourth ventricle which stretches down round the side of the medulla oblongata enclosed in the lateral offset of the ventricle, which I will call its *cornu*. The cornu, as we will if you please call it, reaches down to and presses upon the roots of the pneumogastric nerve.

I said the cornu of the fourth ventricle presses upon the roots of the vagus. The proof of this pressure is interestingly given in the fact that in early life the cornu is little connected with the nerve-roots; whereas in later life, and especially in cases showing chronic distension of the ventricles of the brain, the vagus becomes firmly united to the cornu of the fourth ventricle. So much is this the case, that you will commonly find, when the brain is removed with only ordinary care from the skull, that the sides of the fourth ventricle are torn open, and the choroid plexuses protrude prominently from them. I have here a specimen of a brain removed in the ordinary way, in which the choroid plexuses are thus exposed. The very slight drag on the pneumogastric nerves, which was caused by the cutting of the roots with a sharp knife, has sufficed to pull open the lateral cornu of the fourth ventricle on each side.*

I would also here draw attention to the fact that the pneumogastric nerve, of all the cranial and spinal nerves, runs perhaps the shortest and straightest course from its origin to its escape from the dura mater. It forms, as it were, the central nerve of the whole system. Above it, all the nerves incline upwards or forwards to their exit; below it, all incline more or less downwards. But this nerve runs a straight, short, tense course; and, as it is fixed at each end, a little pressure must tell on it very directly. An observation of my late friend and colleague Mr. Hilton will serve to illustrate how tense is the root of the pneumogastric nerve, and consequently how subject to mechanical force applied to or about it. In Mr. Hilton's *Lectures on Rest and Pain*, he says: "But I suspect that if, in such cases (concussion of the brain), the base of the brain be carefully examined, the cause of death may be discovered in injury to the filaments of the pneumogastric nerve near the origin from the medulla oblongata. Some years ago, I clearly made out this lesion in a case of concussion which caused the patient's death. The only indication of local mischief which I could discover was the laceration of some of the filaments of the pneumogastric nerve." This observation of a most experienced and most skilful observer, seeing that no other part within the skull was hurt, and the pneumogastric roots were torn, shows in a conclusive way how tensely they are stretched; and, if they are tensely stretched, slight pressure upon them must be productive of not unimportant results.

Now, it cannot be a matter of chance that the roots of the vagus should be stretched so tightly across from origin to dura mater as to be specially picked out for laceration, and at the same time that the vagus alone of all the cranial nerves should receive a peculiar offset from the fourth ventricle; so that the ventricle puts out a finger-like process or cornu packed tightly full of a mass of blood-vessels to reach these stretched roots of the nerve, and to press upon them so hard that, as life goes on, the nerve and the finger-like process become firmly united together. Whatever may be the meaning of such an arrangement, it cannot be thought that it would exist without any signification, or service, or function. No other nerve is thus treated; and the question therefore arises, What are the effects of pressure on this particular nerve? In answer to this question, we may first observe that, when the vagus is stimulated by galvanism, the heart's beat is caused to stop thus.

Again, if the pneumogastric nerve be stimulated by digitalis, the result is to stop the heart in a similar way if the dose is large; but, if the dose be moderate, the heart's action is not stopped, but only made slower; and, by graduating the dose of digitalis, the heart may be made to go slowly in corresponding degree.

But what will be the effect of pressure upon the vagus? An answer is furnished by an observation made by Czermak. This distinguished physician had a small osseous tumour in his neck; and he was able, by pressing the vagus against this tumour, to stop at will the beating of his heart.

We have, then, a mechanism plainly intended to do something; and what we find the thing this mechanism is calculated to do, is to check the action of the heart. Let us now see whether any beneficial result will follow from such checking of the action of the heart under the circumstances in which the mechanism is put in operation. It is clear that, as the finger-like process is stuffed with tufts of blood-vessel, the pressure it exerts will depend on the amount of blood in the vessels—the more blood, the more pressure; so that it is when the vessels of the choroid plexus become distended with blood that the finger-like cornu which contains the blood-vessels will press upon the pneumogastric nerve and check the action of the heart, and thus prevent excessive inflow into the vessels of the brain. In fact, the contrivance will act exactly like the ball-tap which controls supply to a water-cistern. Now, I am not saying that this is the only means of such check-action. Creatures unprovided with it show an automatic check upon the action of their vascular mechanism. But it is certain that the contrivance I thus describe will tend to control the entry of blood into the brain; and I think its development in the human brain bears a relation to the great size of the brain, and to the extent of its blood-supply, which requires a supplementary automatic check upon the entry of blood. Perhaps, when this check is further developed in the advancement of the race, the balance of activities between the mind and the heart may be still better regulated than is the case at present.

But I shall be asked for proof that, when there is pressure of blood into the brain, the pulse is actually checked and retarded. Evidence is not far to fetch. Let us take a simple case—one which is constant in observed results. Take the variation in rate of pulse when we change our posture from horizontal to upright, and let me cite the well-known and careful experiments of Dr. Guy. This physician found, by an extended series of observations, that the rate of the pulse when persons are standing averages 81; but, on these persons lying down, the rate of the pulse falls to an average of 67. The effect is just as if a moderate dose of digitalis had been taken. Lest it should be said that the increased rate of the pulse in the erect posture is due to the greater muscular exertion of standing, the persons under experiment were strapped to a board, and supported in such a way that they did not use any exertion to keep themselves upright; and yet, when they were caused to pass from the horizontal to the erect position by a revolving movement of the board, the same increase of pulse-rate took place. Now, in the upright position, the blood tends to drain easily away from the brain and reach it with difficulty; so that the choroid plexuses would be less distended, and the pneumogastrics less pressed upon. But, in the horizontal position, the blood goes to the brain more freely; the choroid plexuses are more distended, and the pneumogastrics more pressed upon; thus checking the action of the heart, as if the person had taken digitalis. And, indeed, it will be found true, that causes which involve too great a general flow of blood into the brain reduce the pulse. Thus, as we shall presently see, the effect of going into compressed air is to reduce the pulse. Also the first effect of active influx of blood into the skull in general inflammation of the brain is to retard the pulse. A slow irregular pulse is, of course, one of the most significant of the group of symptoms which usher in meningitis. It is true that, later in the course of this disease, the pulse becomes quick again, and indeed quicker, until it becomes impossible to count it. And it is true that, when this quickening occurs, the brain is still overfilled with blood; and, these things being true, we have to explain why now the pneumogastric is no longer pressed upon and inhibited. The answer is quite clear. Under my care, as I now write, is a child in the clinical ward at Guy's Hospital; it has passed through the early stages of tubercular meningitis, and is in the last stage, with pulse 180 in the minute. I have given, in the last two days, large doses of tincture of digitalis to this child. Now, digitalis has the power of calling out the action of the pneumogastric nerve, and so retarding the pulse. But, in the case of this child, the digitalis does not show the slightest degree of such power; the child's pulse is quicker, instead of slower. It is just as if a large dose of atropine had paralysed the pneumogastric, in which case it is known that digitalis will not retard the heart's action. We have here, then, evidence, through the inefficiency of digitalis, that the pneumogastrics are paralysed; and hence pressure on their roots in the cranium naturally produces no result, any more than do the large doses of digitalis.

* I may commend this very easy laceration of the cornu of the fourth ventricle by a slight drag on the pneumogastric to surgeons for explanation of such cases of fatal concussion of the brain as appear at first sight to offer no anatomical lesion. The shock in fracture of the base is transmitted largely towards the eighth pair of nerves; and this pair is tensely stretched; so that, if there be a severe jarring in the line of the posterior lacerated foramen, a sufficient vibration of the vagus nerve may be set up to tear open the fourth ventricle: also, as to cases of unusually free and large discharge of watery fluid from the ear in fractures of the base, it may be noticed that the damage done to the skull is apt to run through the temporal and occipital bones where they meet, and in the violent laceration and crushing action of the moment the pneumogastric nerve is liable to get a sharper pull than is given it in cutting it with a knife. If, then, at the same time a fissure be made through the dura mater and bones, reaching the tympanum and tearing its membranes—and I have traced such a fissure in more than one case—a direct road is thus opened for the flow of liquid from the fourth ventricle through the external ear.

Such being the means of checking excessive entry of blood to the vessels of the brain, let us now take into consideration the automatic mechanisms which tend to check the exit of blood from the brain. The object is to oppose an automatic impediment to the exit of blood from the cranium, which shall be efficient in proportion as the tendency of the blood to leave the cranium is exaggerated. First of all, we may notice that there is a tendency to disfavour a ready exit of blood from the brain, shown in the fact that, whereas the arteries of the brain enter the base of it, that is, enter the part nearest to the heart, thus receiving their supply with all possible directness; and whereas the arteries of the brain then run upwards over the brain, the veins do not then descend in company with them, as veins generally do, but they run for the most part just the opposite way, ascending towards the top of the brain against the attraction of gravitation. The obvious result of such a disposition of the venous current is to delay the exit of blood; so that, in case of feebleness of the current, that very feebleness would tend to cause the blood to fail to go rapidly upwards against gravitation, to reach the sinuses and escape from the skull. Now Virchow also called attention to this retardation of motion of blood in the cerebral sinuses, especially by the dilatations of calibre and projecting partitions in the walls of the sinuses. And Dusch, with reason, further ascribes a retarding tendency to the peculiar form of the canals of this portion of the venous system, seeing that, by deviating from the cylindrical form, the proportion of the surface by which the blood meets the walls of the sinus to the bulk of the blood within the sinus is increased, so that there is greater friction in proportion to volume.

But another and much more elaborate and efficient check to the exit of venous blood from the brain is seen in the curious opposition between the course of the current in the great veins at the back of the brain, and the course of the current in the longitudinal sinus. Here we shall observe a self-acting mechanism, which bears a most interestingly co-ordinated relation in its degree of efficiency to the degree of requirement which exists in each particular case; for, when the human brain is compared with the brain in allied animal forms, it is seen that the superior intelligence which characterises man is obtained through, or at least with, a backward extension of the hinder part of the brain, or more properly of the cerebrum; and, in fact, this backward growth does actually occur in the development of each human person, as may be seen in these diagrams of the brain in the later months of fœtal development. Now observe the effect of this backward growth of the brain upon the course of its veins, and we see that, as the brain goes back, it carries with it the sources of the veins backwards, away from the points of delivery of the blood into the longitudinal sinus which receives their contents; for it appears that the backward growth, alike of the brain of the skull and of the dura mater, takes place chiefly behind the points of junction of the hinder cerebral veins with the longitudinal sinus. The natural result of such an arrangement is to this effect: that, just in proportion as the brain is developed backwards, with the increase of intelligence and with the erect posture which intelligence seeks, just in such proportion is the blood from the newly developed part of the brain sent forwards into the sinus which receives it. But the blood in the sinus, which thus receives a forward current, is itself going backwards, and is in fact the blood coming from the front of the brain. Hence in the sinus there is an opposition of this current from the front of the brain to the current from the back of the brain, which meet and check each other, and so diminish the freedom of exit of blood alike from the front and the back of the brain, and detaining and making less free the rush of blood in the anterior part of the brain, which the erect biped shares with lower animals, and perhaps keeping the animal down in him to some degree; at the same time, staying the blood in the whole increased mass of brain, so as to render any movements in the blood less sudden. In this way, the greater size of brain that induces the erect posture, and goes with a disposition to take up a great variety of postures with more or less brain-activity—this greatly increased brain is kept accommodated with blood by reduction of tendency to outflow of its venous current. In short, the brain is compelled to economise its supply. Such a meeting of the backward current by a forward current must have the same effect as occurs when, at the mouths of rivers, the current of the river is met by the rising of the sea, so that a rise of water in the river is a consequence, as in the production of tides; nay, the obstruction being, by means of one current actively opposing another, so direct, that it may almost be compared to a lock in the course of a stream. The result as to the outflow from the longitudinal sinus will be that, instead of a current from the veins of the brain running with a certain velocity through and out of the sinus, the forward and backward currents neutralise each other in the sinus, and the blood goes out from it, only as an overflow under the pressure existing in the veins at the time—no overflow if no pressure; and, if we trace the effect backwards upon the state of the veins, we see that it must tend to keep the veins full under all circumstances, locking the current in when it is feeble, and so preventing too ready escape of blood in sudden change of posture, etc. On the other hand, when the current of blood through the brain is strong, the antagonism of the vein-streams would cause them to oppose and lock each other perhaps too thoroughly, so that a scheme of relief is necessary, as a sort of weir or escapement, to allow excess of blood to pass by the lock which there is in the longitudinal sinus. This weir or escapement is provided by sending the blood from the whole of the lower parts of the brain, by means of the inferior longitudinal and straight sinuses, to a point beyond the lock, which I have described; so that there is thus a free exit for some of the blood when the pressure is great.

Now, if we consider the parts of the brain that discharge their blood beyond the lock in the longitudinal sinus, we see that they include the parts more essential to animal life, especially the great ganglia at the base of the brain in the medulla oblongata, pons Varolii, thalami, and parts of the corpora striata. Blood is sent to these essential parts of the brain immediately the arteries enter the skull, so that they get their supply at high pressure, and the blood comes away from these parts of the brain by veins that join the sinuses of exit at points beyond the lock, and near the ending of the sinuses in the jugular veins; nay, some part goes independently through the inferior petrosal sinus directly out of the skull. Thus a free circulation takes place in the vital parts of the brain, whilst those parts which subserve only the relative unessential process of thinking, have their blood-current partially locked, and are obliged to economise it; the free circulation in the vital parts of the brain relieving the block when the pressure is great.

Amongst the parts that receive their arterial supply immediately the great vessels enter the skull, are the choroid plexuses, both of the lateral and of the fourth ventricles; and I have already shown how the overfilling of a particular part of the plexuses of the fourth ventricle acts like a ball-tap in putting a direct check upon the entrance of blood into the arteries of the brain. But a very considerable easement of the stress of blood is provided by the great capacity of the choroid plexuses themselves. These plexuses will contain much blood; and, when the entry of blood into the brain is free, they fill rapidly with it; and, as they lie in the ventricles of the brain, and are bathed by the cerebro-spinal fluid, they press into and expel this fluid into the spinal canal, where it finds accommodation by pressing in its turn on the spinal vessels. The veins from these plexuses form part of the escapement system.

And the locking system which I have described does not act without telling slowly on the arteries which feed it; for these arteries, being relatively unable to empty themselves, as other arteries can and do, have to suffer greater strain; and so in time these arteries, which feed the locked circulation of will and thought, become injured, and the sum of injuries accumulates upon them; whereas the more unimpeded vessels of the base of the brain which feed the parts essential to life, whose veins form the weir, are not so much strained or so much injured, because they are unobstructed. Hence, when at length some over-strained vessel must burst or be blocked, the vessel which so suffers is, in nine cases out of ten, a branch of artery which sends blood to the locked longitudinal sinus, not a vessel which sends blood favoured by gravity to the more open lower sinuses.

Again, I think it is reasonable to reflect, further, that wearing out of the cerebral arteries would affect, first, the arteries of parts whose activity is a matter of education; and, therefore, of will and intelligence; because the activities which are organised through education are, as it were, grafted on the more stable activities that are natural to animal life. And the exaggeration of action which education compels cannot be supposed to be prepared beforehand by the animal development, in the same way as the animal development prepares beforehand a provision for the functions of purely animal life; so that educated activities act through and with a relatively less well-prepared vascular system than that with which the more natural activities are favoured. And hence, when a general difficulty overtakes the whole circulation of the brain, the less stably organised and overstrained vessels of the parts whose function is exaggerated by education, would give way first. In this manner, we may explain why it is that either the distal portion of the upper extremity—the chief subject of education—or else the organisation for speech, one or the other of these is the first injured in trivial, the last to recover in severe, arterial breakdown. I think it is from this cause that the strain on the locked system of cerebral arteries picks out for its earliest victims the most highly educated parts; so that an attack of hemiplegia nearly always lets off most lightly the limbs and parts of limbs which subserve the animal procedure of walking, and the swing of the shoulder and elbow, and so forth, and fastens itself on

parts whose education has spun out and elaborated, and relatively weakened the vascular supply of their department of the nervous centres. These flourishing but not purely natural departments fail, just as you may see often upon grafted rose-bushes, that a more vigorously growing graft, which has flourished grandly whilst the stock was sound, will be first to wither when the stock begins to fail; whereas natural shoots, which before were more moderate in their luxuriance, will commonly survive.

But I am almost forgetting in this digression that I may be asked for some proof that the arrangements which I have described as a lock in the cerebral circulation actually lead to the obstruction and delay of the venous current for which we are assuming they are designed. Now, upon this question there is a very curious and very interesting kind of evidence to show that throughout life the blood is held up at the mouths of the cerebral veins, and this evidence is in the so-called Pacchionian glands or bodies. If we look at this drawing of the venous system of the top of the brain in an elderly person, we see that around the points at which the veins enter the longitudinal sinus there are a number of knots of fibrous tissue, the nature of which has given rise to much inquiry and speculation from time to time. These bodies may be more or fewer in number, greater or smaller in size—may even be so large as to penetrate, and even perforate, the skull by their increase; but they are always there in subjects above three years old, and it is important to notice that they increase as age progresses, and are always attended by a thickened state of the pia-arachnoid membrane around the points where they take their rise in this membrane, and that they always appear about the endings of the great cerebral veins in the longitudinal sinus, and chiefly around the posterior cerebral veins. To understand the signification of these bodies, and of the thickening of the membrane around them, we may reflect that the opposition of the currents in the sinus has the same effect as the meeting of the Thames with the waters of the Channel at the rising of the tide. The consequence in the case of the Thames, or any tidal river, is that a tide is felt for a certain distance up the river, and if it be high it floods the low-lying districts, ceasing to have any influence at a certain distance from the mouth of the river. In just the same way, the quasi-tidal obstruction in the veins tells most near the mouth of the vein, and especially most on the feebler current at the side of the vein, which feebler current receives the latest small branches from the membrane, the obstruction damming up the last small branches entirely, while it merely impedes the flow in the branches that feed the freer current in the middle of the vein. Now, a chronic delay in venous blood tends to cause increase and thickening of the lower forms of texture, such as fibrous tissue. Conspicuous examples both of thickening and of tuft-like growth may be seen on the capsules of the liver and spleen in heart-disease and in cirrhosis. In some cases of very chronic and yet severe obstruction of the mitral valve, I have seen the serous covering of the liver thickened and crowded with bodies which were exactly like in all points to the "Pacchionian glands". It was this observation, in fact, that suggested to me the explanation of the Pacchionian glands that I am giving, which is that, around the mouths of the cerebral veins in the tidal area, if I may so call it, arise proofs of protracted delay of venous blood, in the form of thickening of the fibrous membrane and development of fibrous tufts, which are the Pacchionian glands whose causation has long been a puzzle to observers. No such bodies are ever found about the points of exit of the veins at the base of the brain.

I will ask you now to direct your attention to the last particular of the anatomical part of my subject, and to consider the curious opening at the apex of the fourth ventricle, which forms the means of communication between the interior of the cerebral ventricles and the subarachnoid space of the spinal canal. It is through this opening that the cerebro-spinal liquid is driven or drawn to or from the cerebral ventricles by the action of the choroid plexuses, and thus a principal part of the escapement system of the cerebral circulation is put in operation. None of our works on anatomy bestow more than a trivial and passing notice on this opening. The edition of *Quain's Anatomy* from which I learnt, spoke of the opening as "generally" present, and the last edition merely says, on the authority of Magendie, that there is such an opening. But surely throughout the entire frame, and amongst all the wonderful adaptations by which the liquids and solids of the body are actuated to their mutual duties, there is no spot more worthy of close attention than this curious aperture of escapement, situated immediately above the very centre of life, and of essential service to that centre. Shall I be forgiven if I take time to describe the anatomy of the part with some care? It deserves the attention of the physiologist, even if only because the sudden change of character of the surfaces which communicate at the opening is as remarkable as the difference of the surfaces which meet at the fimbriated opening of the Fallopian tubes. For the interior of the fourth ventricle is lined at the floor and sides with ependyma, or proper lining of cerebral ventricles, and this has upon its surface a layer of thick close-set epithelium, whose cells are of irregular cubical shape, and very conspicuous, whereas the subarachnoid space is entirely without lining membrane or epithelial covering. The change from the one character of surface to the other occurs very abruptly, the epithelial cells breaking into groups and disappearing as you trace them from the ventricle towards the space. The opening is in the middle line, and is another place of non-union of symmetrical parts: it is situated exactly over the spot where the central canal of the spinal cord joins the fourth ventricle. It is a hole with edges well defined at the sides and below, but is entirely without any definiteness above—in fact, when you are proceeding from the subarachnoid space towards the fourth ventricle, upon the roof of the ventricle you will find that there are no signs of a boundary at all. And indeed the matter is left curiously to chance, for in some subjects the choroid plexuses of the fourth ventricle wander out nearly an inch into the subarachnoid space in the most regardless manner, whilst in others they keep themselves well within the bounds that would correspond with the limits the opening reveals at the sides and floor of the ventricle. The line of demarcation between the subarachnoid space and the fourth ventricle is more than indefinite upon the roof of the ventricle; indeed, it does not exist, and the roof of the ventricle is in fact organised after the manner of subarachnoid space. This space runs forward on it to reach the valve of Vieussens—in other words, the subarachnoid space is in open continuity with the fourth ventricle all along the roof of the ventricle until you reach the valve of Vieussens, where a proper ependymal surface appears for the first time as you trace forwards.

The delimitation, then, between the fourth ventricle and subarachnoid space concerns only the sides and floor of the ventricle, and is entirely indefinite above. As to the sides of the ventricle about this opening, they are composed of a double membrane, the outer of which can be separated from the inner. Here is a drawing of the inner membrane after the outer has been removed. The outer membrane is the pia mater, springing from the edge of the calamus scriptorius, and reaching the under surface of the cerebellum, where it loses itself, or, at least, I always lose it. The inner membrane is a layer resembling the valve of Vieussens, but thinner. It is easily lacerable, like cerebral tissue, being composed of the felted fibrils of ependyma, with a few nerve fibrils, and its inner surface is coated with the thick epithelium which I have described. It rises from the edge of the calamus scriptorius, and has pia mater at its outside, but separable from it, as I have said, and it rises up to reach the edge of the choroid plexus in the roof of the ventricle, beyond which it cannot be traced, except that it sends its epithelium over the ventricular face of the choroid plexus, but not beyond this, however, so that it does not reach into the middle line of the roof. At the verge of the opening itself, the pia mater extends in a fimbriated form one-twelfth of an inch or so beyond the free edge of the ependyma, and it is on this one-twelfth inch that the epithelium of the ependyma disappears as I have described.

I examined the opening in upwards of seventy brains, removed with especial care for the purpose, and taken from subjects at different periods of life, some very early. Thus, in a fœtus 2.6 inches long, which I took to be two months old, I found the three membranes—dura mater, arachnoid, and pia mater—quite distinct, and the opening of the fourth ventricle already evident, but its relations to the cerebellum and medulla oblongata not definite on account of the undeveloped state of those parts. The choroid plexuses of the fourth ventricle were already very well developed. At yet earlier periods I found the thalami and corpora quadrigemina protuberant on the surface of the brain, uncovered by the cerebrum, so that the membranes which even here were distinct had no relations to these parts comparable to their relations in the developed brain. I observed, however, that the membranes of the brain develop very early. I have found a fringed opening of the fourth ventricle in the brains of dogs and of chickens. I could not succeed in frogs, the films of membrane were so thin, and I could not be sure of more than two membranes in the spinal cord of these animals.

At the fourth and fifth months of human fœtal life the opening is quite obvious, the lips of the orifice well formed, but the edges slope from below upwards and forwards, instead of upwards and backwards, as in the adult. This appears to prove that the backward growth of the cerebellum is greater than that of the pons and medulla after the fifth month, so that the upper attachments of the edge of the orifice to the cerebellum is moved back with the growth of the cerebellum. This backward growth of the cerebellum carries back the tail of the choroid plexus often far beyond the line of the edges of the opening; the choroid plexus seems thus stretched back in linear form, to prevent its obstructing the opening.

I trust I may be pardoned this long account, because of the surprisingly slighting way in which the anatomy of this most vitally essential part of the human organisation is treated by anatomists. Not long ago, a Guy's student was seriously reprehended by an examiner at the Royal College of Surgeons for speaking of a choroid plexus in the fourth ventricle. He was informed that he ought to know that the choroid plexuses are in the lateral ventricles.

Now, considering that a large and free communication between the ventricles of the brain and the spinal canal through the end of the fourth ventricle is universal in all warm-blooded vertebrates, and is absolutely required in order to allow variation in the quantity of blood in the skull, and to adjust the pressure with which blood bears upon the brain; and, considering that our security in changes of posture, and even in the less active matter of thinking, depends largely upon this communication, I cannot help suggesting that a little more notice should be taken of it, and a little more attention given to the facts concerning it. The admirably clear and instructive text-book of the Cambridge School of Physiology does not deign to touch the curious mechanism of the varying blood-supply to the human brain, although it treats very fully of the apparent intelligence with which a frog deprived of his cerebrum will scratch himself when tickled, and will seem to take care lest he should be upset when tilted about. Meantime, I am not aware of any reasons to believe that consciousness and will must inhabit homologous parts of the brain in remote classes of vertebrates, or that light is thrown on the special functions of the human brain by experiments on frogs.

When the head is inclined downwards so as to be on a lower level than the trunk, and especially when anyone stands on his head, a sensation of great discomfort is produced, because the cerebro-spinal fluid, which is protective in natural postures, now reverses its operation, and forms a column of liquid of some length directly pressing into the ventricles of the brain, adding to the pressure which the blood produces by escaping with difficulty from the head, so that water as well as blood press forcibly upon the brain. I have never known anything more than discomfort occur from this cause; but it is well to remember the cerebro-spinal fluid when, in chloroform-syncope, etc., one is tempted to cause a flow of blood to the head by lowering it below the level of the body; for, in so lowering the head, you delay venous circulation, and send water as well as blood towards the brain, thus lessening the blood-changes there which you wish to increase.

To show how important it is that the opening in the fourth ventricle should be free, let me shortly describe the case which first fixed my attention on the results of its absence or closure. A boy of sixteen had always been a rather slow, dull boy, forgetful and hesitative, without being at all idiotic or utterly incapable. He used to go to his father's warehouse, and amuse himself in his slow dull way, without being of much use. This boy was one day not very well; but his illness appeared trivial. He stayed at home that day, and the next day went to bed early. He became worse in the night, being faint and weak; and a relative went to his bedside; then, quite unexpectedly and rather suddenly, he died. I had not seen the lad during his life, but was asked to inspect the body. Nothing whatever of a morbid kind was found in the viscera of the trunk; but, on raising the calvaria and removing the dura mater, a very curious appearance offered itself. A large bladder, just like an hydatid, was in the right cerebral hemisphere, separating the convolutions from each other; it was about two inches in diameter. I naturally thought it was an hydatid; but, on opening it, I found it extended deeply into the brain, and, in short, it proved to be an immensely dilated lateral ventricle. The ventricle of the other side was almost as much dilated, but did not reach the surface. The *post mortem* examination was made in a private house, and under the usual difficulties. I therefore took away the parts around, and including the fourth ventricle. I hardened these, and examined them. There was a growth of papilloma; in fact, a wart starting off the surface of the fourth ventricle near its apex, and running upwards to touch the roof, almost completely closing the opening of the ventricle, and stopping the way of liquid out of it. The sudden death in this case, and in several other cases of intra-ventricular dropsy of the brain which have come under my observation, I believe to be due to inhibition of the heart through pressure upon the pneumogastric centres.

Having thus, at what, I much fear, will have seemed tedious length, described the mechanisms whereby variations in the quantity and in the pressure of blood within the cranium are provided for, I will now proceed to inquire whether these mechanisms are of due efficacy; and I hope to show that the provisions against undue pressure of blood within the cranium will be found so far efficient that, whenever intra-cranial blood-pressure can be separated from asphyxia and strangulation, such pressure does not produce any ill result. In other words, congestion of the brain, as distinguished from strangulation, does not produce symptoms; and those symptoms which are supposed to be due to congestion of the brain as a distinct disease must be referred to other causes.

But, before beginning the course of my argument, may I make clear the position intended to be taken up? I wish to contribute towards doing away with a fallacious notion which continues from one author to another, as work succeeds work on practical medicine—the fallacious notion that a quantity of blood forced into the vessels of the brain becomes itself the cause of several serious and even fatal diseases, which are described under the name of "congestion of the brain", although in such cases there is no mechanical obstruction to the exit of venous blood from the cranium. I wish to show that no quantity of blood that can be forced into the vessels of a brain whose veins are not closed by obvious pressure does, as a matter of fact, produce any such symptoms. I believe this may be proved beyond dispute. I should like to make it clear that in doing this I am proceeding in harmony with the great principles enunciated by the greatest of pathologists, the illustrious Professor Virchow, who, with vast learning and keen original observation, showed that we are not to look to the vessels for the initiative in diseases of the textures of the body. He proved that the life of texture is in the texture itself, its pathological as well as its natural life; and that the movements of the blood in what is called irritative or inflammatory congestion are secondary to a demand upon the blood and blood-vessels, which demand is made by the proper power of the texture-elements. And these elements have power to grow, and to multiply, and to exert themselves in function, dependent on the blood only, as the labourer is dependent for his powers on his bread and cheese. And when I say that the forcing of blood into the vessels of the brain produces no symptoms, I do not mean that no symptoms will attend a fulness of the vessels when that fulness has been caused by disturbance of the brain's texture itself. There will be symptoms, but symptoms caused in the texture by the very irritation that drew the blood to the brain, and not to be ascribed to the blood that is drawn thither.

There is one power by which blood can be sent into the vessels of the brain with certainty and with any degree of force that may be desired, and that power is atmospheric pressure. It needs no experiment to show that great increase of atmospheric pressure must drive the blood away from the surface of the body, and into any parts that are accessible to blood and not to air: such parts are the interior of the cranium and spinal canal. Even moderate degrees of pressure, such as an addition of half or three-quarters of an atmosphere, have been noticed by Pétrequin and Sandahl to cause the disappearance of a tolerably considerable hyperæmia of the conjunctiva; but such minor degrees of pressure have had no ill results upon the nervous system. Although such results have been carefully watched for in air-chambers constructed for the relief of asthmatic persons, the result, as given by Sandahl, who carried out observations on an extended scale, is thus described: "Upon the nervous system, the pressure seemed to exert an indirectly soothing effect; whereas, on sudden reduction of the pressure, nervous phenomena made their appearance". The only marked consequence of the pressure was retardation of the pulse.

But, in fulfilling some of the demands of civilisation, and especially in the construction of bridges over great rivers, workmen have had to go to great depths below the surface of the water. And the human frame, in some instances, has been exposed to degrees of pressure vastly greater than any that could be applied in the therapeutic air-chamber. The effects produced by such great degrees of atmospheric pressure have been recorded by many observers in numerous memoirs, one of the best of which is in the *Annales de Chimie et de Physique* for 1841, by M. Triger, who worked at a depth of sixty feet in the valley of the Loire; but the greatest depth which I can find to have been reached was upwards of ninety feet, in the construction of the great bridge across the Mississippi at St. Louis. A good account of the effects of the tremendous pressure at this great depth was published by the chief engineer, Captain Eade, and is printed in the *Medical Times and Gazette* for 1871. Like all who have witnessed and experienced the effects of such pressure, Captain Eade dwells long on the severe pain in the ears which is caused by the force exerted upon the tympanic membrane until air enters by the Eustachian tubes into the tympanic cavity. No other result is noticed until the Captain speaks as follows: "When the depth of sixty feet had been attained, some few of the workmen were affected by a muscular paralysis of the lower limbs; this was rarely accompanied with pains, and generally passed off in the course of a day or two. As the penetration of the pier progressed, the paralysis became more difficult to subdue; and in some cases the arms were involved; and in a few cases the sphincter muscles of the bowels. The patients also suffered much pain in the joints when the symptoms were severe; an average of at least nine out of ten of

those affected suffered no pain whatever, but soon recovered, and generally returned to the work...The total number of men employed in the air-chamber of this pier was 352; of this number, about thirty were seriously affected...twelve of the cases proved fatal...nearly or quite all of these deaths happened to men unaccustomed to the work. Several died who had worked but one watch of two hours...In contrast to this, is the fact that a very large number of the men (certainly one-half of those constantly employed) commenced with the work at its inception, and remained throughout its continuance entirely without injury or inconvenience.....Considering that the air-chamber was briefly visited by thousands of persons, including many delicate ladies, even after it had reached the bed-rock, some remaining as long as an hour in it, without any of them experiencing the slightest ill effect from the pressure, and that no cases of any importance whatever occurred amongst the workmen after the watches were reduced to one hour, Captain Eade feels satisfied that this is the true cause of the paralysis; and that, by lessening still more the duration of the watches, a depth considerably greater can be reached without injury to the workmen. Too long a continuance in the air-chamber was almost invariably followed by symptoms of exhaustion and paralysis." It is necessary to note that the symptoms appear only after re-entry to the ordinary atmosphere. It is necessary to note that all the accounts of this extreme pressure agree in showing that no ill results appeared during its continuance, and that the grave and sometimes fatal symptoms which occurred on its removal affected the lumbar portion of the spinal cord, producing paraplegia, which would not correspond to lesion of the brain; in fact, the brain showed a strange immunity from injury under this great pressure.

My next step will be to endeavour to estimate the extent to which blood is forced into the brain during exposure to the atmosphere of the caissons, that I may compare this forcing of blood into the brain with such stress of blood as the intrinsic powers of the circulation are able to exert upon the brain. For this purpose, we will reflect as follows. Each act of ordinary breathing exerts a force of about forty-two millimètres of mercury. Now the effect of each breath is to increase the arterial pressure to a degree equal to at least twice the pressure caused by one beat of the heart. But when the body is exposed to atmospheric pressure of forty-two millimètres of mercury, blood is driven into the closed cavity of the skull with as great force as air drives blood into the chest in ordinary breathing. Hence within the cranium there would be for each forty-two millimètres a rise of pressure as great as that expressed by two beats of the heart (really more, because the pressure in the carotid, which I have taken as the standard of comparison, is the whole pressure within the chest, lessened by the direct pressure on the arterial blood). But the pressure at ninety feet depth of water is about fifty times forty-two millimètres of mercury; so that the intracranial pressure produced in the caissons is as great as that of one hundred heart-beats.

Now, if we observe an inhibition trace, to see how many heart-beats restore the normal tension after it has been brought down by inhibition to the line of no tension, we see that about ten heart-beats suffice to bring up the full normal tension. And the atmospheric pressure of the caissons was equivalent to 100 heart-beats, so that the caisson-pressure would raise normal arterial tension ten times. But, as to the highest morbid arterial tension observed with the sphygmograph, Drs. Burdon Sanderson and Galabin, kindly answering my inquiry, say that nine to ten and a half ounces make the highest morbid tension they have recorded, which is about three times the normal tension as observed with the sphygmograph. But the caisson-tension is ten times the normal, and hence is three times the greatest abnormal tension from intrinsic causes. So far as this comparison is valid, the general conclusion is, that the caisson-pressure raises the whole vascular tension within the cranium by an amount which is as great as three times the greatest morbid arterial tension that has been observed to be due to the intrinsic powers of the circulation.

I dwell upon this kind of congestion of the brain, because the flow of blood to and from the brain is meantime free, and this congestion is one purely due to fulness of the vessels; so that we have an active congestion of the brain affecting only the condition of the circulation, and not starting in any variation of behaviour in the nervous tissue. In this example, we can consider the effects of pressure within the vessels apart from the conditions of strangulation, which condition has had a very detrimental effect, as lending a seeming support to assumptions of independent congestion of the brain. And I have thus endeavoured to show that the pressure to which Captain Eade's workmen were exposed must have had the effect of filling the vessels of the brain with a current of blood under greater stress than would be possible through any action of the intrinsic forces of the circulation, whilst normal entry and exit of blood from the brain was allowed. Whether the comparison of pressures I have made is valid or not (and I am aware that there are questions regarding the respiration-curve in the manometer-tracing which are unsettled), it still remains true that the effects on removal of the pressure are so peculiar and terrible as to show how great is the degree of stress from which these symptoms form the recoil.

It is evident that the physical conditions of the circulation in the nervous centres, upon removal of great atmospheric pressure, are unknown, and probably very complicated; and I will not attempt to speculate upon the question of their nature, but only ask you first to observe that, whatever may be the cause or causes of them, they affected only the lower end of the spinal cord; and, second, to observe that the tremendous positive pressure into the vessels of the brain did not produce upon it any effects whatever. Under the positive pressure, there were no effects; and, under the unknown conditions arising through sudden relief from pressure, the tip of the spinal cord was the part which showed itself to be suffering.

I will ask you to remember the negative effects of the great pressure of blood into the brain for the argument of my next lecture, and now will digress for the remainder of this lecture to inquire why the after-effects of atmospheric pressure should involve only the lower part of the spinal cord. And then I will point to some inferences from my explanation, which may have a bearing on obscure points in clinical medicine.

Here I must take the liberty of drawing your attention to some very well-known anatomical points, by which the curious fact that only the legs suffer in the caisson disease is, I think, quite clearly explained.

I need scarcely remind you that, whilst the spinal canal extends down into the sacrum, the spinal cord does not extend below the lower border of the first lumbar vertebra. But the spinal cord gives off nerves all the way down on each side, and the spinal canal on its part is pierced on each side with a series of openings all the way down, even to the lowest part of it, at pretty even intervals; the openings serving to let out the nerves that arise from the cord. The consequence of this arrangement is, of course, that the distance between the place of origin of the nerves of the cord and their place of exit from the canal is short as to the upper nerves, but increases much as to the lower nerves, so that the nerves run nearly horizontally to the neck and upper limbs; whereas, to the loins and legs, they run a long way down before reaching the dura mater, extending, indeed, for many inches, and forming a bunch of long loose threads, something like a horse's tail, and known as the cauda equina. Now the spinal cord is suspended within the spinal canal in subarachnoid fluid, which entirely insulates it. And meantime, surrounded by this liquid, and insulated by it, the spinal cord itself is out of reach of any blood-supply, except such as can come to it from the brain above, or else along the nerve-roots at the sides. And, in fact, the supply of this important part becomes, if I may so speak, one of nature's difficulties. Let us see how the difficulty is met. The blood-supply to the spinal cord is carried out by slender vessels which come from the vertebral arteries within the cranium. There are three of these arteries, one on the front, and two on the back of the cord; they are very slender, and yet have to run along its whole length. No arteries so small as these run so great a length elsewhere in the body, and pressure falls rapidly in minute arteries as the length of pipe increases, so that it becomes necessary to reinforce these slender vessels wherever possible, and advantage is taken of the nerve-roots to send up little reinforcing arteries along these.

In the part of the cord corresponding to the neck, upper extremities, and trunk, where the nerve-roots are short, the reinforcing arteries are also short, and they reach and join and furnish blood to the spinal arteries; so that, in this part of the cord, every segment of it is supplied with blood from two directions, the anterior spinal artery bringing blood from above, and the reinforcing artery from below. But, when you approach the tip of the cord, the supply from below becomes exceedingly precarious, and even apt to fail entirely, because, upon the long strands of the cauda equina, the small arteries are too narrow and too long to reinforce the cord with any certainty; but, at the same time, the supply from above has to be furnished with greater difficulty than in the upper regions of the cord, because the original anterior spinal artery is very far away, and the reinforcing arteries, even in the lumbar region, have to run considerably longer courses than they had in the cervical region.

Thus the tip of the cord has its blood-supply only from above, and deficiently even there; whilst the upper parts of the cord have a better sustained supply, both from above and from below; and this becomes especially the case upon the cauda equina itself, for here the arteries are exceedingly minute and uncertain in size on the several nerves. Hence we see that the tip of the spinal cord, corresponding to the lower limbs and sphincters, is much more weakly organised as to its circulation than are the upper parts of the cord.

But lest this should seem a purely theoretical view, let me quote a report which Dr. Carrington, the able demonstrator of anatomy at Guy's Hospital, has kindly sent me after examining this matter for me. Dr. Carrington says: "I have examined seven cords in all, and send you the results. I have also written out the account of two which were the best of my specimens in a little more detail; and I can send you a like account of all if you wish it. 1. Our subjects are injected from the femoral artery; therefore, *à priori*, there would be a greater probability of the lower than of the upper end being well injected. The fact that it was not the case makes the results more striking. 2. In all the cords there was clear evidence that the anterior spinal artery filled from above downwards, the injection ceasing either at the lower end of the cord or above that part. It was obviously reinforced by vessels which entered along the nerves. 3. In no case were the reinforcing vessels on the nerves of the cauda equina injected. Details: Case I.—Anterior spinal artery injected in upper one-third, injection ceased at junction with middle one-third; the injected part was reinforced by branches which ran along the nerves of the upper one-third; none of the reinforcing branches were injected in the lower two-thirds on the anterior surface. On the posterior surface, the arteries which accompanied the nerves were more or less injected as far as about two inches from the commencement of the filum terminale; many were, however, uninjected. No injected arteries accompanied the nerves of the cauda equina. Case II.—Anterior spinal artery particularly well injected as far as the beginning of the filum terminale; beyond this point, the vessel could be traced empty on the filum. The injected part of the vessel was well reinforced by vessels which ran on the nerves; on the posterior surface, the arteries along the nerves were injected with varying degrees of fulness, some were uninjected as far as two inches from the end of the cord, at which point the injection ceased. The largest and lowest of these reinforcing arteries accompanied a nerve which ran for a distance of one inch within the dura mater. No injected arteries were found with any of the nerves of the cauda equina, but, *per contra*, on one of them a well marked long slender artery was found empty."

We have here convincing proof that, under difficulties of circulation such as must arise when the body is subjected to great changes of atmospheric pressure, the tip of the spinal cord is a part which would suffer from anæmia; for it is out of reach except by vessels of great length in proportion to their calibre. Meantime, the career of these vessels is through the cerebro-spinal fluid, which forms an easy water-bed for them, that may favour the freedom of flow in their minute channels. But then, unfortunately, this cerebro-spinal fluid is itself subject to variations of pressure. Indeed, it exists as a means of conveying pressure from the cranium to the spine; and we have seen that, when there is activity of circulation within the skull, the cerebrospinal fluid is sent out to press a little hardly within the spinal canal on these smaller arteries of the spinal cord. Hence overmuch activity of the cerebral circulation would tend to compress these arteries, and interfere with the straight and narrow economy of the unfortunate end of the spinal cord. I think this is why very studious people become delicate about the caudal ends of their spinal cords; and it is, at any rate, a good reason why students should take care to let their legs have a fair share of activity every day for establishment of proper circulation in the spinal centres.

Now, whilst the tremendous pressure in the caissons is sending blood into the vessels of their brains and cords with great force, the workmen feel more lively and elastic, and go up their ladders with ease. But as soon as this tremendous pressure is taken off, the vessels of the nervous, instead of being intensely stuffed with blood, have a tendency to lose their contents in the same way as they do when exposed to a rarefied atmosphere; so that a general deficiency of supply arises in the previously well-filled channels: this difficulty tells most on the more weakly organised system of supply to the spinal cord, and hence the workmen are paralysed as to their lower extremities and sphincters when they go into the air.

But how, then, should any people escape? Have I not proved too much? As to this question, I have observed that the anastomotic reinforcing branches of artery along the nerves vary in size upon the several nerve-roots in different subjects, and a large anastomotic branch in the dorsal region would do much to save the cord. Also, it is true that the vascular tension is more efficient in some people than others; and, as a matter of fact, we can directly observe that some people's textures bear variations of blood-supply much less equally than do the textures of other people.

Further, I think it probable that, when the arterial supply of the cord fails under the caisson-pressure, the result is paralysis; but when the result of the pressure tells more on the veins, keeping them too full, the result is that pains in the limbs are complained of.

But when I thus am indicating this peculiar source of weakness in the spinal cord at its lower end, it will naturally be asked whether there is any farther proof of such a weakness of this part, whether the cord is paralysed under other conditions very trying to its peculiar circulation? Well, the answer to this question is not far to seek, seeing it is an otherwise, and I may say a hitherto, unexplained fact, that, in many cases of spinal palsy from whatsoever cause, the lower limbs suffer while the upper limbs escape: whereas, so far from the lower limbs being intrinsically weaker, it is of course true that in cerebral paralysis the lower limbs suffer less and the upper limbs suffer more. Let us take the example of common paraplegia. Everybody knows that this nearly never attacks the upper limbs, but it affects the lower extremities and lower part of the trunk, and a short experience of cases of this disease will show a remarkable uniformity in the extent to which the lower half of the body is involved: you will find almost always that the paralytic affection in common paraplegia ceases to give evidence of its presence about the lower dorsal or upper lumbar region. Numbness and paralysis are not traceable above the lower margins of the thorax, ceasing often along a rather well-defined line. The anatomical state of the substance of the cord found *post mortem* to account for this is a condition of "softening"—*i.e.*, a pathological state which is the same as that found in the brain as a consequence of impairment of nutrition by deficiency of the supply of blood. The causes of this condition are often obscure, but are in many cases evidently debilitating causes, such as in this very typical case which I met with. An Irish dock-labourer had been standing about the entrance of the docks for some days without employment, and getting little food, when he felt pins and needles run up and down his legs, and after he got home that evening he felt very weak and went to bed. In the night, being taken with diarrhœa, he went from his bed feeling very cold and feeble, and he could not return, being totally unable to move his legs. This man lived about a year, his disease showing all the characters of common paraplegia, and *post mortem* examination showed the lumbar cord in a state of "white softening." This was one of my cases when I was clinical clerk, and it puzzled me much to know why the poor man should thus suddenly suffer from so chronic a change as white softening, and why he should only have symptoms just up to the top of the lumbar cord, and never higher, in the whole course of his ailment; but I seem to know well now why it was. He was paralysed through starvation of his cord, on account of the difficulties of supply to it, and the paraplegia did not extend above the lumbar cord, because the cauda equina does not extend above it, and the upper dorsal part of the cord obtained enough blood along short arteries, through which the blood-pressure had been able to force a sufficient supply. Indeed, the very different kinds of cause which agree in producing paralysis of the lower extremities would show that there must be some such simple and general explanation of its ready occurrence.

An instance came under my observation so like that of my poor dock-labourer, that the similarity of effect was as remarkable as the unlikeness of causation. It was in the person of a very well-fed and healthy female cat, which suffered, I am sorry to say, at my hands. A nest of thrushes was eaten by cats in my garden, and I thought it fair to retaliate by putting down a bowl of milk, also containing prussic acid, and I warned a relative to keep her cat in; but, to my grief next morning, the only cat in trouble was my relative's fine cat, which lay beside the bowl of poison in a curious state, quite paralysed as to the hind legs, but otherwise unaffected. The front paws were active and vigorous, so that she could pull herself about on the level ground by means of them; but the hind legs did not make any movements for three weeks. I did what I could for her, but it was four weeks before the cat could leave the basket in which she was placed, and four months elapsed before she could spring upon a wall; after this, she quite recovered, and had several large families. Now, prussic acid acts by lowering the tension of the blood, after a slight temporary rise; and, whereas it is very difficult to suppose that the prussic acid had any preferential power over the nervous centres of one pair of legs, as compared with those of the other pair, it is, I think, quite readily to be accepted that, as the hinder pair draw blood through longer and very slender pipes of vessel, the cat, lying with depressed circulation, nearly dead all night, suffered so much in the nutrition of the end of her spinal cord, that it became almost irrecoverable. Indeed, it is interesting to observe how the very temporary action of the poison should have so damaged the cord, that it was six months in recovering, whilst the damage was so adjusted that recovery was finally possible. Such an occurrence throws some light upon the curiously protracted tenacity of injury on the part of the cord, which the history of paraplegia brings so painfully forward. But it is not only prussic acid that affects the hind legs of creatures more than their fore legs. Although toxicologists have paid no attention to the difficulties of circulation in the lower end of the cord, so that no experiments have been made with the intention of developing this point, yet, in reading through a work on materia medica, one finds repeated examples of drugs which

are depressants of the circulation, and which paralyse the hind legs of animals without affecting their fore legs. Among these, I mention aconitia, conia, and, doubtfully, veratria and chloral; with reference to prussic acid, it is said to benumb the hind legs first.

Again, for other instances, take the very complete paraplegia of the lower extremities, which so much impressed Dr. Bristowe in the highly interesting cases of rupture of abdominal aneurysm which he recently published. Surely, if we consider the mode in which the arterial supply of the spinal cord would be reduced by the bursting of the aneurysm, the paraplegia in these cases is immediately comprehensible. Again, if we take the so-called urinary paraplegia, or functional paraplegia of any kind, including what is called hysterical paraplegia, we find these affections never troubling the upper limbs, but always the lower. And I think the point I have raised will suggest lines of investigation that may throw great light on this obscure class of nervous diseases. I believe that it is by impediment to the exceedingly and peculiarly difficult blood-supply of the caudal end of the spinal cord that all these various conditions lead to paralytic weakness of the lower limbs, and they are to be met by conditions improving the circulation, if possible.

Why the lumbar cord should be thus straitly supplied, is an interesting question. Perhaps it may be connected with a necessity that the economy should be so organised as to feel fatigue early enough in the parts which directly put forth exhausting exertion, lest strain of effort should first overtake more vital parts than secondarily share in all such exertion. In short, the cord is supplied scantily, so that we should sit down when we have walked enough, and lie down when we are tired; and, especially, that we should, if necessary, fall down when faintness overtakes us, to the end that, in the horizontal position, the circulation may be able to restore itself.

THE NATURAL HISTORY OF LEUCODERMA.

THE natural history of the rarer skin-diseases has been as yet but scarcely half investigated. How they develope themselves, and what they are in mid-course is well known; but what ultimately becomes of them has evidently been as yet insufficiently studied. A pungent proof of this was afforded by a recent debate at the Clinical Society (at which I was present), when competent men who had for long devoted their special attention to the study of skin diseases were found arrayed against one another in about equal number on the question, what ultimately becomes of keloids? some declaring that they always disappeared spontaneously; and some that they absolutely never disappeared spontaneously. In fact, it was clear that the majority of those who spoke did not know whether it was one way or the other.

As regards leucoderma, I venture to say our knowledge is not very much better. I therefore beg to contribute a well authenticated fact respecting it. My old schoolfellow H. B., has lately returned from India. His judicial and administrative functions had brought him in contact with a fairly considerable number of lepers. This had led him to take an interest in leprosy, and so, also, in the skin-diseases with which it is liable to be confounded. So strong a leaning has my friend H. B. for medical studies, that he almost thinks of sacrificing a high lay position for the sake, even now, of turning doctor. His medical knowledge is considerable, but his acquaintance with the subject of skin disease is superior to that of the majority of practitioners, I therefore accept his account of himself. He informs me that he had leucoderma, and that his leucoderma had spontaneously and completely vanished within a fairly short period. His age is forty-five. His leucoderma affected the backs of both of his hands (a favourite position for it), but affected no other part of him. It appeared when he was thirty-eight. It had disappeared completely by the time he was forty-four. It waned more rapidly than it had waxed. It did not affect his wrists or his fingers, but only the backs of his hands. It consisted, on each hand, of a single milk white patch of the aggregate size of a crown piece, and having a sinuous margin. The brown areola was sharply defined on its inner margin, but faded gradually off at its outer margin. It is clear that my friend had leucoderma. It is equally clear that his leucoderma disappeared spontaneously within a period of six years. This fact is interesting to know, but it would be of more interest to learn whether this is the usual course pursued by leucoderma. The inquiry is a difficult one, because those who would be most likely to take interest in the question, have the least opportunity of following up their cases. The most likely way of solving the point seems to offer itself in the inquiry "Do piebald negroes or piebald Hindoos ever cease to be piebald?" It ought not to be a difficult matter to come at that.

As we do not know how to cure leucoderma it would be an advantage to be able to tell our patients, if we can, that it will go away of itself even if they have to wait six years for it.

BALMANNO SQUIRE, M.B.Lond.

THE GULSTONIAN LECTURES
ON
ANÆMIA.

Delivered before the Royal College of Physicians.

BY SIDNEY COUPLAND, M.D., F.R.C.P.,
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LECTURE II.—PART I.

Idiopathic Anæmia: Earliest Recognition of it by Addison—Records of Cases (1851-1871) by Barclay, Lebert, Wilks, Habershon, King—Gusserow—Biermer's New Departure (1871)—Growth of its Literature in the last Decade—Wide Extension given to the Term "Pernicious"—Clinical Features of "Pernicious" Anæmia—Onset—Progress—Digestive, Circulatory, and Nervous Symptoms—Hæmorrhage—Irregular Pyrexia—Duration—Termination in Recovery—In Recovery followed by Relapse—In Death—Post Mortem Appearances.

MR. PRESIDENT AND GENTLEMEN,—It is impossible to speak of idiopathic anæmia without reference to Addison, for he it was who seems to have distinctly called attention to a class of cases in which anæmia is the prevailing symptom from first to last—an anæmia not depending upon recognised causes, not associated with wasting of the tissues, but insidious in its onset and slowly downward in its progress, revealing after death no changes but those of fatty degeneration, especially of the heart. The passage in which he summed up his experience of this condition occurs early in his essay on Disease of the Suprarenal Capsules.* This passage has been so often quoted, that it is hardly necessary for me to repeat it now, much as I am tempted to do so, for it is a model of a succinct summary of clinical observation. It was written in 1855, but Addison's observations dated far before that period, and indeed he described the condition in his lectures as early as 1843.† There is no doubt also that similar cases had been observed, and a few recorded, about the same period. In 1851, Dr. Barclay published the notes of two fatal cases of anæmia (*Medical Times*, 1851, vol. i, p. 480) occurring in St. George's Hospital. One was the case of a man aged 34, admitted under Dr. Page on January 21st, 1852. He had been ailing for twelve months, and had suffered from inconstant aching pain in the loins, accompanied by scanty loaded urine. He had lately lost flesh and had a slight cough, was remarkably pallid, complained of shortness of breath and palpitation; pulse 120, and very weak; and he suffered from constipation. There was deficient breath-sound at both apices, especially the right, where it was distant and tubular; there was then no cardiac murmur. A fortnight later he was attacked by vomiting. A bellows-murmur with the systole developed, best heard in the mid-præcordia and towards the apex. He rather rapidly passed into a state of exhaustion, ending in coma, on February 11th. Mr. P. Hewett, who made the necropsy, found the body well nourished, the brain very anæmic, a few extravasations in the pia mater, cretified deposits at the apex of the right lung, emphysema elsewhere, the posterior parts being engorged with frothy serum. The heart was healthy and pale, but contained large fibrinous clots in all its cavities. The abdominal viscera were bloodless, and a few cysts were observed in the left kidney. The dark and healthy colour of the muscles was observed in contrast with the pallor of the integument, and the extremely yellow colour of the subcutaneous fat was also noted. The other case was that of a married woman with several children, admitted under Dr. Wilson on January 29th, 1851. She had not been well since her last confinement, four months before; she had been weak, but had not suffered from hæmorrhage; she had, however, been troubled with diarrhœa for two months previously. She was extremely anæmic; pulse quick, feeble, and empty; appetite bad; urine scanty and loaded; her only complaint was of general weakness. The diarrhœa was checked by remedies, but she did not gain strength. She suffered from insomnia, and had some attacks of dyspnœa, after one of which she died, about three weeks after admission. The *post mortem* examination by Dr. Ogle revealed pallor and slightly yellowish tint of

* See Addison's Collected Works (New Sydenham Society), p. 212. The passage is quoted by Dr. Pye-Smith in Virchow's *Archiv*, vol. lxv, p. 542; by Dr. S. Mackenzie, the *Lancet*, 1878, vol. ii, page 749; by Dr. Finny, BRITISH MEDICAL JOURNAL, 1880, vol. i, page 5; and many others.

† See Dr. S. Mackenzie's Lecture, *loc. cit.*

the skin, slight œdema of the lower extremities, great pallor of the abdominal walls, fatty kidneys, frothy serum in the lungs, some ecchymoses in the larynx, a healthy heart containing little or no coagulum, but a small quantity of semifluid blood.

Lebert, too, in 1853, had recorded cases of fatal "puerperal chlorosis" at Zürich—the seat of the subsequent observations of Gusserow and Biermer—and had spoken of these as examples of what he regarded as an "essential anæmia". Then, however, a long silence on the subject occurs in medical literature, broken only by the publication in *Guy's Hospital Reports* for 1857 of a series of cases by Dr. Wilks, under the head of "Idiopathic Fatty Degeneration", and of a case in the *Lancet* for 1863 (vol. i, p. 518), by Dr. Habershon, in a paper on this subject. The patient in this case was a spare woman aged 40, who had for many years been subject to attacks of vomiting, which for eight months before her admission had been almost of daily occurrence. She had much gastralgia, pain in the back and limbs, and was very pallid. The attacks of pain were renewed with much severity. She, however, improved, and left the hospital, to return a year later, "blanched, emaciated, and extremely feeble". No gastric disturbance was present now, only an extreme degree of asthenia and anæmia, under which she sank in two months. The necropsy by Dr. Wilks disclosed only intense anæmia of organs, marked fatty degeneration of the heart, and slight passive effusions in the serous sacs. Thus, these observations showed that in the hospital of Addison, at any rate, the existence of the disease was recognised; and Dr. F. Taylor did good service in collecting all the cases observed there up to the year 1878—namely, as many as twenty-three.

Curious to learn whether the like experience had befallen the physicians of the Middlesex Hospital, I have searched the *post mortem* records for any fatal cases which could be thought to have belonged to this class, and from 1844 to 1871 (excluding 1852 and part of 1851) I can find only one unequivocal case, which, it will be seen, was associated with a certain amount of gastric disease. This case occurred in 1865, its subject being a woman aged 51, who was admitted for extreme anæmia three days before her death. No satisfactory history could be obtained, save that she had become rather rapidly anæmic. The skin was of a peculiar yellow hue, and she suffered from constant vomiting during her brief stay in hospital. After death, the sallowness of the surface was noted, also a considerable layer of subcutaneous fat. There were effusion in the serous sacs, and œdema of the lungs. The heart was of normal size, contained a little fluid blood—no coagula; but the condition of its walls is not recorded. There was slight atheroma of the aorta. The spleen was small and normal; the kidneys small, and the seat of a few minute cysts. The gastric mucous membrane was thickened in the pyloric region, and the seat of a small polypus. Recent hæmorrhage had occurred under the dura mater, and the brain was bloodless. Of other cases which come less clearly under this category, I find one, in 1844, of a woman, complicated by old pulmonary tubercle and recent pneumonic hepatisation; one of a boy aged 8, in 1857, thin and sallow, with slight serous effusions, ecchymoses in the heart, which is described as "yellowish, mottled, and very fatty", the liver of a deep yellow-brown colour, with bleeding points and white specks on the surface; and one, in the same year, of a man aged 35, who died suddenly of fatty heart. These practically comprise all the cases within the period mentioned, with evidences after death of extreme anæmia and cardiac degeneration; other cases being chiefly those of cancer, renal disease, and purpura, one or two of which latter might possibly belong to the class in question. In 1871, however, an undoubted case occurred under Dr. Greenhow's care, and was published by my friend and former colleague, Dr. R. King, then medical registrar. I shall give the details of this case subsequently, but mention it now, because its publication antedated by a few weeks the appearance of an essay by Biermer, which did more than anything else to draw general attention to the subject.

Biermer's work must be taken in connection with that of Gusserow, who, in 1871, published six cases of a fatal form of anæmia in pregnant women; for both laboured in the same field. Biermer, who had previously related a case before a society at Dresden in 1868, described and summarised, in the essay referred to, fifteen cases of a "peculiar form of progressive pernicious anæmia, usually accompanied by fatty degeneration of the circulatory passages, and, secondarily, by hæmorrhages of the skin, retina, brain, and its serous membranes". This publication marked a distinct departure in the knowledge of this disease, and its taking but rather startling title assisted to draw attention to it. From that time to this, just ten years, a whole literature has sprung up around the subject.* For a time, it was even thought that, in this "progressive pernicious anæmia" of Biermer, a new disease had been discovered; but Drs. Wilks, Taylor, and Pye-Smith reasserted the claims of Addison, and proved conclusively that no new discovery had been launched upon the world. Nor has the new nomenclature been without its drawbacks. It designates more than is implied by the term "idiopathic", much as we may wish to banish that term from nosology, and it has rather obscured than emphasised that leading fact of the condition described by Addison. For, by the use of this terminology, authors have been led to class together cases of anæmia depending on known causes with those truly "idiopathic"; and some even speak of the supervention of pernicious anæmia in cases of cancer, for example. I shall show that this extension is perhaps justifiable, provided that, at the same time, a distinction be made between the cases which arise spontaneously and those where the anæmia is obviously secondary. At present, I will merely state my belief that pernicious anæmia includes, but does not comprise, idiopathic anæmia.

I have collected 110 cases, including most of those mentioned by M. Lépine in a review published in 1877. The number might, I believe, well be doubled, before embracing all those cases which have been recorded. Seldom has such a mass of evidence bearing on any one disease been accumulated in so short a time; and yet it is not possible to arrive at a satisfactory solution of the question of its origin. It presents us, however, with the symptomatology of anæmia in its most severe form, and throws light upon the most marked lesion produced by anæmia. Of these 110 cases, 56 were males, and 54 females. The ages at which the patients often came under notice—often only a short time before death—varied with the sexes; for, among the male cases, the majority, viz., 33, or 59 per cent., occurred between the ages of forty and sixty; and, among the female series—34, or 63 per cent.—between twenty and forty.

Males.	Cases.
Under 10 years	1
10 and under 20 years	2
20 ,, 30 ,, ...	8
30 ,, 40 ,, ...	9
40 ,, 50 ,, ...	19
50 ,, 60 ,, ...	14
60 ,, 70 ,, ...	3
	56

Females.	
Under 10 years	0
10 and under 20 years	4
20 ,, 30 ,, ...	18
30 ,, 40 ,, ...	16
40 ,, 50 ,, ...	9
50 ,, 60 ,, ...	7
	54

Somewhat different statistics are given by Hermann Müller of Zürich*, who describes 44 cases from Professor Biermer's clinic, 9 only being males, and 28 of the 35 females being between the ages of twenty and forty.

Age.	No.	Male.		Female.	
		Married.	Single.	Married.	Single.
15 to 20 years ...	6	0	2	0	4
21 to 30 ,, ...	11	1	1	7	2
31 to 40 ,, ...	20	0	1	17	2
41 to 50 ,, ...	4	1	1	1	1
51 to 55 ,, ...	3	2		1	0
	44	9		35	

The preponderance of females corresponds to the period of childbearing.

The onset of this severe affection is sometimes quite sudden—in such cases following severe mental shock or some violent emotion; or a profuse hæmorrhage, which at the time may threaten life, leaves behind it an anæmia which never disappears, and may become pernicious—*i.e.*, may deepen in intensity in spite of treatment. More commonly, this exciting cause is added to a pre-existing and long-standing anæmia, which then takes on a fatal form, or the determining event may occur in some other exhausting discharge. Leaving for the present the consideration of these prodromal influences, I may simply state now, that in many cases the onset is gradual and insidious, having perhaps in some cases a foundation in conditions of blood-impoverishment, but in others arising quite apart from such conditions. Or the patient may

* An analysis and review by M. Lépine in 1877 (*Rev. Mensuelle*) has facilitated reference to this literature; but much has appeared, and continues to appear, since that time.

* *Die Progressive Perniciöse Anamie.* Zürich, 1877; kindly lent me by Dr. Pye-Smith.

have been always below the standard of health as regards blood; may have suffered more than once from extreme anæmia, and have regained the previous level, to be finally again lowered beyond restoration. However this may be, the symptoms which usher in the condition can all be attributed to it. There is a growing pallor of the skin and visible mucous membranes: a pallor frequently mingled with a yellowish tint, and even with a slight degree of actual jaundice; and the face becomes wax-like in appearance. At the same time, there is an increasing disinclination for physical exertion, partly from mere listlessness, partly from the breathlessness and palpitation which any physical effort evokes. The nutrition of the body is often well preserved; there may be, as Addison remarked, even an excessive amount of cutaneous fat. Then, as the blood becomes more impoverished, dropsical effusions may appear in the eyelids and lower limbs; but such œdema is not a constant symptom, and is generally late in its appearance. With the muscular asthenia, there is often complaint of pain in the limbs or back; and headaches, vertigo, and tinnitus are frequent. Sleep is sometimes, but not usually, heavy—a lethargic, drowsy state supervening towards the end, which may pass into semi-coma. But insomnia is a more constant symptom. Delirium may occur at the close, and sometimes convulsions. On the side of the digestive system, there is generally loss of appetite, it may be with actual intolerance of food; and dyspepsia with nausea and vomiting is common. Indeed, vomiting stands out prominently among the symptoms of the disease—so common, so frequent, and so early in its occurrence, as to lend support to the views of Drs. Flint and Fenwick as to the essential dependence of obscure and fatal anæmia upon primary gastric derangement. Although in some cases such vomiting and other symptoms of gastro-intestinal disturbance do precede the appearance of the weakness and pallor, yet it is certainly not always so. Thirst, too, is marked in many cases. Gastralgia and epigastric tenderness are generally associated with the dyspeptic symptoms. Then, as to the intestines, diarrhœa is almost as often met with as vomiting, occurring sometimes early in the disease, sometimes just towards the close, which it determines; and, although it is amenable to treatment, it may recur again and again with much severity. Constipation is not so common as diarrhœa.

As a rule, in the earlier stages, the breathing is quiet, except on exertion, which induces marked breathlessness; but, sometimes, at an advanced stage, attacks of dyspnœa are frequent and painful, and may lead to a fatal result. In the cases I have had the opportunity of reading, I have not found this dyspnœa recorded as being of the peculiar ascending and descending rhythm, with a period of apnœa, known as Cheyne-Stokes respiration. The association of that type of respiration with fatty degeneration of the heart was noticed by its discoverers; and though it occurs under other conditions also—*e.g.* uræmia, cerebral hæmorrhage, embolism, etc.—yet its association with fatty heart is still accepted. As such degeneration is the most constant morbid lesion of anæmia, it is at least singular (if it be a fact) that this type of dyspnœa does not occur. As a rule, unless there be old disease in the lungs, there are no abnormal physical signs, except towards the end of life, when these organs become engorged, and serous effusions may take place in the pleura.

Attacks of syncope are liable to occur, but do not seem to be so frequent as might be imagined. The action of the heart is generally regular and quick, often very feeble. The impulse is often widely visible, undulating, and thrilling; the area of præcordial dulness is laterally increased; these signs are attributed by some to retraction of the lung; by others to dilatation of the heart itself. The so-called "hæmic" *bruits* are commonly, but not invariably, met with; a systolic blowing murmur at the apex and xiphoid cartilage, a *bruit* of coarser character simulating pericarditic friction at the base. The large arteries of the neck often visibly pulsate, and are the seat of loud murmurs. The jugular hum is seldom absent, and pulsation of the jugular vein is often observed. The pulse is soft and compressible, quick, jerking, and empty.

In all these symptoms there is nothing peculiar or special. They simply denote the presence of an anæmia of pronounced degree; but there is one group of symptoms which occurs with such frequency in those severe forms as to be almost regarded as distinctive of them. I refer to the supervention of hæmorrhages; and here it seems to me important to make some reservations. In several cases, hæmorrhages of one kind or another—*e.g.*, epistaxis, menorrhagia—take place in the prodromal period, and antedate the development of the anæmia, which they have much share in producing. Such hæmorrhages must be distinguished from others, often quite as profuse, which follow upon the appearance of the anæmia; and, when appearing, they add greatly to the intensity of the disease. In a case, the particulars of which I shall presently narrate, the patient had been anæmic, and progressively so, for years; then supervened profuse menstruation; and, finally, a severe uterine hæmorrhage, which nothing would check till it carried her off. Epistaxis, too, is common as a secondary result. Sometimes cerebral hæmorrhage may ensue, and carry off the patient; but this is not common. More frequently, towards the close of life, petechial and purpuric eruptions occur; and beneath serous membranes and the dura mater ecchymoses are common, as well as in the substance of mucous membranes. In one very curious case, both in its rapid development, intense character, and as rapid recovery, recently recorded by Lachmann from Riegel's Clinic at Giessen, there developed, during the progress of the anæmia, a considerable tumour in the iliac region, with œdema of the lower limb on that side; from its physical characters and manner of disappearance, it was conjectured (and with probable truth) that this swelling was due to a hæmorrhagic effusion beneath the peritoneum. The patient was a young man aged 19, and the anæmia had developed rapidly with no other exciting cause than heavy walking through snow. That patient, like the great majority of those in whom the anæmia is profound, presented retinal hæmorrhages. These hæmorrhages and the other retinal changes, œdema of the disc, and neuro-retinitis, have been described and figured by Drs. S. Mackenzie and Gowers, the latter of whom says: "The extravasations are often numerous, and more or less striated or flame-shaped from their situation in the layer of nerve-fibres. They are usually most abundant around the optic nerve-entrance. They are frequently associated with white spots and areas, due in part to leucocyte-like cells, in part to degeneration in the disturbed retinal tissues. Occasionally, a pale spot may occupy the centre of a small hæmorrhage". (*Manual of Medical Ophthalmology*, page 190.) Quincke, in his 31 recorded cases, met with retinal hæmorrhages in all but 7; and notes the rapidity with which they disappear. We cannot, I think, regard them as invariably present; although their existence is a very valuable indication of the advanced stage of the disease. Moreover, as they are not commonly met with in other forms of anæmia, their presence has a certain diagnostic, as well as prognostic, value; but, on the latter point, Quincke gives cases which have recovered. Of the 110 cases (which include Quincke's), there are only 39 in which the ophthalmoscopic examination is recorded; and in 30 the hæmorrhages were found; but only 17 were fatal cases, one left unrelieved, whilst no fewer than 11 were regarded as recovered. Of the 9 cases in which these hæmorrhages were absent, 6 were known to end fatally. I should not like to lay much stress upon such meagre statistics—especially as it is possible that the traces of previous hæmorrhage might have escaped the observers; but, so far as they go, they point to this: that retinal hæmorrhages do not imply a fatal termination, and that their absence does not necessitate a favourable prognosis.

There is usually no enlargement, or to only a slight degree, of either liver or spleen or lymphatic glands; and in only a very few cases has any special tenderness been noted over the bones.

Albuminuria, slight and transient, has been noted; but, as a rule, the urine is free from this abnormal constituent, of low specific gravity, mostly pale, sometimes high-coloured, and deficient in urea and uric acid; but the latter constituent is not diminished in proportion. Chlorides are reduced (Huguenin); but the excretion of phosphoric acid is said to be increased relatively to the nitrogenous matters (Edlefsen). A marked indican reaction was always observed by Huguenin. In one case recorded by Dr. Finny of Dublin (BRITISH MEDICAL JOURNAL, vol. i, 1880, p. 44), the interesting observation was made by Dr. Emerson Reynolds of an appreciable quantity (viz., 0.308 grains in 72 ounces of urine) of iron in the urine sixteen days after treatment by iron had been discontinued.

There remains another symptom of peculiar significance; viz., pyrexia. The charts before you, both from marked cases of the disease—one by Immermann, the other by Quincke—illustrate the irregular course taken by the temperature; and this often without any concomitant changes appreciable in the patient's condition. The former—Chart 1 (*Deutsches Archiv für Klin. Med.*, xiii. p. 233)—is that of a single woman aged 31, who was under treatment at Basle from August 23rd, 1872, to September 19th. The case is of some interest; for she had chlorotic symptoms when the catamenia began, at the age of seventeen; but she apparently recovered completely. The symptoms dated from three weeks before admission, when she became feverish and anæmic, and lost appetite. The anæmia rather rapidly increased, and with it its cardio-vascular signs developed, but no retinal hæmorrhages. An appreciable hemiparesis of the facial muscles and of the tongue made the diagnosis difficult, so that the possibility of ulcerative endocarditis was entertained. Some diarrhœa occurred towards the close of the case. Slight splenic enlargement (no increase of white corpuscles) was also present. The *post mortem* examination revealed, in addition to an enlarged firm spleen, only the anæmic condition of organs and fatty changes met with in pernicious anæmia. No brain-lesion was found to account for the facial and lingual paresis. The other case—Chart 2, No. 11 in Quincke's col-

lection (*Deutsches Archiv für Klin. Med.*, xx, p. 1)—is that of a woman thirty-three years of age, who had been married nine years and had two children, the younger of whom, aged four, she had suckled for six months. She came into hospital on May 11th, 1876, having for five months suffered from debility, palpitation, and vertigo. She lived in very poor circumstances, and was admitted in an extremely weak and anæmic state. Cardio-vascular signs of anæmia were marked; there were retinal hæmorrhages and œdema; and the blood showed marked variations in the red corpuscles, their numbers being only 143,000 per cubic millimètre (1-38th). Transfusion was performed on May 24th; and the chart shows the course of the temperature for the following days; so that its irregularities must, I suppose, hardly be considered as due to the anæmia alone. This patient recovered, left the hospital on August 25th, and was again seen in November, looking well nourished and healthy. The third chart (No. 3) is one where profuse menorrhagia was added to the anæmia, the details of which I propose to give directly. As a rule, the temperature is liable to sudden exacerbations, sometimes reaching remarkable heights (in one of Dr. Finny's cases, 106°) from a normal or nearly normal level; or it may have a more or less continuous course, varied by such exacerbations. Exceptionally, there is no abnormal rise of temperature throughout. The apparently paradoxical event of fever occurring under conditions of diminished oxygenation—as in anæmia—is discussed by Immermann, who points out that the same obtains in leukæmia and Hodgkin's disease, between which affections and anæmia there is the common link of poverty in red corpuscles. He shows also that the temperature rises after copious venesection; and the instability of temperature in anæmic convalescents is well known. He is inclined, then, to relate the pyrexia to the reduction in red corpuscles below a certain point; not that it is produced by increased metabolism, but by the decay of the tissue-elements—their conversion from complex unstable compounds into more stable substances: a conversion which must be accompanied by the setting free of heat, although not requiring increased oxidation. And to this increased heat-production, combined probably with heat-retention, he attributes the "anæmic fever" of these diseases. The blood has, when examined, been found to be altered; but I will speak of that when I come to discuss the pathogeny of the disease.

It is not easy to fix the duration of many cases. The patients themselves cannot tell when their anæmia began; and some have been, they say, pale all their life. Of the series of cases I have collected—viz., 110—I find that in 32 the total duration of symptoms was from one to six months; in 24, from six to twelve months; in 25, from one to two years; and the remaining 12 for periods exceeding two years. As many writers only speak of many weeks or months, such estimation does not include all the cases; and in these cases, where the symptoms date back only a few weeks, there is often found a history of some antecedent anæmia, or a period of variable length of slight languor and ill-health.

There can be no doubt that pernicious anæmia is not invariably fatal. Cases of recovery have been recorded by Quincke and others, where all the symptoms have been marked. Dr. Finny gives a striking case; and of the series to which I have so frequently referred, no fewer than twenty are regarded by their observers to have recovered. Some of these did recover perhaps permanently, but of this it is not possible to speak with certainty, the last-recorded note often referring to them as being in perfect health; and these were cases which clinically were indistinguishable from those that ran a lethal course; some of them undoubtedly were rescued by prompt transfusion, and others recovered under medicinal treatment; but their occurrence is encouraging, the natural tendency of the disease being undoubtedly towards death. Four cases passed away unrelieved; and four, after an apparent recovery lasting a few weeks or months, would relapse into the previous state, to again be temporarily restored to comparative health—once more to relapse without possibility of recovering. The greater number, however, die (86 out of 110) sooner or later (four of these after temporary recovery and relapse); the mode of death being a simple asthenia and exhaustion, or passage into a comatose condition, or in syncope, or by dyspnœa, or convulsions. To briefly paraphrase Müller's vivid description of the manner in which death approaches: the distress attains a painful intensity, sleep is hindered by the constant beating in the head, the hum and roar in the ears, whilst the faculties become dim and unspeakably dulled. Vertigo and headache grow so severe, that even sunlight causes pain. The prostration and weakness are so great that spontaneous effort is annulled, and the slightest movement, even the weight of the bedclothes, is irksome, and the patient groans and sighs in his distress. Now and then, towards the close, the hunger for air grows excessive, complaints are made of the painfulness with which every breath is taken, and relief is begged from this tormenting need. Some become so feeble, and sink into so deep a lethargy, as to cease to take interest in anything, or they lie impassive, breathing deeply and heavily, pale as a waxen figure, motionless as a corpse. Others toss restlessly from side to side, and in their delirium make vain efforts to escape, and then die suddenly from exhaustion. What is this but the picture of death from loss of blood—a loss, not from hæmorrhage, but from impoverishment of the blood in its chief elements?

The *post mortem* appearances show extreme pallor of the surface and viscera. There is often a considerable amount of subcutaneous fat, and frequently slight œdema of the lower limbs. Dropsical effusions, never to large amount, occur in the serous sacs. The blood is fluid, thin, and watery, and thin, pale clots are mingled with the fluid blood in the chambers of the heart. Hæmorrhages are met with in the form of subcutaneous ecchymoses, and similar extravasations beneath the pleura, pericardium, intestinal mucous membrane, and in the pia mater. Sometimes effusions of blood of large amount occur in the latter situation. But the brain is pale, bloodless, and "wet" from œdema. The lungs are generally œdematous, and, owing to the fluidity of the blood, appear engorged in their dependent parts, contrasting with the marked anæmia of their other portions. Almost without exception the heart is in a state of fatty degeneration; its walls are pale, flaccid, and friable; the interior of the ventricles, and especially of the left ventricle, show irregular whitish striæ running transversely across the muscular bundles, and especially the papillary muscles, an appearance to which Dr. Quain gave the name of tabby-cat striation. Microscopically the muscular fibres are pale, and destitute of striation, granular, or loaded with fatty molecules and cell-globules of various sizes. Opaque patches of fatty degeneration occur on the mitral valve and stud the lining membrane of the aorta. Fatty degeneration of the lining membrane of the smaller arteries, and even of capillary walls (especially in the retina) are observed, and serve to explain the liability to their rupture and hæmorrhage. Sometimes, but not invariably, there is fatty degeneration of the liver and kidneys. The spleen, lymphatic glands, and suprarenal capsules do not show any changes from the normal, except sometimes slight enlargement of the spleen; but in some cases the bone-marrow is found to be of a red colour, and to show microscopical evidence of marked hyperplasia.

Such, in brief, are the essential features of progressive anæmia.

ABSTRACT OF LECTURES
ON THE
STRUCTURE OF THE SKELETON IN THE SAUROPSIDA.

Delivered at the Royal College of Surgeons of England.

By W. K. PARKER, F.R.S.,
Hunterian Professor of Anatomy in the College.

Lecture IX.

The pectoral arch in birds presents a long, narrow, and recurved scapula, without any suprascapula, and a coracoid fitted by its proximal end into the groove in the antero-lateral edge of the sternum. The coracoid is usually completely ossified. There is no distinct epicoracoid. A small bone called the *scapula accessoria* is developed on the outer side of the shoulder-joint in some birds. In the carinate birds, the glenoidal ends of the scapula and acromion are each divided into two processes; those of the former are called the glenoidal and acromial processes, those of the latter the acromial and clavicular. The glenoidal process of the scapula partly forms the glenoid cavity, and partly unites with the coracoid; whilst to its acromial process is attached the outer end of the clavicle. The glenoidal process of the coracoid unites with the scapula, and its clavicular process articulates with the outer surface of the clavicle. This latter process probably represents the procoracoid of the lacertilians. In the ratitæ, there is no distinct clavicular process.

In a few birds, such as the apteryx and some parrots, there are no clavicles; in others, as the emu and some other birds, they are separate, united only by fibrous tissue; but generally they are ankylosed together, and along with a bony process, which represents the interclavicle, alone form one bone. When the limb is at rest, the humerus is parallel with the axis of the body; the forearm is in a position between pronation and supination, and the manus is bent back upon the ulnar side of the forearm. The ulna is usually stronger and longer than the radius. There are only two carpal bones, situated respectively on the radial and ulnar aspects of the limb.

The majority of birds possess three digits, though, in the apteryx and cassowaries, only one is complete; and it appears to correspond to the second of the pentadactyle limb. Those of most birds correspond to the thumb and second and third digits; the metacarpals of these digits are ankylosed together. The metacarpal of the thumb is usually shorter than the others; that of the second is the strongest. The thumb has two phalanges, the second pointed, curved, and clawed. The second digit has three phalanges, and has a claw in many birds; while the third has only one, and never more than two phalanges, and no claw. The pelvis is remarkable for the great elongation anteriorly and posteriorly of the iliac bones, which are extensively united with the sacrum; the acetabulum is perforated by a large foramen; the ischium extends backwards and is nearly parallel to the hinder part of the ilium, to which it is ankylosed posteriorly. The os pubis, after contributing its share to the formation of the acetabulum, passes backwards and downwards as a comparatively slender curved bone, parallel to the ischium, and does not unite, except by fibrous tissue, with its fellow of the opposite side. The femur is short and thick; the fibula is always imperfect, ending in a mere style. The tibia is the chief bone of the leg; its proximal end has a large process developed on it; the distal end terminates in a well-marked pulley-like articular surface, which in young birds is separated by a suture from the shaft of the bone; this is in reality the proximal division of the tarsus, which is ankylosed with the tibia, as Professor Gegenbaur pointed out. The tibia in birds is, therefore, in reality the tibio-tarsus. In all birds, the fifth digit is undeveloped; the second, third, and fourth metatarsals are ankylosed together by their proximal ends, with a bone which represents the distal division of the tarsus, thus forming the tarso-metatarsus; their distal ends are free. In the majority of four-toed birds, the hallux is directed backwards, the other three digits forwards. In many birds, the hallux is suppressed; and, in the ostrich, both it and the second toe are absent. The phalanges vary from two to five in number. The osseous system of birds is usually very dense and hard; the long bones are most frequently hollow, and some of them are in direct communication with the air-sacs of the lung, by means of tubular prolongations passing from the air-sacs and entering the bones. Air-cavities are always present in the skull, in communication with the nasal and auditory passages.

ABSTRACT OF LECTURES
ON
THE RELATIONS OF SARCOMA TO CARCINOMA.

By HENRY TRENTHAM BUTLIN, F.R.C.S.,
Assistant-Surgeon to St. Bartholomew's Hospital.

Lecture I.—Sarcoma and Carcinoma of the Tongue.

Considering alone the records of cases of malignant disease of the tongue where the microscopical characters have been carefully studied and recorded, Mr. Butlin has been able to collect seventy cases of carcinoma, to which he is only able to add one authentic instance of sarcomatous disease. This occurred in a child, under the care of Dr. Jacobi of New York, and was congenital. The tumour was seated on the left and middle part of the dorsum of the tongue, projecting as a firm, elastic mass, superficially ulcerated. It was removed by means of the galvano-caustic loop when the patient was over two months old, and the disease had increased rapidly since birth. The child was in good health five months later, when last heard of. The tumour was of mixed nature, spindle-cells predominating over round cells. For several reasons this case cannot fairly be compared with cases of epithelioma: the tumour was composed of embryonic tissue, which, in a child so little removed from fœtal life, may not have the same significance as a sarcoma appearing in an adult.

Only one kind of cancer attacks the tongue as a primary disease, and that is epithelioma, sometimes mistaken, when exuberant, for the medullary form. This is a fact, and a very remarkable one; for, possessing connective tissue in abundance, suitable for the manufacture of sarcomata, and with plenty of mucous glands lined with epithelium of the kind whence soft carcinomata are believed to grow, the tongue manages to keep free from both these diseases. Epithelioma of the tongue is much more frequent in males than in females, occurring quite commonly in men who neither drink nor smoke, whilst women of masculine habits are by no means subject to cancer of the tongue; nor is irritation of that organ by carious teeth commoner among men than women. The conditions admitted as leading in certain instances to epithelioma of the tongue, besides irritation from carious teeth or artificial teeth-plates, are ichthyosis, psoriasis, and the "chronic superficial glossitis" of Fairlie Clarke, all inflammatory affections; it is uncertain whether they are exciting as well as predisposing causes of cancer. Where malignant disease is about to set in, a gradual increase and prolongation downwards of columns of epithelial cells is found: the columns burrow deeper and deeper, and cell-nests are sometimes found within them, till at a point not yet known to histologists, all the true characters of epithelioma are established. In the thirteen cases collected by Mr. Butlin, where these conditions preceded epithelioma, all occurred in males. Epithelioma of the tongue is very rare before the age of thirty, or after seventy; but two cases are recorded in which the patient was twenty-nine. Any part of the tongue may be attacked; but the sides suffer much more frequently than the base, dorsum, or tip. Two rare cases of separate carcinoma on each side of the organ have been recorded; in both of these there had been very chronic glossitis.

Epithelioma of the tongue may begin either as a nodule, under the epidermis, but never deeper; or as a small fissure or ulcer, at first looking simple, but changing its character as it grows larger. In some cases a raised, flattened tubercle, a pustule, or a blister may be the first symptom, but an open ulcer speedily forms in any case, except in two instances: in one of these rarities the tongue was hard and wrinkled anteriorly; in the second the surface was raw and warty. The position of the disease at once accounts for the frequency of ulceration. The raised, everted, sinuous border of the ulcer, with wide-spreading induration beyond its limits, are well-known, yet not absolutely decisive, for the extent to which they may be present in syphilitic and tubercular disease, or ill-marked in true cancer, is not by any means well known. In doubtful cases, scrapings from the diseased surface should be examined; in epithelioma, groups of often ill-formed epithelial cells will be observed, with cell-nests in some instances; the presence of nests is conclusive of epithelial ulceration. The morbid infiltration fully accounts for the induration of the edges of the ulcer, but may vary in degree—a variation so frequent in cancer elsewhere, as to suggest the abolition of the distinction between hard and soft carcinoma.

The microscopical characters of epithelioma of the tongue are well known. The deep epithelial ingrowths do not generally fuse into a solid block of cells, but unite by lateral growths enclosing, incompletely, areas of altered tissue infiltrated with cells like leucocytes. The peripheral cells of the ingrowths often assume the form of columnar epithelium, and the systematic manner in which these ingrowths advance, has suggested to Köster and others, that they really grow within lymphatic channels. Cell-nests are, practically, constant, but, though large, are rarely horny and finely stratified as in cancer of the skin; they rather resemble nests not unfrequently found in the normal epidermis of the tongue.

The disease advances irregularly, and affects speech and deglutition more or less, according to its manner of extension; ulceration simultaneously extends, sometimes, but rarely, causing fatal hæmorrhage. Besides exhaustion and inanition, the common cause of death, we frequently meet with a low pneumonia, partly due to the escape of fœtid discharges into the air-passages. The duration of the patient's life, or rather of his misery, is of necessity shorter if he be old or naturally weak. Such cases may die within five months; no unoperated cases appear to live over eighteen months. The limit for cases where the growth has been removed and recurrence discovered in the lymphatic glands, etc., is from twelve to thirty months after the commencement of secondary disease. This is to be expected, as in secondary disease the patient is less liable to accidents frequent in the primary affection.

Glandular affection may involve separately any of the numerous glands in the neighbourhood, and cancer *apparently* confined to one-half of the tongue, in rare instances, may involve disease of the glands on both sides. As in cancer of the testis, every case of epithelioma of the tongue will be followed by glandular affection if its course be not arrested by some accident, such as death or operation, including, in two recorded cases, death from operation. The exact date of commencement of glandular disease cannot be fixed, yet it is important to be able to judge up to what period the glands are free. We must reckon alone from certain cases where death has occurred several months after operation, and no glandular affection has been discovered. In more than one such case, it is important to remember, a gland had become enlarged, and subsided.

The records of *post mortem* examinations are rather bare, in proportion to the number of cases collected. Generalisation of the disease is possible, yet secondary affection is rare; out of sixteen such examinations the lung was found to be affected in only three cases. Deaths from rapidity of the local, primary disease, from operation, and from

other diseases or accidents, and the failure of recognition of secondary disease before death, in some cases where no *post mortem* researches were made, may make generalisation of the disease appear to be rarer than it actually is, in chronic, unrelieved cases of cancer of the tongue. This is contrary to foreign experience, and tends to justify Paget's belief that epithelioma is particularly malignant in this country. On the other hand, Mr. Butlin shows that, in several of the cases where visceral cancer was found in the bodies of patients dead from epithelioma of the tongue, the malignant disease in the internal organs was more or less evidently primary in itself, and hence quite independent of the lingual tumour. In many otherwise valuable records, no account of the microscopical appearances of the supposed "secondary" growth can be found.

Operation is most decidedly advisable, and may absolutely cure the disease. A patient thus cured must, however, be more liable to disease of the same part than a person who has never had cancer of the tongue. In cases where it is stated that the disease has recurred in the cicatrix after operation, and no recurrence has followed the removal of the diseased cicatrix, it is logical to believe that the cicatrix really became the seat of a new and primary disease, for epithelioma very frequently attacks scar-tissue. Early and free removal of the disease is, in all cases, imperative; when there is no hope of cure owing to glandular infection, removal of the foul and painful ulcer of the tongue may be productive of great relief.

ON THE RELATION OF EPITHELIOMA TO IRRITATION AND CHRONIC INFLAMMATION.*

By FREDERIC S. EVE, F.R.C.S.,
Curator of the Museum, St. Bartholomew's Hospital.

THE connection between irritation and cancer has attracted the attention of so many clinical observers, and has been the subject of so many hypotheses by pathologists, that even a short recapitulation of the views of the most distinguished would considerably break into the time at my disposal. I will, therefore, at once describe some anatomical facts, which, I trust, may in some measure elucidate this difficult question.

The following is a case of epithelioma of a tongue, which had been affected with chronic superficial glossitis for years.

Henry W., aged 48, was admitted to St. Bartholomew's Hospital with the following history. Six months ago, he noticed a pimple on the side of the tongue, which was followed by an ulcer. The tongue had been very peculiar for years past; it had been very smooth, and covered with white patches (chronic superficial glossitis). He had been a great smoker until the last four or five months, smoking generally a short clay-pipe. He had constitutional syphilis twenty-eight years ago, but the tongue was not affected.

A large warty ulcerated mass of epithelioma occupied a considerable portion of the right half of the dorsum and side of the tongue; the left half was smooth, devoid of papillæ, and here and there covered with small white thin patches like scar-tissue.

Microscopic Appearances.—Sections taken from the margin of the epithelioma to the tip of the tongue, including about one inch of apparently unaffected epithelium, showed that the surface was devoid of papillæ, and covered by a thin layer of cornified epithelium, which, at a point near the epithelioma, presented a well-marked fissure (See Fig. 1). From the deep stratum of the epithelium, numerous branched and club-shaped processes, apparently corresponding to the normal convexities of the epithelium in the interpapillary furrows, extended down into the submucous tissue, which was throughout the section thickened and infiltrated with "indifferent cells". The ingrowths from the epithelium were larger, more highly branched, and extended further downwards as the epithelioma was approached; but the gradation was not regular, and the commencement of any considerable enlargement of the interpapillary processes was abrupt. (See Fig. 1.) Epithelial "cell-nests" made their appearance in the extremities of the processes, and in the superficial layer of epithelium, at that portion of the section which adjoined the epithelioma. The fully developed growth presented the characters of the tubular epithelioma of Cornil and Ranvier.

Mr. Butlin, in a paper on Smooth Tongue—chronic superficial glossitis—(*Med.-Chir. Trans.*, vol. lxi, p. 51), gives the result of the examination of "three of these tongues, which were removed because the disease, in each case, was complicated by epithelioma, occurring after it had existed for some years". He observes that, in some parts, the epithelium "dipped down at irregular intervals into the subjacent tissues, so that a rough kind of papillary appearance was produced. These downward processes were much more common and much larger as the epithelioma was approached." This condition is well shown in Fig. 11 of his paper. In the same paper, Mr. Butlin expresses the opinion that, "in everything except the thickening of the epidermis, the microscopic anatomy is precisely the same in psoriasis (ichthyosis) and chronic superficial glossitis". (*Op. cit.*, p. 55.)

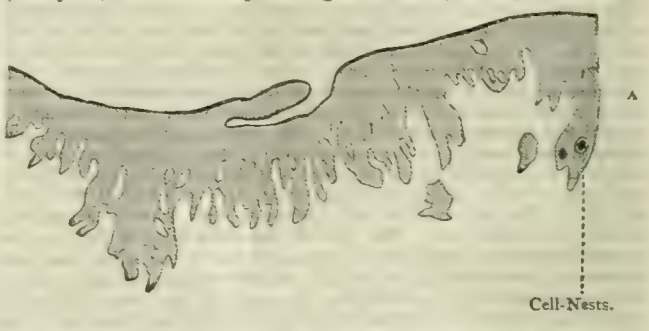


Fig. 1.—Portion of a Section of the Epithelium of a Tongue affected with chronic superficial glossitis, in the neighbourhood of an epithelioma, showing commencing ingrowth from the deep stratum of the epithelium, (A.) Portion of the section adjoining the epithelioma. 4 in. obj.

A case of ichthyosis was recently admitted into the hospital, which was in an unusually favourable condition for the study of the connection between this disease and epithelioma. One half of the tongue was removed, because it was thought that the disease had, or would soon, become epitheliomatous; yet the characteristic appearances of epithelioma were absent. The patient was a solicitor, aged 64. The epithelium of the tongue was generally thickened and whitish over the left half of the dorsum, from the tip to a point somewhat behind the middle of the tongue; and there were two rather abruptly raised patches of thickened epithelium—one at the margin, the other on the adjoining portion of the dorsum. The surface of these raised patches was white, hard, irregular, and pitted, from the presence of small corn-like masses of epithelium. In the centre of the thickened patch at the margin, there was a slightly depressed but not ulcerated surface. The patient had suffered from a sore tongue for ten years. The primary cause he believed to be the irritation of the tongue by some jagged and carious teeth, which he was ultimately obliged to have removed, on account of the rubbing of the sore tongue against them. This explanation is the more probable, as the more highly affected portions of the tongue corresponded in position to the affected teeth. He first noticed permanent patches on the tongue three years and a half before his admission. During the last three months, the tongue had become much more painful. Microscopic examination of the raised patches described showed a thick layer of cornified epithelium on the surface, which in many places was depressed or dipped down, so as to form plugs of cornified epithelium, having somewhat the appearance and structure of a corn, and composed of curved strata or laminæ of flattened epithelial cells (see Fig. 11). From the deep stratum of the epithelium, numerous round and club-shaped processes extended down into the mucous membrane, often as far as the muscular tissue (see Fig. 11).



Fig. 11.—Outline of the Epithelium of the Tongue from a case of ichthyosis, showing a gradually increasing ingrowth of epithelium. The larger ingrowths contain "cell-nests". A. Corn-like masses of cornified epithelium.

In sections taken from the thickened patch at the margin of the tongue (Fig. 11), many of these processes contained cell-nests (see Fig. 111); but only one or two were found in sections taken from the patch on the dorsum. Sections, taken from portions of the tongue slightly affected with ichthyosis, showed smaller interpapillary prolongations downwards of the epithelium, with occasional small depressions of the thick layer of cornified epithelium on the surface, and corresponding larger ingrowths from the deep stratum, containing rarely indications of a cell-nest. (See Fig. IV.) The mucous membrane was everywhere thickened

* Read before the Pathological Section of the British Medical Association at Cambridge.

and infiltrated with "indifferent cells", which were more thickly aggregated where the downward prolongations of the epithelium were largest.

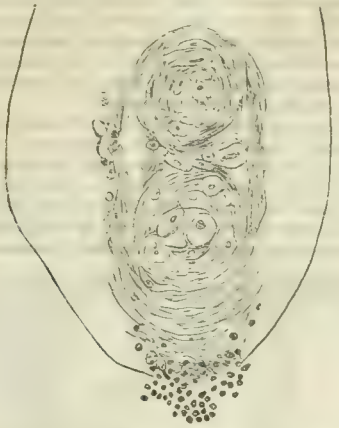


Fig. III.—Cell-Nests indicated by a × in Fig. II.

No better or more well-known example of cancer following irritation can be found than in epithelioma of the scrotum of chimney-sweeps; and the anatomical evidence of their direct relation as cause and effect is, I think, as clear as the clinical. I have examined three specimens of chimney-sweeps' cancer with special reference to this point.

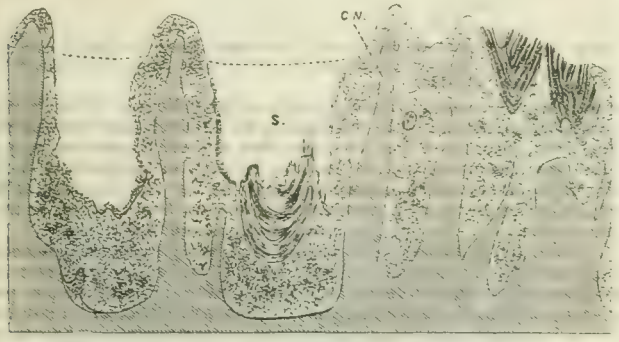


Fig. 4.—More slightly affected portion of Ichthyotic Tongue. S. Space left from the breaking away of a mass of laminated cornified epithelium. C.N. Cell-Nest. The dotted portion of the diagram represents the epithelium, the interpapillary processes of which are prolonged downwards.

Sections in one case, taken from portions of the scrotum at a distance from the epithelioma, appearing normal or perhaps with some slight thickening and roughening of the skin, showed a very considerable elongation of the interpapillary processes of the rete Malpighii, around which numerous "indifferent cells" were scattered (see Fig. v).

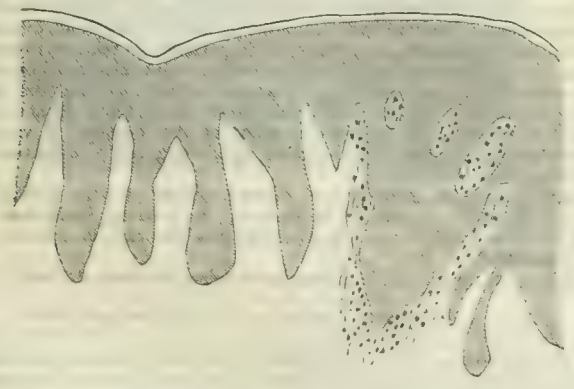


Fig. v.—Outline of the Epithelium of a Scrotum irritated by soot, showing slight ingrowth of the interpapillary processes of the rete.

Similar and more marked appearances were observed in a portion of the skin of the perinæum, removed in another case of epithelioma of the scrotum on account of two warts, one of which had existed for four years. Sections of one of these warts, and of a small warty growth in another case, showed, in addition to an overgrowth of epithelium on the surface and thickening of the corium, a distinct ingrowth of epithelium in the form of papilla-like processes. Sections of portions of epithelioma in an early stage of formation presented ingrowths of epithelium, constituting merely an exaggeration of the elongation of the interpapillary processes seen in the warts and irritated skin (see Fig. VI). It could also be plainly observed that the sebaceous glands participated in the epithelial ingrowths.



Fig. VI. Outline of the Epithelium from a portion of an Epithelioma of the Scrotum, in an early stage of formation.

The repeated recurrence of epithelioma of the scrotum after removal is another indication of the general nature of the change in the skin, quite coinciding with the anatomical appearances described above.

The following case is an instance of a functional hypertrophy of the skin giving place to epithelioma.

George H., aged 56, was admitted into Darker Ward with an epithelioma* on the under surface of the heel, about the size of a crown-piece. The surface was hard, warty, and fissured, but not ulcerated; the edges were raised by a heaping up of epithelium.

The patient stated that, eight years ago, he noticed a hard corn on the under surface of the heel, which he used to have cut every week. After having existed a considerable time, the corn became warty and began to increase in size. Two years ago, the growth was removed, but, recurring, it was again excised with a similar result. Finally, the foot was amputated by Mr. Willett.

Microscopic Appearances.—The surface of the growth was covered by a moderately thick layer of cornified epithelium, from which large columns, composed of concentric laminæ of cornified epithelium, extended deeply into the tumour. At the margin of the epithelioma, there was a great heaping-up of uncornified cuticle, and, from the deep stratum of the rete Malpighii, numerous long pointed anastomosing papillary processes extended down into the corium; this change was observed for a considerable distance beyond the margin of the morbid growth.

Briefly reviewing and connecting the anatomical appearances observed in these cases, we find in a tongue affected with ichthyosis—a chronic inflammatory process—changes in the superficial epithelium with an elongation of the interpapillary processes of the deep stratum; while, in more highly affected portions of the tongue, a gradual transition, from this slight ingrowth of epithelium to fully developed epithelioma, could be observed. In the tongue affected with chronic superficial glossitis, the ingrowth from the epithelium extended so far beyond the margin of the epithelioma, that it cannot be accounted for by the gradual extension of the disease, but is more reasonably referred to the antecedent inflammatory process; an opinion supported by other similar cases.

Finally, in portions of the skin of the scrotum and perinæum, long irritated by the friction of soot between their folds and against garments, we have a similar ingrowth from the deep stratum of the rete, associated with evidences of irritation, such as infiltration of the corium

* Specimen in the Museum of St. Bartholomew's Hospital, No. 3325.

with leucocytes, etc.; and also the formation of warts, showing the same tendency to ingrowth from the deep stratum of the epithelium.

In view of the facts, one cannot do otherwise than refer the general slight ingrowth of the epithelium, both in the scrotum and tongue, to the long continued irritative or inflammatory process existing in each case; and, since no definite line can be drawn between this slight ingrowth of epithelium and the widely extending ingrowth constituting epithelioma—a direct transition from the one into the other being observable—there is the strongest evidence that the inflammatory or irritative process is the direct cause of the cancer, by occasioning the first disturbance of the boundary-line between the epithelium and connective tissue. Recent observations* on those cases of cancer of the breast following eczema of the nipple tend to show that there is a chronic inflammatory condition of the nipple, which extends into the lacteal ducts, and induces a growth of columns of epithelium from the sides of the ducts (duct-cancer of Waldeyer), which may be considered analogous to the columns of epithelium extending down from the epithelium in epithelioma.

In prepuces affected with balanitis associated with specific or non-specific sores, I found on the mucous surface, in places, a distinct elongation and occasional branching of the interpapillary processes of the rete; but where the inflammation was more acute, as at the margin of the sores, the leucocytes extended into the overgrown epithelium and destroyed it. This would appear to furnish the explanation why the acuter forms of inflammation of the skin and mucous membrane are never followed by epithelioma; while long continued chronic inflammatory processes observed in ulcers of the integuments, and old patches of skin-disease, occasionally are.

Some light may be thrown on the mode of production of epithelioma, by briefly glancing at the relation between an outgrowth of epithelium (as in callosities, corns, and warts, etc.), and the ingrowth of epithelium constituting epithelioma. That there is a close connection between the two processes is shown by the cases already referred to—viz., of ichthyosis, of warts† on the scrotums of chimney-sweeps, and of a corn giving rise to epithelioma. As further examples, I will allude to the following cases. There is a specimen (No. 1789), of epithelial cancer of the tongue in the museum of St. Bartholomew's Hospital, in which "the disease commenced eight years before death in a small, hard, white lump on the middle of the dorsum of the tongue, at a spot on which the end of a tobacco-pipe had often rested. The patient was for several years in the habit of paring this lump with a razor." Recently a mason, aged 48 years, was admitted to the hospital with an epithelioma on the palm of the hand, which grew in the situation of a callosity. In the above-mentioned museum, there are some horny growths (No. 2822) of considerable length, removed from the scrotum of a chimney-sweep, where they had existed some months. During nine years five similar growths had formed, and had been shed. This specimen shows that an irritation, which usually gives rise to epithelioma, may sometimes cause merely an outgrowth of epithelium. There is also another specimen of a portion of scrotum (No. 2821), with a large horny growth, side by side with a warty infiltrating growth, which I find on examination to be an epithelioma.

Quite recently I examined a flat, sessile, finely nodulated warty growth about the size of a half-crown, removed by Mr. T. Smith from the perinæum of a gentleman, aged 35 years. It had been growing there years, and the patient, who had resided in hot climates, attributed its growth to the irritation of garments and the sweating about the parts, which occasioned sometimes intense itching. It was growing rapidly when removed, but presented all the appearances of a simple flat wart. The microscopic characters showed, even more distinctly than the warts on the scrotum described above, the transition from simple hypertrophy of epithelium to epithelioma. There was decided, but not extreme, thickening of the cuticle, which dipped down in places; and from the rete Malpighii, long anastomosing papillæ, containing many "cell-nests", extended down into the thickened corium; but the general arrangement of the different portions of the cutis was not entirely lost.

If time permitted, I could cite other cases bearing on the same point; but these appear to me sufficient to indicate that the border-line between the so-called hypertrophies of epithelium and epithelioma is of the slightest description, and that a continuance of the causes which give rise to the former, may lead to the latter.

There is some evidence to show that the overgrowth of superficial epithelium constituting a callosity or corn—a functional hypertrophy of the part—is due to a reactive hyperæmia, produced by the irritation, just as an irritation of the conjunctiva is followed by injection. If a corn be injected, a distinct red line is seen at its base, due to the dilated and numerous vessels of the corium beneath; and the growth of epithelium in this case appears somewhat analogous to that which took place in the cock's spur in Hunter's remarkable experiment (see Sir J. Paget's *Lectures on Pathology*, p. 53); the spur, when transplanted to the comb, where the blood-supply was augmented, grew in a spiral form to a length of six inches.

A striking instance of overgrowth of the Malpighian layer of the skin from increased blood-supply fell under my observation in a case of aneurysm by anastomosis,* involving the whole pinna of the ear, and originating in a small nævus. Sections taken from several portions of the skin of the ear showed that the interpapillary processes of the epithelium of the ear were very considerably elongated, in some places extending down into the corium as branched processes (see Fig. vii),

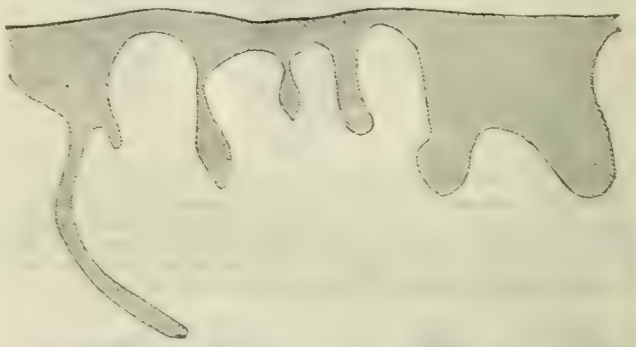


Fig. VII.—Outline of the Epithelium of the Pinna of the Ear from a case of aneurysm by anastomosis, showing ingrowth of the interpapillary processes of the rete Malphigii.

resembling those seen in the early stage of epithelioma. This observation is extremely suggestive in regard to the production of epithelioma, especially when considered in connection with the known tendency of nævi, vascular moles, etc., to become the seats of malignant growths. For if an inflammatory hyperplasia may be the starting-point of the epithelial ingrowth, why may not an overgrowth of epithelium from simple increased blood-supply prove an equally efficient cause?

It is not the object of this paper to maintain that epitheliomata are necessarily produced by some form of irritation, but to show that the anatomical evidence of the direct relation between irritative and inflammatory processes and epithelioma is entirely in accordance with clinical observation, that a long-continued chronic inflammation or an irritation of moderate intensity are direct causes of epithelioma, doubtless frequently favoured by certain conditions, such as hereditary and constitutional tendency, and the nutritive conditions accompanying advanced age (see Thiersch, *Der Epithelialkrebs*, p. 80).

It is conceivable that the hyperæmia and nutritive disturbance, thus produced, renew a latent activity and induce a new formation of epithelium after the same manner as the ingrowth from the epiblast, by which the glands and hair-follicles of the skin are formed in the embryo.

Relation to Treatment.—The fact that, in some cases of chronic inflammation and in widely extended irritation—as in chimney-sweeps' cancer—there is an ingrowth from the epithelium for some distance beyond the epithelioma, is, I think, of importance in relation to treatment. For, if the larger of these ingrowths around the epithelioma be not removed, it is probable that, unless destroyed by suppuration, they will grow more rapidly as the result of the hyperæmia around the wound, and produce a speedy recurrence of the disease. I would, therefore, suggest that in these cases especially a very free removal is indicated.

The tendency which warty and other papillary growths exhibit to become the starting point of epithelioma, is a strong indication for their early removal, especially when their origin can be referred to some irritation.

[N.B.—All the above diagrammatic sketches are drawn to scale.]

* See *Transactions of the Pathological Society*, vol. xxi. p. 88, 1880.

* See papers by Mr. H. T. Butlin, *Transactions Medical Chirurgical Society*, vol. lx. p. 161; and Dr. Dean, *Trans. Med. Soc.* [illegible]

† With regard to irritation as a cause of warts, see Wagner's *Pathology* [illegible]

VACCINATION.—Mr. C. E. Hobbes, of Bidford, Vaccination-Officer in the Bidford District of the Alcester Union, and Pebworth District of the Evesham Union, has received from the Local Government Board the grant for efficient vaccination. This is the fourth time Mr. Hobbes has received the grant.

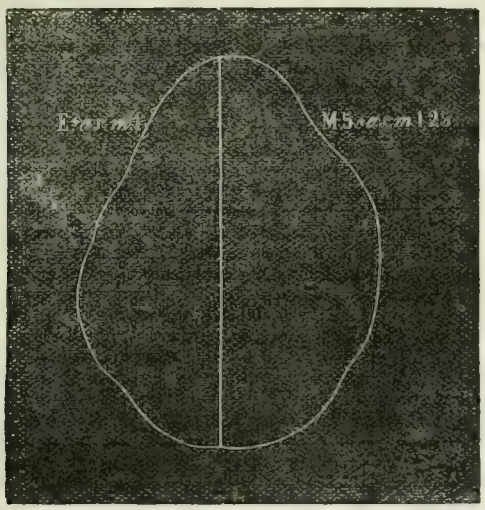
RELATIONS BETWEEN THE CONFORMATION OF THE CRANIUM AND THAT OF THE EYE.

By E. LANDOLT, M.D., Paris.

In one of my works, which was not long since translated into English, I said a few words on the relations existing between the conformation of the cranium and the condition of the refraction of the eye. In many cases, flatness of the forehead, of the bridge of the nose, and of the zygomatic arches, is accompanied with hypermetropia; whereas one would be more likely to find myopic eyes in deep orbits, surrounded by more largely developed bones. If there are many exceptions to this rule—as, for instance, when an eye has become myopic from choroiditis, without an excessive development of the cranium—there is at least one relation between the shape of the head and that of the eyes, which presents fewer exceptions; and that is, asymmetry of the cranium, accompanied by anisometropia and astigmatism.

In all cases of (congenital) anisometropia—that is to say, when the refraction of each eye is different—it is well to examine the conformation of the cranium and of the face. It will then almost always be found that that side of the forehead is more developed which corresponds to the eye with the stronger refraction. On the other hand, the half corresponding to the eye with the lesser refraction is flatter, more retreating, and generally smaller. It is not necessary for this, that the eye of the more developed side should be myopic, and the other hypermetropic. Both of them may be myopic or hypermetropic; only, they differ in degree. In the case of hypermetropia, the eye of the less developed side is the more hypermetropic; and, in the case of one being emmetropic and the other myopic, it is the more developed side in which we find the myopic eye; inversely, when one eye is hypermetropic.

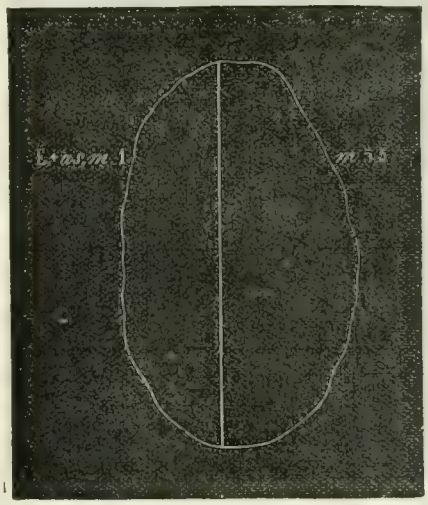
I desire to bring under notice various circumferences of the cranium, which have been taken with the aid of a simple hatter's measure. The refraction of each eye is indicated on the corresponding side. It will be remarked that, in some cases, the entire half of the cranium is more developed than the other; whereas, in others, the difference of development is only perceptible in the anterior portion.



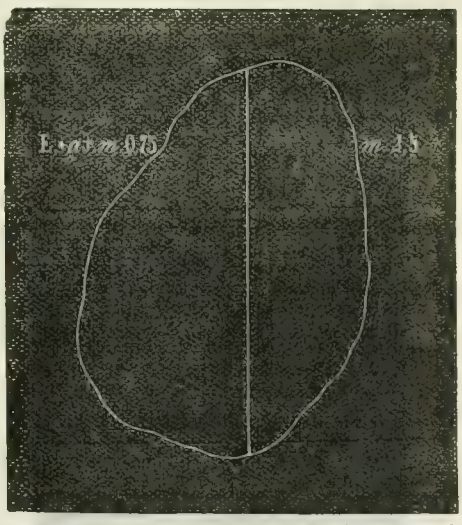
It is, in reality, the frontal part which has a predominating influence upon the development of the eyes; and it is on account of this, that a simple inspection of the forehead, especially accompanied by palpation (either hand being placed on the temple, while the thumb is exploring the forehead), suffices, in the majority of cases, to make the diagnosis of anisometropia.

But, there is more than this. It is not only the forehead, but nearly always one entire half of the face, which is less developed than the other. In my book (Lecture ii, page 22), I say: "We find, sometimes, faces, in which the median line, instead of running vertically, makes a kind of lateral curve; the line, which joins the middle of the forehead with the chin, is thrown to one side, and no longer coincides with the vertical, corresponding to the bridge of the nose. This latter presents often a lateral curvature. This is the result of one side of the face being more developed than the other. The frontal tuberosities, the zygomatic arches, the maxillæ, are much more prominent on one side than on the other."

If not the two halves of the forehead, it is the two halves of the chin which, in those cases, present a considerable difference of development; one side being decidedly larger than the other.



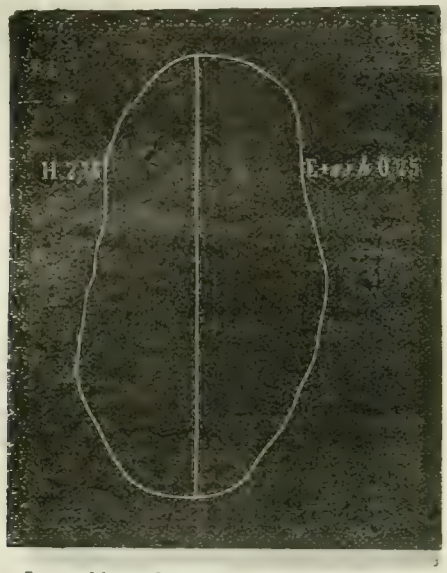
Moreover, examples are in reality scarcely necessary for the support of my assertion. Numerous and very conclusive instances will be found if attention be given to this point in your practice. I can, however, show another photograph of an individual, who travels about on the strength of the fault of conformation, with which nature has endowed him. He is called Schwahn, of Berlin, aged 41, and is the subject of a congenital atrophy of the left half of his face. The left eye is hypermetropic 2 diopters, the right 0.75 diopters.



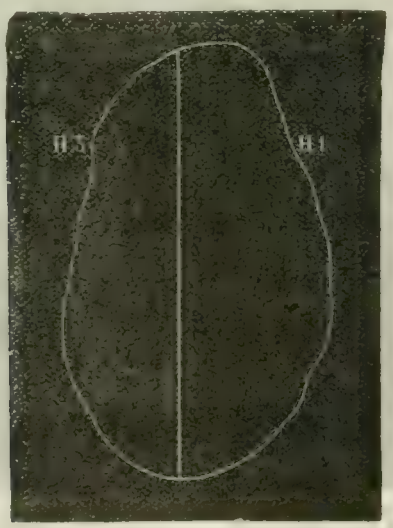
It might be asked, whether the refractive difference existing with asymmetry of the cranium can be explained by a difference of the refracting power of the optical system, or by a difference in the length of the eye, the dioptric apparatus remaining the same, or a combination of the two influences?

A comparative inspection of the length of the globes is generally sufficient to prove that the cause lies in the length of the eye. Perhaps, in some cases, a difference of the refracting power may be found to exist alone; but it is scarcely probable, when we consider that, from the moment there is a difference in the length of the globe, marked enough to strike the observer on simple inspection, it is generally sufficient to account for the anisometropia—since a difference of only 0.3 millimètres in the length of the axis gives a difference of 1 dioptric

in the refraction of the eye. Moreover, ophthalmometric mensuration has proved that, in the majority of cases, the dioptric system does not present a very marked variation in the different instances of ametropia.



I believe I am able to draw another conclusion from these observations: namely, that hypermetropia ought more often to be considered as an arrest of development of the eye—since, in cases of anisometropia, with asymmetry of the cranium, hypermetropia is always found on the least developed side of the face. In thus accounting for it, I believe I have also found the explanation of the inferiority of visual acuteness, which generally accompanies high degrees of hypermetropia; whilst I attribute the low visual acuteness of the high degrees of myopia to the choroiditis, which is the cause of the lengthening of the globe.



Explanation of the Diagrams. The upper part is the forehead, the lower part the occiput; the vertical line corresponds to the middle line of the apparatus. The signification of the letters is as follows. E. = Emmetropia; H. = Hypermetropia; M. = Myopia; *a.* = astigmatism; *as. h.* = hypermetropic astigmatism; *as. m.* = myopic astigmatism. The figures give the refraction in dioptries.

b

SUMMARY.—In asymmetry of the cranium, characterised especially by flatness of one half of the forehead, and of the corresponding zygomatic arch, and lateral curvature of the median line of the face, together with inequality of the two halves of the chin, there is generally anisometropia. The eye of the side which is less developed presents the lower refraction.

TABES DORSALIS WITHOUT LOCOMOTOR ATAXY.

BY DAVID DRUMMOND, M.A., M.D.,

Physician to the Infirmary and to the Children's Hospital, Newcastle-on-Tyne.

THE following cases, which seem to bear out the title of this paper, may not be without interest.

CASE I.—L. S., aged 39, a blacksmith, was admitted into the Newcastle-on-Tyne Infirmary on July 24th, 1879. His symptoms dated twelve months back, previously to which time he had been in good health. At first a tightness in the right side, from the epigastrium round to the spine, three inches below the nipple, was complained of. Subsequently, pain took the place of the tightness, which, being accompanied by nausea and vomiting, led to the belief on the part of the patient, and the statement by his medical attendant, that he was suffering from liver-disease. Giddiness and headache were very early symptoms, as also were shooting (lightning-like) pains down the legs and arms. Five months before admission his sight became dim, and he had at times double vision. He noticed also his left arm to be weak, with a general feeling of numbness in his left side. On admission he walked into the "out-patient's room" without any peculiarity of gait, except that he advanced rather slowly, with the eyes partially closed, as is the habit of myopic individuals.

The most striking feature in the case was soon recognised to be *impaired sensibility*, at first most marked on the left side, especially the left arm; but subsequently the whole surface of the skin became equally affected, from the crown of the head to the soles of the feet, with the exception of the limited area, included within the zone of "girdle pain"; this being at first confined to the right side, as already indicated, but afterwards encircled the whole body.

The phenomenon of impaired sensation will be best described as analgesia; pricking with a pin or burning failed to elicit any complaint of pain. The former was simply described as a touch-sensation. However, the impairment in tactile sensibility was much too gross to permit the æsthesiometer to be of any service in testing it. The skin to be last affected was that of the head and face, or that supplied by the fifth nerve.

Of the special senses, smell, taste, and sight were certainly impaired; hearing was normal. The inability to smell was not confined to pungent substances (fifth nerve), but the perfume of the most odoriferous roses was not appreciated. Taste and sight, though distinctly affected, were not accurately tested. The right pupil was slightly dilated and fixed; the only ocular deviation was slight left internal squint. Tickling of the soles of the feet produced jerking of the legs (increased cutaneous reflex), whilst there was *complete absence of the patellar tendon-reflex*.

Muscular sensibility, especially of the upper extremities, was markedly impaired. He was unable to touch his nose with his forefinger when his eyes were shut; weights were with difficulty distinguished. The lower extremities were similarly, though to a less extent, affected. He at once became giddy and unsteady, when, whilst standing, he raised his eyes from the ground, and the "ataxic position" was to him an exceedingly difficult one to assume, whilst, when lying in bed, the position of his limbs was to a great extent unknown to him. He was not in the slightest degree ataxic; never, during the five months of his stay in hospital had he any difficulty in the co-ordination of the most complex movements. The shooting pains continued from time to time, and the girdle-pain was often loudly complained of. Occasional attacks of headache, usually accompanied by vomiting, were noted. Hyperæmia of the fundus oculi, with indistinctness of the margin of the discs, was observed with the ophthalmoscope.

CASE II.—J. H., aged 43, an engine-fitter, was for a considerable time an out-patient, but subsequently became an in-patient, of the Newcastle Infirmary. The attack for which he was admitted commenced eight years before; the initial symptoms being pains down the legs, which were described as of a "shooting" character. Very early in his illness, he was seized with headache and vomiting, and, in consequence, was confined to bed for a fortnight, during which period he had what his wife described as a fit (the patient's own account was not to be relied on, his memory being considerably impaired), the result of which was loss of power in the right arm and leg—the latter he trailed for some time afterwards. From this attack, he apparently recovered completely. He returned to work, and followed his employment for some months; but soon the "shooting" pains commenced again, this time in the right leg and right side of the head more especially. These pains have continued to the present time. When walking, it was always observed that he was "shaky" (a term, on close questioning, found not to mean "ataxia", but rather the unsteady gait of semi-intoxication). During

the past two years, he occasionally suffered from attacks of "jerking" (*i.e.*, tremor) of the legs, "so that the whole bed shook". For twelve months before admission, an external squint of the right eye was observed; he was deaf for some months. For the past five years, he has complained of difficulty in passing urine, and constipation; also of dimness in vision, with, at times, diplopia, numbness of the legs, and the sensation of a cord tied round his waist. This patient was found, like the last, to be markedly anæsthetic, especially as regards painful impressions, and that all over the body, with the exception of the portion of the abdomen corresponding to the "girdle-sensation" round the waist. This was about an inch wide, and passed round the body an inch below the umbilicus. In this area alone was injury to the skin complained of as painful. The impairment of tactile sensibility was not at all so noticeable. Muscular sense, when tested in the usual way, was found very much impaired, both in the upper and the lower extremities; it was utterly impossible for him to stand with his eyes shut and his feet together without falling. His gait was not ataxic; indeed, when walking cautiously, it was difficult to detect anything unusual; but when he was off his guard, it suggested rather the cerebellar gait. He got in and out of bed quietly without any jerking; whilst with his hands he could perform complicated actions with ease, nor was there any "volitional tremor". The muscular power of the arms and legs was good. The pupils were contracted—"pin-holes"; and the discs presented the usual appearance of grey degeneration of the optic nerves, as seen in cases of tabes dorsalis. There was no ocular paralysis. Smell and taste were considerably impaired. There was *complete absence of the patellar tendon-reflex*, whilst the cutaneous reflex (soles of the feet) was certainly increased. Shooting lancinating pains were often complained of.

The third and fourth of the cases can shortly be disposed of; the subjects of them are both women.

Case III.—M. H., aged 57, married, with five children, had complained of pains shooting down her legs and between her shoulders for the past five years. For two years, her legs had been numb, and they had felt as if "they were bound". She felt a "cord" tied round the waist; had frequently had difficulty in passing urine. Her friends had noticed that she staggered when she walked. This patient was utterly unable to stand in the "ataxic position"; nor was she able to tell the position of her legs when lying down with her eyes shut. The muscular sense of the upper extremities was perfect. The legs were both insensitive to painful impressions; pins could be inserted without any complaint. Tactile sensibility was also impaired. Special senses were normal. The ophthalmoscope revealed nothing abnormal. Her gait also suggested cerebellar disease—*i. e.*, she walked as though she were slightly intoxicated. The patellar tendon-reflex was found to be completely absent. There was no ataxy; she co-ordinated perfectly.

Case IV.—I. S., aged 44, married, no family, was admitted into the Newcastle Infirmary on May 13th, 1880. She was almost carried in, being unable to walk without considerable assistance. Her illness dated nine years back, and manifested itself at first by pains shooting down the legs; afterwards she observed a tightness round the waist, more especially in the left side. This sensation was never painful, but more of a "numbness", "as if something was tucking her in". For the past eight years she was unable to walk by herself. Very early in her illness, she noticed that she could not stand whilst washing her face. In the last three years, she had become much weaker and thinner. Formerly, she was unable to tell the position of her legs in bed; but the muscular sense had recently improved, so that at present she could place her legs in any position with her eyes shut, describing accurately their position. The legs were wasted and analgesic; a prick with a pin being called a touch. The impairment of sensation extended up to the umbilicus. The gait was that of a prostrated old person; the left leg was slowly placed in advance, and the right made to follow it as gently. She could stand by herself with her feet widely apart, but not with the eyes shut. There was nothing ataxic about her movements; and, though the legs were wasted, yet she still retained a considerable amount of muscular power. Her arms were normal. There was a complete absence of the patellar tendon-reflex; whilst the superficial (plantar) reflex was slightly increased. In this case, there was no evidence of grey degeneration of any of the cranial nerves. The lancinating pains in the legs were sorely complained of. Whilst she was awake, the bladder was normal; but at times, during sleep, the urine passed away.

The cases I have briefly recounted present many other points of clinical interest; but I think sufficient has been stated to serve my purpose. It would be absurd to describe them as examples of "locomotor ataxy"; for the simple reason that the one symptom which furnishes the disease with a name is absent—viz., inco-ordination in locomotive movements; whilst nearly every symptom which goes to make up the symptom-picture of "tabes dorsalis", excepting the ataxy, is present in a marked degree.

In a further communication, I hope to refer to the early association of changes in the band and in the spinal cord in cases of tabes dorsalis; so I shall not allude at present to this feature existing in at least two of the cases cited above. In two other cases, at present under my care, of undoubted posterior sclerosis, the gait approaches, to a very slight degree only, the characteristic ataxic manner of walking; whilst, when the patients are lying in bed, movements of the legs can be performed quietly so long as the eyes are observing the limbs. Such cases, whilst easily recognised by an experienced observer, must puzzle sadly even senior students, inasmuch as the characteristic gait, on which the teaching of the schools has laid great emphasis, is not present. Undoubtedly the gait in posterior sclerosis varies within very wide limits; consequently, I apprehend, caution should be exercised in the degree of importance attached to it. For the lesion may easily be recognised by the striking gait of some patients, as, for example, in the case of the patient who was being investigated by a student undergoing his clinical examination. After the physical examination of the lungs and heart had been carefully made, without yielding any important information, the patient remarked, "Hadn't I better get up and walk, sir?" the result being an immediate diagnosis. Yet, in many cases, the information gained from the gait is meagre indeed. It has appeared to me that the degree of anæsthesia—using the term in its fullest sense—bears no direct proportion to the amount of inco-ordination; in fact, rather the reverse. The cases to which I have alluded may be compared with one very marked case of locomotor ataxy at present under observation, in which the gait is truly characteristic; in the latter, the prick of a pin invariably excites the sense of pain, though in a modified manner; whilst, as already stated, analgesia was complete in the cases recorded. Considering that little is known concerning the co-ordination of movements in the spinal cord, it would be futile to speculate, in the absence of *post mortem* investigation, as to the why and wherefore of the want of ataxy. It is difficult to accept, in the light of these cases, the theory advanced by Dr. Gowers, in his truly excellent work, *Diseases of the Spinal Cord*, viz., ataxy may depend solely upon the impairment of the so-called "deep reflexes"; *i.e.*, patellar tendon-reflex, etc. On the other hand, by adopting the view of Lockhart Clarke, as elaborated by Debove and Boudet, tabes dorsalis without locomotor ataxy may be accounted for by supposing that the loss of muscular tone is diffused and general. I notice that Dr. Buzzard recognises the existence of "locomotor ataxy without any ataxy (British Medical Journal, March 5th, 1881, p. 331).

CASE OF TETANUS AFTER OVARIOTOMY.

By E. MALINS, M.D.,
Obstetric Officer to the General Hospital, Birmingham.

I put the following case on record: firstly, on account of its rarity as a sequence of the operation of ovariotomy; and secondly, because there have been, to my knowledge, three other instances of the same kind after a similar operation in this locality within the past three months; circumstances which seem to point to some occult influences, possibly of an epidemic kind, which act at particular periods in the production of this disease.

Miss B., aged 60, was placed under my care for operation by my friend Mr. Walker. She was of a good constitution, singularly calm temperament, free from any mental anxiety, and hopefully confident of her own recovery. The tumour was a large multilocular one, and had been steadily progressing in size for about eighteen months. The urine was free from albumen, and there was no organic disease of any kind present.

On March 1st, ether being given by Dr. Simon, the operation was commenced under carbolic spray, but, the lamp going out suddenly in the middle of the operation, it was finished without. There were no adhesions; and a broad pedicle was tied in three divisions with fine strong silk and returned. The wound was dressed with carbolic gauze, and covered with salicylic wool and a flannel bandage. The subsequent progress for a time was all that could be desired. On the second and third days, the temperature was 100°, and the pulse 96; but the temperature afterwards fell to 99, and the pulse to 84; while the wound healed kindly and entirely, the stitches being removed on the sixth day.

On the evening of the eighth day, the nurse, in trying to adjust some artificial teeth which the patient had previously worn, noticed that she could not open her mouth. Some hours afterwards, she complained of stiffness in the jaws, pain in moving the head, and inability to protrude the tongue, the jaws being firmly locked. Twenty grains of chloral,

with one-third of a grain of morphia, were given. The following day the patient seemed to be much exhausted, the eyes fixed, and the corners of the mouth retracted; attempts at deglutition excited spasm in the throat, with a sense of impending suffocation, and occasional pain with much distress in the præcordial region. The chloral and morphia was repeated, but little sleep obtained; there were profuse perspiration and much thirst, and any attempt to relieve them aggravated the spasm and restlessness. On the evening of the tenth day, an effort to take some beef-tea brought on a violent convulsion, which, though mitigated by the immediate administration of chloroform, caused death in about half an hour from its onset. The temperature rose to 100° on the evening of the ninth day, but fell in a few hours to 99°, and was not again elevated; while the pulse on the morning of the ninth day went to 100, and on the tenth to 120. No *post mortem* examination was allowed.

NERVE-STRETCHING.

By W. A. BERRIDGE, M.R.C.S., etc.

THE cases of successful nerve-stretching recently reported in the BRITISH MEDICAL JOURNAL encouraged me to have resort to this proceeding in the following case, which was so severe that the patient herself hailed with delight any operation which afforded some prospect of even partial relief from her distressing symptoms; and it is with great regret that I am compelled to record a total failure of any benefit from the operation. There was no reason to suspect syphilis. Nevertheless, the patient had previously been treated with mercury to very slight salivation, and also at another period with iodide of potassium until the well-known spots appeared, without the slightest benefit; so that the nerve-stretching was only attempted as a last resort, and after the failure of other means besides those mentioned.

The patient was a female, aged 36. When an infant, she had bad eyes until she was two years old; then they quite recovered. She had scarlet fever when fourteen. She first menstruated at fifteen, and was always regular, never having much pain. She had "low fever" when twenty-one. At the age of twenty-seven, she had a pain all round her back and stomach, and felt a tight feeling like an iron band. She used to sleep against an outside wall, and the wall was damp; to this she attributed the commencement of her present illness. The pain in her back preceded the pain in her legs. The legs felt so heavy, and there was such a feeling of numbness, that she could not get about. She quite recovered for a time. The following winter she became worse, but again recovered slightly in the summer, although she could not walk without assistance. She had at this time no pain—only a feeling of weariness. Each succeeding winter the symptom increased; and in 1876 she saw Dr. Hughlings Jackson, and was in London for some time.

The patient first came under my care in July 1879. She could then walk with great difficulty, and the pain in her back and legs was so severe that she could not sleep at night. On attempting to walk, she had great tremor. There was no incontinence of urine; no albumen or sugar in the urine. The temperature was normal. On examination with the ophthalmoscope, "the discs were pale, the edges clearly defined". The muscular rigidity of the lower extremity had been gradually increasing, and she had been quite unable to walk since Christmas 1879.

On March 8th, 1881, I grasped the left great sciatic nerve with my forefinger and thumb, and stretched it as hard as I possibly could. The spray was used, and all the usual antiseptic precautions. At 7 P.M., she had no pain in the left leg, only when it "drew". It "drew" with any movement. The right leg was very painful at night. She had passed urine; there was no incontinence. Pulse 72; respirations 16; temperature 98°. The left leg was strongly drawn back upon the thigh, and the thigh drawn up towards the abdomen. It could be pulled down by considerable force, but soon went up again. Sensation was fairly good all over it. There was a difference in the temperature of the two legs of only one degree (right 98°, left 97°). There was a good deal of pain in the leg. The right leg was much contracted, and was very painful. On March 9th, sensation was impaired over the back of the left leg. There was not so much pain. Temperature of the right leg, 98°; of the left, 98°. From March 10th to 14th, sensation was still slightly impaired in the left leg; but it moved better. It did not require so much force to pull it down; but it soon drew up again. The temperature of both legs was still 98°. She had had less pain and better nights. On March 20th, the legs were both quite as much contracted, and as painful as they were before the nerve-stretching. The wound healed by first intention.

ON THE USE AND ABUSE OF SALICYLIC ACID.

By GEORGE KEMP, M.D.CANTAB.

DR. T. D. ACLAND, in a communication on the Uræmic Results of Salicylic Acid, published in the BRITISH MEDICAL JOURNAL for March 5th ultimo, states that, in the JOURNAL for January 29th, there are reports of six cases of acute rheumatism treated with salicylic acid, and accompanied by delirium. The results of his inquiry into the subject are not, however, altogether satisfactory, as he operated by means of salicylate of soda, not salicylic acid; and we are far from justified in assuming that the therapeutical effects of salicylic acid and salicylate of soda are identical.

In physical characters, they differ essentially, the one being very soluble in distilled water at 60° Fahr., the other only reasonably soluble in water at a far higher temperature; but a more important consideration is that, whilst the soda-salt can be administered in comparatively large doses with impunity, salicylic acid, even in small doses, produces great irritation in the mucous membrane of the mouth, fauces, and stomach; indeed, to such an extent, that its administration in the usual form is at all times difficult, and in some cases prohibitory, especially when we have respect to the absurdly dangerous doses of eighteen or twenty grains, as we find reported.

I am convinced, from careful and anxious observation, that the maximum dose should not exceed eight grains, repeated as frequently as the exigencies of the case may require; and this may be done without the slightest inconvenience to the patient, and, in fact, without his knowledge, by giving it in beef-tea, or, when highly albuminous diet is prohibited, by solution in weak "osmazome" tea, which is always ready at hand in the form of the so-called "meat-extracts"; the only recognition of the presence of the drug being, "You have put too much seasoning into my soup". A little celery-seed boiled with the liquid and strained off makes it more palatable, and assists in the disguise.

There are other modes in which this valuable remedy may be used with advantage, which, so far as my reading informs me, have not as yet received due attention. One of these is, its application as a counter-irritant in superficial rheumatism; and, of course, in this case, a very large additional dose may be employed. Thirty grains of salicylic acid, intimately mixed with an ounce of any suitable unguent, has been found to alleviate local pain in a remarkable degree. Whether this be due to its properties as a counterirritant *per se*, or the absorption of the remedy conjointly, can only be decided by a large collation of cases; but its advantage is greatly enhanced by the addition of iodide of potassium in an equal quantity.

Another use of this remedy is in the form of enema. A case of severe and long-continued dyspepsia, implicating both stomach and duodenum, with bacterial fermentation to a most distressing extent, only relieved by constant resort to emetics; complicated, moreover, by great sluggishness of the lower bowel, with occasionally severe colicky pains from accumulated fæces, the patient at the same time suffering from rheumatism on the slightest exposure to moisture and cold, was treated by enema, with thirty grains of salicylic acid and half an ounce of tartrate of potash dissolved in a pint and a half of lukewarm water. Of course, the addition of two fluid-drachms of tincture of hyoscyamus, or its analogues, would have been a great improvement, but the object was to keep the conditions of the case as simple as possible. The result was quite remarkable; the colon was not only relieved of its scybala, but its tonicity was greatly restored, suitable general treatment being resorted to consentaneously. Should this case be confirmed by the experience of others, the record will not be useless.

THE first number of a new French periodical, entitled the *Journal d'Encéphale*, under the direction of Professors Ball and J. Luys, appeared on the 25th March.

ILLEGAL PRACTITIONERS.—We hear, from a Bristol correspondent, that some American charlatans, named Mayfield Lilly and Eugenie Lilly, were summoned, on the information of Superintendent Harris, of that city, "for that they, on the 14th March, not being registered under the Medical Act, nor possessed of any diplomas or certificates of having taken any English, foreign, or colonial degree, not having taken such degree, and not having practised as doctors of medicine or physicians before the 1st day of October 1858, unlawfully, wilfully, and falsely did pretend to be doctors of medicine and general practitioners in medicine, and recognised as such by law, contrary to Section 40 of the Medical Act". The defendants, it is said, have decamped, leaving their surgery, stock of worms, etc.; and warrants have been issued for their apprehension.

THERAPEUTIC MEMORANDA.

PILOCARPIN IN THE TREATMENT OF PUERPERAL CONVULSIONS.

ALTHOUGH it would be unwise to draw conclusions from the results of treatment in a single case, I venture to send notes of a case of puerperal convulsions treated by the hypodermic injection of pilocarpin, as it may be some time before I have the opportunity of again trying this remedy in a similar case.

M. J. E., aged 22, domestic servant, a primipara, and previously healthy, was suddenly seized with convulsions. When seen by me, she was in violent general convulsions, which had continued for two hours. On examination, I found her to be in the sixth or seventh month of pregnancy, the os rigid and undilatable, and the urine loaded with albumen. The convulsions continuing, and it being impossible to give anything by the mouth, I injected hypodermically, six hours from her seizure, fifteen minims of a two-per-cent. solution of pilocarpin. This was followed in about two minutes by very profuse salivation and perspiration; the convulsions ceased, and strong uterine contractions soon became evident. After an interval of an hour, she had seven fits in quick succession. Mr. Taylor then saw the patient with me; and, with his concurrence, I gave, two hours after the first, a second injection of pilocarpin. The salivation following this was so copious as to threaten suffocation; and, although the convulsions became weaker and less frequent, the breathing was so much embarrassed as to make the patient's recovery almost hopeless. Pains, however, became stronger and more frequent; the fœtus being expelled ten hours after the last injection. The woman remained unconscious for two days, and then recovered rapidly.

In puerperal convulsions, I have found the best treatment to be dilatation of the os uteri, with or without chloroform, and speedy delivery; but in the foregoing case, one of the worst I have ever seen, the convulsions seemed to be so much controlled by the pilocarpin, that I shall certainly use it again in such cases. I may also say that I have used jaborandi with very good results in cases of Bright's disease and spasmodic asthma. A. HAMILTON, F.R.C.S.Ed., Chester.

SURGICAL MEMORANDA.

ABSCESS IN THE REGION OF THE KIDNEY.

ON November 19th, 1880, I was called to see a mechanic named T. R., a well-built, active, temperate man, aged 57. He had gonorrhœa about fifteen years ago, followed by a stricture in the urethra, which he first noticed about ten months previously. He also stated that he had just recovered from an attack of retention of urine, followed by a scrotal abscess, not followed by a fistula. The retention had lasted nine days. On examining him, I found him suffering from bronchitis, also from a dull aching pain, deep seated in the left lumbar region. There was no external swelling. I carefully examined the spine, but found no tenderness there. The urine was alkaline, of specific gravity 1020; it contained albumen and pus. The treatment ordered was absolute rest in a warm bed, in the horizontal position; milk-diet and barley-water; general treatment for the bronchitis; and opiate fomentations for the seat of pain. On November 20th, the bronchitis was relieved; the pain in the back was still constant, and increased in severity, without any definite local tender spot. Temperature 102.4°; pulse 108. The fomentation was continued. No change of note occurred until December 10th, when I noticed an indurated swelling between the last rib on the left side and the crest of the ilium, extending to within two inches of the spine. There was no fluctuation. At this time, he had slight rigors. Temperature 103.5°; Pulse 125. The urine was alkaline, purulent, and contained albumen and renal epithelium casts. On December 20th, the tumour was more distinct, and there was fluctuation. Temperature 104°; pulse 130. On December 22nd, I had a consultation with Mr. T. Jones, of the Royal Infirmary. Both agreed that it was an abscess; whether perinephritic or nephritic, we could not decide. As the patient seemed much exhausted, we decided to evacuate the pus. This was done by Mr. Jones making a deep incision about the outer edge of the quadratus lumborum muscle, about three inches in length, at the depth of about three inches; fully twenty ounces of a healthy-looking pus were evacuated. The wound was dressed in a modified antiseptic method, with a drainage-tube. Great relief was immediately felt by the patient; and, at the evening's visit, the temperature was 101°; pulse 110; showing a marked change for the better. The wound progressed very favourably, and was entirely closed on January 22nd, 1881. At no time was there any discharge of urine from the wound. On January 25th, there was still a considerable quantity of albumen in the urine.

REMARKS.—The abscess undoubtedly arose from the inflammatory condition of the urinary passages, and the impediment to the escape of the urine. Dr. Dickinson believes that, in many cases, the changes are due to absorption of septic substance contained in the urine.

G. H. DARWIN, L.R.C.P.Ed., Manchester.

CLINICAL MEMORANDA.

CASE OF HERPES IRIS WITH ALBUMINURIA.

J. C., aged 15, applied as an out-patient at the General Hospital on February 12th, complaining of diarrhœa and a breaking out on the skin. He had been ill three days with diarrhœa, but had felt unwell for two or three months. On examination, the eruption was found to be well-marked herpes iris, confined to the left hand and wrist. The aortic second sound was accentuated; and the urine was loaded with albumen, but contained no casts. He was unable to account for the attack in any way. He was ordered simple remedies for the diarrhœa; and, on presenting himself three days later, the diarrhœa was better, and the albuminuria much diminished. In another week, the albumen had disappeared, and the diarrhœa and rash were both gone. I venture to publish this imperfect little case, because I am not aware of the existence of any record of the association of albuminuria and herpes iris, and also because it is an example of the intimate relation which herpes iris bears to derangements of the digestive tract, being so far quite analogous to urticaria, with which it has several features in common. ROBERT SAUNDBY, M.D., Birmingham.

BACKACHE.

NONE of those who have written in the JOURNAL about backache have alluded to the well-known fact that, when it occurs in women, it is the result of disease of the sexual organs in nine cases out of ten; and I thought this told well of professional dislike to repetitions of the already known. As, however, Dr. Hill Drury, in the JOURNAL of March 26th, gives it as something not generally admitted, that backache is most frequently caused by leucorrhœa, I willingly endorse his assertion, if he means by leucorrhœa that muco-purulent vaginal discharge which results from the shedding of epithelium from the cervical canal and the mouth of the womb, for which disease no better name has been yet proposed than ulceration of the os uteri. More or less intense and persistent backache is the almost invariable symptom of this disease, and its rational treatment cures both the disease and the backache. E. J. TILT, M.D., Seymour Street, Portman Square.

OBSTETRIC MEMORANDA.

A METHOD OF FACILITATING VERSION IN CASES OF NEGLECTED SHOULDER-PRESENTATION.

IN cases of neglected shoulder-presentation, I venture to suggest the following procedure, which, from practical experience, I have found extremely serviceable in many cases, and which, as far as I know, has neither been noticed in midwifery text-books, or practised. That the operation of decapitation, now advocated, is attended with a good deal of difficulty, and has numerous drawbacks, will, I think, be allowed by many; therefore, in firmly wedged shoulder-presentations, I have proceeded as follows—premising, of course, version without evisceration to be impossible.

The child's arm having been brought down, a circular incision is made above the wrist or near the elbow, through the skin only. The wrist being grasped with one hand, the finger of the other is inserted into the incision, and, by a rotatory movement, made to flay the skin from the subjacent soft parts up to the shoulder. Still using the finger, the pectoral muscles are torn through, and the clavicle is broken either by hooking the finger over it, or, if it will not give way—which is unusual—the crotchet. The subcutaneous parts of the shoulder, including the scapula, the acromial end of the clavicle, and the humerus, with its muscles, can then be readily removed by traction—little force being necessary—through the sleeve of skin previously dissected. This having been accomplished, I have always found the subsequent evisceration and version rendered much more practicable, the upper parts of the child (the shoulder being removed and guarded by a smooth flap) ascending with comparatively little force. This method of removing the shoulder is unattended with the slightest risk to the maternal soft parts, is easily

performed, leaves no open surface, and renders the subsequent removal of the child easier. In six cases attended by a brother practitioner and myself, we have been much pleased with the results; and I believe any of my professional brethren who give the method a trial will be equally pleased.

WILLIAM DONALDSON, L.K.Q.C.P.I., etc.,
Medical Officer Newtown and Llanidloes Union.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

WESTMINSTER HOSPITAL.

CALCULUS IN THE FEMALE BLADDER: REMOVAL BY A COMBINATION OF DILATATION AND INCISION.

(Under the care of Mr. COWELL.)

L. W., aged 22, a general servant, unmarried, was admitted, on January 23rd, into Holland Ward, with calculus in the bladder. Three days previously, she had been admitted to one of the medical wards with some urgent symptoms of pain in the abdomen, back, and thighs, and giving a long history of treatment for "inflammation of the womb" at a small special institution.

There being nothing especially medical to explain her symptoms, and the obstetric physician having reported that there was "nothing the matter with the uterus", the surgeon was requested to see the patient. The pain after micturition, the mucous urine, and other symptoms, plainly pointed to stone in the bladder; and a small sound at once demonstrated the presence of a large calculus. The patient was transferred to the surgical ward, as above stated, and on January 15th was submitted to operation.

Mr. Cowell dilated the urethra moderately with the three-bladed dilator, by opening the instrument widely in the bladder, and then maintaining for a short time firm traction upon it, so as to dilate the vesical end of the urethra more than the external meatus. The dilator was relaxed and withdrawn, the forceps was passed through the urethra, and the stone seized; it was easily placed in the forceps in the long diameter by the finger in the vagina. The stone being firmly held and drawn downwards, so as to expand the urethra, an incision was made with a straight blunt-pointed bistoury, backwards and outwards through the margin of the meatus on both sides. The calculus was then removed without difficulty.

The patient made an uninterrupted recovery. There was retention of urine for twelve hours after the operation; but the application to the abdomen of a flannel wrung out of hot water was speedily followed by natural micturition. There was no further difficulty. The pain gradually disappeared, and there has been no incontinence.

The stone was the ordinary lithic acid calculus, and measured a little more than an inch and a half (nineteen lines) in length, an inch and a quarter in breadth, and seven-eighths of an inch in thickness. On section, the nucleus was seen to be double; and the alternating layers of uric acid and phosphates confirmed the long history of varying degrees of vesical irritation.

In pointing out, after the operation, and in a subsequent clinical lecture, the chief features of the case, Mr. Cowell added a strong protest against the frequently repeated vaginal examinations to which this patient had been subjected before admission. Such examinations were invaluable when undertaken with a definite object, and performed with sufficient completeness to fulfil that object; but frequent examination, repeated for many weeks, were not only useless, but outrageous.

ACUTE OSTEITIS: SEPTICÆMIA: EXCISION OF TIBIA: RECOVERY.

(Under the care of Mr. MACNAMARA.)

A. L., aged 14, was admitted on March 1st, 1880. The patient's mother stated that her husband had died of consumption; she had seven children, and they had all enjoyed good health except the youngest, who was suffering from disease of the hip-joint.

About Christmas 1879, the patient had received an injury to his right knee, since which the leg and joint had from time to time been painful; but, until a few days before admission into the hospital, he had been able to walk about. He was then seized with intense pain in the right knee and upper part of the leg, and applied as an out-patient to the hospital, when he was at once admitted under Dr. Allchin's care, as a case of acute rheumatism.

March 1st. The patient's right knee and leg were very much swollen, of brawny hardness, and intensely painful. His temperature was 105.4° in the evening; pulse 134, very weak; respirations 35. The urine was of specific gravity 1026, and contained no albumen. The patient was constantly wandering; he had no diarrhœa. The abdomen was slightly distended, and tender on pressure; the heart's apex was in its normal situation; there was no *bruit*, nor pericardial affection. None of the other joints were implicated. The patient complained of intense pain in the head and intolerance of light, and his conjunctivæ were congested.

March 2nd. The patient was in much the same condition; his temperature reached close upon 106° this evening.

March 3rd. The boy complained terribly of pain in the head and knee, which latter was much swollen; to-day his temperature ranged from 104° to 106°; his pulse was 160, and his respirations were 48 in the minute. The heart's action was very feeble, the tongue brown and dry; there was muttering delirium, and he was constantly picking at the bedclothes. He swallowed nourishment easily.

March 5th. The patient lay in much the same condition. An abscess was forming over the front of the sternum. Mr. Macnamara saw the patient for the first time to day, and expressed his opinion that the boy was suffering from septicæmia, arising from the effects of acute inflammation of the upper epiphysis of the tibia.

March 6th. A free incision was made down upon the upper portion of the tibia; and, on passing a director in the direction of the epiphysis, pus escaped from the wound.

March 7th. The patient remained in much the same alarming condition; and another free incision was made down upon the bone.

The patient remained in a very precarious state until April 5th. On that day he was placed under the influence of ether, and Mr. Macnamara made an incision along the whole length of the shaft of the tibia; and, having separated the periosteum from the bone, sawed through the tibia about two inches above its lower extremity. The whole of the bone was then readily lifted out from its position, the upper portion of the diaphysis having been separated from the epiphysis by the inflammatory action which had been set up in this latter locality. From the time of the operation, the boy's health began to improve; a new tibia formed; and, although the leg, in January 1881, was some two inches shorter than its fellow, he was able to walk about with the aid of a high-heeled boot.

Immediately after the operation, the shaft of the tibia which had been removed was sawn through from above downwards, and the whole of the cancellated structure, from the upper portion of the diaphysis for three inches downwards, was found to be full of the most offensive pus. The outer surface of the shaft of the bone was covered with a thick periosteal growth of new osseous tissue.

Mr. Macnamara remarked that this was a typical case of what is usually described as acute periostitis; but there seems to be no question as to the fact of the disease having been an instance of epiphysitis, the inflammatory action having commenced at the line of junction between the upper epiphysis and shaft, and extended thence, not only to the periosteum, but also to the medullary structure contained within the cancellated tissue of the bone. It was from this latter source that the septic poison was absorbed into the system, and nearly destroyed the patient. This fact would hardly have been demonstrated, had not a section of the bone been made immediately after the operation, when the excessively putrid condition of the medullary structure was apparent to all those who had the opportunity of examining it, demonstrating the fact, upon which Mr. Macnamara strongly insists, that most of the cases of so-called acute periostitis are due to inflammation extending from the epiphysis to the medullary structure, as well as to the periosteum which surrounds the inflamed bone, and involving not only the epiphysis, but the medullary structure.

ST. THOMAS'S HOSPITAL.

ACUTE OSTEITIS: PYÆMIA: OSTEOTOMY: DEATH.

(Under the care of Mr. MASON.)

[For the notes of this case we are indebted to Mr. BERNARD PITTS, F.R.C.S., Resident Assistant-Surgeon.]

HENRY L., aged 12, was admitted into Albert Ward on January 27th, 1881, with the statement that he had fallen on the ice on the 25th of the same month.

On admission, the patient was delirious, talking about skating. He had a general aspect of suffering, a flushed face, sordes on the lips, and a dry brown tongue; his temperature was 103°, and pulse and respiration were hurried. He complained of some pain at the back of the head. The pupils were equal, and acted to light. The abdominal wall was tense; and there was a tender spot found over the upper part of the

left rectus, as if there were some inflammatory condition within the sheath of the muscle. There was a slight fulness just below the left hip on the outer side, and very great tenderness over the left femur, immediately below the trochanter major; the skin was not red. There was slight fulness over the right knee, and some superficial lymphatic redness over the right shin, with tenderness on pressure at the upper part of the tibia and fibula on the same side. A thrill could be felt over the præcordial region, with slight increase of dulness, but no friction. The lungs were unaffected. An incision was made, under an anæsthetic, over the tender spot on the left femur; on cutting through the periosteum, no pus was found; but, on making a linear osteotomy with Hey's saw, about one drachm of pus escaped. The trephine was then used, in order to give free drainage to the bone. Incisions were also made over the tender places on the right tibia and fibula, but no pus was found in these situations. The wounds were dressed antiseptically. The temperature in three hours fell to 97.4°, the pulse to 100, the boy slept quietly, and awoke free from delirium, and took nourishment well. On questioning the mother, it was found that the patient had had a fall on the ice on January 22nd, his nose bled, but he made no special complaint until January 25th. During the intervening time he had been playing on the ice, and had had one or two more falls; but on the latter day he felt too ill to go out, and complained especially of pain below the left hip. He had no shivering fits.

January 28th. In the afternoon, the temperature rose to 103°; the dressings were changed, and the temperature fell to 99°. In the evening, he again became delirious; redness and swelling were found over the second phalanx of the middle finger of the left hand; an incision was made down to the bone, and some pus evacuated. There was no further evidence of mischief in the thorax. During the night, the temperature rose to 103.6°; and he rapidly became worse. He vomited frequently, was very drowsy, but answered questions rationally. The bowels were open after an aperient; the tongue was dry and brown. He was sweating, his pulse was 130, respirations 52. Antiseptics were given up, and open dressings applied. Stimulants and quinine were prescribed internally.

On January 30th, about two drachms of pus were evacuated from the rectus muscle. He was delirious all day, with a temperature ranging from 103 to 105.

On the following day, he was nearly unconscious, but was able to protrude his tongue when asked. Slight left hemiplegia was noticed. Respirations were very rapid; on auscultation, bronchitic sounds were heard in the chest, and, over the cardiac area, well-marked friction. He took fluids only. Fæces and urine were passed involuntarily. Swelling and redness were noticed over the right radius and the left ulna, also effusion into the right ankle, and swelling over the lower end of the right tibia. There had been no rigors since admission; no albumen in urine. The highest temperature during the day was 104.8°. He died on February 1st, at 10.30 A.M.

The *post mortem* examination was made the next day. A small abscess was found over the cartilages of the lower ribs, at their junction with the sternum. On removing the sternum, a thin layer of pus was found beneath it in the mediastinum and over the heart. The left sterno-clavicular articulation contained pus. The left pleura presented a generally inflamed appearance, which was most marked over the consolidated patches in the lung, but there was no fluid in the pleural cavity. The pericardium contained a few ounces of serum, in which were flakes of turbid lymph; and its visceral and parietal layers were coated throughout by a layer of lymph. The heart appeared healthy. The lungs were both generally congested, and showed numerous wedge-shaped infarcts on the surface. The liver and spleen were normal. The right kidney contained ten or twelve small abscesses, situated chiefly in the medullary part; a few presented on the surface; none exceeded in size a large pin's head. A recent intussusception of small intestine into small intestine was found, the intussuscepted portion being about eight inches long. The ventricles of the brain were rather dilated with excess of fluid, but no inflammatory condition or abscess was found. On section of the upper part of the left femur, the upper part of the medullary canal and the cancellous tissue immediately above was found much changed, and the bone was softened by the acute endostitis. Free vent had been given to the pus by the linear osteotomy. Pus was found in the tissues about the right knee-joint, but no affection of bone in the upper parts of the tibia or fibula. The right ankle was distended with serous effusion; and on section of the lower end of the tibia, the cancellous tissue of the bone, just beyond the epiphysial line, was found much softened, and pus was diffused throughout the cancelli. The periosteum was quite healthy.

REMARKS.—Mr. Pitts remarked that this case was of interest from the exceedingly rapid development of pyæmia; from first to last the boy was only ill eight days. When first seen, two days after the onset of symptoms, Mr. Pitts considered that pyæmia had already been set up, and felt that the time for any very hopeful interference had passed; and it was only after some hesitation that he determined to cut down on to the femur in the hope of relieving the extreme pain. The operation was followed by temporary relief of all the symptoms, but the systemic infection, as had been feared, was too profound to leave any possibility of a favourable result.

The *post mortem* appearances of the bone primarily affected bear out the remarks made above by Mr. Macnamara in reference to the real pathology of these cases, often spoken of as "acute periostitis". As in his case, there was an acute inflammation of the central tissue of the bone itself: an "endostitis" starting at the diaphyso-epiphysial junction, or in its neighbourhood; and in the right tibia also there was a suppurative inflammation, (evidently, Mr. Pitts tells us, of later development), while the periosteum was quite unaffected. In both cases, the symptoms of systemic poisoning were very severe; and in connection with this, more than one problem suggests itself: how comes it that, quite independently of external contamination, the products of acute inflammation of bone should give rise to so virulent a form of infection? and why, in the one of these cases, did the process take the form of septicæmia, and in the other of the most malignant pyæmia? We must confess we have no answer to these questions.

ROYAL SOUTHERN HOSPITAL, LIVERPOOL.

DOUBLE POPLITEAL ANEURYSM, SUCCESSFULLY TREATED.

(Under the care of Dr. LITTLE).

[For the notes of this case, we are indebted to HENRY WELCH, M.B., House-Surgeon.]

JAMES M., aged 32, unmarried, worker in a forge, was admitted first on October 6th, 1879, suffering from a pulsating tumour in the left popliteal space, about the size of a pigeon's egg. He stated that it had commenced two months before. There was no history of any injury, or of syphilis. Popliteal aneurysm was diagnosed. Dr. Little flexed the leg completely on the thigh, and kept it tightly strapped there for fourteen hours. At the end of that time, all pulsation had ceased, and has never returned. The patient was discharged cured on December 27th.

He was readmitted on May 7th, 1880, with a similar tumour in the right popliteal space, evidently an aneurysm, about the size of a hen's egg. His present illness had commenced six weeks before, with pain behind the knee, and the tumour had gradually appeared. The site of the former aneurysm was examined. No pulsation was felt, but there was hardness along the course of the artery, and the leg was much thinner than the right. There was a systolic *bruit* at the base of the heart, heard also over the aneurysm. On May 19th, the leg was flexed as before, and kept so, with occasional slackening (to relieve the intense pain), until June 9th, when pulsation was still felt, but less forcibly. On June 21st, Signoroni's femoral tourniquet was applied in Scarpa's triangle, so as to almost obliterate the pulse, and was kept on for eight hours. It was again applied on June 23rd for twenty-four hours. After this, the tumour was considerably harder, and much less expansile. The femoral artery was ligatured in Scarpa's triangle on July 7th. The wound was completely healed on July 19th, and there was no return of pulsation in the aneurysm. Although his recovery was rendered tedious by frequent attacks of rheumatism, he was ultimately discharged, cured, on January 22nd, 1881.

BEQUESTS.—Mrs. Julia Ripley, of Springfield Hall, Lancaster, has bequeathed the whole residue of her personal estate to the trustees of the Ripley Hospital, in Lancaster, established by her in memory of her late husband, Thomas Ripley, of Liverpool, merchant. Mrs. Ripley, in her lifetime, built the hospital, and endowed it with land at a cost of upwards of £70,000.

CHESTER-LE-STREET RURAL DISTRICT.—Mr. Linton's report is a very insufficient one for a district numbering over 21,000 people. Especially should we have wished for an account of the circumstances under which infectious disease, particularly scarlatina (which caused 49 deaths), was present in the district. Mr. Linton gives a few particulars as to special visits made by him, and records certain improvements in the water-supply. He does not state either the birth or death-rate, but gives the total number of births and deaths as 954 and 572, against 920 and 426 in the previous year. This increase was mainly attributable to the prevalence of diarrhœa, measles, and scarlatina, chiefly amongst infants. Diseases of the respiratory organs was very fatal, causing 91 deaths against 55 in 1879. No less than 93 of the deaths were attended by unqualified medical practitioners.

REPORTS OF SOCIETIES.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, MARCH 2ND, 1881.

EDWARD LUND, F.R.C.S., President, in the Chair.

Embolism of the Central Artery of the Retina occurring as a Complication of Phlegmasia Dolens.—Dr. WALTER mentioned a case of embolism of the central artery of the retina, occurring on the fourth day after labour. The patient, twenty-six years of age, was admitted into St. Mary's Hospital last April, three weeks after her fourth confinement, suffering from phlegmasia dolens of the right lower extremity of one week's duration. The opposite leg then became affected; but in three weeks both limbs returned to their normal size, and all tenderness along the course of the femoral veins had disappeared. It was not until the patient had been in the hospital two weeks, that she complained of having suddenly lost the sight of her left eye on the fourth day following her confinement. An ophthalmoscopic examination showed the retina to be anæmic; its arteries and veins were so contracted and small as to be scarcely visible; the optic nerve was pale, and the yellow spot reddish. These ophthalmoscopic signs were verified by Dr. Emrys-Jones, who also considered the loss of vision to be due to embolism of the central artery of the retina. The ophthalmoscopic appearances of the eye had now completely altered, and nothing but a very large detachment of the retina could be seen. Vision had not returned in the slightest degree since its sudden disappearance. It was difficult to say whence the embolism came. No valvular lesion of the heart could be detected; the patient never had rheumatism or syphilis; nor was there any renal mischief to be found. Dr. Walter considered that the embolism might possibly have been due to the altered condition of the blood during the puerperal state.

Mummification of the Hand following Embolism of the Axillary Artery.—Mr. THOMAS JONES showed a female aged 45, who had come under his care for dry gangrene of the right hand. Three weeks before admission to the Royal Infirmary, she had been suffering from tingling in the hand and arm, extending as far as the shoulder. On admission, the back of the hand was blue, and she was unable to move her fingers. The gangrene came on suddenly, and no pulsation was to be felt in the vessels of the arm. There was no heart-affection. The line of demarcation below the wrist formed very slowly; and, three months after the onset of the disease, she applied for amputation, which was accordingly done at the wrist-joint. The stump was dressed antiseptically. Her temperature never rose above the normal, and she had a very excellent stump.

Secondary Infiltration in the Glands of the Groin after Removal of the Penis for Epithelioma, in a Man aged 25.—Mr. HEATH showed a young man suffering from secondary infiltration of the inguinal glands after amputation of the penis for epithelioma, and narrated his case as follows. Joseph Hallas, spinner, married, with two children, was admitted into the Infirmary on May 5th, 1880, suffering from epithelioma of the penis. The father and mother of the patient were living. There was no history of cancer in the family, nor any evidence of syphilis in the patient's history. The disease commenced in a small hard pimple at the extremity of the glans penis, which was painful. Some escharotic had been employed by an American practitioner; and an ulcer resulted, which bled continually, and was painful. When he was first seen by Mr. Heath, there was a large, hard, irregular, bleeding ulcer on the glans penis, secreting a purulent fluid, and being surrounded by hardened and infiltrated tissue. The prepuce could not be drawn completely back over the glans penis. The patient was treated for a time antisyphilitically, but without any effect. A small portion of the mass was removed, and showed all the signs of epithelioma, when examined microscopically by Dr. Dreschfeld, the professor of pathology. On May 14th, 1880, the penis was amputated; the penis being transfixed, the corpus spongiosum cut long, and the edges of the urethra stitched to the skin. The patient made a good recovery, and left the hospital on May 25th, 1880. He was readmitted on February 14th, 1881. The stump had well healed. The patient, on micturating, could pass a good stream; and the urethral opening was well formed; but the glands of the right groin were infiltrated, and had ulcerated. A small portion of the ulcerated and hardened mass was excised, and microscopically showed granulation-tissue and epithelial elements of the epithelioma type. That epithelioma of the penis is comparatively rare in persons under thirty, is seen from an analysis by Zielcwicz (Langenbeck's *Archiv*, vol. ii, p. 591), who found, in fifty cases: under thirty years, one case; between thirty and forty, six cases; between forty and fifty, fifteen cases; between fifty and sixty, fifteen cases; between sixty and seventy, seven cases; between seventy and eighty, three cases.

Cancer of the Kidney.—Dr. LESLIE JONES (Blackpool) showed a specimen of colloid cancer of the kidney, removed *post mortem* from a gentleman aged 56, who previously to 1879 was in excellent health, when a sudden and alarming hæmaturia came on, without any previous symptoms, and persisted more or less for three months. A short remission then occurred, only to be followed by intermittent attacks for fifteen months, when the bleeding spontaneously ceased altogether, and for the last three months of life there was no hæmorrhage at all. There was a distinct tumour in the left flank, in the position of the kidney, to be felt during life; but he suffered little or no pain, except at the base of the lung on the same side, where there were signs of cancer, probably of the posterior mediastinum. The tumour, when removed, was of the size of an adult head, and did not microscopically present any appearance of cancer.

The Germ-Theory of Sepsis contrasted with the Clinical Facts observed in Metria.—Dr. THORBURN read a paper entitled, "How far is the Germ-Theory of Sepsis in Accordance with the Clinical Facts observed in Metria?" He first briefly referred to the prevailing confusion in the classification and nomenclature of the acute febrile puerperal diseases. Agreeing with those who denied the existence of a specific puerperal fever, he also maintained the advisability of entirely relinquishing the name. Some common and inclusive term being, however, still required—temporarily, at any rate—he urged the adoption of the term "metria", as used by Dr. Farr and the late Registrar-General. Following Dr. M. Duncan's classification with slight modification, he recognised—1. The inflammatory; 2. The pyæmic; 3. The zymotic; 4. The septicæmic; and 5. The sapræmic types. Recording some typical cases, he insisted on the importance of recognising the clinical distinctions between the latter two. After showing that modern physiological experiment confirmed the same in theory, though not yet conclusive as to the relation of the two forms of blood-poisoning to living germs, he showed how all obstetric experience pointed to a poison, the least drop of which acted as a living ferment, and produced in time the deadliest results; and to another poison, which was dangerous only from its quantity, and which nature could entirely eliminate in a few hours, if further introduction were prevented. He specially desired to know how far surgical clinical experience agreed with obstetric.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: PATHOLOGICAL SECTION.

ORDINARY MEETING, FRIDAY, FEBRUARY 25TH, 1881.

B. W. FOSTER, M.D., in the Chair.

Syphilitic Cirrhosis of Liver.—Dr. MOUILLOT showed a specimen of syphilitic cirrhosis of the liver from an adult. The organ was much lobulated. A microscopical section was also exhibited.

Carcinoma and Cirrhosis of Liver.—Dr. MOUILLOT showed another liver, in which atrophic cirrhosis and scirrhous cancer were both present; and the appearances suggested that the cancerous disease had supervened upon an already cirrhosed liver.

Septic Periostitis.—Mr. H. LANGLEY BROWNE showed a child who had recovered from an attack of septic periostitis and osteo-myelitis of the femur, of which he read notes.

Compound Fracture of Patella.—Mr. H. LANGLEY BROWNE also showed a man who had suffered from a compound fracture of the patella, but who had made a good recovery.

Scarlatina from Milk.—Mr. MESSITER related the particulars of an outbreak of scarlatina in Dudley, which he believed he had traced to the infection of the milk-supply.

Heart from Chorea.—Dr. MOUILLOT showed, for Dr. Foster, the heart from a fatal case of chorea, which presented a ring of small vegetations around the orifice of the mitral valve.

Granular Kidney.—Dr. SIMON showed the hypertrophied heart and granular kidneys of a young woman, who was admitted into hospital suffering from great dyspnœa, and who died in three days. There was no other lesion present to account for the dyspnœa.

Sublingual Cyst.—Mr. H. R. KER described a case in which he had removed a cyst, of the size of a hen's egg, from the floor of the mouth; it contained a cream-like fluid, which lay beneath the mucous membrane, and it was distinctly not ranula.—Mr. Ker also showed a splint for treating cases of knock-knee, and a needle for paracentesis.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, FEBRUARY 26TH, 1881.

A. W. FOOT, M.D., President, in the Chair.

Melanotic Sarcoma of Eye.—Mr. J. B. STORY exhibited the left eyeball of a young man aged 21, who had gradually become blind in the left eye. In June 1879, the diagnosis was cataract, with moderate choroiditis and detachment of the retina, possibly an intra-ocular tumour. Shortly afterwards, pain and lacrymation set in. The eyeball was enucleated on September 9th, 1880. The anterior chamber was empty. There was a localised staphyloma in the ciliary region. The retina was completely detached. The posterior pole of the eyeball was occupied by a tumour which measured two centimètres (0.8 inch) from above downwards, and six millimètres (0.24 inch) in depth. This tumour was a typical melanotic sarcoma; it involved the optic nerve, which was infiltrated with tumour-cells.

Cirrhosis of Liver and Kidneys: Pericarditis.—Dr. R. J. HARVEY showed the heart, lungs, and kidneys of a woman aged 47, who was admitted to hospital in a prostrate condition, and cyanosed. On examination, a pericardial to-and-fro friction-sound, and a variable mitral systolic murmur, were detected. She died in a few hours. A pint and a half of dark fluid was found in the peritoneal cavity. The lungs collapsed imperfectly, owing to the presence of old adhesions. The diaphragm was depressed on the left side. Slight emphysema existed in the free margins of both lungs. In each pleura there was about a pint of non-inflammatory fluid. In the pericardium, two or three ounces of sero-fibrinous fluid were found. The surface of the left ventricle was injected. An exudation of lymph had occurred about the auricles and great vessels. The left ventricle was considerably hypertrophied, and also dilated. The mitral orifice was dilated so as to admit the tips of four fingers. There was cirrhotic disease of both liver and kidneys.

Fibroma of the Left Forefinger.—Dr. E. H. BENNETT presented a large fibroma of the left forefinger, which had been removed by Dr. H. McDonnell, Surgeon to the Dundalk (Co. Louth) Infirmary. The subject of the disease was a woman aged 34. The tumour commenced two years ago, and took on a more rapid growth three weeks before removal. Its point of origin was the dorsal surface of the central phalanx at the insertion of the extensor tendon. Dr. Bennett, in exhibiting the specimen, pointed out that the diagnosis from enchondroma depended on—(1) the age of the patient; (2) the rapid growth and ulceration of the tumour; (3) the fact that the section had not the bluish shade of enchondroma. The head of the metacarpal bone was removed in the operation, but it was not diseased.

Hæmorrhagic Apoplexy: Death on Thirteenth Day.—The PRESIDENT exhibited the brain of a man aged 65, who had died on the thirteenth day after a stroke of paralysis. The left lateral ventricle was completely filled with a black coagulum. The hæmorrhage had forced its way upwards through the roof of the ventricle, to some height above the level of the corpus callosum. The left ventricle of the heart was hypertrophied; the organ, empty of coagula, weighed sixteen ounces. The kidneys were small: the right weighed three ounces; the left, two ounces and a half. They presented all the microscopic characters of cirrhosis, and contained several cysts. The brain weighed fifty ounces. The man was known to be subject to epistaxis, but otherwise was reputed to be in good health. Forty hours before death, he had a severe rigor, lasting fifteen minutes.

SATURDAY, MARCH 5TH, 1881.

A. W. FOOT, M.D., President, in the Chair.

Results of Section of the Right Ulnar Nerve.—Dr. C. B. BALL exhibited a hand which admirably illustrated the results of injury to the ulnar nerve. A wound had been inflicted long before the death of the individual. The right ulnar artery and nerve had been severed; three-quarters of an inch of the nerve were wanting. The distal end of the nerve was blunt, and a large neuroma existed half-an-inch above it. The muscles composing the hypothenar eminence were reduced, almost entirely, to a mass of fibrous tissue. The lumbricales and interossei on the ulnar side of the hand were in a similar condition. The muscles of the thumb supplied by the median nerve were normal, those supplied by the ulnar nerve were extremely wasted. The nails were not affected.

Ovarian Tumour.—Dr. LOMBE ATTHILL showed a portion of an enormous tumour which he had removed from the left ovary of a servant-girl, aged 19. Five months ago, a swelling appeared in the left inguinal region. It soon caused the patient pain, which at last became excessive. Menstruation remained regular. The tumour grew rapidly, was solid, and very immovable. In the operation, a cyst connected with the ovary, and containing about a quart of clear fluid, was opened. The patient, unfortunately, sank. The tumour was referred to the Committee of Reference to report as to its histological nature.

Congenital Coloboma Iridis.—Mr. J. B. STORY exhibited a young girl, aged 21, who is the subject of double coloboma iridis. The lesion is congenital, and is associated in one eye with a fissure of the chorioid coat. A cataract occludes the field of examination in the case of the right eye.

Pericarditis and Myocarditis.—Dr. W. G. SMITH showed several of the viscera of a woman, aged 26, who had enjoyed good health up to the summer of 1880, when a wetting was followed by an attack of subacute rheumatism. In February 1881, the symptoms recurred, but were at first unattended by fever; and the heart's sounds were normal when she was first seen. Shortly after admission to the Adelaide Hospital, a fresh wetting and exposure to cold induced an attack of pleuropneumonia on the right side. A rough systolic basic murmur, which was very variable and inconstant, set in about this time. There was an undulatory cervical pulsation; and reduplication of the second sound of the heart was among the other physical signs noticed. After death, recent peritonitis was detected, but only above the partition of the mesocolon. There was double pleural effusion, and the lower portions of both lungs sank in water. There was visceral and parietal pericarditis, the effused lymph being deposited in delicate interlacing bands. There was no mediastinitis. The right chambers of the heart were occupied by a clot, which formed a cast of the cavities. Myocarditis had manifestly existed, the transverse striæ of the muscular fibres of the right ventricular wall being scarcely perceptible on microscopical examination. The left heart was healthy, with the exception of the fringes of the mitral valve. The cause of death was manifestly asystolism; an acute dilatation of the right heart having occurred in consequence of an extension of inflammation from the pericardium to the muscular structure of the organ (myocarditis).

Secondary Cancer of the Liver after Amputation of the Breast.—The PRESIDENT exhibited the liver of a woman, aged 40, whose left breast had been removed for "cancer" fifteen months previously to her death. The liver was the only organ obviously affected by the recurrent disease. The gland weighed only four pounds fourteen ounces; it was bossed, especially on its inferior surface, with cream-coloured protuberances, the larger of which presented the "cancer-navel". The lungs and pleuræ were perfectly healthy, and free from any secondary cancerous formation. The lungs collapsed normally, and there were no pleural adhesions. Her fatal illness was marked by severe dyspeptic symptoms; yet there was no cancer of the stomach. Neither ascites nor icterus was at any time present; and after three months of a constantly increasing marasmus, with œdema of the feet and legs, she died of exhaustion.

SURGICAL SOCIETY OF IRELAND.

FRIDAY, MARCH 18TH, 1881.

WILLIAM COLLES, M.D., in the Chair.

Resection of the Knee-joint.—Mr. WILLIAM WHEELER showed a portion of the femur and tibia of a boy, removed by resection of the joint, in the City of Dublin Hospital. The patient was sixteen years of age; there was no history of an injury to the knee, but only of a pain in the joint for eighteen mouths. There were no sinuses, nor was there thickening of the periosteum round the joint. On making the incision for the removal of the diseased bone, pus flowed from the wound. The cartilage was found to be tolerably healthy, and most disease was evident about the crucial ligaments. At first sight, there appeared to be very slight disease in the femur; but, on making a section of the bone, an abscess was found, running from the joint into the medullary cavity, illustrating how difficult it often was to tell whether a joint was fit for resection until the bone came to be divided. The case was almost exactly similar to another case—the report of which he read before the Society some time previously—where a similar abscess was found in the joint of a woman which he was excising.

Excision of the Hip-joint.—Mr. CORLEY showed the head and part of the femur of a patient on whom he had operated that morning. The disease was the result of an injury received from a fall a year and four months previously. His hip was hurt by the fall, but not apparently seriously, for he continued to walk about for two months, by the end of which time the joint was so stiff that he had to lie up. Mr. Corley watched the case for three months, in the hope of the joint recovering without operation. There were large abscesses round the hip-joint. These at first became smaller by the rest in hospital, but for the last three weeks the matter had been reaccumulating, so that excision was deemed advisable. The specimen showed that the cartilage was eroded; the

neck of the bone was bare, and denuded of periosteum down to the middle of the lesser trochanter; the acetabulum was also affected. The specimen was interesting, as showing the very extensive disease which might exist in a joint without pus making its way externally. The first time that exit had been given to the pus was at the operation, there never having been any discharge from the abscesses.

Laceration of Anterior Tibial Artery.—Mr. NIXON exhibited a portion of the anterior tibial artery of a man, which had been lacerated by the shaft of a car penetrating between the tibia and fibula, fracturing the latter bone, and partially separating it from its attachments—so that two fingers could be passed through the wound between the bones. The wound was plugged; but, on the sixth day, secondary hæmorrhage occurred, and the inflammation made its way up to the knee-joint, rendering amputation necessary; this was done through the lower third of the femur.

Excision of the Elbow.—Dr. ASHE, in the absence of Mr. Croly, showed the portions of bone removed, by excision of the elbow, for caries, from a man in the City of Dublin Hospital.

Notes on Osteotomy.—Mr. BENNETT read a paper on this subject, limiting his remarks to antiseptic osteotomy, with open wound, as described and practised by Volkmann and Macewen. Rickets, he said, being a comparatively rare disease in Dublin, it would be impossible for Dublin surgeons to collect a very large number of such cases to report. His present communication referred only to three cases on which he had operated during the session, the disease being situated respectively in the leg, the elbow, and the thigh just below the trochanters. CASE I was that of a boy, aged four and a half years, who was admitted into hospital October 15th, 1880, with extreme curving of both legs above the ankles, the result of rickets. He was the only child of the family who was rickety—neither father nor mother, or brothers, older or younger, showing the least sign. He had probably passed through the active stages of the disease before he went to the hospital, as the first signs of the disease were noticed when he was one and a quarter years old; and he did not learn to walk until he was three years of age, at which time the limbs became very crooked. Mr. Bennett removed, with Macewen's osteotome, a wedge-shaped piece of bone, three quarters of an inch thick at its base, from the tibia; and, fracturing the remainder of the bone and the fibula, he straightened the limb, and dressed the wound with antiseptic precautions. There was some hæmorrhage; but in three weeks the wound was healed, there having been no suppuration whatever, the dressings having been changed only five times in all. The limb was then put into plaster splints, and the child allowed up. Some months afterwards, owing to the limb on which he had operated being longer than the other, it was deemed advisable to perform a similar operation on the second leg, which was accordingly done; and four weeks afterwards, the limb being put in plaster, he was allowed to get up. Casts, showing the condition of the child's legs before and after the operations, were exhibited, and made evident the very satisfactory results obtained. CASE II was that of a girl, aged 11, who, when only two years old, fell and fractured her elbow. The limb was fixed at a right angle; there was hardly any motion, except that of pronation and supination; nor would the atrophied muscles respond to the interrupted galvanic current. There was strong bony ankylosis at the joint. The girl's parents were very anxious to have something done; and as forcible extension, owing to the ankylosis, and excision, owing to the atrophy, were contraindicated, he determined to try osteotomy. During the healing process guarded passive motion was kept up, and afterwards free motion, under chloroform, was employed; but, though as an osteotomy the operation was a success, it did not, owing to the nature of the case, result in an improved limb to the girl—the arm, some time after the operation, having reverted to its angular and immovable position. CASE III was that of a Canadian sailor, aged 32, who fell from the rigging on to the deck of the ship while at sea, and broke his thigh, four inches below the great trochanter. He lay insensible for four days, and the captain put up his limb as best he could, and continued his voyage. After two months, he arrived at Liverpool, and thence came to Dublin. When he was first seen by Mr. Bennett, the thigh was greatly deformed by the projection of the bones. The lower fragment was placed at an angle of 115° to the upper fragment, and the union was solid, an immense mass of callus having been thrown out round the seat of fracture. The man was pale, thin, and suffering from intermittent fever. Mr. Bennett determined to try osteotomy; and on November 4th, 1880, he operated with antiseptic precautions. The incision through the bone was made as nearly as possible to bisect the salient angle formed by the fragments; and was effected with great difficulty, owing to the enormous thickness of the bone, which was completely divided across; the operation occupying nearly an hour and a half. There was but moderate suppuration, and the temperature for a few days was above normal, the highest point reached being 103°. In six weeks he sat up, and soon got on crutches. He could now walk well, and go up and down stairs, but the limb remained an inch shorter than the other. A small opening allowed minute fragments of the bone to escape from time to time. The case, he thought, proved that osteotomy, with antiseptics, might be brought to bear on many cases otherwise considered unsuitable for operation. This man had been refused operation by surgeons both in Liverpool and in Dublin.—Dr. SWAN did not think rickets such a very rare disease in Dublin, as Mr. Bennett had stated. He had a record of twenty-nine cases of osteotomy. He never removed a wedge of bone, but contented himself with making the simple section. As a rule, the fibula did not require to be fractured, as it did not follow the curve of the tibia.—Mr. STOKES considered that the introduction of such operations as those under discussion was due to the existence of the antiseptic method of treatment. With reference to the frequency of rickets in Dublin, he agreed with Mr. Bennett in regarding it as excessively rare, compared with cities like Glasgow and Aberdeen. He had just operated on a boy for hip-disease, the limb being permanently flexed. The neck of the femur was simply divided with the osteotome. The limb was straightened, but the permanent result remained to be proved.—Mr. ORMSBY preferred breaking the bones across his knee in all cases under four years of age—a procedure, in his experience, easily effected.—Mr. O'GRADY operated in ten cases without special antiseptics, and obtained good results; his experience differed from that of the last speaker, inasmuch as he found considerable difficulty in breaking the bones in cases of rickets.—Mr. BARTON, Dr. KENNEDY, Mr. STOKER, Mr. CROLY, and Mr. WHEELER also took part in the discussion; and Mr. BENNETT replied.

REVIEWS AND NOTICES.

THE CAT. By ST. GEORGE MIVART, Ph.D., F.R.S. London: J. Murray. 1881.

MANY of our readers, who hear of a work with so brief a title as *The Cat*, will scarcely figure to themselves a goodly volume of more than 500 closely printed pages, and 208 illustrations; but, when we find that Mr. MIVART's book is not only, as stated on the title-page, "an introduction to the study of backboned animals, especially mammals", but, in fact, an introduction to the study of biology in general, the surprise ceases. As Professor Huxley made the crayfish a peg on which to hang a large amount of zoological information, so Mr. Mivart has taken the cat for a similar purpose; and made that familiar animal a text for an exposition of many general views of science and philosophy. The book reminds one of what is often said to be the best kind of knowledge that a man should aim at possessing: everything of something, and something of everything. It contains everything about the cat, and something of almost everything else.

Notwithstanding the considerable improvement in our stock of literature made during the last few years, all those who are commencing the study of comparative anatomy still feel difficulties, owing to the want of satisfactory books to work with. We have many general compilations, embracing the whole subject; but these always fail to satisfy the real worker at his greatest need: for few, if any, authors are now competent to grasp the entire range of a subject, the knowledge of which, in all its branches, is advancing at prodigious strides; and a specialist, as we are all of us more or less becoming, is sure to find that, however well other branches seem to be treated, the one of which he really knows the details is far from being up to the wished-for level. Another necessary defect of such works is, that, large groups of animals being treated of *en masse*, the statements of their characters, being made to cover a large variety of modifications, are necessarily vague, and of little use as a guide to the study of the structure of any particular species about which knowledge is sought. On the other hand, detailed monographs of special forms are only to be found in costly, and often almost inaccessible, forms—being scattered throughout journals and transactions of societies; and are rarely, if ever, written with a view to the instruction of the beginner.

The present work steers clear of these objections, both to the general treatise and to the highly technical monograph. It contains a thorough, detailed, and accurate description, written in language as plain as the subject admits, of every part of the structure of an animal, so readily within reach of every student, that all its statements admit of being tested and verified to the utmost extent. In this will lie the chief value of the work: for, if the student is to content himself with merely reading it, he might almost as well never trouble himself about it at all. Anatomy, as we all know, can only be learned by repeated observation and dissection; and, for such a purpose, Mr. Mivart's book, although not ar-

ranged on the plan of what is technically called a "dissector", will prove an excellent guide.

The advantages of commencing the study of human anatomy by that of some other animal form have lately been often insisted on. The knowledge of a single form, without anything of a similar character wherewith to compare and contrast it, is a very limited and unsatisfactory kind of knowledge. There are many points in man's structure, which can only be understood by the light thrown upon them by comparative anatomy. Moreover, the methods of anatomical manipulation; the nature of the various structures and tissues of the body; the general arrangement, relations, and functions of the viscera, may be quite as well, or better, learned from a smaller, more convenient, and less costly subject than the human body. Some such instruction should form part of the preliminary scientific training of every medical student, before entering upon the special work of his professional education. For such a purpose, and for the increasing class who take interest in anatomical studies for their own sake, without intending to become students of medicine, there are few, if any, animals so suitable as that which Mr. Mivart has selected for description.

The greater part of the work (comprising the first eleven chapters) is devoted to a full exposition of the anatomy and physiology of the cat; the different parts of the subject being treated of in the systematic order usual in biological books. Thus, the general form, the skin and its appendages, the skeleton, the muscles, the alimentary system, the organs of circulation, respiration, and secretion, the nervous system, the organs of sense, the development and psychology, are successively passed in review. Under all these different headings is included not only the descriptive anatomy, which, though relating especially to feline structure, contains explanations of all the terms used in the anatomy of man and of other vertebrated animals, but the histology and physiology of the different organs, which are also equally applicable to most other higher members of the animal kingdom. The twelfth chapter, headed "Different Kinds of Cats", contains an exposition of the principles of zoological nomenclature, with illustrations of the sense in which such terms as variety, species, genus, etc., are used. The author, we are glad to see, has not seen fit to follow the plan of some modern zoologists, who have invested the subject with an infinity of artificial difficulties, to gratify their mania for coining new names, and so has retained all the existing species of cat (with the exception of the somewhat aberrant Cheetah, or Hunting Leopard) in the good old genus *Felis*, a genus which the late Dr. Gray divided, in successive "revisions" of the group, into no fewer than thirteen, necessitating not one, but a series of alterations in the familiar names by which every one had hitherto been known. The distinctive characters and geographical distribution of the different known species of the genus, commonly called lions, tigers, leopards, ounces, tiger-cats, lynxes, etc., amounting to between forty and fifty, are given. We speak purposely in this uncertain way of the number, as there is among the cats a modern group in which variation in minor characters, as external coloration, etc., is still active, and time has not been allowed for the disappearance of intermediate forms. The limits between varieties and species appear not to be well established, and it is difficult, if not impossible, to determine whether to consider many forms, as the different South American ocelots and the North American lynxes, as so many different species, or as varieties of one species. An apparently trivial, but constant and therefore important structural modification, by which some species of cats can be distinguished from others, is the form of the pupil of the eye when contracted under the stimulus of light. In the domestic cat, as is well known, it becomes a mere vertical linear aperture or slit. This is also the case with the ocelot (*Felis pardalis*), and the northern lynx (*F. lynceus*). In many other species, as the lion, tiger, leopard, puma, etc., it is round, as in man; while in some, as the clouded tiger (*F. macrocelis*) it is of an intermediate oblong form. Mr. D. G. Elliot's magnificently illustrated monograph of the *Felidæ* has been of much use to the author in this part of the subject. The history of the existing variations of the cat type leads naturally to that of the known extinct forms of cat-like animals, the number of which has been greatly increased by the important palæontological discoveries lately made in the western regions of North America, but of which the well-known *Machaerodus*, or Sabre-toothed Tiger, with its enormous canine tusks, still continues one of the most remarkable.

The long chapter on the cat's "Place in Nature", a term borrowed from Professor Huxley's well-known works, introduces us to a general review of the classification of all natural objects, animate and inanimate. The distinction between inorganic and organic, between animal and vegetable, between the various sub-kingdoms of animals, the classes of the vertebrata, the orders of mammalia, the sub-orders, families, and genera of the carnivora, are fully discussed. All different forms being gradually eliminated by the possession of essential distinctive anatomical and physiological characters, the cat stands alone, with its relations to all other natural objects thus clearly defined. The title of the next (the fourteenth) chapter, "The Cat's Hexicology", may require explanation, as probably unfamiliar to our readers; but it is defined as the study of its "complex relations to time, space, physical forces, other organisms, and to surrounding conditions generally". It affords scope for instruction in many biological subjects, as that of geographical distribution, both generally, and specially in relation to the immediate subject of the monograph, and also the elementary principles of geology and palæontology, and concludes with an account of the numerous parasites, both internal and external, with which cats may be infested.

In the last chapter, the pedigree of the cat is traced as fully as the yet imperfect palæontological evidence upon the subject will allow. Fragments of skulls and teeth are, unfortunately, in most cases, all upon which we have to rely in determining the affinities of extinct animals; but new discoveries are continually filling up gaps, and already, by a process similar to that by which the antiquary succeeds from a column here and a moulded stone there in reconstructing the proportions, size, and style of a long-destroyed edifice, the palæontologist can trace back, at least as far as the beginning of the eocene period, the scattered links of an ancestral chain, along which the cats of the present time appear to have been evolved from a generalised primitive unguiculate type of mammal, of which the modern *Insectivora* (the hedgehog, etc.), appear to be the more direct, or less modified, representatives. This, though one of the most difficult, is certainly one of the most fascinating branches of biological inquiry, but one in which the labours of the comparative anatomist must be preceded by those of the geologist and practical explorer of the treasures concealed beneath the surface of the earth. In this part of the subject Mr. Mivart shows himself a complete follower of the evolutionary school—that is, of those that believe that, as each individual is produced according to law from pre-existing parents, so each variety or species is derived by modification from pre-existing forms; but in the section devoted to the origin, or "probable causes which have determined that process of evolution", he, as might be expected from his previous writings, differs widely from those who hold with the potency of "natural selection" intimately associated with the name of Mr. Darwin, and vigorously combats the "antitheological" conclusions which many have derived from the doctrine of evolution generally.

The illustrations, with which the book is well supplied, are very good and clear, and we would especially call attention to the skulls of extinct American *Felidæ*, for which the author renders his acknowledgments to Professor Cope of Philadelphia, and which, we presume, were cut in America, as remarkably excellent specimens of the xylographic art.

A Text-book of the Physiological Chemistry of the Animal Body. By Arthur Gamgee, M.D., F.R.S., Professor in the Victoria University, Manchester, Brackenbury Professor of Physiology in the Owens College. Vol. I. London: Macmillan and Co. 1880.

Until a comparatively recent period, the only source from which the English student of physiology could inform himself as to the rapid progress and development of which the science of physiology has been the subject since the close of the first half of the present century, was the comprehensive *Principles of Human Pathology* of Dr. Carpenter, each successive edition of which, brought up to date with wonderful diligence and care by Mr. Power, afforded him a compendious statement of newly discovered facts, as well as accurate references to original papers. The appearance in 1878 of the *Handbook for the Physiological Laboratory* was a sign that a better state of things was approaching. It showed that there were at least four men who were at work themselves, and willing to help others to work. The revival which it harbingered has, during the eight years which have elapsed since its publication, been more or less realised. A careful comparison of the present position of physiological study in this country, with its position in 1873, would show that, in spite of all that has been done to hinder its progress, and of all the unfavourable conditions by which it is weighted, a great advance has been made in the number of persons engaged in systematic investigation, and as regards the value of the results actually acquired. The *Handbook* was a somewhat hastily-prepared guide "for beginners in physiological research". As such, it answered its purpose, and its utility has been freely acknowledged by teachers and students in every country where English is spoken. But the information it contained was scarcely complete or full enough for a book of reference on special subjects, and this want of fulness was particularly felt in respect of the subject of physiological chemistry, for the treatment of which the space which could be assigned to it in a book comprising the whole of physiology was inadequate. It became

obvious that the time had arrived for the publication of a complete laboratory textbook of chemical methods; and the task of preparing such a work was undertaken, to the great satisfaction of all interested in the subject, by Dr. ARTHUR GAMGEE.

The first volume of Dr. Gamgee's book appeared last October. It treats of the chemical composition of the blood and of the tissues, and of the chemical processes used in their investigation. To form a just estimate of its value, we must first consider what the physiological student (using the term in its largest sense, and as including those whose interest in the subject springs from its bearing on the science and practice of medicine) really requires, and secondly, whether this requirement is answered. What is wanted, is a compendium of the chemical facts relative to health and disease, stated in such order as to facilitate reference; and secondly, such descriptions of the methods by which these facts have been ascertained, that the scientific worker, supposing him to be possessed of the needful preliminary knowledge of chemistry, should be able to use them as guides in verifying or extending the observations to which they refer. Judged of by these criteria, we think that Dr. Gamgee has performed his task in a most satisfactory manner. Let us take as an example the subject of the chemistry of the blood, which occupies about half of the volume. After giving an account of the physical properties of the blood, the author devotes twenty-seven pages to the facts relating to coagulation, thirteen to the properties of serum and its salts, about as much to the corpuscles, and lastly, forty pages to the colouring matter. Then follows a long and most useful chapter on the blood in disease, for which the pathologist, who knows how scattered and inaccessible the existing information on the subject is, will, we are sure, be grateful. Finally, there is a chapter of over forty pages devoted exclusively to methods, which not only describes the elaborate processes of physiological research, but gives also the fullest instructions for performing in the best and most accurate manner those simpler determinations which are required in clinical work. As a specimen of this chapter, we would call particular attention to the section on the gases of the blood, which will be found to contain those exhaustive details of the operations to be performed which the student, who makes the book his companion in the laboratory, must values.

Of the chapter on the chemistry of muscle, it is sufficient to say that it is the most complete account of the subject that exists: it is very superior to the article on the same subject by Professor Nasse, in his *Handbuch der Physiologie*, now in course of publication under the editorship of Professor Hermann. We are equally pleased with the author's treatment of the difficult and, at present, unsatisfactory subject of the chemistry of brain,—particularly with the candour and impartiality shown by him in dealing with matters of controversy. The book concludes with a chapter on sensory end-organs, including a very interesting section on visual purple.

As to the completeness of the information which the work contains, we entertain no doubt. We have had it in hand ourselves constantly during the past winter, and have placed it in the hands of students, and have not found any subject carelessly or scantily treated. With reference to arrangement, we would venture to make one or two suggestions. In general, it is made sufficiently clear in the description of each process, whether the instructions for carrying it out are original or not. This, we think, should be stated always, and in the plainest terms; for, to the working student, the knowledge that such and such a plan has been tried and found efficient for the accomplishment of the end in view, is invaluable. Another suggestion is that the plan which has been adopted with reference to the blood, or separating the section on "methods" from the rest, should be followed throughout, even though it should lead to some repetition. In a work which is not only intended to be read at home, but also to be used for frequent reference in the laboratory, it is of great importance, with reference to his saving of time, that the parts to be used in the laboratory should be distinguished from the rest.

On the whole, we do not think that any competent person will doubt that the book has fulfilled the great expectations which were formed of it by those who are acquainted with the industry and ability of its author. We are glad to learn that a translation into German is already in course of preparation; for we think that its appearance will not a little contribute towards the removal of that undisguised contempt with which English physiology has for many years been regarded on the other side of the Rhine.

AN ELEMENTARY COURSE OF PRACTICAL PHYSICS. By A. M. WORTHINGTON, M.A., F.R.A.S., Assistant-Master at Clifton College. London: Rivingtons. 1881.

ONE of the recommendations contained in the recent Report on Medical Education by the Committee of Council of the British Medical Association is, that every intending medical student, before being allowed to enter his name on the register of the General Medical Council, should produce certificates of proficiency in Physics and Inorganic Chemistry. The little book which is before us sets forth an admirably arranged course of experiments in Physics, and is intended to promote the practical teaching of this subject in schools. The arrangement of the room, and the nature of the apparatus necessary for such teaching, are described in detail, together with a full statement of the cost involved. The experiments, which in all cases are to be performed by the boys themselves, are stated and explained simply and briefly, but with thorough scientific precision. The author alleges that such a course affords a good training in (1) skilful manipulation; (2) exact observation; (3) intelligent and orderly recording of observations; (4) principles of indirect measurement; (5) the application and intelligent use of arithmetic, geometry, and easy algebra; (6) the varying of experimental combinations; (7) *common sense;* and, further, he is able to state, from his own experience, that the introduction of this course into the curriculum of a school for boys has given very encouraging results, with a very moderate expenditure of time. The importance of a knowledge of physics, as a preliminary to all other scientific study, needs little argument. "Logically, it precedes all the other experimental sciences, every one of which has its own special instruments and mechanical appliances, whose action is purely physical; and the ability of the scientific man to advance our knowledge in any direction depends very largely on the readiness with which he understands, handles, and devises such appliances." In the interest of "intending medical students", we hope to see an advance in the teaching of physics in schools, such as this little manual aims at promoting.

EVOLUTION, EXPRESSION, AND SENSATION; CELL-LIFE AND PATHOLOGY. By JOHN CLELAND, M.D., F.R.S., Professor of Anatomy in the University of Glasgow. Glasgow: James Maclehose. 1881.

"LET it stand till it cools" is probably the best motto for plain people, when they see the philosophers by the ears over a new controversy. The general public has followed this rule in the case of Darwinism. While the *savants* on both sides have kept the kettle boiling, with their hot fires of *odium theologicum* and *antitheologicum*, the "impartial spectator" has been forming his quiet conclusion on the matter of dispute. It was not easy to be impartial at first, for the very simplicity of Darwin's theory made it, as Mivart says, "the most interesting theory" of the century in regard to natural science, and seemed to open up a royal road to the philosophy of nature itself. Its leading phrases quickly became household words, and nobody cared whether Spencer, Malthus, or Darwin invented them, or whether Wallace or Darwin was first in the field. Darwin got credit for all. Mr. Wallace, indeed, has himself to blame, if people forget his rights of paternity. His own behaviour to the doctrine has been somewhat stepmotherly; it has been too like the behaviour of the false mother in the judgment of Solomon, who was quite willing that the child should be divided. He holds the theory of natural selection to be a good working hypothesis for explaining the origin of species and the progress of organisation, as far as the human body, but no further. At that point, other laws prevail; "man is God's domestic animal"; and, though the decline and fall of races matched with races may be explained by Darwin's generalisation, the development of human society, as a whole, and of the life of any race or tribe within itself, must be explained by entirely different laws. St. George Mivart goes further in criticism; and Dr. CLELAND in many respects further still. But one belief is common to all, and marks the singular change in opinion since the appearance of the *Origin of Species* twenty years ago; and that is the belief in the general theory of development. "That there is", says Dr. Cleland, "a certain unity binding together the most diverse forms of organisation, is a doctrine which, at this date, I fancy no one will deny. The similarity of the units of life in plant and animal texture, and the general, if not altogether universal, pervasion of sexual distinction, are illustrations of that; and, if I confine my view to the animal kingdom, I think the days are past when anyone will consider it chimerical to compare vertebrates with invertebrates, or the most dissimilar invertebrates one with another. At once it will be granted that ova, however various, are comparable, and that it is matter for observation to compare the stages of their growth, as they give rise to forms that are far asunder. Nor will any serious doubt be entertained, on survey of that highest and most important assemblage of animals, the vertebrata, that they have appeared on earth in the order of their complexity; however great may be the mystery in which the rise of invertebrata may be wrapped. All this involves the conception of a complex unity acquiring its complexity stage by stage, even as the individual develops from the ovum to the adult condition; and such a conception may be justly termed evolution

(pp. 4, 5). Mivart himself is hardly a more significant witness to the orthodoxy of evolution theories; and, if the *Vestiges of Creation* had appeared in 1881 instead of 1844, it would not have "fluttered the Volscians" in the least. The net result of countless discussions has been, that the special form of the theory of development which is called Darwinism has certainly lost a little of its first fascination. It has been modified by Darwin's own concessions and additions, till it has lost its simplicity. But the belief in the general theory of development has gained ground everywhere; and has become so marked a feature of our time, that a full half of our *idola theatri* are to be traced to it.

Dr. Cleland, professing, as we have seen, a belief in development, is careful to accentuate his disbelief in Darwinism. His standing as a physiologist prepares us to find him discussing the matter with justice and calmness, *sine irâ et studio, quorum causas procul habet.* He admits the services of Darwin to natural history, but points out some difficulties in the way of his famous theory. The evidence, he says, is in favour, not of an indefinite and fortuitous progress produced by the mere survival of the fittest, because of accidental variations, but of a series (infinite, it is true) of perfectly definite and designed evolutions, each analogous to the development of the individual animal from the embryo to the adult stage, and, therefore, having a distinct beginning and end (pp. 17, 33). It is chiefly at the beginning and end that Darwinism shows its weakness. It may possibly explain the middle; it may possibly explain the growth of an organ from the imperfect form in one species to the perfected form in a higher; but it cannot explain how the organ itself came into being at all, in any form, perfect or imperfect. We understand Dr. Cleland best at this point if we read Mivart between the lines; for it was Mivart who, in his *Genesis of Species*, pointed out how Darwinism fails to explain the rudimentary organ, or rather the rudiments of an organ. So long as they are merely rudiments, they are not "fit", and ought not to qualify for survival; but, as a matter of fact, in spite of their first uselessness, they have, in the higher animals, become an useful organ. To take Dr. Cleland's instance, the vertebrate eye, in the development of the individual, passes through a series of stages where it is useless for anything like vision. This argument is good, even if we allow that the eye of invertebrates might conceivably develop into the eye of vertebrates, wholly unlike as they appear (page 20). On the other hand, natural selection, if it fails us at the beginning, fails us also at the end of organic development. The human organism, to say nothing of others, seems to have reached the climax of its growth (p. 27). No new organ has been developed in the last three thousand or four thousand years, or as far back as we have traces of man. In short, Dr. Cleland would say that the anatomy of Confucius, Socrates, and Dr. Johnson, would show no organic difference in favour of the last. There are *termini* to development, and this is one of them (p. 27). Subsequent progress is on a different path. From the existence of such breaks at each extremity we must assume some cause outside the physical world; in other words, a spiritual cause, whose design the physical developments are working out. This is the main argument of Dr. Cleland's first chapter. The rest (with the exception of the genial address on "Truth, Pathology, and the Public") may be said to follow it up, and adduce subsidiary proofs from physiology of the presence of spirit in nature and man, as distinguished from the presence of matter and physical force there.

Most scientific men recognise "breaks" in nature only to deplore them; our author recognises them in order to rejoice over them. Dropping the physiological arguments at present, we shall find one strong metaphysical one against any dogmatic divorces of matter and spirit, or any rigid belief in breaks; and that is, that these are fatal to that oneness of explanation, and harmony of results, which are the very aim and end of scientific study of any kind. What drives the physical inquirer into metaphysics (and Dr. Cleland has gone a long way over the frontier) is precisely his first love for scientific knowledge carried a step or two farther than the scientific man usually carries it. But, if such views as Dr. Cleland's be true, then physics and metaphysics are not merely the same search, carried far and carried farthest respectively; they are in different planes. Such a disbelief in the unity of truth would put us to "permanent intellectual confusion". We should need to change horses in crossing the ford, and should probably fall off and be drowned in the process; whereas, if we had ridden the same horse, he might have carried us safely to the dark bank on the other side. Physics is said to be common sense made clear; and common sense is made clear when physical science explains what common sense takes for granted. Metaphysics tries to do a similar service to physics. She points out that there is only one thing which we cannot deny without affirming, and only one instrument which we use even when we throw it away; and that is, our own thought. The moral of this is, simply, that our own thought enters into the manufacture of the whole known world; and as to the unknown, it is—unknown. Be they "spirit" or "matter", all things are so far alike. Now, as hard-working Mammonism has a tighter hold of the true gospel of Labour than idle Dilettantism, so the Monism, even of the materialists, comes nearer the truth than the "Separatism" of many a-spiritualistic philosophy. No doubt it would be nearer the truth to say "All is spirit" than "All is matter"; for the thoughts of men exist before they make any distinction of inside and outside at all. But, at any rate, we must be suspicious of "leaps and bounds", or of breaks and gaps, if we wish to keep our world whole and entire. It would be very little worse to accept the scientific positivism of Agassiz, who disbelieved in the development of species, on the ground that there were no such things in nature as species, and therefore they could not develop. This view would put a stop to natural history itself, to say nothing of biology; for every observation or examination would be considered to hold good only for the individuals examined, and we could have no scientific prediction or inference of any kind. In the same way Froude, in a celebrated lecture, tried to study history without reading into it anything like an idea; yet he is fain to draw at least a moral or two from the historical events, and we all know that morals are ideas, and sometimes very stupid ones. He had no more need to be afraid of ideas than physicists to be alarmed by the notion of design. The only person who ought to alarm us is he who would give us "detached" facts, and refuses to allow us to "attach" them. But the notion of a ruling idea or design is simply the moving spring of all science; it means simply the belief without which scientific inquiry would be helpless and hopeless—the belief that the world is reasonable.

A DIRECTORY FOR THE DISSECTION OF THE HUMAN BODY. By JOHN CLELAND, M.D., F.R.S., Professor of Anatomy in the University of Glasgow. Second Edition, revised and improved. London: Smith, Elder, and Co. 1881.

PROFESSOR CLELAND crowns his little manual with a preface containing some of the wisest advice ever proffered to a beginner in a text-book. "The student ought to study the 'subject' in the dissecting-room, and his books at home; and he ought never to be encouraged in the too common error of looking on his dissections as mere illustrations for the statements of the text-book." This error, however, is in these days not so much the fault of that considerably abused young gentleman "the student", as the result of the paucity of subjects. If the tyro has two winter sessions allowed him to read about and hear about the anatomy of the thorax, and but a few days' opportunity of dissecting it during the whole period, the evil above deprecated is inevitable. We find a good chapter on the use of dissecting instruments—a subject absolutely unmentioned in more than one of the older manuals of practical anatomy. The author objects to the free use of "hooks and other retentive devices", adding that "the command over all the fingers not engaged in holding the scalpel or forceps, to push aside the textures in a deep dissection, is a most valuable acquirement for a practical surgeon, and will often make him independent of spatulæ and assistants". Such remarks from an authority may, we trust, serve to counteract the pernicious doctrine that "good dissectors make bad surgeons"—a common excuse for idleness and carelessness in the dissecting-room. In the main part of the text we do not find the minute precision of an Ellis; and in matters demanding clearness of description, such as the anatomy of inguinal hernia, we miss the pleasant and easy explanatory method prevalent in Mr. Holden's manual; but, as a true and literal handbook for the use of a student in the act of dissecting, it is most convenient both in its form and in its contents, which include all that the average student can be expected to verify with his scalpel and forceps. We regret to find, in a second edition, such an error as *ilium* for *ileum*.

A MANUAL OF DISSECTIONS OF THE HUMAN BODY FOR THE USE OF STUDENTS, AND MORE PARTICULARLY FOR THOSE PREPARING FOR THE HIGHER EXAMINATIONS IN ANATOMY. By R. E. CARRINGTON, M.D.Lond., M.R.C.P., Senior Demonstrator of Anatomy, Guy's Hospital. London: George Bell and Sons.

A SCHOOLBOY, once asked what the sun was, replied that it was "the contrary to the moon". Using one word in that answer, in a similar sense, we may say that Dr. CARRINGTON'S work is the "contrary" to Ellis's *Plates*. Just as the above-mentioned heavenly bodies may be admitted as quite different from each other, without disparagement to either, so may we make a comparison by no means odious between the manual and the plates. Professor Ellis's pictorial work demonstrated the simplest dissections necessary for the average student. Dr. Carrington's text-book describes the method of dissecting deep parts and structures oftener read about than cleared and cleaned by the scalpel. Thus we find "a dissection to expose the supinator brevis muscle"—a

heading which at once gives a good idea of the entire work. We recommend to every student who can get an opportunity of dissecting the abdomen a second time, to work out, in conjunction with his colleague occupied with the thorax, the excellent directions for exposing the whole length of the vena azygos major, as this involves a very minute practical acquaintance with the upper part of the abdomen and its important contents. Indeed, after dissecting all his "parts" once with the aid of one of the older orthodox manuals, the student who enjoys the rare good fortune to get a few parts over again in his second winter session will, we feel sure, derive much benefit from exercising his ingenuity in working out practically the details contained in this work, which possesses more merits than its pleasant originality of method.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

IMPERMEABLE FLOORS FOR HOSPITALS.

In the construction of hospitals, few things are more important, and few have hitherto been more difficult to attain, except at great cost, than the provision of a flooring without open joints, impermeable, and free from the tendency to accumulate dirt—which means septic material—in the intervals between the boards. In ordinary flooring, as laid in public and private buildings, the wood, under the influence of alternate dampness and dryness of the air, comes and goes, leaving greater or less intervals between the planks from shrinkage. To obtain a smooth impermeable surface, parquet flooring has been laid in some hospitals, as at Westminster Hospital, at considerable expense; and we may add that, when this was being done at the Westminster Hospital, and when the board was taken up, there was found, as will always be found in such cases, on the joists between each pair of boards, a long pyramidal ridge corresponding to the intervals between the boards, and composed of organic matter, accumulated percolation of atmospheric impurity, deposited by gravitation. Messrs. Howard, of Berners Street, have now introduced and patented a new system of impermeable flooring, which provides admirably against this serious sanitary defect in hospitals, and which has, over the parquet flooring, the advantage of being considerably cheaper. It is, in fact, not very much dearer than an ordinary good, sound, well-dried flooring, as at present laid. The principle of this impermeable flooring may best be explained in the words of the inventors.

"In the patent flooring, the joints are made perfect before the boards are laid on the joists, each board being secured to each adjacent one by dog nails stretching over each joint, making one compact panel, the shrinkage on which will be three-quarters of an inch, presuming the length of each panel so prepared to be six feet, and two are joined together, making a length of twelve feet. The wood is not fastened at any point, but where the two panels (which are kept in position by rebated fillets) join, and there will be a shrinkage from each end to that point of three-quarters of an inch. In a room not over fifteen feet wide, this can be allowed to come from under the the skirting, so that there will be no opening in the main floor; in rooms of greater width, say twenty-four or thirty feet, there would be an opening of three-quarters of an inch at the end of each twelve or fifteen feet panel, provided for by the insertion between each of slips of wood of various widths, which would only require shifting in position, the wider taking the places of the narrow; an operation which, in a room sixty feet by forty, could be easily done by a joiner in a day; and, as the shrinkage would not take place till the building was thoroughly dry, it follows that the floor would have acclimatised, and remain permanently close jointed as long as the wood lasted."

We have had the opportunity of inspecting this solid floor, and think very highly of it; and would strongly recommend persons interested in the construction of hospitals, or engaged in either building new or remodelling old wards, to examine this new impermeable floor, which may be seen at Messrs. Howard's workshops, Berners Street.

ANTISEPTIC APPARATUS.

One of the sanitary precautions most urgently needed at the present day, is a means of preventing sewer-gas from entering houses. In the face of the continual sanitary improvements, diarrhœa, infantile and adult, typhoid poisoning, pseudo-diphtheric throat-affections, etc., are still extensively fatal, and often most markedly so, in the houses of the rich as well as of the poor. It has been noticed in some well-sewered towns that since the introduction of sewers such diseases appear to be on the increase; and it is especially to be noted that they haunt localities which are high and dry, and apparently removed from sources of infection of the soil, the air, or of the water. Some crucial examples have been observed in the best houses in Edinburgh, and in the best districts of London, as well as in regard to provincial towns. It is impossible not to attribute this prevailing plague of sewer-gas in houses to the introduction of the water-closet system in connection with arterial drainage by sewers. Remedies, such as the relaying of sewers, a thorough system of ventilation of the soil-pipes, and the introduction of improved forms of water-closet, and well-devised traps are indicated as radical; and wherever these can be applied they ought to be. On the other hand, it is often found that such remedies are so costly and difficult of application, involving such an outlay upon leasehold premises, that it is practically found very difficult to induce householders to adopt them, even when serious outbreaks of illness or chronic suffering from throat-affections, headaches, and other indications of sewer-gas poisoning have attracted attention to this frequent source of disease. Again, where well-trapped and well-placed water-closets have been introduced, it is certain that, with our present system of drainage, what are intended to be sewers of passage are (as is well-known to be the case in a majority of London districts) rather sewers of deposit, and sources of putrefaction and of exhalation of sewer-gas. Even the best appliances will with difficulty prevent sewer-gas from forcing the traps and passing up in gushes into the house whenever the closet is open, and water passes down the pipe displacing the gas. Hence practical men have long felt it to be a great desideratum that the water left in the water-closet pan should, as far as possible, be permanently charged with disinfecting antiseptic fluid which should constitute the water-closet itself, and an always acting antiseptic water-trap capable of neutralising whatever sewer-gas passes from the soil-pipe. This is an additional precaution which is of great value where all the other arrangements are of the best kind, and it is really indispensable where they are less effective, and where they cannot be depended upon (as is almost universally the case) for being in prime working order. Such an apparatus was some time since brought into public use by a Mr. Baker, and brought prominently before the attention of the public. It was extensively used both in the public service and in private asylums, and is still effectively used in many places. It was, however, found to be somewhat difficult to fit on account of its shape, and of some complexity in valves and rods, and of other technical difficulties. These difficulties have been completely overcome by a new and simple apparatus of the sort which is now introduced under the name of "the Antiseptic Apparatus", and which has been in use for many months in the houses of various persons who have given it a thorough and searching trial. After such thorough trial, we can speak of it with great favour. It is a copper cylinder easily and cheaply



attached to any closet-pan within the woodwork, by an ordinary plumber, without deranging the existing arrangements, and it is charged with a strong solution of permanganate of potash. Each time the plug descends after it has been raised, it discharges into the water contained within the closet-pan a charge of the solution. This remains mixed with the water, and destroys all organic contaminations, neutralises sewer-gas, and has the advantage of acting as a continuous and valuable antiseptic barrier to the entrance of such gas. It does not require charging with the fluid more than about once a year, in a closet which is extensively used, the cylinder containing one thousand charges of fluid. Quietly and unobtrusively this useful improvement has been brought under the notice of prominent sanitarians and practical men, and it is making its own way. It is, in our view, one of the most valuable, although simple inventions of the day, and is likely, we believe, to come into very general and extensive use. It is always easy to renew the charge, and its practical operation is so simple that it appears to remain in working order for years without effort.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, APRIL 2ND, 1881.

HOSPITAL MANAGEMENT.

THE question in dispute at Guy's Hospital is regarded by the general press—at least, by some of the most intelligent of its members, *e.g.*, the *Spectator* of last week—as being settled; inasmuch as the regulations of the nursing department, on which the staff insisted, have been introduced by the governors, and the matron and treasurer continue in their offices. This shows how far the public yet are from understanding what really was in question during the late dispute at Guy's Hospital, and how far this dispute still is from having obtained any final solution. The essence of the question was not any nursing regulations, still less any personal claims to this or that office, but the great general principle, With whom is the management of the hospital to rest: with the lay governors only, or with the medical staff, or with both jointly? If the Guy's Hospital dispute is settled, which we should be sorry to believe, it has been settled in a manner which we should regard as diametrically the reverse of right, *i.e.*, in the complete triumph of the principle of lay management, pure and simple; and the chief fault which we have to find with the part played by the medical staff is, that they did not insist sufficiently upon the absolute necessity for a constitution more in harmony with common sense than that now in force by Act of Parliament, which excludes all those who have any knowledge of the medical wants of the hospital from any authoritative share in its government. In comparison with this vital question, the details of a nursing scheme or the personal qualities of an official are matters of the most trivial detail.

The question which is before the profession, and which the profession ought to take care to keep before the public, relates to the essentials of hospital management; and, first and foremost, must come the constitution of those great hospitals which are usually called "endowed", *i.e.*, those where no voluntary subscriptions are needed. In these, the principle of lay management reigns supreme. At some, the medical staff have a more tolerable position and a greater share of influence than at others; but at none of them are they the equals, as governors, of the laymen. And yet, when we come to ask why not, what answer can be given? The lay governors spend neither money, time, nor talent on the affairs of the hospital; the doctors contribute all these. The success of the hospital and of the hospital school is a matter of indifference to the laymen; it is one of vital importance to the doctors. The latter have all the knowledge and all the labour, the laymen all the authority. No one, looking dispassionately at the question, could say that this ought to continue; and, although we are quite aware that the opposite course of investing the medical staff with uncontrolled power would lead to worse evils, there is surely an alternative. In most of the subscription hospitals, the medical men have equal voices with the lay governors; and their superior knowledge and authority in medical matters so far counterbalance their numerical inferiority, that no gross scandal, such as an attempt to force on a plan for nursing the patients of which the medical officers unanimously disapprove, could be carried through, or would probably be attempted.

This, however, is only one of the many questions on which careful inquiry and cautiously matured legislation is required. Any one who will turn to the paper with which Mr. Holmes opened the recent discussion at the meeting of the Metropolitan Counties Branch last month, will see some of the leading topics stated which it is now proposed to bring before a Royal Commission; and anyone who was present at that discussion (incomplete as it was) will have perceived that there is no uniformity of opinion about them, even in professional circles. At the adjourned discussion, we may hope that these topics will be more thoroughly ventilated. Meanwhile, the first step is to endeavour to bring the question of a Royal Commission to a settlement, in order, if possible, that such a Commission may be issued before the close of the present Parliamentary session relieves the Ministry from their arduous labours. It does not follow that any violent interference with our present hospitals would be attempted, or even contemplated; but, that some reforms are necessary, no well-informed man can deny, and the full information that such a Commission could collect is the only sound basis on which such reforms could be founded.

The British Medical Association and its JOURNAL have never ceased to advocate the reform of one portion of our hospital system—the out-patient; the most eminent members of the various hospital staffs have joined in the movement; it has been supported by numerous influential writers in various public journals and magazines; and has attracted an unusual amount of popular attention. How much nearer is it now to completion for all this? When it is replied (as Sir R. Cross replied to the request for a Commission addressed to him when Home Secretary) that the hospitals can inaugurate the necessary reforms themselves, the reply has simply no practical meaning; and was only in that instance used as a decent form of refusal. "The hospitals" in some of these matters have no power; as, for instance, in the constitution of those institutions managed under Acts of Parliament; in others, no adequate information—as, for instance, on the desirability of admitting paying patients, and the regulations necessary, should such a course be considered desirable; and we fear we must add that there are some matters—notably this of out-patients—in which the hospitals lack will, and where reform must be forced on them, not necessarily by Parliament, but, as we hope, by enlightened public opinion. But then, again, the hospitals are not so many individuals, but collections of individuals, varying in enlightenment and public spirit, and each of them difficult to move in proportion to the obstinacy and stupidity of the most obstinate and stupid among their governing body; and even those hospitals which wish to reform any important part of the system will generally wait to see what their fellows do. Hence no reform can be expected from the unassisted action of the hospitals themselves; and the only prospect of such reform that we can see is in the proposed Royal Commission, to which we shall give our utmost support, and which we hope to see shortly appointed.

ILLNESS OF THE EARL OF BEACONSFIELD.

BOTH public and professional interest has been greatly excited during the last few days by the grave illness of the ex-Premier, Lord Beaconsfield. So far as we have been able to ascertain the facts of the case, we learn that his lordship has been suffering from a severe attack of bronchial asthma, associated with undeveloped gout. This is not the first, though it is the most severe, attack of the kind from which his lordship has suffered. For some few weeks, he had been ailing, but his indefatigable attention to public business led him to think less of his health than he ought to have done; and we believe we are right in saying that, being present on the night of the Candahar debate in the House of Lords, he was obliged to have recourse to relief from an antispasmodic before he addressed the House.

On Saturday, Sunday, and Monday, owing, no doubt, to the inclemency of the weather, his lordship's symptoms became aggravated; and, during the night of Monday, or early on Tuesday morning, the attacks of spasmodic breathing were so distressing, and the exhaustion so great, as to cause the gravest alarm for the immediate consequences. Her Majesty, on Tuesday morning, participating in the anxiety felt by his lordship's many friends, desired that further advice should be obtained; and Dr. Quain was requested to attend in consultation with

Dr. Kidd. It should be mentioned that Dr. Kidd had for the last three years attended his lordship in like attacks. When this request was made to Dr. Quain, he declined, with great regret, to accede to it, under the impression that Dr. Kidd was a homœopathic practitioner. Being, however, assured in the most positive manner that Lord Beaconsfield had on no previous occasion been treated homœopathically, and was not being so treated on this occasion, he sought the advice of some of the most prudent and experienced Fellows of the College of Physicians, who were decidedly of opinion that Dr. Quain would not, under the circumstances, be justified in persisting in his refusal. Those who have known Dr. Quain, and his strict integrity in all that relates to professional honour and feeling, during his long and distinguished career, will at once accord their approval of the course which he pursued under the difficult circumstances in which he was placed.

When Dr. Quain saw Lord Beaconsfield, he found that he was suffering from bronchial asthma, associated with bronchitis, accompanied by great distress of breathing and difficulty of expectoration; that his heart, though weak, was free from valvular disease; that the urine contained some albumen, but gave no evidence of structural change in the kidneys. He found that his lordship had been treated with the usual remedies, including calomel and ammonia. On Wednesday morning we were informed that his lordship passed a better night—that his more urgent symptoms were less; and during the following afternoon his lordship passed several hours on the sofa in the drawing-room. This exertion appears to have been more than he could bear, for at night he was less well. This (Thursday) morning, the bulletin issued at ten o'clock stated that Lord Beaconsfield passed a quiet night, and that his symptoms were not worse. Those who are familiar with cases of this class, will know to how much anxiety his lordship's condition must give rise at his advanced age. In expressing an earnest hope that the life of this, one of the greatest of modern statesmen, may yet be spared, we but echo the wide-spread feeling of the country at large.

THE REPORT ON MEDICAL EDUCATION.

In his criticism, in last week's JOURNAL, of the report of the Committee of Council of this Association on Medical Education, Dr. Quain does not show his usual discernment and acuteness. After detailing the large amount of time and thought which has during many years been bestowed upon the consideration of the subject of medical education by various boards, committees, and individuals, and the many opinions which have been expressed, he confesses his grievous disappointment that the report contains no new opinions and ideas. Now, the report does not profess to evolve novelties. Upon Dr. Quain's own showing, it would not be easy, even if it were desirable, to do that to any great extent. But, taking things as they actually are, not as it has been suggested here and there that they might be, the report points out defects, and proposes amendments. It was scarcely necessary to tell us that a preliminary examination in general education was instituted long before the issue of the report; but it might have been added that this institution has not sufficiently answered its purpose; that, by way of rendering it more efficient, the report insists on the very important, but too little heeded, principle of requiring a more thorough knowledge of a limited number of subjects; and that it accordingly objects to the additions to the number of subjects made with doubtful wisdom at the last session of the General Medical Council. If this principle alone can be impressed upon the boards of examiners, professional as well as preliminary, the report will not have been in vain, and a great improvement will soon be effected in general and in medical education.

Dr. Quain compares the following sentence of the report, "that no student should be admitted for his final examination until he has completed his fourth year of medical study, and not until the expiration of three years from the time of passing his first professional examination, and two years from the time of passing his second examination", with the following regulation of the Medical Council. "The course of professional study required for a licence shall occupy at least four years, of which at least three winter and two summer sessions shall be passed at a school recognised by any of the licensing boards mentioned in Schedule (A) of the Medical Act"; and he seems not to have perceived the difference between the two, or the force of the latter part of the sentence quoted from the report. Had he done so, and seen that, under the proposal of the report, the time at which the student could present himself for the final examination would date, not from the commencement of medical study, as it now does, but from the time of passing the two preceding examinations, he might possibly have felt that the report, instead of being too unsuggestive, was somewhat too radical in its suggestions. Whether or not it be thought too radical, there can be no question that this proposal of the report would tend, more perhaps than any other thing, to diminish the now alarming number of rejections at the examinations. Proper intervals between the several examinations would be assured; and that piling up of subjects towards the end of the period of study which, under the present system, is common, and which is, to a great extent, the cause of the imperfect preparation of candidates, would be prevented. Again, we may say that, if this principle only were carried out, the report will not have been written in vain.

Dr. Quain also seems to overlook the real point in Recommendation VI of the Report—viz., that the student should have, under supervision, the charge of patients for a certain period. Further, he does not allude to the following by no means unimportant recommendations made in the Report: first, that there should be a compulsory examination in the first year's studies before the commencement of the second year; secondly, that the courses of study, and the examinations of the universities, in anatomy and physiology, should be deemed sufficient; thirdly, that the composition fees at the several medical schools should be discouraged; fourthly, that more satisfactory evidence of attendance on hospital practice should be produced than is at present furnished by teachers; fifthly, that the preliminary examinations should be no longer conducted by the medical corporations; sixthly, that the student should produce certificates of proficiency in physics and inorganic chemistry, before registration by the Medical Council; seventhly, that there should be an increase in the number of physicians and surgeons attached to our hospitals; eighthly, that the length of the courses of lectures should be diminished; and, ninthly, that courses of lectures on medicine and surgery, the certificates for attending on which might be recognised, should be given at the Colleges of Physicians and Surgeons; and that the museums and libraries of those colleges should be thus utilised for the purposes of medical education.

If Dr. Quain had more carefully read the report which he criticises, and had digested its several recommendations and suggestions, he probably would not have written his letter. One, perhaps the chief, object of the letter, however, is to call attention to the scheme of medical education and examination, under a conjoint board for England, which was prepared with elaborate care by a committee of reference, consisting of two representatives from each of the English universities and corporations, and which is given, *in extenso*, at the end of the letter. However good the scheme may be, it is not availing, because it is non-existing; and the perusal of it prompts the questions: Why had not the committee, or the universities and corporations, the courage of their convictions? Why did they not conjoin, and carry out their scheme? If it was right to do it, why did England shrink from taking the step? Is it a sufficient answer, that Scotland would not do the like? Are the English universities and corporations so tied to the Scotch, or so afraid of them, that they cannot advance without them—that they cannot make a change, which they believe to be right, because the universities and corporations across the border decline to go with them? If England, in this instance, had boldly sailed forth alone, had nailed her colours to the mast and done her duty, and formed a conjoint board, there would have been no need for the British Medical Association to issue a report on education, Dr. Quain would have spared his criticism, and one of the great objects of medical legislation would have been

attained. The better the scheme, the less is to the credit to the English licensing bodies that they did not put it in force, which they were perfectly able to do, and which they were loud and valiant in their professions that they meant to do.

SUGGESTIONS FOR MEDICAL REFORM IN BELFAST.

IT is not only in the metropolis that medical charities are found to be abused. Wherever careful inquiry has been made, the same unsatisfactory state of things has been brought to light. In several large English cities, where an investigation has been undertaken, not only were the medical charities shown to be resorted to by those for whom they were never intended, but the proportionate number of individuals who so abused them was much the same in every case. It was ascertained that about one-fourth of the population sought gratuitous medical relief.

But it would seem that this abuse is not confined to England; the same complaint now reaches us from Ireland. The attention of the Ulster Medical Society has been drawn to the matter, and a short time ago they appointed a special committee to consider and report upon the abuse of the medical charities in Belfast. The result of their inquiries was embodied in a series of propositions, which, after being discussed and revised, were adopted by the Society. They were as follows.

1. Provision is made by the Poor-law system for the medical treatment of the poor: *a*. At the dispensaries; *b*. By visiting at their own homes; *c*. By hospital accommodation at the union infirmary.

2. It is necessary in a large town like Belfast to have a general hospital, with departments for the treatment of special diseases, and for the reception of urgent cases, and also for the purposes of clinical instruction.

3. Many persons for whom the medical charities of Belfast are not intended, largely avail themselves of the advantages of the various institutions, owing chiefly, as we think, to the lax system of admission, and they thus impose upon the charitable public and the medical profession.

4. Injurious results arise to the persons themselves who take advantage of these charities, as they are thus educated to foster deception and destroy their spirit of independence, whilst amply able to pay for medical aid.

5. In consequence of these abuses, the medical profession feel aggrieved, as not only is hospital work greatly augmented, but the interest of the general practitioner is unjustly interfered with.

6. Although abuses exist both in the Intern and Extern Departments, they predominate to a much greater degree in the treatment of out-patients; and we are of opinion that this department in the several hospitals should be greatly restricted, and that careful examination into the means of applicants should be instituted.

7. We recommend that a competent person be appointed to exercise close supervision over all those applying for relief at the Extern Departments of the various hospitals.

8. We disapprove of any member of a hospital staff receiving fees for services rendered to any patient whilst under hospital treatment.

The Irish system of Poor-law medical relief is so good, that no one who is really destitute can have any difficulty in obtaining the help he needs. What is wanted there, as elsewhere, is a better system of dealing with those who are a little above the level of Poor-law assistance. There can be no doubt that the evils which are such a general subject of complaint have crept in in consequence of the "lax system of admission". The Ulster Medical Society has pointed out the true source of the evil, and we believe the remedy they suggest, though not unattended with difficulty, is the best that can be found. If a "competent person were appointed to exercise close supervision over all those applying for relief", and if, at the same time, a Provident Dispensary were opened in friendly relation with the hospitals (as has been already done in several English towns), the labours of the Ulster Society could not fail to be productive of much real good.

M. HIPPOLYTE MARTIN has presented to the Biological Society of Paris specimens of artificially excited tuberculosis in rabbits, resulting from the injection of apparently inert powders (lycopodium, etc.) into the peritoneal cavity.

THE General Medical Council has been summoned to meet on April 26th. The Executive Committee will meet on the 12th.

A PETITION from the British medical men in Rome in favour of vivisection has been presented to the House of Commons by Mr. J. C. Campbell.

DURING the past twelve weeks of the current quarter, the metropolitan death-rate has averaged only 23.6 per 1,000, against 26.8 and 27.5 in the corresponding periods of 1879 and 1880.

WE learn, on the authority of official telegrams from Bagdad, dated March 26th, that quarantine reports to date show twenty-four deaths at Kula. It is not quite certain that this is true plague; what is, however, certain is, that the quarantine restrictions imposed upon British ships thirty days at sea from Bushire to Suez are most vexatious, and present a marked contrast to the facilities accorded to other ships only thirty hours at sea from Beyrout to Alexandria. Time at sea is not allowed to count for anything—an obvious injustice from a commercial point of view, and an absurdity from the scientific point of view.

AT the monthly meeting of the Committee of the British Medical Benevolent Fund, held on March 29th, Dr. Alfred Carpenter of Croydon, Dr. Holman of Reigate, and Mr. Morrant Baker of London, were elected to fill three vacancies on the Committee. There were thirty applications for relief, some being of a very distressing character. One widow, who had but recently recovered from an attack of insanity, brought on by the death of her husband, asked for help for her children, four of whom are suffering from scarlet fever. The sum of £260 was granted to twenty-seven of the applicants, in amounts varying from £18 to £5.

PROFESSOR BILLROTH has twice repeated his new operation of resection of the pylorus for cancer of the stomach. The first case has been successful; the patient having returned home apparently well, and able to take solid food. The second patient survived the operation eight days. The third, on whom Dr. Billroth operated on the 12th March, for a considerable cancerous tumour, died in twelve hours. The facility of the operation, the absence of peritoneal reaction, and the holding power of the sutures, were apparent in all the three cases.

GUY'S HOSPITAL.

AT a meeting of the medical and surgical staff of Guy's Hospital, held March 14th, 1881, it was resolved: "That the best thanks of the medical and surgical staff of Guy's Hospital be offered to the members of the Norwich Medico-Chirurgical Society for the vote of sympathy sent to them by the Society in January last. That the Society be informed that the staff of Guy's Hospital have never for a moment relaxed their efforts to accomplish the object they had first in view: viz., to place the medical staff in their right position as regards the management of the hospital; and they are happy to state that all questions affecting the medical care and nursing of the patients are referred to a Committee on which the staff are now represented."

THE BIRMINGHAM MEDICAL INSTITUTE.

THE annual meeting of the Birmingham Medical Institute was held on March 24th. Mr. Crompton, retiring president, occupied the chair, and upwards of fifty members were present. Mr. Alfred Baker was elected president for the ensuing year; Mr. Sampson Gamgee and Mr. W. C. Garman of Wednesbury were appointed vice-presidents; Mr. W. G. Archer was re-elected honorary secretary, and Mr. Joseph Hunt was chosen as his colleague, to fill the vacancy arising from the resignation of Mr. Priestley Smith, senior honorary secretary; Dr. Foster and Dr. Sawyer, retiring members of Committee, were reappointed, and Mr. Furneaux Jordan and Mr. Priestley Smith were elected as new members of the Committee; Mr. Lloyd Owen and Dr. Saundby were again chosen as honorary librarians. A cordial vote of thanks was given to Mr. Priestley Smith for his able services to the institute as honorary secretary for a period of six years. The report of

the Committee referred to the chief event of the year, namely, the formal opening of the new building last December, when an inaugural address was delivered by Sir Risdon Bennett. In recording the completion of the institute building, the Committee expressed their obligations to the chairman, Mr. Gamgee, and to the other members of the building subcommittee for their valuable work. Fifteen new members, including two ladies, had been admitted during the year, making the present number of members one hundred and fifty-three. All liabilities to the builder and architects have been paid, but an increase of income is necessary for the satisfactory maintenance of the institute. The growth of the library has been very satisfactory. During the year, nearly seven hundred volumes, including a large number of the best modern medical works, purchased by a grant from the auxiliary library fund, have been added. The reading-room has been well supplied, thirty-eight British and foreign professional periodicals being regularly placed upon the table. All the larger local medical societies hold their meetings in the institute. The Committee will continue to spare no effort to make the institute worthy of the profession; and we trust they will be rewarded for their work by a large accession of new members from our brethren in the Midlands.

THE NATIONAL VACCINE ESTABLISHMENT.

THE Local Government Board announce that, in consequence of the approaching demolition of the Surrey Chapel in the Blackfriars Road, where the principal station of the National Vaccine Establishment has been held since the beginning of the century, arrangements have been made for the continuance of the work of the station at the Victoria Hall, Lancaster Street, Friar Street, Blackfriars Road. Dr. Cory will attend at the new station on Tuesday and Thursday of each week at one clock in the afternoon, for the vaccination of all infants who may be brought there, and for the revaccination of adolescents of proper age. The instruction of medical students in the principles and practice of vaccination, and the examination of medical practitioners who may desire the special certificates of proficiency in vaccination required of all public vaccinators, will be conducted at the Victoria Hall, as heretofore at Surrey Chapel.

ST. THOMAS'S HOSPITAL OUT-PATIENT DEPARTMENT.

THE public know but little of the vastness of the work done, in an unobtrusive way, in the out-patient departments of the various hospitals throughout London. We have received some statistics with reference to St. Thomas's which are of interest in this connection. No fewer than 76,695 cases in all were treated at that hospital alone as out-patients during 1880; of this large total, over 44,000 are set down to surgical casualties, while the cases of medical emergencies amounted in round numbers to 7,900. The out-patient physicians had over 6,000 cases, the out-patient surgeons over 4,000 cases, regularly under their care; and the obstetrical department was not less active, for nearly 4,000 women suffering from diseases peculiar to their sex were treated as out-patients; in addition, 2,122 women were attended in their confinements at their own homes, making an average of over forty such cases a week for the whole year.

ZYMOTIC DISEASES IN LONDON.

THE fatal cases of small-pox in London, which had been 58 and 43 in the two previous weeks, rose again to 49 last week, and exceeded the corrected average number in the corresponding week of the last ten years by 7. Of the 49 persons who died from this disease, 24 had resided in the South, 11 in the North, 9 in the East, 3 in the Central, and 2 in the West groups of registration districts. The number of small-pox patients in the Metropolitan Asylums Hospitals, which had steadily increased in the twenty-one preceding weeks from 77 to 853, declined last week to 820. The new cases of small-pox admitted to these hospitals, which had been 186 and 265 in the two previous weeks, fell to 147 last week. The deaths from measles, which had been 18, 26, and 44 in the three preceding weeks, further rose last week to 48, and exceeded the average by 12; 10 occurred in St. Pancras, 13 in Bethnal Green, and 5 in Battersea. The 28 fatal cases of scarlet fever showed an increase upon recent weekly numbers, and exceeded the average by one; 13 were recorded in South London, and 4 in Paddington. The 7 deaths referred to diphtheria were 2 less than the number returned in each of the three preceding weeks, and included 3 in Pancras, 2 in Stoke Newington, and 2 in St. George's, Southwark. The 33 fatal cases of whooping-cough exceeded the numbers in either of the two previous weeks, but were 53 below the average; 6 occurred in Islington. Of the 2 deaths attributed to typhus, one of a female, aged forty-seven years, was certified as "typhus fever of hæmorrhagic type", at Hackney; and the other was of a child, aged twelve years, at Whitechapel. The 11 deaths referred to enteric fever were 6 below the average, and included 2 in Whitechapel, and 2 in Peckham. The 9 deaths from diarrhœa, of which 6 were of infants under one year of age, were 5 below the average.

PRESENTATION TO DR. HABERSHON AND MR. COOPER FORSTER.

WE reported some weeks ago that a project had been started amongst Guy's men for the presentation of a testimonial to Dr. Habershon and Mr. Cooper Forster, who, as it will be remembered, resigned in November last their respective posts at Guy's Hospital. The list of subscribers, which was restricted to Guy's men, past and present, eventually contained more than four hundred names; and the subscriptions, which were limited to a guinea, reached such a sum that the committee were enabled to present each of the two late senior medical officers of the hospital with a handsome silver epergne, and an album containing the names of the subscribers. The presentation took place on Friday evening last, at the rooms of the Medical Society of London, kindly lent for the occasion by the president and council of the society. Mr. E. Lund of Manchester presided, and a large number of Guy's men from all parts of England were present, including Mr. F. Toulmin, Mr. N. Montefiore, Dr. C. Holman (Reigate), Mr. R. Colgate (Eastbourne), Professor W. Odling (Oxford), and many others. The chairman, in felicitously chosen phrases, made the presentation, which was very feelingly acknowledged by the recipients. Votes of thanks to the chairman and council for the use of the room, and to the chairman for presiding, brought the meeting to a close. Mr. Aikin was the honorary treasurer of the testimonial fund, and Messrs. Henry Morris and Frederick Durham were the honorary secretaries; to the energy of all of whom the success of the fund was largely due. Dr. Habershon and Mr. Forster were afterwards entertained at the Langham Hotel at dinner by more than fifty of their former pupils and professional friends, all Guy's men, when Mr. Lund again presided. The toasts were those suitable to the occasion, and the speeches excellent: and the proceedings throughout were marked with much enthusiasm and cordiality.

SPRUE.

THERE are a multitude of diseases peculiar to tropical and subtropical countries to which the inhabitants are liable, and which foreigners may acquire when exposed to the corresponding morbid causes. There is another class of diseases peculiar to those countries, attacking foreigners, and but seldom, if ever, affecting the natives. One of the latter, known in India and well known in Java, where it goes by the name of sprue, has hitherto received little specific notice from medical writers, though, from its extreme fatality, it deserves careful study and attention. Sprue is defined by Dr. Patrick Manson of Amoy, who has devoted much attention to it, as an extremely chronic and insidious disease peculiar to warm climates, the principal symptoms of which are referable (1) to a remitting inflammation of the mucous membrane of the mouth and alimentary canal generally; (2) to diarrhœa and irregular action of the bowels; and (3) to anæmia and general atrophy. Great wasting accompanies it, altogether out of proportion to the amount of diarrhœa. The victims have all a withered shrunken appearance. When the disease is of some standing, the patient is feeble, irritable, incapable of much mental effort, and anæmic. It is exceedingly insidious in its onset, and very slow in its progress. Dr. Manson has watched a case for several years. This chronicity is exceedingly characteristic; the patient can seldom say exactly when

his disease began, nor, if interrogated from time to time during its progress, can he say positively he is better or worse. It is only when comparison is made between the condition and weight of the patient at dates widely apart that the gradual and sure progress of the disease can be appreciated. The prognosis in a well marked case must be grave indeed, unless the sufferer be speedily removed to a colder and more temperate climate. According to Dr. Manson's experience, so long as the patient remains under the conditions in which his disease was acquired, medicine and dietary, although they may do much to mitigate suffering, will not effect a cure; and, after one, two, or three years of suffering, there can be only one termination. As to the cause of sprue, Dr. Manson can only ascribe it to the general unsuitability of the European constitution to tropical climates. It is just possible that some accident to the alimentary canal may act as the immediate and exciting cause, and determine the advent of sprue in those constitutionally prepared by the warm climate and other predisposing influences. Nothing seems to have so powerful an influence in aggravating the disease, and therefore, probably, in inducing it, as long-continued high temperature. In his attempts at cure, Dr. Manson has tried many drugs; but they have one and all disappointed him; and he has come to the conclusion that there is only one remedy for sprue (viz., leaving the country); and that, to be effective, should be tried early in the disease. Is not "sprue", after all, a form of "idiopathic" or "progressive pernicious" anæmia, as described by Dr. Coupland in his lectures now in course of publication in this JOURNAL?

HABITUAL DRUNKARDS.

IT will be in the recollection of our readers that the minutes of the Committee for promoting Legislation for Habitual Drunkards contained a proposal for the establishment of a model home, to be called the "Dalrymple Retreat", for the detention and cure of inebriates. This proposal was endorsed by the members of the Association at the annual meeting last year at Cambridge. A further minute, which was accepted at the last meeting of the Committee of Council, suggested an application to the Lord Mayor, that he should preside at a meeting to be held at the Mansion House for the purpose of founding such an institution. We are glad to be able to state that the Lord Mayor has agreed to the application; and that he has placed the Long Parlour at the service of the committee for a meeting, at which the Lord Mayor will himself preside, on Tuesday, May 17th, at 3 P.M. We ask our readers to make a note of this date. Lord Shaftesbury, Dr. Cameron, M.P., and others interested in the subject, will take part in the proceedings. We urge all those who wish to be present to apply at once for tickets of admission to the Honorary Secretary, Mr. S. S. Alford, of 61, Haverstock Hill; or to Dr. Alfred Carpenter of Croydon, the chairman of the committee. We need hardly add, that all experience shows that private speculation is not advisable, and that the course which the committee propose to take is the only possible one by means of which the Habitual Drunkards' Act of 1879 can be of any possible service. It is important that the Lord Mayor should be well supported.

THE SURGERY OF THE NERVES.

As occasion has offered, we have, from time to time, pointed out to our readers evidence of the awakening interest of surgeons in the operative treatment of injuries or diseases of the nervous system. Mr. Holmes has had recently under his care in St. George's Hospital a man who had complete paralysis of the musculo-spiral nerve, following on a wound of the arm received about five months ago. Mr. Holmes cut down upon the nerve, and found, as he anticipated, that it had been divided; the upper end, as is usual in these cases, was enlarged, while the lower was atrophied. Being of opinion that the failures which have sometimes occurred, after suture of a divided nerve, might be due to the strain put upon the nerve in bringing the two ends together when the bulbar enlargement is removed, Mr. Holmes contented himself with merely refreshing the two ends, and then united them by catgut stitches. It is too early, as yet, to appraise the success of this operation; but we may say that we have recently had the opportunity of seeing, in Mr. Mac Cormac's ward in St. Thomas's Hospital, a young man in whom the suturing of the two ends of a long severed ulnar nerve has been followed by a most remarkable restitution of function. Full details of this case will, we believe, be laid before the profession at an early date. At St. George's Hospital, Mr. Bennett has stretched the great sciatic nerve in a case of well marked locomotor ataxy, under the care of Dr. Cavafy. The nerve was grasped between the finger and thumb, and traction made upon the central part only, the operator believing that pulling upon the periphery could do no good, and might easily result in serious damage. We are glad to be able to state that the nerve-stretching performed by Mr. Marshall on a case of locomotor ataxy, under the care of Dr. Bastian, in University College Hospital (concerning which we gave some particulars a few weeks ago), has been followed by so great a diminution in pain and discomfort, and so decided an improvement in motor power, that, at the patient's earnest request, the operation has been repeated upon the nerve of the other side. We hear, also, that a patient, under the care of Dr. Buzzard, at the National Hospital for Epilepsy and Paralysis, has been benefited by the stretching of the great sciatic nerve.

THE PROGRESS OF THE PLAGUE.

IT is stated that the mortality at Nedjib, owing to the plague, is on the increase, and the authorities have consequently taken further sanitary measures for the prevention of the spread of the disease. Intelligence received at Constantinople, from Bagdad, announces that the plague has broken out at Kufa. The inhabitants have been subjected to a disinfecting process and left the place, the houses of which are also being disinfected.

OPEN SPACES.

MR. WALTER JAMES has introduced into the House of Commons a Bill providing further facilities for making open spaces in the metropolis available for exercise and recreation. Where any ground is placed under the care of trustees by some local or private Act of Parliament with a view to its being kept as a garden or open space, they are empowered by the Bill to transfer their interest in it or its management to a local authority, to the end that it may be preserved for the enjoyment of the public. The local authority to which the transfer may, according to this scheme, be made, either for valuable consideration or by way of gift, is either the Metropolitan Board, the parish vestry, or the district board. But before such transfer is made, the Bill makes it necessary for a resolution in favour of it to be passed by a majority of two-thirds of the persons present at a special meeting of the trustees. Where, also, the owners or occupiers of houses round or near an open space have "rights of user" over it for exercise and recreation, the owner of the spot is authorised by the Bill to transfer it to one of the above-mentioned local authorities on trust for the enjoyment of the public, provided the consent be obtained of two-thirds of those present at a special meeting of the owners and occupiers interested. Power is also given by the Bill to the owners of Metropolitan burial-grounds in which there has been no interment since 1800, to transfer them to a local authority, with a view to their being planted and laid out for the enjoyment of the public. With regard to consecrated ground, however, a faculty of the Bishop is made necessary for the exercise of the powers of management of any board or vestry under the measure. In the City of London, the Corporation is the local authority to which it is proposed that open spaces may be thus transferred. Metropolitan commons are expressly excluded from the operation of the measure.

NEW PHARMACOPŒIAL REMEDIES.

A SUPPLEMENT to the *Hungarian Pharmacopœia* is about to be issued, in which, among other much employed new remedies, the following will find a place: Acidum benzoicum, acidum boracicum, acidum salicylicum, acidum pyrogallicum, amylnitrit, apomorphium hydrochloricum, charta sinapisata, chininum ferro-citricum, chininum tannicum,

chorda carbolisata, caffeinum citricum, ferrum oxydatum dialysatum, folia eucalypti, gossypium depuratum, iodoformium, lithium carbonicum, natrium pyrophosphoricum ferratum, natrium salicylicum, oleum eucalypti æthereum, physostigmium, pilocarpinum muriaticum, spiritus saponis kalinus, styrax liquidus, thymolum, tinctura eucalypti, unguentum Hebrae, vaselina.

PHYSIOLOGY FOR FOOLS.

THE Rev. Joseph Cook, a well-known American pulpit-orator, has come over to this benighted country to overthrow Huxley, Michael Foster, and other philosophers. The plea for this special mission appears to be that, having himself attained to an accurate knowledge of scientific research, he is competent to expose the fallacies of men of science. Judging, however, from some extraordinary statements which this lecturer is reported to have made with reference to the action of alcohol on the living brain, our modern scientific inquirers may take heart of grace, and rest in peace a little longer. Mr. Cook, in sight of large audiences in the North, poured alcohol on white of egg. After stirring this for a few minutes, he held the mass up as the representation of a moderate drinker's brain. After a longer interval, the mass, having become hardened, was exhibited as a fair illustration of a drunkard's brain. With lamentable ignorance of the science he professed to know, the reverend lecturer proceeded to state, as a fact, that alcohol hardened the living human brain, leaving indelible scars on the cerebrum. The elementary fact that, while alcohol hardens dead cerebral substance, in life it induces softening of the brain, is, it must charitably be assumed, unknown to him. Before public dogmatic statements on physiological questions are made, it is desirable that lecturers, of whatever profession or country, should, for their own reputation, and for the truth's sake, ascertain the elementary facts, either by personal research or by consulting some competent physiologist. Such prolusions as these cover with ridicule a good cause, which most members of our profession have, we are convinced, deeply at heart, and can only disgust sensible hearers.

THE LEPER SETTLEMENT IN THE SANDWICH ISLANDS.

SOME interesting statistics with regard to the leper settlement on Molokai, one of the Sandwich Islands, have been published by Dr. Charles Neilson, who has succeeded Dr. Emmerson as superintendent of the settlement. At the close of 1880, there were 609 persons in the settlement, and 161 had died during the year. Nine children were born of leprous parents, and six deaths occurred under one year of age. Dr. Neilson says that efforts to improve the hygienic condition of the lepers meet with no aid from them, a marked feature of the disease being a condition of apathy and despondency. The Government has made liberal provision for the afflicted, in providing good shelter and an ample supply of wholesome food. Among the remedies in use, an oleo-resinous substance, known in commerce as gurgun oil, is considered the most valuable, especially when combined with lime-water. The treatment is, however, empirical, and is addressed rather to special symptoms than to cure of the disease. Leprosy is regarded as undoubtedly contagious.

COD-LIVER OIL.

MR. FAIRTHORNE (*Pharmaceutical Journal*) suggests a new method of taking cod-liver oil, which consists of adding two drachms of tomato or walnut "catsup" (according to a new contemporary, the accurate and most appropriate orthography), to each ounce of the oil, the mixture being shaken before taken. He very pertinently remarks that taking an ordinary emulsion of cod-liver oil is like eating cod-fish or lobster with a dressing of sugar and gum. He has found the mixture of catsup and cod-liver oil to agree with many persons much better than any other form in which cod-liver oil had been taken, and this he attributes to the association of substances generally employed as additions to food bringing into operation those digestive faculties of the stomach which might otherwise remain dormant when such incongruous substances as sugar, and one of the principal ingredients of fish, are introduced together into the stomach. Some years ago a paper was published in one of the scientific journals, showing that the condiments usually employed with particular kinds of food were the most appropriate ones, since they developed an electrical current, a phenomenon which did not appear to be indicated by the galvanometer when what would be considered by epicures to be incongruous articles of food were experimented with. Possibly the action of different adjuncts to food on the nervous system, and through it on the digestion, may deserve more attention than is generally devoted to that subject. Mr. Fairthorne also states that the following mixture is readily taken by the patient:—Liebig's extract, ½ ounce; extract of celery seed, ½ fluid-drachm; vinegar 1 fluid-ounce; water 2 fluid ounces; cod-liver oil 5 ounces. The extract of beef is dissolved in the water, the vinegar and oil are added, and the whole shaken with the extract of celery.

OBSTETRICAL SOCIETY.

THE adjourned discussion on Dr. Barnes's paper on "Missed Labour" will be resumed at the next meeting of the Society on April 6th, when Dr. Barnes will reply.

THE ESQUIMAUX AT PARIS.

A COMMUNICATION has been made to the Société Médicale des Hôpitaux by M. Landrieux, in which he states that he had had the opportunity of observing, in his small-pox ward, the nine Esquimaux who had recently come on a visit to Paris, and who had taken the contagion of small-pox in Germany, where several of their companions had died. All the unfortunate persons who had formed this caravan are dead of small-pox. In some, it assumed the confluent hæmorrhagic form; in others, it had not even time to develop itself. The *post mortem* examination showed a considerable fatty infiltration of all the organs, which seemed to be due to the habitual alimentation of these individuals, in which various fish-oils largely predominated. No therapeutical agents, including alcohol and jaborandi, seemed to have any effect on them. They were vaccinated immediately on their arrival, but at that time the disease had already declared itself, so that the vaccination was of no avail. This fact has, however, not been noted in various accounts of these deaths from small-pox which have been published in antivaccinationist organs. The extreme intensity of small-pox in all the individuals, without exception, may be explained by the absolutely virgin condition of the soil in which the disease developed itself; and this example makes it easy to understand how, when the small-pox develops itself in certain savage tribes, it destroys them almost entirely with the greatest rapidity.

HALIFAX PROVIDENT DISPENSARY.

WE learn with pleasure that a provident dispensary is about to be opened in Halifax, in connection with the infirmary. Under such auspices, the proposed institution is almost sure to succeed. The rules seem to embody all the most important points; but we should recommend that, in a town like Halifax, there should be more than two medical men on the acting staff. There ought, at least, to be three or four; and they should reside, as far as may be, in different districts, so as to meet the wants of the working classes, and to secure their confidence.

CASE OF LETHARGY.

DR. SAHLMEN (of Wiedenbrück) describes, in the *Berliner Klinische Wochenschrift*, a case of lethargy in a young woman aged 26. It appears that repeated epileptic attacks had occurred during a year, which, however, had ceased three years ago. The diagnosis showed no considerable deviations from health; there was an excessive feeling of depression in the left ovary. Leucorrhœa and retroflexion were noticed. The patient fell into a lethargic sleep, with stiffness of the muscles, dilated pupils, and depressed breathing; the temperature was normal (98.2° Fahr.). From this sleep, she could not be awakened by any means. She awoke, however, spontaneously after twelve, sixteen, eighteen, or twenty-two hours, without having any recollection of

the past, and behaved naturally, only she felt very weak. She remained in a permanent lethargy for eleven days following December 27th; so that Dr. Sahlmen tried to give food by the œsophageal tube. After her awaking, she spat much pure blood, took food, and fell again into sleep for two days. She awakes now generally every day; sleeping, however, two-thirds of the day.

TRICHINOSIS IN AMERICA.

THE American Government has issued an elaborate report, by Surgeon Glazier of the Marine Hospital Service, on the history of trichinæ and trichinosis. The report, which is largely compiled from German authorities, shows that all animals may be infected by trichinæ, which are found in all countries. Ordinary cooking, however, renders them harmless; but, owing to the German habit of eating raw meat, more cases of trichinosis are found in Germany than elsewhere. Surgeon Glazier adds that the statistics of the American medical institutions, where dissections are made, indicate that the disease is of rare occurrence in the United States.

SYPHILITIC DISEASE OF THE SPINE.

IN the current number of the *Annales de Dermatologie et de Syphiligraphie*, M. Fournier reports at great length a very interesting case of Pott's disease caused by syphilis. The patient, a coachman, aged 56, was admitted into the Hôpital St. Louis in July 1876. The man had had venereal disease in his youth, but no clear history of syphilis could be obtained. He stated that his health had always been good until a few months before admission, when he gradually lost his appetite, and began to suffer from pain in the loins, which afterwards extended to the legs. M. Fournier could not find anything wrong with the spine, but the patient had well-marked syphilitic disease of the testis, gummata of the skin, etc. The testis and the gummata were much benefited by antisyphilitic treatment, but the general health declined, ascites and pleural effusion appeared, and the man died about three months after admission. At the *post mortem* examination, ample evidence of syphilis was found in various parts of the body, as well as the following condition of the spine. Antero-posterior section showed the bodies of the third and fourth lumbar vertebræ, in their posterior half, to be infiltrated by a yellow cheesy material. The posterior three-fourths of the intervertebral substance was also destroyed, a cavity containing purulent fluid being left. The intervertebral substance between the fourth and fifth vertebræ was softened, and infiltrated with pus in its posterior half; and there was a cavity in the body of the third lumbar vertebra. Under the microscope, the third, fourth, and fifth lumbar vertebræ presented the typical appearances of condensing osteitis, with purulent and caseous infiltration, exactly as is seen in gummy osteomata. There was also double psoas abscess. The further examination was carried out by M. Hayem, who found a gumma on the fourth lumbar nerve at the point where it left the foramen. In this situation there was also another gummy growth, which appeared to have originated in the periosteum of the corresponding vertebra. Above the gumma the nerve was affected by interstitial neuritis, and there was partial atrophy of the nerve-tubules. The third and fifth lumbar nerves presented only appearances due to irritation and pressure, without decided alteration of the nerve-elements.

VITAL STATISTICS OF HOLLAND.

A LABORIOUS and painstaking atlas of the mortality of Holland during the period 1860-74 has been published at Amsterdam, under the title *Sterfte Atlas van Nederland*. To the atlas are added numerous charts indicating the proportion of deaths and births to every thousand inhabitants, and the proportion of still-born infants, together with the geological characters of the different provinces. From the figures given, it appears that Holland has an area of 3,287,489 hectares, with a population of 3,511,492 inhabitants. The annual mortality is 25.38 per 1,000, exclusive of 1.94 still-born; and the births number 37.06 per 1,000 of the population, also exclusive of still-born. A percentage of 21.64 of the boys born die before they reach their first year, whilst of the girls 18.59 per cent. die during the same period of life. The infant mortality in some of the rural districts seems to be enormously high—higher even than in some of the large towns.

ANÆSTHESIA BY CHLORAL.

M. BOUCHUT publishes, in the *Paris Médical*, a case of thoracentesis, in a child six years and a half old, with anæsthesia by chloral. M. Bouchut gives chloral in doses of from two to three grammes, according to the age of the patient, and in a single dose. He asserts that it is a perfect anæsthetic, without any disagreeable result; and that he has administered it in this way in more than ten thousand cases. Anæsthesia by chloral renders operations very easy in children, who move about, struggle, and incline the vertebral column towards the side which is to be operated on. The anæsthetic sleep overcomes this resistance, sometimes so difficult to conquer, especially in children on whom the same operation has been performed more than once. When the little patient awakes, at the end of three hours, he is ignorant of what has been done to him, and finds himself relieved without having experienced any unpleasant sensations.

DEATH OF SURGEON G. A. OTIS OF WASHINGTON.

IT is with the deepest regret that we have received intelligence of the death, on the 23rd of February last, at Washington, of Surgeon G. A. Otis, the very able historiographer of the surgical part of the war of the rebellion in the United States. The two large quarto volumes of the surgical history of this war which have already appeared are well known, and have been most highly appreciated all over Europe, as well as in the United States; and the appearance of the third and concluding volume was looked forward to with the keenest interest. It appears that this last volume was more than half completed at the time of Surgeon Otis's decease. A brief, but very sympathetic, obituary notice of this distinguished surgeon has just been circulated by Surgeon-General Barnes, the head of the United States Army Medical Department, in whose office, and under whose auspices, at Washington, he had been working as Curator of the Army Medical Museum, and in charge of the Division of Surgical Records, from July 1864 until the time of his fatal illness. Surgeon Otis succumbed to paralysis, at the early age of fifty.

MEDICINE IN SOUTH AFRICA.

DR. EMILE HOLUB has been reading a paper on the medical profession in South Africa, and the etiquette which guides our professional brethren in that locality, so far as regards German medical men. It appears that the number of these practitioners has greatly increased during the last few years, and that as many as eighteen German medical men have settled in South Africa in the last year. The causes of this extended choice of the profession are, that it is fairly remunerative, and also because both natives and colonists, especially the Dutch, treat medical men with special consideration: the natives, because they believe them to be sorcerers; and the more enlightened colonists, because they are very much alarmed, even by the slightest disorders. The fees are in accord with their opinions: in Cape Town, half-a-crown is charged for a medical visit; at Port Elizabeth, five shillings; and in the Transvaal, ten shillings; a consultation costs one pound sterling. Medical men have been known speedily to accumulate a fortune of from thirty to forty thousand florins. The practitioner is obliged to be very careful with his black patients, as his freedom of prescribing is considerably hampered by their superstitious and suspicious natures: the Bechuanas, for instance, believe that every death is the result of poison; others refuse to take any medicine which does not produce instant relief. The native physicians bear different designations in different districts, and have a great personal influence over the king himself. They only prescribe some medicinal plants, and work on the superstitious nature of their patients by some pretended magical practices. Dr. Holub describes in detail the black physicians, sorcerers, and *nyagas*, whose sole art consists in the knowledge of the properties of certain plants. A short time since, all these magicians were mas-

sacred in a body, and their head king Sepopo banished. Dr. Holub's observations with reference to tuberculosis are interesting. He never met with it in the plains of South Africa; and had the opportunity of observing that the curative virtue of this climate is very superior to that of Madeira.

AN UNFORTUNATE TOBACCO COUNTERBLAST.

CARLYLE, from his own account, was a martyr to dyspepsia. In his *Reminiscences*, however, he tells no word of his bodily symptoms of disorder, but makes constant allusions to his mental miseries. Perhaps some one of the many doctors whom he no doubt consulted could tell us something interesting on the point. And perhaps, also, psychologists may be able to trace, at times, in his misanthropic expressions traces of his mental and bodily sufferings. He once, it appears, rode sixty miles to Edinburgh, "to consult a doctor, having at last reduced my complexities to a single question. Is this disease curable by medicine? or is it chronic, incurable except by regimen, if even so? This question I earnestly put; got response, 'It is all tobacco, sir; give up tobacco'. Gave it instantly and strictly up. Found, after long months, that I might as well have ridden sixty miles in the opposite direction, and poured my sorrows into the long hairy ear of the first jackass I came upon, as into this select medical man's, whose name I will not mention."

SCOTLAND.

THE local authority of Musselburgh have ordered three wells in Musselburgh to be closed, and not further used by the public, as the water contained in them was reported by Dr. Falconer King to be "unmistakably contaminated with deleterious matters", and as "unfit for use as potable water".

UNIVERSITY OF EDINBURGH.

AT the preliminary examinations recently held in the University, 412 candidates presented themselves. Of course, this large number does not mean new candidates entirely, as many of them have been up before for other subjects than those for which they now presented themselves; while others have returned, having previously failed to pass. For the first time, a public notice has appeared of the numbers of rejections in all the subjects, which we subjoin.

	Entries.	Passed.	Failed.
Mechanics	175	125	50
English	126	96	30
Latin	131	95	36
Greek	80	58	22
French	111	64	47
German	12	11	1
Moral Philosophy	26	21	5
Logic	151	113	38
Arithmetic	136	113	23
Mathematics (Elementary)	154	117	37
Mathematics (Higher)	11	8	3
Natural Philosophy	57	40	7

As candidates can select either Logic or Moral Philosophy, and can take any one of Natural Philosophy, Higher Mathematics, German, or French, the bias or predilection for those subjects can be observed from the numbers entered for each. The session in the medical classes terminated on Thursday, March 31st.

THE WESTERN INFIRMARY OF GLASGOW.

THE new wards recently added to this institution are now being occupied, thanks to the very liberal response accorded to the appeal made by the directors for the necessary funds. Dr. Alexander Patterson has had more surgical beds in consequence allotted to him, and Dr. Finlayson has also had an increased number of medical beds given to him. The directors have further signified their intention of appointing another visiting physician and surgeon. It is expected that Dr. Tennant, the senior assistant physician, will be appointed to the former post; and it was also thought that the same course would have been followed in the case of Dr. Lyon, who is the senior assistant surgeon, but he has been opposed in his candidature by Dr. Hector Cameron, at present one of the surgeons to the Royal Infirmary. Opinion is a good deal divided as to the step Dr. Cameron has taken; but it is to be hoped that the managers of the Western Infirmary will see their way to confer on Dr. Lyon the position which he is admirably fitted to occupy, and for which he has worked most faithfully by his long service in the out-patient department. In the present election a very important principle is at stake: for younger men will not be found forthcoming to do the laborious out-patient work, if they feel that the prizes and advantages connected with it are to be given to the surgeons of other institutions.

THE CHAIR OF PATHOLOGY, EDINBURGH UNIVERSITY.

To the list of candidates for this appointment published last week, we must add the name of Dr. Byrom Bramwell. This gentleman, now lecturer on the Principles and Practice of Medicine at the Extra-Academical School of Medicine, Edinburgh, has had considerable experience as a pathologist and teacher of pathology: having been lecturer on that science at the University of Durham College of Medicine, as well as Pathologist to the Newcastle Infirmary. He is the author of several valuable contributions to pathology; and his knowledge of clinical medicine enhances, if anything, his merits as a teacher of the science of disease.

UNIVERSITY OF ABERDEEN: EXAMINATIONS FOR DEGREES IN MEDICINE.

THE following important improvements in the order of the professional examinations in medicine have been approved by an Order of Her Majesty in Council, of date March 2nd, 1881. Every candidate for the degrees of Bachelor of Medicine and Master in Surgery shall be examined, first, in botany, natural history, chemistry, and anatomy; secondly, on regional anatomy, institutes of medicine, materia medica, and surgery; thirdly, on the remaining subjects of medical study. Under the new regulations, candidates will be admitted to the professional examinations in four divisions. 1. At the July term preceding their second winter session, to examination in botany and natural history; 2. At the end of the second year of their course, to anatomy and chemistry; 3. At the end of the third year, to regional anatomy, institutes of medicine, materia medica, and surgery; 4. At the end of the fourth year, to the practical branches. These changes will take effect in July 1881.

NORTHERN DISPENSARY, EDINBURGH.

FULLY a year ago, a dispensary called the Northern Free Dispensary was opened in Dean Street, Stockbridge, Edinburgh, to meet the requirements of the north-eastern district of the city. The first annual meeting of its supporters was held on Monday. The Secretary's report, submitted by Mr. F. M. Caird, M.B., showed that during the year there had been 886 patients treated, of whom 445 were attended at their homes, while over 2,000 prescriptions had been dispensed. The financial report was not quite so satisfactory as could be desired: but a resolution was passed strongly recommending the institution to public favour.

HEALTH OF THE EIGHT CHIEF SCOTCH TOWNS.

IN the eight principal Scotch towns, during February, there were registered the deaths of 2,424 persons, of whom 1,179 were males and 1,245 were females; making suitable allowance for increase of population, this is 422 under the average of the same month during the previous ten years. The individual death-rates of the towns were, per 1,000: Perth 18, Greenock and Edinburgh 19, Aberdeen 40, Dundee and Leith 22, Glasgow 24, and Paisley 28. Thirty-five per cent. of the entire deaths were of children under five years of age: and the percentages of the various towns, in this particular, varies remarkably: in Perth being as low as 18 per cent.; while in Greenock it was as high as 46 per cent. Zymotic diseases contributed 12.5 per cent. of all the deaths, although in several of the towns (owing to scarlet fever, whooping-cough, and fever) this rate was considerably exceeded. Of 36 deaths due to fevers, 15 were registered as typhus and 16 as enteric. Whooping-cough was the most fatal, causing 3.8 of the entire mortality. Of

48 deaths from scarlet fever, fully one-half occurred in Edinburgh and Leith. To croup were attributed 26, to measles 24, and to diphtheria 17 deaths. Apoplexy and paralysis caused 124, cardiac diseases 147, hydrocephalus 55, and premature birth debility 53 deaths. Phthisis pulmonalis alone caused 267 deaths, or 11 per cent. of the total; while inflammatory affections of the respiratory organs caused no fewer than 733 deaths, or 30.7 per cent. of the entire mortality. Of 75 deaths due to violence, 3 were of suicides. Nine individuals (6 females and 3 males) were over ninety years of age, 3 of them being ninety-five. During February, 3,250 births were registered—1,674 being males and 1,576 females. The mean barometric pressure was less by .043 inch; the mean temperature less by 4.1°; the mean humidity less by 1; the rain depth in inches greater by .73 inch; and the wind pressure less by .55 lb., than the average of the same month during the preceding twenty-four years. The month was, therefore, distinguished by its mean temperature, which was 4.1° less than the average, the lowest being at Glasgow, the highest at Leith.

HEALTH OF GLASGOW.

THE medical officer's report, for the fortnight ending March 19th, states that there were 571 deaths registered, as compared with 529 in the fortnight preceding, being an increase of 42, representing a death-rate of 25 in place of 23. It appears, that, while there is a large excess of deaths from pulmonary diseases, there is a counterbalancing diminution in those from zymotic diseases, and from miscellaneous causes—so that the total number of deaths is precisely the same at both periods. The death-rate in both weeks of the fortnight was the same—viz., 25. The number of deaths of persons aged below one year was 116 in place of 98, and of persons aged sixty years and upwards 86 in place of 100. It would seem, therefore, that the increased mortality of the past fortnight has come in two directions: from the greater fatality of pulmonary diseases, and of the infectious diseases of children.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending March 19th, it appears that the death-rate in the eight principal towns was 23.1 per 1,000 of estimated population. This rate is 0.6 below that for the corresponding week of last year, and 0.3 below that for the previous week of the present year. The lowest mortality was recorded in Leith—viz., 14.7 per 1,000; and the highest in Paisley—viz., 33.9 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.8 per 1,000, being an increase of 0.6 on the number for last week. Acute diseases of the chest caused 164 deaths, or 4 less than the number for the preceding week. The mean temperature was 44.2°, being 3.0° above that for the corresponding week of last year.

A SURGEON'S JUBILEE.

ABOUT the end of April, Dr. John Borland, of the Kilmarnock Infirmary, will have completed fifty years' active practice in his native town. This is an occurrence that falls to the lot of comparatively few members of the medical profession. During the half-century, Dr. Borland has done an enormous amount of valuable, though often ill-paid work. His services were of especial importance in the cholera-epidemics of 1832 and 1849; and also as parochial surgeon, medical officer of health, and surgeon to the infirmary since its institution in 1868, all which appointments he still holds. The occasion is to be celebrated by the presentation of a jubilee testimonial, for which over £500 has been obtained. It will be seen from our advertising columns that the subscription-list closes in a fortnight.

UP to the present time, compression of the ovaries in hysterical patients had never produced any untoward results; but, quite lately, a case of peritonitis, having a rapid and fatal termination, has been reported from M. Perast's wards in the Lariboisière Hospital. From the details of the case submitted to the Paris Société Anatomique, we note the following suggestive dates. On April 14th, moderate pressure with the hand was made on the left ovary of a hysterical patient, who, up that time, had been in good health; on the 15th, peritonitis set in; and on the 17th, the patient died.

IRELAND.

AN election for a medical officer to Kantink Union Workhouse, in the room of Dr. O'Shaughnessy, took place last week, when Dr. Edward Barry, being unopposed, was duly appointed, at a salary of £130 *per annum*. On the motion of Mr. Harding, J.P., a resolution of a complimentary character in reference to their late medical officer was adopted by the guardians.

PRACTICAL INSTRUCTION FOR STUDENTS.

THE summer session, which commenced this week in the Dublin medical schools, witnessed the inauguration of a system of instruction in the School of Physic of the University of Dublin which cannot be too highly commended. Six of the eight courses pursued in this school during the summer session consist now of laboratory instruction and practical demonstrations solely; the only lectures given being those of the King's Professor of Materia Medica and Pharmacy, and of the Professor of Medical Jurisprudence. The Professor of Chemistry's course comprises full instruction in qualitative and quantitative chemical analysis as applied to medicine. Students work in the laboratory for two hours three days in the week; and, on one additional day in each week, a demonstration on the analysis of water, air, and articles of food for sanitary purposes, will be given in the theatre. Each student is provided with a full set of apparatus and tests. Dr. Purser, Professor of the Institutes of Medicine, gives instruction in histology in the new physiological laboratory. For practical work, each student has his own place in the laboratory, a microscope, and a full set of apparatus and reagents. During April, it has been arranged by the Professor of Botany that lectures on the Structure of Flowering Plants will be delivered in the theatre of the medical school. On the same days, during May, demonstrations on cells and cell-structures, and on the flowerless plants useful and injurious to mankind, will be given. On the same days, during June, demonstrations on the natural orders of flowering plants will be given in the Botanic Gardens. Three days in the week, also, Dr. Macalister will give demonstrations in comparative anatomy; and a course of demonstrations in operative surgery will be given by Dr. Bennett, and will continue until the end of May. Demonstrations in obstetric medicine and surgery will also be given twice a-week.

SIR PATRICK DUN'S HOSPITAL.

OWING to the non-payment of rents on Sir Patrick Dun's estate, which constitute nearly half the working income of the hospital, it suffered during the year 1879 a deficiency of income amounting to nearly £400, and in the year 1880, the deficiency arising from the same cause amounted to more than £600. Notwithstanding this serious diminution of income, the governors have not closed a single ward; and, during the year, seventy beds were occupied by patients every day, in summer as well as in winter. This result was obtained by the sale of consols, stock, and other securities; but, if the deficiencies should continue, it is evident that the hospital will be seriously crippled in its usefulness.

BELFAST OPHTHALMIC INSTITUTION AND EYE AND EAR HOSPITAL.

THE annual meeting of the friends and supporters of this institution was held last week in the hospital, Great Victoria Street, presided over by the Mayor of Belfast. The committee, in their report for the year ending February 15th, state that they wish it to be more generally known that the maintenance of the hospital buildings is entirely sustained by the interest accruing from a donation of £2,000 generously given by Lady Johnson, solely intended for that purpose; and that subscriptions are applied entirely for the alleviation of those suffering from the class of diseases for which the institution was established. The surgical and medical report refers with gratification to the increasing usefulness and prosperity of the institution, as shown by the increased numbers of patients seeking relief. During the year, 960 cases of eye-diseases and 344 cases of ear-diseases were treated at the extern department; and

88 cases of serious eye-affections and 9 cases of ear-diseases were treated in the wards of the hospital—making a total of 1,401 treated during the past twelve months, and 45,955 since the establishment of the hospital. At the intern department, 90 operations were performed upon cases requiring constant care and nursing. Twenty-four students are at present attending the clinical instruction given at the hospital three times a week. They have then an opportunity of witnessing the more important diseases of the eye and ear; and the insight and knowledge thus gained must be of immense benefit to them in after-life. It is gratifying to learn that the sanitary condition of the hospital is satisfactory, every attention being given to the ventilation and general cleanliness of the institution.

BELFAST ROYAL HOSPITAL.

AT the last quarterly meeting of the Committee of Management of this institution, it was mentioned by the honorary secretary that efforts were about to be made to add to the general income of the hospital by a sum of £1,500 yearly, in order that the various donations and bequests might be invested. Since then, a circular has been issued to all subscribers, stating that the General Committee, in conjunction with the Board of Management, will visit them, in order to induce them to increase their subscriptions; and it is satisfactory to learn that already several friends of the hospital have intimated their intention of doubling their subscriptions. We trust the efforts now being made will be successful in keeping an institution so useful to the community out of debt for the future.

THE TYPHUS EPIDEMIC IN DUBLIN.

THERE is a decrease in the number of patients under treatment for typhus in the Dublin hospitals. As in former epidemics, so in the present, there have been some notorious "fever-nests" suffered to remain as centres for the spread of the disease. One of these houses, during November and December, 1880, furnished eight cases of typhus fever to Cork Street Hospital; and two adjoining houses in another street furnished twelve cases of typhus from October 1880 to March 1881. These houses have been repeatedly reported to the Public Health Committee by the Executive Committee of the Dublin Sanitary Association, as being in an unsanitary condition, and unfit for human habitation.

HEALTH OF IRELAND: QUARTERLY REPORT.

DURING the quarter ended 31st December last, the births registered amounted to 27,582, being equal to an annual ratio of 1 in every 48.3, or 20.7 per 1000 of the population. The average number registered during the corresponding quarter of the five years 1875-9 was 31,446, equivalent to an annual rate of 23.6 per 1000. The deaths numbered 22,226, affording an annual ratio of 1 in every 59.9, or 16.7 per 1000, against an average rate of 17.0 per 1000 for the December quarter of the previous five years. From these returns, it appears that the birth-rate was 2.9 per 1000 under the average; while the death-rate for the quarter was below the average of the corresponding quarter of the five years 1875-9 to the extent of 0.3 per 1000; and, making allowance for deficient registration in previous years, it was one of the lowest death-rates on record for this portion of the year. It must not, however, be forgotten that the birth-rate was below the average; and as the mortality among young children is higher than at more advanced ages, a low birth-rate naturally results in a somewhat diminished death-rate. The eight principal zymotic diseases caused 2,648 deaths, or 11.9 per cent. of the total number recorded, and equal to 49.7 in every 100,000 inhabitants. This was 169 (or 6.8 per cent.) over the deaths from the same causes in the corresponding quarter of 1879, and 265 (or 11.1 per cent.) over the average mortality for the fourth quarter of the three years 1877-9. Small-pox caused 17 deaths, against 76 in the preceding quarter; measles 162, against 190; diphtheria 80, against 65; fever 69.4, against 627; and cholera 7. Scarlatina produced 651 deaths, against 519, being the highest number registered in the fourth quarter of any year since 1875; and whooping-cough 476, against 557. To diarrhœa, 561 deaths were ascribed against 978 in the preceding quarter, and 407 in the corresponding quarter of 1879. Thus the excessive mortality from diarrhœa has decreased, but still the deaths from this disease are considerably in excess of those which usually occur in the fourth quarter of the year. There were were 630 inquests held during the quarter, being equal to 1 in every 35 of the total deaths registered.

QUEENSTOWN INTERCEPTING HOSPITAL.

LAST week we referred to a resolution of the Cork Board of Guardians granting the dispensary medical officers at Queenstown an annual sum of £10 each for duty at the Intercepting Hospital; but since then Drs. Townsend and Downing have resigned their appointments as medical officers to the hospital. They have resigned, as they consider £10 a year inadequate; but it must be stated that this sum was allowed on the understanding that they should receive additional compensation if any duty would have to be discharged by the medical staff.

THE ROYAL UNIVERSITY OF IRELAND.

As was stated in a recent number, a scheme for the organisation of the new University of Ireland has been drawn up by the committee of organisation appointed by the Senate. The following are reported to be the conditions under which degrees will be granted in the Faculty of Medicine.

The degrees conferred will be those of Bachelor and Doctor of Medicine, and Master of Chirurgery; a special diploma in Obstetrics will also be given. Persons of either sex are to be admissable to degrees; the examinations for women being held apart from those for men, but on the same days.

All candidates for degrees must have passed a matriculation examination, including—1. Latin; 2. Either Greek, French, German, Italian, Spanish, Celtic, Sanskrit, Hebrew, or Arabic; 3. English; 4. Elementary Mathematics; 5. Experimental Physics.

The course for the degrees of Bachelor of Medicine and Master of Chirurgery and the diploma in obstetrics, is to extend over at least four years, and to be divided into periods of at least two years each. Candidates are to be required, in addition to the ordinary first university examination, to pass the following professional examinations: first professional examination; second professional examination; the degree examination. They may, however, pass the ordinary first university at the same time as the first professional examination.

Candidates for the degree of Doctor of Medicine may present themselves at the examinations for this degree, after the lapse of two academical years from the date of obtaining the degree of Bachelor of Medicine.

The subjects of the first university examination in medicine are to be zoology, botany, and a modern language. Candidates who have passed in a modern language at the ordinary first university examination are to be exempt from presenting this subject. Before being admitted to this examination, each candidate must produce satisfactory evidence of having completed the prescribed courses of study in the subjects of examination.

The fee for this examination will be £1. Candidates who pass with honours, and whose aggregate marks entitle them to a first class, will receive exhibitions of £35; and those whose aggregate marks entitle them to a second class, will receive exhibitions of £20.

The second university examination in medicine comprises anatomy, physiology, materia medica, and chemistry. Students may present themselves for this examination, at the examination to be held at the termination of the first period of the curriculum, or at any subsequent examination previous to presenting themselves for the degree examination. Before being admitted to this examination, each student must produce satisfactory evidence of having completed the course recommended for study during the first period of the curriculum. The fee for this examination will be £1. Candidates who pass with honours, and whose aggregate marks entitle them to a first class, will receive exhibitions of £45; and those whose aggregate marks entitle them to a second class, will receive exhibitions of £30.

Examination for the M.B. Degree.—The fee for this examination is £3. Each candidate must, before being admitted to the examination, produce certificates of having completed all the prescribed courses. The examination comprises the subjects recommended for study during the second period of medical education, and includes examinations in clinical medicine and clinical surgery. Candidates who pass with honours, and whose aggregate marks entitle them to a first class, will receive exhibitions of £60; and those whose aggregate marks entitle them to a second class will receive exhibitions of £40.

The M.Ch. Degree will be conferred only on candidates who have obtained the degree of M.B. of the university. The fee for the examination is £5. The examination comprises an examination in the theory and practice of surgery, including operative and clinical surgery.

The Diploma in Obstetrics.—This diploma will be conferred only on candidates who have obtained the degree of M.B. of the university. The fee for the examination is £2. The examination comprises an examination in the theory and practice of midwifery, and the use of obstetrical instruments and appliances.

Examination for the M.D. Degree.—The fee for this examination shall be £—. The degree of Doctor of Medicine may be conferred on any candidate who has obtained the degree of Bachelor of Medicine, and has produced a certificate of having been, for at least two years, engaged in hospital or private medical or surgical practice, or in the military or naval medical service. Provided that the candidate shall submit to the medical examiner a thesis certified by him to have been composed by himself, and which shall be approved by them.

Candidates settled for a period of two years in the colonies or foreign countries may, on satisfying the senate to that effect, and complying with the conditions above described, have the degree conferred on them in absence.

The following is the full text of the curriculum, which, it will be seen, agrees closely with that given by us in the JOURNAL of the 19th ult.

The curriculum shall extend over at least four years, and shall be divided into periods of at least two years each. It is recommended that the first period shall comprise attendance on the following courses of medical lectures—Chemistry, botany, with herborisation for practical study, and zoology: anatomy and phsiyology, practical anatomy, materia medica, and pharmacy; that the second period shall comprise attendance on the following courses of medical lectures—Anatomy and physiology, practical anatomy, theory and practice of surgery, midwifery, theory and practice of medicine, medical jurisprudence. Candidates are further required to have attended during the first period—Practical chemistry (in a recognised laboratory); Medico-chirurgical hospital (recognised by the senate), containing at least sixty beds; together with the clinical lectures therein delivered, at least two each week, during a winter session of six months; and during the second period—Practical midwifery—A certificate of having attended at a recognised midwifery hospital, with the clinical lectures therein delivered, for a period of three months; or of having attended a midwifery dispensary for the same period; or of having attended ten cases of labour, under the superintendence of the medical officer of any hospital or dispensary where cases of labour are treated. Medico-chirurgical hospital (recognised by the senate) containing at least sixty beds, together with the clinical lectures therein delivered during eighteen months, including either three winter sessions of six months each, or two winter sessions of six months each and two summer sessions of three months each.

A M.B. of the university therefore, it would appear, need not have graduated in Arts.

It appears that, as in the case of the majority of the British universities, graduation in Arts is not to be an essential preliminary to a degree in Medicine. The scheme of the new Royal University differs from that of the Queen's University, chiefly in the following particulars. 1. The place of study is not limited to certain colleges. 2. As in the case of other universities in the United Kingdom, the degree of M.B. is preliminary to that of M.D. 3. The degree of M.D. is to be obtained on terms closely resembling those in force in the Scottish universities, with the difference that neither a degree in Arts nor a more extended examination in general subjects than the matriculation examination is to be required.

The new University will begin work in the coming autumn. In August, the official announcement for the first session will, it is stated, be published, and in October the matriculation examinations take place. The only important change, we understand, that has been made by the Senate in the scheme (of which we published a brief abstract in the JOURNAL of the 19th ultimo) is the addition of twelve competitive Fellowships, each of the annual value of £200.

ULCERATION OF THE TRACHEA IN TRACHEOTOMY.—Two interesting cases of tracheotomy followed by ulceration of the trachea by the cannula, with perforation of the bracheo-cephalic arterial trunk, have been reported to the Société Anatomique de Paris. In both cases, the patient was suddenly seized with violent hæmorrhage, and the blood poured out in abundance through the cannula, to the amount of about a pint and a quarter in five minutes. The patient, in one case, was a child four years old; in the other, a man aged 32. In both, the ulceration appeared to be due to the friction between the external edge and the lateral edges of the lower end of the cannula.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the offices of the Association, 161A, Strand, London, on Wednesday, the 13th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, March 15th, 1881.

BRANCH MEETINGS TO BE HELD.

THAMES VALLEY BRANCH.—The next meeting of this Branch will be held at the Griffin Hotel, Kingston-on-Thames, on Thursday, April 7th, at 6 P.M. The following papers have been promised:—Dr. Urban Pritchard: On the Simples of Aural Surgery. Dr. F. P. Atkinson: On Gout.—EDWARD L. FENN, M.D., Honorary Secretary.—Richmond, March 30th, 1881.

BATH AND BRISTOL BRANCH.—The fifth ordinary meeting of the session will be held at the Bristol Museum and Library, on Thursday evening, April 7th, at 7.30; Alex. Waugh, Esq., President. The following communications are expected: 1. A Case of Pregnancy complicated with Hydatid Mass: J. Hinton. 2. Two Fatal Cases of Injury to the Spine: F. R. Cross, M.B. 3. Unusual Features in Typhoid Fever: G. F. Atchley, M.B. 4. A Case of Lymphadenoma: R. Shingleton Smith, M.D.—E. MARCHAM SKERRITT, R. S. FOWLER, Honorary Secretaries.—Clifton, March, 1881.

NORTH OF ENGLAND BRANCH.—The spring meeting of this Branch will be held at Tynemouth, on Thursday, April 28th, at 3 P.M. Members wishing to read papers, or make other communications, are requested to write at once to the Secretary.—T. W. BARRON, M.B., Honorary Secretary, 10, Old Elvet, Durham.—March 29th, 1881.

YORKSHIRE BRANCH.—A meeting of the Branch will be held at Ripon on Wednesday, April 27th, at 3.15 P.M. Members intending to make communications are requested to write at once to the Secretary.—A meeting of the Branch and the profession will also be held at the Philosophical Hall, Leeds, at 5 P.M., on Wednesday, April 6th, to consider the report on Medical Education; P. E. Miall, Esq. (President), in the chair.—ARTHUR JACKSON, Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next meeting will be held at the Cawdor Arms Hotel, Llandilo, on Thursday, April 28th. Gentlemen intending to be present, and desirous of reading papers, etc., are requested to communicate with ALFRED SHEEN, M.D., Honorary Secretary, Cardiff.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.

A MEETING of this District was held on Tuesday, February 22nd, at the house of Dr. Hilliard, Upper Holloway; Dr. HILLIARD presided.

Communications.—The following communications were made.

1. Mr. Pearce Gould showed a patient upon whom he had operated for the cure of a Varicocele by means of the Galvanic Cautery. The case gave evidence of a most excellent result. The veins having been completely obliterated, were hardened and shrivelled. Mr. Gould said that this was the twelfth case upon which he had operated in a similar manner, and they had all been invariably successful. He described the steps of the operation, and gave many important details as to how and when the operation should be performed.

2. Dr. Thorowgood read some practical observations on the use of the Hypophosphites of Soda and Lime in the Treatment of Phthisis. In pulmonary consumption, there were three agents at work to destroy the lung and wear out the patient, viz.: 1. The products of inflammation in the form of caseous and cellular deposits; 2. Septic action induced by the suppuration going on in cavities, maintaining fever, and so wearing out the patient; 3. The true miliary tuberculosis, growing rapidly in the lymphatic and subepithelial connective tissue, invading also the serous membranes generally, and rapidly destroying life. The first and inflammatory element might form the starting-point for the two last-named conditions; hence the importance of early treatment. The cases narrated showed that, in pneumonic phthisis and scrofulous pneumonia of the apex of the lung, the hypophosphites of soda and lime might be given with very marked benefit. Over true tuberculosis in its miliary form, hypophosphites, like other medicines, had but little control.

Paying Hospital for North London.—Dr. POTTER introduced the subject of a paying hospital for North London. Hospitals, he said, were extensively abused; many persons seeking hospital treatment who could well afford to pay for attendance at home. This was perhaps more due to the confidence felt in that treatment than to avarice. The speaker thought that the present system of hospital administration had, in some cases, reached the climax of absurdity, and

hoped that sharp criticism would be succeeded by radical reformation. It was obvious that charitable institutions should only be used by the needy. Experience had demonstrated that the best results of medical and surgical science were obtained in hospitals. It was, therefore, natural that those who could not obtain the highest professional skill at home should, in extreme cases, seek it at those institutions. Dr. Potter proposed to recognise this natural feeling, and to provide the best professional skill, with hospital management, on a paying basis. Many persons, he said, would thus be saved from pauperisation and loss of self-respect; whilst the poor man's doctor would be preserved from much injurious competition. The case of North London, Dr. Potter said, was peculiar. There was a district as large as Manchester or Glasgow, which, as had recently been shown in the BRITISH MEDICAL JOURNAL, was practically without hospital accommodation. This district was inhabited by large numbers of the middle classes—people who had both the sense to value and the means to pay for hospital treatment. Reviewing the advantages and the disadvantages which might arise to the family doctor from the establishment of such an institution as was proposed, Dr. Potter thought that the former would far outweigh the latter. The chief disadvantage would be, the occasional transference of a chronic patient from the doctor's list to the wards of the hospital. But would not this frequently be a relief rather than a disadvantage? The advantages, it was contended, would be neither few nor small. Among other things, a healthy stimulus would be imparted to professional activity; chronic cases, which, from bad home management, baffled the doctor's skill, would be placed in the most favourable circumstances; whilst "those peculiar products of an advanced civilisation called 'provident dispensaries' would be checked in their development, and their unfitness for survival experimentally demonstrated".—The reading of the paper was followed by an animated discussion, at the close of which it was proposed, and carried unanimously, that a special meeting be called for the renewed consideration of the subject.

JAMAICA BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held at Kingston on Thursday, December 30th. The chair was taken by the retiring President, D. P. Ross, M.D., Senior Medical Officer to the Public Hospital.

Officers and Council.—The following were elected:—*President:* James Ogilvie, Esq. *Vice-President:* C. Greyleard, Esq. *Honorary Secretary:* M. Stern, Esq. *Council:* J. Cargill, M.D.; J. H. Clark, Esq.; B. W. Davis, M.D.; J.C. Phillipps, M.D.; D. P. Ross, M.D.; A. R. Saunders, M.B.; J. Ternprett, Esq.

Medical Legislation.—A Committee of the Council was appointed to draw up a report on the state of the existing medical law in Jamaica; there being certain clauses open to grave objection, as affecting both the honour and the interests of the profession. A deputation, consisting of Dr. Ross, Mr. Ogilvie, Mr. Gayleard, and Mr. Stern, had waited on the Colonial Secretary, and pointed out to him what was obnoxious in the Act. The Colonial Secretary, who agreed in the main with the views of the deputation, suggested that the profession should memorialise the Government. Steps have been taken to carry this suggestion into effect.

Dinner.—At 8 P.M., the annual dinner took place at Park Lodge, to which prominent members of the learned professions, and other leading men in the community, were invited. The guests present were: the Honourables E. N. Walker, Acting Colonial Secretary; H. H. Hocking, Attorney-General; S. C. Burke, M.C.L. and Assistant to the Attorney-General; H. J. Kemble, Custos of Kingston and Chairman of the Municipal Board; Captain O'Brien, Deputy-Director of Roads; the Reverends J. Radcliffe, Thomas Porter, W. G. Downer; Drs. James Scott, F. Saunders, and Parker, A.M.D.; Mr. H. B. Shaw, Inspector of Prisons and Reformatories; Mr. Capper, Inspector of Schools; etc.

NEWBIGGIN-BY-THE-SEA.—The sanitary history of this district during 1880 was sufficiently uneventful. A number of cases of scarlatina were reported, but the disease was stamped out by the energy of Dr. Reid. Measles and rubeola were both prevalent, but the continued absence of croup and diphtheria is remarked upon. Dr. Reid says it is twenty years since he had a case of the former disease, and he has never seen or heard of another so far as he can recollect. Rheumatic fever, notwithstanding the exposure of so many of the inhabitants (both men and women) to the weather, is very seldom met with; and he questions whether there have been six cases during the last thirty years. The total number of deaths from all causes was 28—equal to a rate of 18.96 per 1,000.

CORRESPONDENCE.

HEALTH-INSTITUTES.

SIR,—By the above term is meant an institution which shall partake partly of the nature of a sanatorium, and partly of a hydropathic establishment; but, whereas the former is associated in the lay mind with an inebriate or lunatic asylum, and the latter in the medical mind with a particular form of quackery, this commits one to nothing, and presumably would be interpreted to mean a health-giving, or health-restoring, institution; and such, in truth, it is intended to be. The only respects in which it would differ from the above institutions would be in the *personel* and in the *mode* of treatment. Patients would not necessarily be under the care of the superintendent of the establishment; but might, if they pleased, be attended by their own family physician; and, as to the mode of treatment, it would not be exclusively hydropathic, but hydropathy would be used as an adjunct to legitimate medicine.

It is believed that an institution of this nature, in the immediate neighbourhood of London, which should contain all the appliances that are met with in first-class hydropathic establishments, and under the charge of one in whom the profession had confidence, would supply a want long felt, and receive the support of the great bulk of the profession.

A meeting, to take this subject into consideration, was held in the rooms of the Medical Society, Chandos Street, on Saturday, the 5th instant—Dr. Farquharson, M.P., in the chair—at which the following resolutions were unanimously agreed to.

1. Moved by Dr. George Harley, and seconded by Mr. David W. Nell: "That this meeting having heard Mr. Holthouse's proposal to establish institutions, in which the practice of hydrotherapeutics should be carried out on scientific principles, and as an adjunct to legitimate medicine, pledges itself to co-operate with him in carrying it into effect."

2. Moved by Dr. E. Symes Thompson, and seconded by Mr. T. H. Eve: "That immediate steps be taken to ascertain the conditions on which 'Rockhills', Sydenham, and 'The Mansion', Richmond Hill, can be obtained; and to report the same to the next meeting."

3. Moved by the Rev. R. A. Westhorp, and seconded by Dr. De Havilland Hall: "That, to carry out the foregoing resolutions, a limited liability company be formed, to be called 'The Health Institutes Company'; and that the following gentlemen be a provisional committee, with power to add to their number—Drs. E. Symes Thompson and De Havilland Hall; Messrs. Butler, Chapman, Eve, Gould, Nell, C. H. J. Walker, C. C. Walker, and the Rev. R. A. Westhorp."

4. Moved by Mr. Alfred Pearce Gould, and seconded by Mr. C. H. J. Walker: "That the best thanks of the meeting be given to Dr. Farquharson for his kindness in taking the chair."

Any gentlemen who may be willing to co-operate in this movement may receive further information on application to, sir, yours faithfully,

15, Percy Street, W., March 8th, 1881. C. HOLTHOUSE.

THE DENTAL REGISTRATION CLAUSES.

SIR,—Mr. Tomes appears, in his letter of March 5th, to entirely fail to make out his case against the Medical Council; in fact, from his own showing, it is perfectly clear that the Medical Council, in the first instance, under Dr. Rolleston's scheme of examination rules, desired not to be called upon to originate a scheme; and that, under Dr. Quain's subsequent motion, they again desired that the Bill should be brought into conformity with the Lord President's Bill, which, as you have already quoted, contained a clause enabling the Dentists' Association, or any person, to submit a scheme for examination, licensing, and registration; and this view they adhered to after the communication of Mr. Jenkyns's letters on July 1st, since Dr. Quain's motion was carried on July 4th. Mr. Tomes may, if he please, of course, repudiate all responsibility for the acts of Mr. Jenkyns; but it is generally understood that a parliamentary draftsman only carries out instructions given to him; and it is perfectly clear that, if Mr. Tomes and Sir John Lubbock had any responsibility in respect to the Bill—and I do not understand that they disavow it—they are the persons responsible, conjointly with the Government, for the defects in the Act now complained of. These defects were foreseen by some of the members of the Medical Council, and would not have occurred had the resolutions on the subject passed by the Medical Council on July 4th been respected by Mr. Tomes and Sir John Lubbock, and carried out by Mr. Jenkyns. The Bill was spoiled by being prematurely hurried through the House of Lords; and, in presence of the documents here quoted by Mr. Tomes, it is perfectly futile to blame the General Medical Council in a matter in which they are obviously quite blameless. They are

responsible for the introduction of the inefficient clauses of which complaint is now made. The Medical Council, through its President, Dr. Acland, might possibly at the last moment have interposed a veto, on the ground that the Bill was not now drafted in accordance with their resolutions or their wishes; but it hardly lies in Mr. Tomes's mouth to complain that they did not stop him and Mr. Jenkyns from having their own wilful way. The profession may complain, and the dentists; but Mr. Tomes and his allies are the offenders; and the Medical Council is, on his own showing, only blamable for not having at the last moment interfered to stop the mischief which he brewed with the Government aid.—I am, sir, yours faithfully,

DENS SAPIENTIÆ.

THE IRISH LUNACY DEPARTMENT.

SIR,—I read the letter upon the above subject in the JOURNAL of February 16th, with much interest. Is not the latter of the two commissions referred to, miscalled the "French Commission"? I presume it is the "Trench commission" that is alluded to, known familiarly so: Colonel Trench having been the chairman, a scion of the noble house of Clancarty, similarly as we speak of the "Devon Commission". Further, should not the word "variety", so printed in the 25th line of the second column, be "vanity", to make the context sense. I am sure such hints will be quite understood in Ireland, where official adventurers, and "rolling-stones" have rather more swing than is good for those with whom they come into contact; though, despite the proverb, they flourish themselves. "Scrutator" states facts fairly and forcibly, withal considering the knowledge evidently possessed by him, most temperately. The time is not very far off when the administration of the Lunacy Department in Ireland must, at least, be modified, not only to put it on a footing of efficiency with other public departments, but in order that the scientific study of the speciality may be advanced. The inspectors say, as you notice, in their report, the "study of mankind is man"; but irrespectively of the information conveyed in this sagacious and unhackneyed remark, amply repaying the cost of printing, the profession throughout the United Kingdom would be even more obliged to the inspectors if they drew more largely on their exceptional resources, and generalised the results of their special studies of the insane portion of mankind, from year to year, located in Irish asylums. It would be also appreciated if they afforded a peep behind the scenes, drew the veil ever so slightly, and showed the inner life of these institutions, the means employed for the education, amusement, occupation, cure of the inmates, and how they work. Not doing so is discouraging, because apathy is infecting. Resident physicians will care little if their superiors care less. There are a few exceptions; but they have tremendous odds against them, their work is very up-hill, and soon they will yield to the general stagnation, and sink into ignoble pudding-eaters.

Whoever may be the future head of the Irish Department, will have a task of even more delicacy than difficulty to encounter. Therefore, above all things, he should be a gentleman; and as "Scrutator" says, not a "new broom", merely anxious to show the Government what great things he can do by the discovery of imaginary abuses, or "mares'-nests". Such a thing is possible; do we not hear enough of the "manufacture of outrages" in Ireland, by the palliators of its really distracted condition? We hear of men professing that they would only accept the position as autocrats, which means that they might display their authority unfettered by constitutional limits; men who would seek the suspension of such, and the institution of departmental coercion. I assure you such prospective terrorism is apprehended. Therefore, you cannot too strongly urge, and it is not too soon, that the Lunacy department should be committed to a strong Board, strong in undoubted personal character as in numbers. As I said already, the men are already made in the service. At present, outside there is one man well qualified from vast and varied experience, a pensioned chief clerk, and at present the senior member of Parliament for the Irish county of Wicklow, unfortunately at present allied to the Irish party. Public opinion is still powerful enough to impose effectual checks, not only as regards benevolent despots, but also with respect to those whose vauntings foreshadow a coercive policy.—Yours truly,

SENEX.

PORTABLE HOME-BATHS.

SIR,—There is a matter of practical importance in therapeutics to which I wish you or some of your collaborators would seriously turn your attention. You may remember that, some years ago, the Argyll Baths used to send out baths, the charges varying according to the distance at which they were required. It was a source of great regret to me that the proprietors found the system not remunerative enough to justify their continuing it; and the consequence was that many patients, who would have benefited by baths, have since then been obliged to forego the advantages of this very valuable adjunct in the treatment of disease and its sequelæ. The use of baths, and their great value in chronic and acute maladies, are becoming more and more recognised; and, if we have the opportunity, I am satisfied, by the more precise modes of observation now universal, that their power will be more and more accepted and insisted upon.

My experience—and I have little doubt that other practical physicians would agree with me—is that few houses contain the necessary arrangements for the easy administration of baths; and, even if there be a bath-room, it is rarely in such proximity to the patient's room that it is readily available in sickness. In the majority of cases of severe disease, the bath ought to be placed at the bedside, so that the patient may be lifted directly from the couch into the bath, and *vice versâ*. The difficulty of filling a portable bath, which may be said never to be at hand in private houses, is great, apart from the inconvenience of the noise and excitement unavoidable when ordinary servants are required to carry up thirty or forty gallons of hot and cold water to a second or third floor. Having in former years often, both in my own house and for my private patients, employed the *bains à domicile*, the absence of which in London I now deplore, I can speak with confidence of the immense convenience of such an arrangement as then existed; and I would urge that you would confer a real boon upon sick people and their medical attendants if you were to draw the attention of capitalists to the present defect in our social economy. If there were a proper organisation of home-baths, the present state of our knowledge on the subject would render it necessary that the institution, which supplied them, should also have a greater or less number of well-trained assistants, who should be conversant with the use of the thermometer, with the importance of the various influences exercised by various temperatures, with the power of reducing or elevating animal heat by the artificial variation of the bath-temperature while the patient was immersed, with the effect and the mode of administration of the various modes of manipulating the body while in and after the bath, and perhaps also with the administration of medicated and galvanic baths.

While nothing of the kind could answer unless capable of producing a dividend, I am certain that the arrangements should be made so as to place the use of the baths within the reach of a very large proportion of the community. The baths, therefore, ought to be charged at the lowest price compatible with a moderatively remunerative return; but, with good management, and the increasing conviction on the part of medical men that fevers and the host of maladies in which hospital authorities employ baths with great benefit to their patients ought to receive similar advantageous treatment in private practice, I cannot but think that, if our medical periodicals would take up the matter as warmly as I think it deserves, success would crown their efforts.—I am, sir, yours faithfully,

F.R.C.P.

HOSPITAL AND DISPENSARY MANAGEMENT.

POOR PAYING PATIENTS.

THE governors of St. Thomas's Hospital, acting under the authority of the Charity Commissioners, have decided, on and after the 1st of March, 1881, to admit a limited number of patients into the general wards upon payment of the cost of the patients' maintenance, medicine, and nursing, but free of any charge for medical attendance. Only acute and accident cases will be admitted, and each patient will be charged three shillings *per diem*, and will be required to find an approved surety for the regular payment of this sum. These poor paying patients will be treated in all respects as ordinary patients, and the honorary medical staff will be bound to attend them gratuitously. Every poor paying patient who desires to be admitted to St. Thomas's Hospital must apply, in the first instance, to the steward, who will decide whether the applicant's circumstances are such as to deserve admission. If he pass this ordeal, the poor paying patient will be examined by the resident assistant physician or surgeon, and will then be admitted as an ordinary patient. Paying patients will be entitled to the preference in filling up vacant beds, so long as the number of paying patients assigned to each ward is not complete. What this number may be, is not stated. This experiment is liable to considerable abuse; it is very unfair to the honorary medical staff; and it is highly objectionable that a paying patient shall have priority of admission over a less well-to-do, but possibly more urgent, applicant. It is also certain that this system is not likely to prove popular, unless the poor paying patients are exempt from the rule which obliges convalescent patients to assist in the general work of the wards. There can be no doubt that a scheme which provides for the limited admission of poor paying patients to the wards of

our general hospitals, is worthy of a fair trial; but the objectionable features of the St. Thomas's scheme to which we have alluded, must be eradicated before success can be reasonably expected. In other countries where this system has proved advantageous, care has been taken to eliminate such abuses; and we can only hope the governors of St. Thomas's Hospital will speedily determine to amend the objectionable rules. The career of the cottage hospitals in this country has proved how successfully the system of patients' payments can be carried out, if proper care is exercised; and their example will, we believe, be ultimately followed by the managers of these larger institutions. A plan of small payments might profitably be introduced in connection with the out-patient departments of all our hospitals, as it has been proved capable of securing equal advantages to patients and institutions.

COUNTY ROSCOMMON INFIRMARY.

DURING the past year, 635 patients were admitted to the infirmary, which with 46 remaining in hospital on the 1st January, 1880, made a total of 681 under treatment; while 2,690 were relieved at the extern department during the same period. Of those admitted, 635 were discharged, while 5 deaths took place, and 41 remained under treatment on the first day of the present year. The average number of patients daily in hospital amounted to 60; and the average expenses of each, including salaries, came to £2 1s. 8½d., and without salaries to £1 0s. 4½d. The cases admitted included 7 dislocations, 53 fractures, 60 contused or lacerated wounds, 3 gunshot wounds, 33 diseases of joints, 11 injuries of head, 41 diseases of the eyes, 26 cases of rheumatism, 14 tumours, etc. The income amounted to £1,117 6s. 8d., which included a sum of £900 from the Grand Jury; and the expenditure to £1,405 10s. 3d., leaving a balance due to the treasurer of £288 3s. 7d.

HOME FOR PROTESTANT INCURABLES, CORK.

THE annual meeting of the friends and subscribers of this estimable charity was held on the 10th instant, the chair being occupied by the Lord Bishop of Cork. From the annual report, which was adopted, we learn that the past year has been marked by successful progress, while the financial condition of the institution was satisfactory; and the home small in its origin, has now assumed a position of primary importance among the charities of the city and county of Cork. During the past year, 46 patients were under treatment in the Home, and 13 died—viz., phthisis, 7; paralysis, 3; cancer, 2; and senile gangrene and bronchitis, 1. An Endowment Fund was originated some time ago, but up to the close of 1879, the amount received for this purpose were very trifling. However, in the early part of 1880, Mr. Francis Wise contributed the handsome sum of £5,000, of which £3,000 was to be applied to the Fund in question, and endowed in perpetuity three beds. An anonymous friend at the same time gave a donation of £500, and Lady Harriet Bentinck remitted upwards of £4,000, of which £1,400 was appropriated for endowment purposes. The new Home for incurables has been open for over a year, and the hopes entertained of increased benefits to the patients, from the superior accommodation and the improved arrangements as regards classification, have been fully borne out by experience. The income for the year amounted to £1,560 19s. 10d., which includes a sum of £214 from pay patients; while £1,501 16s. 1d. was expended, leaving a balance of £59 3s. 6d. to the credit of the Home.

THE NORTHAMPTON INFIRMARY.

IT is an open secret that the management of some of the older county hospitals has long needed investigation and reform. At a recent meeting of the governors of the Northampton Infirmary, Mr. Ashby Ashby, one of the governors, gave an account of an inspection of that institution which he had recently made. During the course of that inspection, he saw many things that, in his opinion, required to be remedied. The class of nurses was inferior; the food was kept in boxes with certain useful, but unsavoury, utensils; the cook was too old for work; new fire-grates were needed; greater care should be exercised in putting patients to work; and the ventilation and sanitary arrangements left much to be desired. The nurses were, he said, "third class", and they were so dressed that it was difficult to distinguish them from the patients. He, therefore, moved that a committee of investigation should be appointed to consider if any, and what, steps should be taken to remedy the evils complained of. A long and animated discussion followed, in the course of which the Chairman made some uncalled-for and wholly unsupported statements against the medical staff, which were ably repudiated and answered by Dr. Buszard. Dr. Buszard pointed out that the medical staff had nothing to do with the details of the interior working of the institution, for which the house-surgeon and matron were responsible. He admitted that all must feel that there were many things that might be improved. Several reforms might be carried out with advantage, but money must first be raised for the purpose, and, until this was obtained, little could be done. Everything had of late been conducted with the view of saving money, and many things had not been done which otherwise would have been done. In the face of these admissions, it is not surprising that the meeting was strongly in favour of a thorough investigation by a special committee. Unfortunately, the indiscretion of the Chairman—who was at last unanimously requested to vacate the chair—prevented the governors from taking immediate action; but it was ultimately decided to summon a special general court to consider Mr. Ashby's motion. It was further resolved to refer the charges brought against the medical staff, to the effect that patients had left the institution having received inadequate medical treatment, to the same meeting. We hope that an amicable and satisfactory settlement will be come to, and that the investigation into the present management will bring about the needful improvements.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, March 24th.

Small-pox.—Mr. ROSS asked the President of the Local Government Board whether his attention had been called to an outbreak of small-pox in Boxley parish, Hollingbourne Union, Kent, where, apparently from the medical attendant not having taken precautions to isolate the case, five other cases had since occurred (one ending in death), which were traceable to infection caught from the said case.—Mr. DODSON said that his attention had been called to the case by the question and by a letter which the hon. gentlemen was good enough to send him. He had since caused inquiries to be made, and he found that a labouring man who had been attacked by small-pox and who died, was attended by a private practitioner, who ordered his removal to a hospital, but no hospital accommodation was available. His wife was afterwards attacked. She was attended by a doctor, who recommended her removal to the hospital of a neighbouring sanitary authority, but they were not willing to admit her. The usual precautions for disinfecting appeared to have been taken by direction of the medical men, to whom, as far as he could see, no blame attached.

Friday, March 25th.

Convalescent Homes for Fever Hospitals.—Mr. DODSON, in answer to Mr. R. YORKE, said that he should not fail to give his attention to the subject of the establishment of convalescent homes in connection with the fever hospitals of the metropolis. There was no duty imposed upon the Local Government Board to establish such homes, but assuming that they could be considered as the complement of the hospitals, the Board would have a discretion with regard to them. Having regard, however, to the feeling at present existing in the metropolis, he did not think that the Board would meet with much encouragement if they endeavoured to exercise that power.

Small-pox Nurses.—Mr. DODSON, replying to Mr. J. TALBOT, stated that a charge against the managers of the Metropolitan Asylums Board of allowing the nurses of the Fulham Hospital to walk up and down the streets in their working clothes had been investigated, and the gentleman who made the charge had expressed his satisfaction at finding that the persons whom he saw were not the hospital nurses.

Wednesday, March 30th.

Infectious Diseases Notification (Ireland) Bill.—Mr. GRAY in moving the second reading of this Bill, said he did not anticipate any objection to the principle of this Bill. It simply provided that notification should be given the sanitary authorities of the existence of infectious disorders. It was not proposed to give the sanitary authorities any new power whatever, but under the present system, notification did not reach the sanitary authority in sufficient time to prevent the spread of disease.—The SOLICITOR-GENERAL for Ireland said the Government entirely approved of the object of this Bill, and would not oppose it on going into committee, but they would reserve to themselves the power to amend the Bill in committee, if necessary. They did that on the ground that a large and influential body of members of the medical profession in Ireland were of opinion that some of the details of the Bill would have to be altered, as it was not sufficiently large in its scope. Thus, their only wish was to enlarge the Bill in the direction also aimed at by the hon. member, viz., the preservation of the public health.—The Bill was read a second time.

Metropolitan Open Spaces.—Mr. W. H. JAMES moved the second reading of the Metropolitan Open Spaces Act (1877) Amendment Bill,

the object of which is to enable the vestries or the Metropolitan Board of Works to take over, for the purposes of public recreation, and with the consent of two-thirds of the residents and of the ground landlord, all the squares and disused burial-grounds of the metropolitan area.—Mr. COURTNEY, on the part of the Government, assented to the second reading on the understanding that in Committee compensation clauses were introduced, and the Bill was read a second time.

MILITARY AND NAVAL MEDICAL SERVICES.

NAVAL MEDICAL SCHOOL AT HASLAR.—We are informed that Staff-Surgeon Walter Reid, R.N., has been selected to be the new Professor of Naval Hygiene, and Surgeon H. Beale Collins, R.N., the Assistant Professor of the same branch, in the new School of Instruction at Haslar.

INDIAN MEDICAL SERVICE.—The following is a list of the successful candidates for the Indian Medical Service, February 14th, 1881.

1. H. J. Griffiths	12. M. B. Braganza
2. F. D. C. Hawkins	13. H. W. Stevenson
3. A. Milne	14. W. A. Corkery
4. J. A. Cunningham	15. A. J. L. Patch
5. A. G. E. Newland	16. R. Ross
6. H. C. Hudson	17. S. T. Avetoom
7. P. Mullane	18. C. A. Adams
8. A. Silcock	19. J. F. Maclaren
9. R. J. Baker	20. J. K. Kanga
10. J. W. Hudson	21. E. R. Da Costa
11. R. G. Cooper	22. A. J. O'Hara

THE NAVAL MEDICAL SERVICE.

A CORRESPONDENT writes: Mr. Trevelyan announced the other day, in the House of Commons, that, in order to equalise the two services, naval medical officers would receive 7 per cent. more pay than army medical officers of corresponding rank. This is a most paltry compensation for the absence of all allowances, such as lodging-money in lieu of quarters, coal, lights, etc., no mess-money to pay, and the right to purchase provisions at contract prices; all these are of great importance to married men. An increase of 35 per cent. would be much nearer the mark. In these remarks he addressed himself, of course, to intending candidates, as the Admiralty do not care for the good opinion of those fixed in the service; but I hope medical men will not be deluded by such a paltry increase, and fancy, in entering the navy, they will enjoy equal advantages with their brethren in the army. I put out of the question the inevitable hardships and dangers of a sea-life, the boat-service, and the long confinement on board-ship, which after a time becomes as irksome as locking up in a guard-room. For those things no compensation is possible, nor does any man expect it.

VOLUNTEER SURGEONS.

SIR,—Mr. Childers has conceded to combatant officers of volunteer regiments the right to promotion after the same number of years of service as officers of militia. This seems to be the proper time for surgeons of volunteer regiments to bestir themselves, and make application to the War Office that the same right to promotion may be conceded to them as to surgeons of militia. If this were done generally, there can be no doubt that this just claim would be granted. At the same time, notes should be sent to members of Parliament to support the application, either when the estimates for the volunteer forces are brought before the House, or at any other convenient time. Mr. Villiers, to whom I wrote on the subject, has sent me a kind note, informing me that he will see and address Mr. Childers on the subject. I subjoin the form of application which I have used.—Very truly yours,

JOHN FRASER, Surgeon 4th Staffordshire R. V.

Chapel Ash, Wolverhampton, March 22nd, 1881.

(Copy.)—"From Surgeon J—— F——, 4th Staffordshire R.V., Wolverhampton, to the Officer Commanding 4th Staffordshire R. V., Wolverhampton.

"Sir,—In accordance with paragraph 2, clause 94 of Auxiliary Forces Circulars 1877, dated War Office, October 25th, 1877, I am entitled to hold the relative rank of major. I have the honour to request that you will be good enough to forward this application of mine to the Secretary of State for War. My application is, that as the War Office has conceded to officers of volunteer regiments the same rank as officers of militia after the same period of service, the same concession may be made to surgeons of volunteer regiments as to surgeons of militia, and be permitted to assume the rank and title of surgeon-major after twelve years' service from date of first commission. *Vide* paragraph 4, clause 81, Auxiliary and Reserve Forces Circular 1876.—I have the honour to be, sir, J—— F——, M.D., Surgeon 4th Staffordshire R. V., Wolverhampton, March 18th, 1881.

SITTINGBOURNE.—It is unfortunate that the sanatorium soon to be erected for this district was not available in 1880, since it might have served to nip in the bud the epidemic of scarlatina which lasted the whole year. Luckily the disease was of a very mild form, for only three deaths resulted, although 140 houses were invaded. Very many who contracted the disease had no medical attention, and mixed with their fellows, spreading the disease broadcast. It is noteworthy that although measles was also very prevalent, only one death from it was registered. Enteric fever caused four deaths; but the circumstances of its appearance were not well made out. Mr. Sutton records the extraordinary proportion of fifty-one out of a total of 147 deaths as occurring amongst infants under one year; and says of the majority that they were returned to the registrar as inanition, convulsions, marasmus, and premature birth. Clearly there is ample room for the philanthropic exertions of the ladies of Sittingbourne, in teaching their poorer sisters the proper tending and feeding of infants.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

POOR-LAW OFFICERS (SCOTLAND) SUPERANNUATION.

A BILL to enable parochial boards in Scotland to grant superannuation allowances to officers engaged in the administration of the Poor Laws has been brought in by the Lord-Advocate, and by the Home Secretary, Sir W. Harcourt. It bears date March 14th, 1881. By this Bill it is proposed that "any parochial board may at their discretion, with the consent of the Board of Supervisors, grant to any officer *whose whole time has been devoted to the service of the parochial board*, and who shall become incapable of discharging the duties of his office with efficiency, by reason of permanent infirmity of mind or body, or of old age, upon his resigning or otherwise ceasing to hold his office, an annual allowance, not exceeding in any case two-thirds of his salary." By the third clause, such officer must have reached the age of sixty years, and must have served as an officer of some parochial board for twenty years at the least, etc. It will be thus seen that, by the provisions of this Bill, the Scotch parochial medical officers are carefully excluded; and that, too, in spite of a recommendation of a Select Committee that such officers should share in the benefits of superannuation allowance. We trust that our Scotch Poor-Law medical brethren will immediately take steps to draw the attention of their representatives in Parliament in such manner as may lead either to this Bill being thrown out, or such changes therein as may conduce to their being placed on the same footing as their fellow officers. It is true that in too many instances, Scotch medical officers are paid so badly that, were the whole amount of their stipends granted them as superannuation, they would be still ill-remunerated for their services; but this intention on the part of the Government seems to us to show a want of consideration for those who, in our judgment, are the most valuable, and at the same time the worst dealt with service in the kingdom.

MEDICAL OFFICERS (IRELAND) SUPERANNUATION.

A RETURN of the names of all medical officers of workhouses and dispensaries in Ireland, who, since the passing of the Medical Officers Superannuation Act, 32 and 33 Vic., cap. 50, have resigned their offices and applied to their boards of guardians for superannuation allowances under that Act, with the causes for such resignation, the ages and length of service as Poor-Law medical officers of each person at the date of resignation, the result of such application to the guardians, and the reason, if any, given by the said guardians for refusing such application, has, on the motion of Mr. Meldon, been ordered by the House of Commons to be printed. From this it appears that 197 medical officers have applied for superannuation subsequent to their resignation; in 185 cases such applications have been successful, and in twelve cases superannuation has been refused. In some of these latter, the reasons given by the guardians for refusing the grant are eminently unsatisfactory. Thus, in the case of Dr. Davison of Crossgar Dispensary District, the grounds given are "that the board cannot, under the present circumstances of the country, add to the rates", etc. A similar reason is given in the case of Mr. Lendrum West. In the case of Mr. W. B. Whittel, seventy-four years of age, and forty-eight years a medical officer, no reason is given. Again, in the case of Mr. A. Furlong, Bridgetown Dispensary, seventy-two years of age, and a tenure of office of thirty years, the board assign as their reason, "that they are opposed to granting superannuation allowances to any officer." Although this return, when contrasted with a similar one obtained last Session, at the instance of Professor Rogers, exhibits the Irish boards of Guardians as a far more liberal body of local administrators than their English brethren, yet enough has been shown to prove the necessity for an amendment of the law, whereby the option of granting or refusing superannuation should be taken from local boards and vested in the central body. To some such point we learn that the Irish Medical Association are directing their efforts. We sincerely trust that their endeavours will be attended with success.

THE SANITARY MEDICAL SERVICE.

WE regret to state that, from information which has reached us, there seems a probability that another good officer of health is to be dismissed by his authority, apparently because he has displayed an unadvisable amount of energy and devotion to duty. Two years and a half ago, upon the compulsory resignation of the then Medical Officer of Health to the Bingham Rural Sanitary Authority, the appointment was obtained

by Mr. Poyntz Wright, after a severely-contested election. The salary of the post has been £100 a year, a moiety of which has been repaid by the Local Government Board, thus giving the latter, by virtue of their grant, a control over the appointment. At the time of Mr. Wright's election an attempt was made to reduce the salary by one-half, but the London Board refused to sanction this proceeding, stating that if it were persevered in they would withdraw from paying any portion. Like too many appointments of the kind, Mr. Wright's tenure of office has unfortunately been only a yearly one, so that a fresh election has been necessitated every March. This year a movement has been begun by certain of the friends and relations of the former medical officer of health, to reinstate him by shelving Mr. Wright. This, however, was impossible so long as the Local Government Board retained their control over the appointment, inasmuch as they would no doubt have declined to confirm the election of an officer who had previously been required by them to resign. This being the case, when the day for re-election arrived, on the 24th ultimo, a resolution was passed by the Authority, reducing the salary of their medical officer from £100 to £50, relinquishing the grant paid by the London Board, and thus getting the entire control of the appointment in their own hands. The authority acknowledge they have a medical officer who has performed his duties to their entire satisfaction; but, instead of asking Mr. Wright if he was willing to retain the appointment, and be re-elected at the reduced salary, they passed a *second* resolution, to the effect that the appointment shall be thrown open and publicly advertised, thus giving Mr. Wright the expense of a fresh canvass and a contested election, to say nothing of possible defeat. There seem to be grounds for the belief that several medical practitioners in the neighbourhood intend to oppose Mr. Wright at the election, which is fixed for the 7th inst. Having, however, faithfully and well performed the duties of the appointment for the last two years and a half, to the satisfaction of the local authority, as well as of the Local Government Board, Mr. Wright clearly has the first claim on the suffrages of the guardians; and we trust they may see fit to re-elect him to the office which he has filled with so much credit.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, March 24th, 1881.

Callaway, James, 70, City Road, E.C.
Moore, Alexander Matthew, 472, Newcross Road, S.E.
York, Thomas Hutten, Brady Street, Bethnal Green.

The following gentlemen also on the same day passed their Primary Professional Examination.

Haddock, William Isaac, Charing Cross Hospital.
Nicholls, Frederick Lucius, Charing Cross Hospital.
Statham, Reginald Whiteside, St. Thomas's Hospital.

MEDICAL VACANCIES.

THE following vacancies are announced :—

BETHLEM HOSPITAL — Two Resident Medical Students. Applications by April 9th.

BIRMINGHAM BOROUGH LUNATIC ASYLUM—Assistant Medical Officer. Salary, £120 per annum. Applications by April 2nd.

BOURNEMOUTH GENERAL DISPENSARY—Resident Medical Officer. Salary, £120 per annum. Applications on or before the 2nd April.

BRITISH LYING-IN HOSPITAL—Physician to the Out-Patient Department. Applications on or before April 9th.

CARLISLE DISPENSARY—Assistant House-Surgeon. Salary, £90 per annum. Applications to the Honorary Secretary.

CARRICKMACROSS UNION—Medical Officer for Donaghmoyne Dispensary District. Salary, £100 per annum, with £15 per annum as Medical Officer of Health, registration and vaccination fees. Election on the 11th inst.

CHARING CROSS HOSPITAL, West Strand—Assistant Surgeon. Applications on or before Saturday, April 2nd.

CITY OF ABERDEEN—Medical Officer for the City. Salary, £300 per annum. Applications by April 9th.

DUNDALK UNION—Medical Officer for Barronstown Dispensary District. Salary, £120 per annum, with £25 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 7th instant.

GENERAL INFIRMARY, Hertford—House-Surgeon and Secretary. Salary, £100 per annum. Applications on or before April 22nd.

HOLLOWAY AND NORTH ISLINGTON INFIRMARY — Two Medical Officers. Particulars from the Resident Medical Officer.

LANCASTER UNION—Medical Officer. Salary, £45 per annum. Applications by April 15th.

LEITH HOSPITAL—Assistant House Surgeon. Salary, £60 per annum, with board. Applications on or before April 5th.

LIVERPOOL ROYAL INFIRMARY—Resident Medical Officer. Salary, £100 per annum. Applications by April 29th.

PAROCHIAL BOARD OF KILARROW AND KILMENY.—Medical Officer. Applications to Mr. Peter Chisholm Bowmore, Islay.

POPLAR HOSPITAL FOR ACCIDENTS—House-Surgeon. Salary, £100 per annum. Also Deputy House-Surgeon. Applications to the Secretary.

ST. MARYLEBONE GENERAL DISPENSARY—Obstetric Physician. Applications by April 4th.

SUNDERLAND INFIRMARY—Two House-Surgeons. Applications by May 4th.

TOTTENHAM TRAINING HOSPITAL — House-Surgeon (single). Salary £150 per annum. Applications by April 30th.

WEST SUSSEX, EAST HANTS, AND CHICHESTER GENERAL INFIRMARY — House-Surgeon. Salary, £80 per annum. Applications on or before April 9th.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY AND FEVER HOSPITAL—House-Surgeon. Salary, £150 per annum. Applications before May 1st.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

O'RORKE.—On March 24th, at Park View, Ballinrobe, co. Mayo, the wife of C. T. J. O'Rorke, L.K.Q.C.P., L.R.C.S.I., of a daughter.

MARRIAGES.

MOORE—ARMSTRONG.—On Tuesday, March 15th, 1881, at Christ Church, Leeson Park, Dublin, by the Rev. Maurice Neligan, D.D., John William Moore, M.D. Univ. Dubl., F.K.Q.C.P., of 40, Fitzwilliam Square West, Dublin, to Louisa Emma, youngest daughter of the late Edmund John Armstrong, Esq., J.P. and D.L. of the County of Clare, of 44, Lower Leeson Street, Dublin.

*VACHER—BRAIDWOOD.—On March 30th, at St. Mary's, Hornsey Rise, London, Francis Vacher, F.R.C.S.Ed., Medical Officer of Health, Birkenhead, to Isabella, younger daughter of the late Rev. John Braidwood, M.A.

DEATH.

MERRIMAN.—On March 24th, at West Lodge, Putney Common, after a few hours' illness, John Merriman, Surgeon, Apothecary-Extraordinary to the Queen, and formerly General Medical Attendant on H.R.H. the Duchess of Kent and the Princess Sophia; late of Kensington Square and The Priory, Marlborough, aged 80.

A BILL for the regulation of the practice of pharmacy has been brought before the Legislature of the State of Massachusetts.

DR. WILLIAM PEPPER, Professor of Clinical Medicine in the University of Pennsylvania, has been appointed Provost of that University. One of his first official acts was to confer the degree of LL.D. upon President Garfield.

HEALTH AND WEATHER.—A very interesting and important lecture on the "Weather and Health of London" was read on March 25th, at the Royal Institution, by Mr. Alex. Buchan, the secretary of the Meteorological Society of Scotland. Its scope was a very valuable digest of the statistics of diseases and deaths in the Metropolis for thirty years, with a view to show the relationship between the weather at different periods of the year and the diseases which attained their maxima and minima of deaths within them. The researches have been carried out by the lecturer and Dr. Arthur Mitchell; and London was selected as the typical region, because it was considered that, on account of its vast size, its large population, and the more perfect statistical reports which had been made in regard to it, its details in every way would be the most advantageous for correct reasonings and deductions. The lecture was illustrated by a very large number of diagrams and charts, showing the averages and excesses and deficiencies for most of the 120 diseases which are recorded in the present official reports. The first important result of the investigations has been to show that the death-rates constitute true constants according to their different causes, and that each is specially favoured or discouraged in development by such particular periodic seasons of the year as really constitute climatic changes. Taking the total of death-rates, it was shown that the curve of intensity had during the year two maxima; one, the greater, corresponding to the period between November and March, and the other to the period between July and September. If from this total view the deaths from abdominal diseases were taken out, the form of the curve of intensity was entirely altered, it having only one maximum and one minimum; the latter commencing to descend in January and continuing below the average to September. The abdominal diseases were thus shown to be concordant with the heats of summer. By taking away diseases of the nervous system, the form of the curve was again altered materially; but after this the particular curves of the remainder of diseases gave much slighter modifications, but still sufficient to assign each to its proper climatic portion of the year's season. By this means, also, light was thrown upon the true causes of deaths in the respective diseases by assigning to each a position in the class of diseases characterising the special climatic seasons. The period of fog was thus noticeable for its influence on asthma, which attained within that

period its highest death-rate. Divisions of ages, sexes, and soils, with corresponding sanitary arrangements, were dealt with in similar scientific researches, and the results were equally well marked in every case. Using the system of classification as a means of deduction, the great plague of 1666 was assigned to the category of abdominal diseases, and a diagram was given showing the curve of its extraordinary intensity. London at that time had 384,000 inhabitants, and in the four weeks ending 30th September 26,800 persons perished. Estimating a like proportion for the increase of the Metropolis at this day, and the fearful death-rate corresponding to that dire event would equal the whole existing population of Glasgow. Some few glances of the corresponding influences of climate over the general globe confirmed the deductions made upon the statistics of the London area. Further, the increased intensities of diseases specially subjected to the influences of heat or cold were singularly confirmed by the like analyses of the statistics of New York, which possesses a climate ten degrees hotter in summer and ten degrees colder in winter than our own.

NON-HEREDITARY DEAF-DUMBNESS.—A member of the Association residing in Shrewsbury has sent us the following interesting note. Thinking the following account of the family of Mr. and Mrs. Williams, who formerly resided at Newport in this county, may be interesting to some of the members of the British Medical Association. The father and mother are both living, and their speech and hearing are both perfect. They, whilst in Shropshire, had a family of fourteen children, seven of whom were born quite deaf and dumb, and one nearly so. No ancestors of this family, so far as can be traced, were deaf and dumb. They have numerous relatives living, and not one of them is suffering from the same deprivation. They are a fine looking, strong and healthy family; some of them are above the average height. They are fairly intelligent generally, and those who are deaf and dumb are very quick and observant. 1. Thomas, born 1839; speech and hearing perfect; married 1860; has had a family of nine; all could hear and speak. 2. Hester, born 1841; single; speech and hearing perfect. 3. Charles, born 1843; deaf and dumb; married 1871; wife can hear and speak; they have four children who can all hear and speak. 4. Louisa, born 1846; speech and hearing very imperfect; single. 5. Francis, born 1848; deaf and dumb; married 1878; wife deaf and dumb; they have one child who can hear and speak. 6. Fanny, born 1850; deaf and dumb; died 1877; single. 7. Alfred, born 1851; speech and hearing perfect; married 1872; has four children, all can hear and speak. 8. Ethelinda, born 1853; single; speech and hearing perfect. 9 and 10. Lucinda and Catharine, twins, born 1855; both deaf and dumb; Catharine single; Lucinda married 1877; husband deaf and dumb, said to have been deprived of his speech and hearing when a child by a loud clap of thunder. They have three children who can all hear and those who are old enough speak; two of them are twin girls, born 1880; they are the fifth generation of twins in a direct line in the family, commencing with the great great grandmother of the last named birth. She had two more descendants, who gave birth to twins, a daughter twice and a grand-daughter three times. 11. Helena, born 1856; deaf and dumb; married 1879; husband deaf and dumb, caused by fever when a child; they have one child who can hear. 12. Walter, born 1860; deaf and dumb; married 1880; wife can hear and speak. 13. Amelia, born 1862; died soon after birth. 14. Bertie, born 1865; hearing and speech perfect.

PUBLIC HEALTH.—The annual rate of mortality last week, being the twelfth week of this year, in twenty of the largest English towns averaged 21.7 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Salford 17, Norwich 17, Nottingham 17, Birmingham 18, Wolverhampton 18, Brighton 18, Sheffield 20, Bristol 20, Bradford 20, London 21, Leicester 21, Manchester 21, Newcastle-on-Tyne 22, Sunderland 22, Oldham 23, Hull 23, Leeds 25, Portsmouth 25, Plymouth 26, and Liverpool 28. Scarlet fever showed the largest proportional fatality in Bradford and Sunderland; and whooping-cough in Newcastle-upon-Tyne, Leeds, Sheffield, and Portsmouth. Of the 17 deaths from diphtheria in the twenty towns, 7 occurred in London, 3 in Portsmouth, and 2 in Bristol. The death-rate from fever (principally enteric) was highest in Portsmouth and Oldham. Small-pox caused 52 more deaths in London and its suburban districts, one in Birmingham, one in Newcastle-upon-Tyne, and none in any of the seventeen other provincial towns. In London, 2,640 births and 1,516 deaths were registered. The deaths were as many as 256 below the average, and the annual death-rate was 21.3. The 1,516 deaths included 49 from small-pox, 48 from measles, 28 from scarlet fever, 7 from diphtheria, 33 from whooping-cough, 2 from typhus fever, 11 from enteric fever, 2 from ill-defined forms of continued fever, 9 from diarrhœa, 2 from dysentery, and one from simple cholera; thus, 192 deaths were referred to these diseases, being 49 below the average. The deaths referred to diseases of the respiratory organs, which had been 419, 384, and 345 in the three preceding weeks, were 348 last week, and no fewer than 122 below the average; 210 were attributed to bronchitis, and 85 to pneumonia. Different forms of violence caused 52 deaths; 46 were the result of negligence or accident, among which were 20 from fractures and contusions, 2 from burns and scalds, 4 from drowning, and 14 of infants under one year of age from suffocation. Five cases of suicide were registered. At Greenwich, the mean temperature of the air was 39.5°, and 2.4° below the average. The general direction of the wind was westerly, and the horizontal movement of the air averaged 14.9 miles per hour, which was 2.2 above the average. Rain fell on six days of the week, to the aggregate amount of 0.39 of an inch. The duration of registered bright sunshine in the week was equal to 16 per cent. of its possible duration. The recorded amount of ozone showed an excess on Thursday and Friday, but it was below the average on each of the other days of the week.

HEALTH OF FOREIGN CITIES.—The following facts may be gathered from a table published in the Registrar-General's last weekly return, and compiled from the most recent statistics furnished by the various authorities of thirty foreign cities. The death-rate in the three Indian cities averaged 33.2 per 1,000, and was equal to 25.8 in Calcutta, 32.2 in Bombay, and 42.4 in Madras; fevers, principally remittent, were very fatal in all these cities, and small-pox caused 28 deaths in Madras. In twenty European cities, according to the most recent weekly returns, the average annual death-rate was equal to 29.5, which showed a marked excess upon 21.7, the average rate in the twenty large English towns last week. In St. Petersburg, the rate was equal to 51.8; and the fatal cases of typhus and typhoid fever rose to 85, from 74 in the previous week. In the three other northern cities of Stockholm, Copenhagen, and Christiania, the death-rate did not average more than 26.4; the highest rate being 28.7 in Stockholm, which, however, showed a decline. The Paris death-rate was equal to 31.2, and was higher than in the previous week; 32 deaths were referred to small-pox, and 45 to typhoid fever, showing an increase upon recent weekly numbers. The death-rate was equal to 25.9 in Brussels, and to 16.7 in Geneva; fever fatality was proportionately excessive in the latter town. In Amsterdam, Rotterdam, and the Hague, the rates were respectively 27.3, 25.6, and 27.4; and all the three towns were comparatively free from zymotic fatality. Among the six German and Austrian towns included in the Registrar-General's most recent list, the death-rate averaged 25.5, and ranged from 22.7 and 24.1 in Berlin and Dresden to 32.2 and 35.0 in Vienna and Buda-Pesth. Small-pox caused 23 deaths in Vienna, and 18 in Buda-Pesth; diphtheria showed fatal prevalence in Berlin, Dresden, and Munich; and six deaths were referred to typhus in Hamburg. In the four Italian cities, still higher rates prevailed, and averaged 29.6; the rate was 29.9 in Rome, 25.2 in Naples, 37.0 in Turin, and 31.0 in Venice. Small-pox caused two deaths in Rome, and six in Venice; and typhus and enteric fevers were fatally prevalent in Naples and Turin. In four of the largest American cities, the rate did not average more than 25.5, although diphtheria was fatally prevalent in New York, Brooklyn, and Baltimore; in Philadelphia, 49 fatal cases of small-pox were recorded, showing an increase of five upon the number in the previous week. The last return of the Registrar-General contained no contribution from Lisbon or Alexandria.

THINGAL RURAL DISTRICT.—Dr. Scott Kilner shows so many signs of being an active and efficient officer of health, that it is a pity he should disfigure his otherwise capital report by giving delusive death-rates for each of the parishes in his district. No deductions of any possible value can be drawn from such rates, calculated necessarily on very small figures, and they serve only to confuse and alarm. Thus, the death-rate of one village is given at the enormous figure of 58.3 per 1,000. Reference to the tables shows this rate to be made up of seven deaths, four of which were in persons over sixty years of age! Obviously no reliance can be placed on a death-rate such as this. The rate for the whole district was 13.2 per 1,000, against 16.5 in 1879 and 12.5 in 1878; and the proportion of infantile deaths was 123.6 per 1,000 births. Of zymotic diseases, the most prevalent was diarrhœa, 56 cases of which were reported. Scarlatina was found in several villages, and diphtheria in others. One case of the latter was interesting through the fact, that, some weeks before the patient was taken ill, nearly all the fowls in his father's yard (amounting to several hundred) were attacked by, and many of them died from, a disease very closely resembling diphtheria. Among the sanitary improvements attempted during the year, the repression of overcrowding received particular attention, a great many houses being visited, and 76 of the worst cases being remedied.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th. 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. The President (Dr. Broadbent) will exhibit a Patient suffering from Double Facial Paralysis. Dr W. H. Day: Tubercular Meningitis, and the Mode of Treatment. Dr. R. J. Lee: Cutaneous Diseases in Infants and Young Children.—Odontological Society of Great Britain, 8 P.M. Special General Meeting to consider a Special Resolution. Mr. Stocken: On Certain Remedies in the Treatment of Inflammation of the Periodontal Membrane and of Neuralgia. Casual communications by Messrs. Sewill, Betts, Thos. Murphy, Felix Weiss, Morton, Swete, John Ackery, J. Brindley.

TUESDAY.—Pathological Society of London, 8.30 P.M. Mr. Rushton Parker: 1. Carcinoma and Adeno-fibroma of Breast; 2. Hyaline Myxoma; 3. Odontoma, Nasal Epithelioma, etc. (card). Mr. Brailey: Cranium and Brain of Hydrocephalic Adult. Dr. S. West: 1. Case of Pulsation in Hepatic Region (living specimen); 2. Aneurysm of Pulmonary Artery (card). Dr. Hale White: Dermoid Tumour of Soft Palate. Mr. Malcolm Morris: Case of Lupus (living specimen). Sir Joseph Fayrer: Abscess of Liver following Dysentery. Mr. C. J. Symonds: Unreduced Dislocation of Patella (card).

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Specimens will be shown by the President, Drs. Godson and Cory, and Mr. Alban Doran. The Discussion on Dr. Barnes's paper On Missed Labour will be resumed, after which, A Case of Delivery through an Imperforate Vagina, by Dr. Heywood Smith; and other communications.—Hunterian Society, 7.30 P.M., Council Meeting. 8 P.M., Dr. Hughlings Jackson will exhibit Cases of Disease of the Spinal Cord. Dr. Port: On a Case of Disseminated Sclerosis.

THURSDAY.—Harveian Society of London, 8.30 P.M. Dr. T. C. Hayes: Fibrous Polypus of Uterus. Dr. Cheadle: The Treatment of Empyema.—Ophthalmological Society of the United Kingdom, 3.30 P.M. Report of the Committee on Colour-Blindness (presented by Dr. Brailey). Living Specimens at 8 P.M. Dr. Hughlings Jackson: A Case showing the State of the Discs Ten Years after Recovery from Optic Neuritis. Mr. Waren Tay: Case of Disease at Yellow-Spot Region in an Infant.

FRIDAY.—Clinical Society of London, 8.30 P.M. Dr. B. O'Connor: A Case of Syphilitic Psoriasis. Mr. Rushton Parker: A Case of Arterial Hæmatoma of the Forearm. Dr. Steavenson: A Case of Meningocele (patient will be shown). Mr. T. H. Morgan: A Case of Progressive Painful Inflammation of the Arteries.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE CANTONAL HOSPITAL AT GENEVA.

DR. ALFRED WISE, Visiting Physician to the Infirmary for Consumption, Margaret Street, writes to us:—This hospital was built in 1850, at a cost of 900,000 francs; it now contains 320 beds, which, on emergency, can be increased to 350. On the ground-floor are surgical wards of 16, 14, 8, and 5 beds, operating theatre, and offices. The first floor contains a similar arrangement of "medical" beds; and above this is accommodation for paying patients, of whom seven only are under treatment at present. Baths, sculleries, and water-closets are within the building, in the long corridors which communicate with the wards by doors and windows. A free movement of air in these corridors is available by means of windows opening externally.

The system of ventilation is on the propulsion principle. During the winter, heated air, ranging from 17° to 22° Centigrade (53.6° to 71.6° Fahr.), according to necessity, is forced into each ward, by means of a fan worked by steam power. This air is taken from the garden, passes into *calorifères*, and is moistened by the evaporation of water before being propelled along the channels which distribute it to the "salles". Fifteen thousand cubic metres are thus supplied every hour, or about 47 or 48 cubic mètres for each patient. The inlets for this air (numbering one for every four or five beds) can be closed separately, in the event of a ward becoming too warm. Six feet below these openings, and one or two feet from the floor, are others which act as outlets (one underneath each bed), and communicate with a shaft, making its exit on the roof.

Numerous windows on the corridor side of the wards, and on the opposite side, which faces the open, supply the interior with abundance of light. The floors are of polished oak, in the Swiss style of "Parquet"; this gives a clean and cheerful effect to the whole of the "salles", and obviates the necessity of water being used for cleansing purposes. The beds are of iron, without curtains, etc., but appear rather voluminous to an English eye from the addition of the usual continental eider-down quilt.

The nursing appears to be efficient, but is not viewed here as a "department" of the hospital establishment. Male nurses attend to male patients, female nurses to female patients; one to every seven or eight sick. The male attendants are quick, intelligent, and well fitted for the dirty and heavy work entailed in nursing men, especially in surgical wards.

The particular feature connected with this hospital is a large garden, in which are nine "pavillons"; each "pavillon" is made to contain ten or twelve beds. The sides are closed by canvas divided into panels, and attached to the uprights which support the wooden beams. They can be opened or closed at will by means of rods and rings, like curtains, or be rolled up on a roller placed above, after the fashion of a shop-window, by the aid of cords and pulleys, which permit them to be raised or lowered as desirable. The roof is covered by slate, and below it is wainscot. Two feet off the main roof, an additional top-roof allows of a free escape of foul air. The triangle formed by the roof at the gable-ends is filled in with boards; and the floor, of the same material, is raised about two feet off the ground, with free ventilation underneath.

Surgical cases and others dwell in these "pavillons" from the end of April to the middle of October, weather permitting. The cost of one of these structures is about 6,000 francs, without beds, etc.

Only one case of surgical erysipelas occurred during the past year, and one case of pyæmia; this latter happened after an operation for scirrhus of the breast, an attack of pneumonia preventing the free dressing of the wound.

Within the hospital, there are at present about three hundred patients under treatment, nearly 130 of which are under the surgical care of Professor Julliard.

The teaching in this department, and in the medical wards, by Professor Revilliod, is comprehensive and thorough. Much time and care is bestowed on the clinical instruction of students, and there is by no means a dearth of material; although, perhaps, not the variety compared to large cities like London or Paris, advantage is taken of every case of interest that appears, and the subject clinically exhausted. Daily visits, commencing at eight o'clock, are made by the physician and surgeon of the "clinique", when the instruction mentioned is given.

The system of selecting in rotation one or two students each day, for consultations on cases, cannot be overestimated in its value as a means of impressing on a class the practical knowledge of disease. One cannot help remarking that this method might replace, with advantage, some of the numerous lectures delivered to students in the various schools of medicine.

Geneva, February 21st, 1881.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager at the Journal Office, 161A, Strand, London, and not to the Editor,

ILFRACOMBE AS A WINTER RESORT.

SIR,—Of all the counties in England, probably none is better known for the salubrity of its climate than Devonshire; and of all the towns in Devon, none surpasses Ilfracombe in the healthiness and longevity of its inhabitants. The air in this locality is peculiarly genial and bracing; and in winter the temperature, which is remarkably uniform, has a higher average than even Torquay, namely, 44.75° Fahr., ranging from 33° to 56° from November to April. The kindly influence of the gulf-stream, borne coast-wise by the noted tides of the Bristol Channel, gives to this favoured spot, sheltered as it is by the towering Torrs on the one side and by Hillsboro' on the other, an atmosphere peculiarly soft and balmy, while, at the same time refreshing and invigorating.

As a health-resort in summer, Ilfracombe is already well and favourably known; its remarkably low death-rate and its comparative freedom from epidemics having been more and more noted year after year. Heretofore, the influx of visitors has been chiefly limited to the summer months; and so highly is the place appreciated for its natural beauty and the numerous places of interest near at hand, as well as for its salubrity, that from June to October the several hotels and the numerous lodging-houses are filled to overflowing. Four-fifths of the town appear to have been built expressly to accommodate visitors and strangers; and in no sea-port in Britain is more ample provision made in this respect in proportion to its size. As a rule, so soon as the autumn rains set in, the seaside walks and the mountain paths become less and less frequented, and the visitors, like summer birds, migrate, seeking a more congenial climate. In doing this, they unconsciously lose a winter home than which one can hardly be imagined more attractive or more desirable. The mildness and healthiness of its winter weather are gradually becoming better known; and many families, who came first as visitors only, have now become permanent residents. As evidence of the mildness of the climate, I may state that myrtles, geraniums, fuchsias, and hydrangeas, flourish without protection throughout the year. The sweet bay ripens its fruit, and the white jessamine has here perfected its seeds—a truly rare occurrence in any part of England. The lauristinus and veronica flower freely throughout the winter, and monthly roses may be seen on many an open wall.

Allusion has already been made to the low rate of mortality in Ilfracombe. This is especially noticeable with regard to children, the average of deaths in those under ten years of age being, for a period of twelve years, only eleven *per annum* in a population of nearly five thousand. "The disease which mostly affects people in these parts is that of extreme old age."

Important sanitary work is now in progress, under thorough and honest supervision. Long ranges of new houses attest the growth of the place; while handsomely built and pleasantly situated private mansions invite permanent residents. In close proximity to the chief hotel (itself an imposing and handsome structure), the public baths are being enlarged and adapted for winter use.

The ruddy features and the florid complexion of the inhabitants, from the oldest to the youngest, are so marked and so universal, that no visitor can fail to be favourably impressed with their cheerful and sturdy appearance. One sees everywhere on this part of the coast the rosy countenance and the full muscular development due to perfect health, evincing not only the beneficial effects of an unrivalled climate, but also the descent of the people from a hardy and worthy ancestry.

It is not for invalids alone that this locality is especially adapted; but it has attractions for all who have the choice of their place of abode, and who, from motives of pleasure, prudence, or economy, seek for a desirable winter residence, where (to quote the local guide-book) "neither artist, botanist, natural history student, nor amateur tourist, can fail to find ample scope for his own pursuits or his peculiar temperament."—I am, etc., JAMES R. DE WOLFE, M.D.Edin.

5, Lastone Terrace, March 14th, 1881.

W. M. O. is referred, on the subject of boarding-out, to a *Practical Guide to the Boarding-Out System*, by Col. C. W. Grant, R.E. (Knight and Co.), price 1s. 6d.; *Advantages of the Boarding-Out System*, by the same author (Macmillan and Co.), price 6d.; *Boarding Out Pauper Children*, by M. B. Smedly; *The Boarding-Out of Pauper Children in Scotland*, by John Skelton, Esq., Secretary to the Scotch Poor-law Board.

MICRO-PHOTOGRAPHY.

MR. F. T. PAUL (Liverpool).—Unquestionably the best effects are obtained by using direct sunlight; at the same time, this demands great patience, and an expensive apparatus. A heliostat is required to keep the sun on the mirror; the least movement of the pencil of light being fatal to a sharp image. A glass cell, containing ammonio-sulphate of copper, must be placed between the mirror and the object, in order to stop the heat-rays from destroying both object and object-glass. The best and fullest accounts of the various apparatus, processes, and working, are contained in Dr. Lionel Beale's last edition (the fifth) of *How to Work with the Microscope*, published by Harrison of Pall Mall; it contains a complete list of references to works and memoirs on photography as applied to the microscope. Good results have been obtained by Drs. Wilson and Abercrombie by the magnesium light. A full account of their working will be found in the *Popular Science Review* for January 1867, page 54. Photography has advanced so much in the last few years, that now good photographs can be obtained by the dry gelatine plate process, with a good lamp supplied with a mixture of colza oil and paraffin, in the proportion of six parts of the former to one of the latter, or with an ordinary magic-lantern lamp, with sperm-oil having some camphor dissolved in it.

MUMPS.

SIR,—I shall be much obliged if any of your correspondents who have experience will kindly inform me as to when (or rather, at what particular period of its decline) they consider the above disease ceases to be contagious; that is to say—to raise a practical issue—when they would consider a child the subject of it might be allowed (without unreasonable fear of spreading the disease) to resume intercourse with other children.—Yours faithfully, INQUIRER.

EGG AND SHERRY.

T. S. H.—Beat up an egg with a fork till it froths, add a lump of sugar, and two tablespoonfuls of water; mix well, pour in a wineglassful of sherry, and serve before it becomes flat. Half the quantity of brandy may be used instead of the sherry.—Another form is as follows. For an ordinary glass, beat up well a whole egg and a teaspoonful of pounded white sugar; and add one good-sized glass of sherry. For an extra good glass, the yolk of a second egg is added.

THE USE OF THYMOL IN RINGWORM.

SIR,—As several of your correspondents appear to consider thymol quite a new remedy for ringworm, I think it only right to say that, a few years ago, it was very extensively tried by Drs. Tilbury Fox and Crocker at University College Hospital; and, whilst proving to be a very fairly efficient parasiticide, it certainly fell short of fulfilling all our wants in respect of chronic ringworm of the scalp, like a good many other valuable remedies. I have frequently used it since that time in special cases where an unirritating treatment was required. The great point of Mr. Morris's suggestion, and one which will be no doubt thoroughly and speedily tested, is, however, the admixture of the thymol with chloroform and oil to further the penetration of the parasiticide, just as Dr. Alder Smith advises the admixture of acetic ether with the oleate of mercury.—I am, sir, yours faithfully,

Harley Street. T. COLCOTT FOX.

DANGEROUS GAS-BATHS.

IN answer to Dr. Francis T. Bond's inquiry on what facts I base my assertion that the death of Mr. C. F. Deacon in a bath-room was due to carbonic oxide, I will first say that my expressed opinion was that "death was due to carbonic acid and carbonic oxide gases". That opinion was formed on the basis of what I had been taught was the composition of coal-gas, and the process of its combustion; also, upon the *post mortem* examination, wherein I found changes of a character not to be accounted for by carbonic acid alone, especially the marked brightness of the colour of the blood and *post mortem* lividity. Bernard (*Leçons sur les Substances Toxiques*) says that the blood is brightened by carbonic oxide, whilst it is darkened by carbonic acid. The blood in this fatal case was decidedly brighter and more fluid than usual. Dr. Taylor computes the proportion of carbonic oxide in coal-gas as supplied to London at 5½ per cent.; Mitscherlich at 11 per cent.; and M. Tourdes at 22 per cent., in ordinary gas. In those cases which have come under my notice, the accidents have occurred late in the evening, generally about 11 P.M., when the other gas-burners have been turned out, so that the pressure has been so increased that the combustion may either have been very imperfect, or gas may have escaped unburnt through the burner. This alteration of the pressure may account for the accidents occurring at this time to persons who have previously used the gas-bath with comparative impunity.

M. Leblanc found that one-half per cent. of carbonic oxide and five per cent. of carbonic acid were fatal to a dog in twenty minutes; although a candle burned with its usual brightness for ten minutes longer. If it only requires such a small amount per cent. of carbonic oxide to produce a fatal result, it is not difficult to see how this amount may be found. Whether or no "an oxidised hydro-carbon of an aldehyde type" may be also found, I cannot say; at all events, the expression is sufficiently vague to cover a good deal; and, as little is at present known of this aldehyde group, the point is of small practical value—these and carbonic oxide being equally dangerous.

With regard to the question of flues to carry off the products of combustion: in theory, the idea is feasible enough; but, in practice, it is found that, when the flue is too short to reach the roof, in spite of cowls, a down-draught has been the result; and, where the flue is a long one, carbonic acid becomes cooled, ceases to ascend, and descends by its weight and puts out the burner. The only way in which it will act perfectly is when it is led into a warm chimney.—Yours, etc.,

Stanton House, Thicket Road, Upper Norwood, S.E. J. SIDNEY TURNER.

PSORIASIS.—"CUTIS" will be thankful for suggestions for the relief of a case of inveterate psoriasis, not syphilitic. The man, aged 38, has had the affection many years on the arms, hands, legs, and feet, causing much nervous depression and general debility; being only occasionally and but for a short time relieved. Among the remedies tried are arsenic, salines, iron, quinine, acids, phosphates, alkaline baths, tar, vaseline, and three months at sea. Is chaulmoogra or chrysophanic acid likely to be of use?

TRICYCLE EXERCISE IN CERTAIN FEMALE COMPLAINTS.

SIR,—I wish to call the attention of the profession to the above subject, feeling satisfied that tricycle exercise would form a powerful adjunct in the management of a class of female complaints depending upon uterine inertia; certainly more so than walking, and, possibly, than horse exercise, than which it is more available.

Having retired from practice, I have now no opportunity of testing this plan myself, but should gladly see it taken up by those who are able to do so. I have hitherto abstained from advocating this plan, not being satisfied with any of the machines which have been constructed for the purpose; but having become acquainted with one—the "Otto" bicycle—I am satisfied that a lady may now travel her thirty or forty miles a day with a very small amount of exertion, as propulsion is effected simply by placing the weight of the body alternately upon the pedals.

The only objections to the adoption of the tricycle by ladies are, that it is unfashionable, and that it is unfeminine; both of which would vanish under medical direction. The exposure of the limbs is certainly less than in skating, and the only alteration in dress it would involve would be a pair of dainty Polish boots.

Hoping to elicit the opinion of some of my professional brethren upon this subject, believe me to remain, yours, etc., NESTOR.

Bath, March 23rd, 1881.

STEAM-DRAUGHT BRONCHITIS-KETTLE.

DR. ROBERT LEE requests us to say that he claims the principle of the steam-draft as applied to the manufacture of the bronchitis-kettle; and that Messrs. Maw, Son, and Thompson, Aldersgate, are the manufacturers who supply his apparatus.

GROWING PAINS.

SIR,—Dr. George Johnson, in his lecture on Backache, published in the JOURNAL of February 12th, gives, as the chief remedy or preventive for "growing pains" (which are defined as "muscular pains, the result of over-fatigue of young and growing muscles"), rest and the avoidance of over-exertion and fatigue. Like Dr. Johnson, I remember well my prolonged and miserable experience of growing-pains when a boy, and that my complaints about them were always received, even by the doctor, with smiles, and the assurance that I was merely adding to my stature. I have for many years advised boys suffering from these pains, which are, I think, usually not so much in the muscles as in the joints, to take two or three drops of laudanum in a little sweetened water, and to wrap the joints in flannel. The laudanum may be repeated, if necessary; but one dose seldom fails to remove the pain in a few minutes.—Yours faithfully, T. C.

Leeds, March 24th, 1881.

THE BRUSSELS M.D. DEGREE.

SIR,—Can any of your correspondents kindly inform me of the shape and colour of the Brussels M.D. hood, if there is one? and oblige, yours, etc., STUDENS.

Edinburgh University, March 23rd, 1881.

Betony: an Old Remedy Revived.

In a recent leader on "Botany as a Guide to Therapeutics", it is stated that betony is coming largely into use in America, and that it is one of the most active of the new remedies. Although described as a new remedy, it is in reality an old remedy revived, for it has been used in medicine from time immemorial. "Sell your coat and buy betony" is a proverb expressing the high estimation in which it was held by our ancestors. There is another saying—Spanish or Italian in origin, I think—"as many virtues as betony". Turning to Cockayne's *Leechdoms*, I find the following account of betony, translated from the original Saxon MS.

"This wort, which is named betony, is produced in meadows, and on clean downlands, and in shady places; it is good whether for the man's soul or for his body; it shields him against monstrous nocturnal visitors and against frightful visions and dreams; and the wort is very wholesome, and thus thou shalt gather it, in the month of August without use of iron; and when thou have gathered it, shake the mold, till nought of it cleave thereon, and then dry it in the shade very thoroughly, and with its roots altogether reduce it to dust; then use it, and taste of it when thou needest."

It must have been highly esteemed in Saxon medical philosophy, for it is recommended for no fewer than twenty-eight different diseases, of which the following are examples: "If a man's head be broken; for sore of eyes; for sore of ears; in case a man's inwards be too costive; in case blood gush up through a man's mouth; in case a pustule is going to settle on a man; in case a man be out of health or feel nausea; for the hot fever; for foot disease."

Some of the directions given for the use of the drug are very quaint; for example: "For sore of side take of the same wort by weight of three drachms, seethe in old wine, and rub down *and add* thereto twenty-seven peppercorns; drink of it then at night fasting, three cups full." Again: "For sore of womb (belly) take of the same wort by three drachms' weight; boil in water; then give it him warm to drink, then will the sore of the inwards be settling (abating) and growing lithe so that soon it will be no loath (annoyance)." It is added: "If a man's inwards be too fast (costive), let him taste this same wort in warm water fasting; then the man will be hole in three nights' space." In early times, betony seems to have had a reputation for warding off intoxication; for we are told: "If a man will not be drunk, let him take erst (*i.e.*, before he begins to drink), and taste of betony the wort". And in the Stockholm MS. these lines occur:

> "Who so for trauayle, or for swynk
> Use early or late for to drynke,
> Use bettoyn fastande i fay (fasting in faith),
> He schalle not be dronken yt like day."

It would appear that, by the old Iberian physicians, betony was employed in cases of insanity, mania, and even hydrophobia. In addition to its medical virtues, it was formerly supposed to be endowed with great power against evil spirits; or, as Burton expresses it, "driving away devils and despair". On this account, it was carefully planted in churchyards, and hung round the neck as an amulet or charm, sanctifying, as Erasmus says, "those that carried it about them", and being also "good against fearful visions". Antonius Musa, the physician to Augustus Cæsar, declares it to be a good preservative against witchcraft; but it would appear only to possess these supernatural qualities under certain conditions, on which account it was to be gathered at stated periods.

> "Who so betonye on him bere
> Fro wykked sperytis it will hy were (guard)
> In ye monyth of August, on all wyse (always)
> It muste be gaderyd or (ere) sone ryse."

38, Weymouth Street, W. WILLIAM MURRELL, M.D.

Gunpowder Marks.

SIR,—A young lady, a patient of mine, a short time since, met with an accident by an explosion of gunpowder, a portion entering the face. Nature has removed all the marks, with the exception of two small spots on the upper lid of one eye. Will any member kindly inform me the best means for the removal of the same?—I am, sir, yours obediently, A MEMBER.

Tincture of Muriate (Perchloride) of Iron.

SIR,—In reply to "Inquirer", allow me to point out that the tinctura ferri muriatis is the tincture of the *Edinburgh Pharmacopœia*; and that the *British Pharmacopœia* preparation is the tinctura ferri perchloridi. The Edinburgh tincture is made by acting on red oxide of iron with muriatic acid; the *British Pharmacopœia* tincture by acting on iron wire with muriatic acid, and then adding nitric acid. The tinctura ferri sesquichloride of the *London Pharmacopœia* is identical with the Edinburgh tincture; as are "the red oxide", the "sesquioxide", and the preparation known as "ferri carbonas", with one another. The tincture of the perchloride of iron of the *British Pharmacopœia* is useless as a specific, though it still holds its position as an iron tonic, and as such is valuable.—Yours faithfully,

Whitwall, March 26th, 1881. WILLIAM DONOVAN.

Chilblains.

SIR,—In a curious old book of 122 pages, entitled *Primitive Medicine*, published in London in 17[illegible] (which wants the title-page) are the following cures for the above-named given. 116. "Apply salt and onions pounded together". 117. "Or, a *poultis* of roasted onions hot; keep it on for two or three days if not cured sooner." 118. "Or, of hot turnip parings (roasted) twice or thrice a day." 119. "Or, of roasted apples; or, turnips." 120. "Or (if broke), tincture of myrrh in a little water." Some of the remedies are great curiosities.—Yours most respectfully,

J. C. REID, M.D.

The Mosaic Code of Sanitation.

PROFESSOR REICHARDT'S German journal of public health, *Gesundheit*, is publishing in successive numbers a translation of Mr. Ernest Hart's lecture on the Mosaic Code of Sanitation, delivered, three years since, before the Jewish Young Men's Association, and since published by Smith, Elder, and Co. Two or three French translations have, we believe, appeared in various places.

Morphia for Subcutaneous Injection.

SIR,—As Mr. Martindale, in a communication inserted in the issue of your JOURNAL for the 22nd January last, adheres to his statement of the inferiority, in richness of alkaloid, of the tartrate, in comparison with the acetate of morphia, we beg leave to state the grounds upon which we feel justified in maintaining that he is in error. The following experiments embrace, also, the important considerations of the relative neutrality and solubility of the two salts in question, when employed subcutaneously.

To a phial containing sixty minims of water, ten grains of pure neutral and dry acetate of morphia were added. Clear solution took place instantaneously on shaking the phial; but, within one minute, the liquid began to become milky, and, in a short time, the bottom of the phial was covered with a compact deposit of minute crystals of morphia. The liquid was then in the condition of an acid solution of acetate of morphia; and the experiment proves that a very strong solution **of neutral acetate of morphia cannot be obtained.** In our communication in the JOURNAL of the 25th December last, we demonstrated the readiness whereby, on the contrary, such a solution can be prepared with the tartrate of morphia.

To determine the comparative richness in alkaloid of the acetate and the tartrate of morphia, we heated the latter an hour and a half, at a temperature of 212° Fahr., in a hot-air chamber, when it was found to have lost 6 per cent. in weight. Allow, however, the loss to be 7 per cent. (that being the percentage required for 3 equivalents of water in the salt, or 54 parts in 774, the equivalent of the tartrate); then, without reckoning minute fractions, which are practically unessential, the percentage of acid and water together would be 19 + 7 = 26 per cent.; and the percentage of the morphia, as alkaloid, is therefore 74 per cent.

Proceeding similarly to find the quantity of water in a pure, neutral, and dry acetate of morphia (previously mixed with half its weight of caustic lime—slaked and dried at 212° Fahr.—in order to fix the volatile acid, while not preventing the escape of water), the result was a loss in weight to the extent of 14 per cent. The equivalent of a theoretical dry acetate of morphia being 690, it follows that the pure neutral commercial article—the preparation alone which, under the most favourable circumstances, can be considered practically available as an acetate of morphia to the profession—contains 6 equivalents of water, 14 per cent. corresponding almost exactly to that quantity. Therefore, adding the said 6 equivalents of water to the above-mentioned equivalent of the dry acetate, or 108 + 690, we have a total of 798, and the following proportion gives the percentage of acetic acid: 798 : 100 :: 120 : acid equivalent, which is 15 per cent. Adding now the 14 per cent. of water, it is found that, between the acid and the water, acetate of morphia contains 29 per cent., and, therefore, only 71 per cent. of alkaloid, or, in other words, is 3 per cent. less rich in morphia than the tartrate.

With reference to the solubility of sulphate of morphia, the salt advocated by Dr. Macfie Campbell of Liverpool, for hypodermic use, in his letter published in the JOURNAL of January 22nd, we made the following experiments. Ten grains of tartrate of morphia were added to 120 minims of water, taken from a bottle loaded with ice; and, upon being shaken up, in two minutes, solution was complete, and remained permanent. Repeating with the sulphate the same experiment, but substituting now 200 minims of the water, the result obtained was very different. The agitation of the phial was repeated at intervals for half a day; and, although the temperature had finally risen to 60° Fahr., the salt still did not entirely dissolve; and, on examination the following day, the phial was found to be coated with an abundant crop of delicate crystals, the result of a lowering of the temperature overnight.—We are, etc.,

Edinburgh, March 8th, 1881. T. & H. SMITH.

M.K.Q.C.P.I.—It seems to us that Mr. W. has right on his side. In such a case, the medical man attending should receive his fee through the doctor originally engaged.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. T. L. Gentles, Derby; A Member; Mr. T. Whitehead Reid, Canterbury; Nestor; Dr. D. Drummond, Newcastle-on-Tyne; Dr. Cassells, Glasgow; Mrs. Edith Surr, St. Anne's-on-the-Sea; Our Edinburgh Correspondent; Mr. Vincent Jackson, Wolverhampton; Dr. Partridge, Stroud; Dr. Carpenter, Croydon; Dr. John C. Uhthoff, Brighton; Dr. J. W. Lane, Bishops Castle; Mr. Treves, London; Dr. F. Taylor, London; Dr. Sawyer, Birmingham; Mr. G. Eastes, London; Mr. W. Donovan, Whitwick; Dr. A. R. Simpson, Edinburgh; Dr. J. Thorburn, Manchester; Practitioner; Dr. E. Bugnion, Lausanne; Dr. Galbraith, Invercargill, New Zealand; Mr. W. Haward, London; Dr. G. Herman, London; Dr. C. D. H. Drury, London; Mr. T. P. Wright, East Bridgford; Dr. A. Sheen, Cardiff; Mr. E. Robinson, Leeds; Mr. H. Graham, Cork; T. C.; Dr. E. Meeres, Plymouth; Mr. W. A. Slater, London; Mr. W. Gale, London; Dr. F. H. Mules, Manchester; Dr. Fairlie Clarke, Southborough; Mr. Lawson Tait, Birmingham; Dr. Robert Lee, London; Mr. B. H. Brass, Elgin; Mr. S. S. Alford, London; Mr. W. H. Flower, London; Mr. T. M. Stone, London; Dr. J. W. Paton, Rockferry; Mr. A. Wheeler, Darlington; Mr. F. B. Jessett, Erith; Mr. T. Holmes, London; Dr. E. Malins, Birmingham; Dr. J. W. Mogre, Dub- Mr. James Startin, London; Mr. St. G. Mivart, Southend; Dr. R. W. Burnet, Dr. T. W. Barrow, Durham; Mr. Malcolm Morris, London; Mr. C. E. Hobbes, Bidford; Mr. John Appleyard, Bradford; Mr. James Crockes, Burgley; Our Edinburgh Correspondent; Mr. C. M. Davies, Maidstone; Mr. Leopold Hoff, London; Mr. C. W. Buck, Settle; Our Dublin Correspondent; Mr. J. F. Pink, London: Dr. Crichton Browne, London; Dr. E. J. Tilt, London; Mr. W. A. Berridge, Redhill; Dr. Thin, London; Dr. J. D. Hillis, Dublin; etc.

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THE LUMLEIAN LECTURES
ON
BRIGHT'S DISEASE.

Delivered before the College of Physicians.

By REGINALD SOUTHEY, M.D.Oxon., F.R.C.P.,
Physician and Lecturer on Clinical and Forensic Medicine at St. Bartholomew's Hospital.

LECTURE I.

HIPPOCRATES, in his *Prognostics* (21), distinguishes the dropsies originating from the flanks or loins from those which are due to disease of the liver; and although, in his description of the diseases of the kidneys, we find nothing to prove that he was acquainted with any pathological conditions other than those which are provoked by gravel, calculus, or by extensions of mischief from the bladder up into the kidney, it is obvious, from remarks found scattered through his writings, that he had not failed to observe diminished urination associated with general dropsy, beginning in the feet, and attended by obstinate diarrhœa, which failed to relieve or empty the abdomen.

In Section 7, Aphorism 66, he advises that in all diseases the urine should claim special attention, since information as to the soundness or unsoundness of the body was to be obtained by inspection of this important excretion.

In Section 7, Aphorism 34, we read: Bubbles maintained upon the top of the urine signify a disease of the reins, and likewise its long continuance; a fact which remained unimportant until the end of the last century, when it was ascertained that albuminous urine held a froth of bubbles on its surface.

In Section 4, Aphorism 70, he observes that those who have their urine troubled or unclean, after the habit of cattle, are or shall be troubled with headache.

In Sir Conrad Sprengel's *Translation of the Aphorisms*, published in 1735, p. 267, I find these noticeable remarks made upon Aphorism 77 (Section 7): "The urine generally discovers to us the state of the blood: stringy and lint-like ramenta in the urine denote a crude and undigested chyle; and the thicker they are in the urine, the more there must be likewise in the blood. This kind of urine I have lately observed in a gentleman that had ruined his body by intemperate drinking and contracting great cold. He had a great appetite to his victuals, but more to his drink."..." His stomach (was) hard, painful, and swelled, his legs likewise swelled, and his face pale and bloated." This was surely a case of renal dropsy and granular kidneys.

Aretæus the Cappadocian (Adams's edition, London, 1856, p. 342) makes some observations upon blood in the urine which, interpreted by our present knowledge, and although vague and rather spoiled by being mixed up with remarks on hæmorrhoids, show at all events that he recognised the association of pallor, sluggishness, proclivity to headache, and epileptic attacks, in some forms of urinary disease, as well as general anasarca and dropsy in others. It is probable that Aretæus was a contemporary of Galen, which takes us back, therefore, to the certain date, A.D. 131.

Towards the close of the sixteenth century, necropsies became more frequent; and several medical authors make mention of dropsy in connection with abnormal conditions of the kidneys.

J. B. Morgagni, Epistle 42, *De Sedibus et Causis Morborum*, describes the case of a dropsical patient who died suddenly, and whose body he examined. "Renis utriusque structura intima confusa apparuit"; and, in Epistle 40, he anatomises the kidneys of an old woman. "Ren uterque inæquali erat superficii et maculis albis hic illic variegata." Morgagni notices, in Epistle 41, art. 4, a case of acute renal dropsy, provoked doubtless by exposure of the body to cold in the treatment of itch. Morgagni writes: "The kidneys were larger than normal." (I remember seeing an exactly parallel example in Vienna in Hebra's clinic.) The itch was treated by an ointment rubbed into the skin: suppression of urine and vomiting followed, pain in the left lumbar region, general dropsy, and death. Granular kidneys and large white kidneys had therefore been discovered before Bright wrote; while Avicenna, in 1164*, was certainly before him in distinguishing between the dropsies consequent upon disease of the liver, and those which followed upon disease of the kidney.

It is to Cotugno, however, in 1770 (*De Ischiade Nervosâ Comment.*, Viennæ, p. 24-25), that we are indebted for the discovery of albumen in the urine of dropsical persons, which he attributed to the passage of the dropsical effusion over into the urine, and regarded, unfortunately most incorrectly, as nature's mode of resisting and repairing disease.

In 1798, Cruickshank advanced matters a step further (*vide* Rollo, *Cases of Diabetes Mellitus*, chapter vi, London), by recognising the fact that in some cases of dropsy albumen did appear in the urine, while in others it did not.

Darwin, *Zoonomia*, vol. i, p. 467, third edition, London, 1801, noticed a form of diabetes in which the urine was albuminous, and coagulated with heat occasionally; a condition preceded, and he thought occasioned by, general dropsy.

In 1809, Dr. Latham the elder, in a work published by him, *Facts and Opinions concerning Diabetes*, notices a case in which the urine, ceasing to contain sugar, continued to be excessive in quantity, and became albuminous.

Dr. Wells, whose Observations on the Dropsy which succeeds Scarlet Fever were published in the *Transactions of a Society for the Improvement of Medical and Chirurgical Knowledge*, vol. iii, pp. 16 and 194, may be fairly regarded as the pioneer who probably guided Dr. R. Bright to his clinical investigations upon the connection between renal disease and dropsy. Wells it was who pointed out that the urine after scarlet fever contained both blood-colouring matter and blood-serum; and that, even when scarcely abnormal in aspect at all, it might contain sero-albumen, recognisable by its coagulability both with heat and with nitric acid. Out of 138 cases of dropsy after scarlet fever, he discovered serum, as he rightly enough calls it, in the large proportion of seventy-eight times; and, later on, pursuing his inquiries further, Dr. Wells observed that other cases of general anasarca were associated with renal disease and coagulable urine. He seems, too, to have completely forestalled Dr. Bright in his analysis of the clinical symptoms, having observed that in this variety of dropsy sharp pains in the loins and limbs sometimes preceded as well as attended the dropsy, and that the pulse, far from signifying general weakness, was often full and frequent. The case recorded by Wells, of a soldier, aged 47, who died of dropsy, complicated finally by an inflammation of the lung, whose kidneys he found harder than normal, their cortical parts being thickened, and structures generally altered by deposits of coagulable lymph through their substance, is probably the first distinctly diagnosed case during life of chronic renal disease. Wells's work in this direction was eminently philosophical. He discovered albumen first in the urine of post-scarlatinal dropsy; afterwards in the urine voided in other species of dropsy connected with pathological states of kidney; then he examined the urine of persons in apparent health; and again occasionally lighted upon the presence of albumen in it. He ascertained that blood-serum was discoverable in the urine in many forms of chronic as well as of acute disease; and discovered it once in the urine of a person who enjoyed the aspect of health, but who subsequently died dropsical.

In 1813, Dr. John Blackall published a volume, *Observations on the Nature and Cure of Dropsy*, which ran through several subsequent editions. The most frequent cases of renal dropsy which he records were the forms following scarlet fever, and the cases of acute diffuse nephritis determined by exposure to cold and wet in persons who were pursuing a course of mercury. He surmised, but failed to prove, that the normal amounts of urea were retained in the system in these cases; and, although he made out that the kidneys were diseased in an unusual proportion of the cases, he was evidently biassed by the various other inflammatory lesions, of which, as he writes, "the whole system bears the greatest marks"; and attributed the affection less to the kidney-lesion than Wells had done, and more to a wide-spread inflammatory general disposition. This theory of his led him to recommend free blood-letting and depletory treatment.

Dr. Scudamore, in his treatise on *Gout* published in 1823, insisted on the clinical and prognostic importance of albumen occasionally found in the urine of dyspeptic and gouty subjects, and noticed that these persons were of a peculiar nervous habit, and micturated frequently. More than this, he pointed out that, although no dropsy attended on these symptoms, the urine departed from a normal standard not only in containing albumen, but by holding less urea, less uric acid, and less salts altogether than it should do. It was an imperfect secretion, he wrote.

M. Andral in 1826 published, in his *Clinique Médicale*, tome iii, p. 567, a case of dropsy without affection of the heart or peritoneum, in which the kidneys were the sole organs diseased. His description of

* Avicenna, *Libri in re Medicâ omnes* (lib. 3, fin. 14, tract. 4, cap. 4). de Hydropisi, p. 769, in foliis Venetiis. "A renibus vero non solum fit communicantia noxæ per se, sed ex accidenti, si aquositatem non purgent, unde multa remanet in venis; fitque sanguis aquosus et excolitur serum."

these granular kidneys is very precise. Thus, he writes, the external cortical substance, and a part of the tubular (*i.e.*, medullary) portion, consisted chiefly of white granular tissue, and appeared divided up into little masses or grains which stood out distinct from the natural red tissue of the kidney. The cause of death in this case was double hydrothorax; but this he referred to the original or primary renal lesion.

In 1827, Dr. R. Bright published his *Reports on Medical Cases;* and in the same year, and probably entirely uninfluenced by his writings, M. Barbier of Amiens published in Paris his *Précis de Nosologie et de Thérapeutique*, in vol. i, p. 410, in which he describes Bright's small granular kidney as a fact well known to him, writing: "On rencontre souvent les reins d'une petitesse remarquable; leur volume reduit au tiers ou au quart de ce qu'il devrait être." He calls the affection "oligotrophie", and adds: "La sécretion urinaire est toujours (?) notablement diminuée, il survient souvent un œdème général." He gives the case of an old woman in the Hôtel Dieu as an illustration of this affection, and notices that, with the exception of a heart "legèrement dilaté, les autres appareils étaient en bon état". A sudden pleurisy was also the final cause of death here. At p. 553, we find a chapter with the heading "Sclériasie des Reins", in which he shows his intimate acquaintance with this affection in its late stages, and its relation as a cause, often overlooked, of a rebellious form of anasarca, in which the blood-serum had a more milky colour than was normal—leucophlegmasia with renal sclerosis.

Dr. Richard Bright's first publication appeared in 1827; it had been led up to, as all great epochs in the history of medicine have been, by study as well as by clinical observation. Blackall and Wells had already established the importance of albumen in the urine as a symptom of dropsy. The distinguishing feature of Bright's volume is its careful reasoning and its modest inferences from facts, put forward after patient investigation of them. He heads the first chapter very tentatively, "Cases illustrative of some of the Appearances on the Examination of Diseases terminating in Dropsical Effusion". The cases are narrated, the clinical symptoms described, and the *post mortem* appearances dwelt on. The connection of diseased kidney with certain dropsies is pointed out; and the alterations in the structure of the kidneys found in the bodies of those whose deaths had been preceded by dropsy and albuminuria are sketched by a masterly hand. He distinguishes a dropsy in which the kidney is found diseased from a dropsy in which the liver is diseased; but he is far too cautious to advance to inferences unjustified by the facts before him, to talk of renal dropsy or of primary renal disease as the cause of dropsy. He speaks of the coincidences—the associated facts. By him, in the first instance, the structural changes in the kidney are attributed to certain injurious influences which, acting on the stomach or the skin, disturb the renal functions, either by disordering the circulation through the kidneys, or bringing about a state of decided inflammation in them. Further on, he writes that he thinks his observations almost authorise him to establish three varieties, if not three completely separate forms, of diseased structure; but he does not pin himself down to these three typical forms. He thought his third form might be an advanced stage of the same essential process which produced the second; and he distinctly notices other conditions of kidney—a preternatural softness of the organ, associated with similar flabbiness of the liver, spleen, and heart, as a pathological condition which led to albuminuria; and describes a separate category of cases, in which the kidneys were firmer than normal, and where the tubules were blocked up. I wish to point attention to his caution in making varieties, and to the conciseness with which he attributes the renal structural changes to wide-spread influences, which, acting either through the stomach or the skin, disordered the renal circulation and its functions.

After all the work that has been expended in the closer investigation of the minute anatomy of the different diseases of the kidneys, and all the clinical observations which have been published in the last fifty-four years upon the same subject, the questions whether there be one or more varieties of diffuse renal disease, and what is the real first cause of the renal degenerations to which he called special attention, remain much where he left them.

According to Bright, the one category of cases comprises yellow-white kidneys, nearly of normal size, at first with pyramids paler than should be, spotted yellow intermixed with grey throughout their cortical substance, and which, at more advanced stages, acquired a more tuberculated aspect, presenting elevated knobs which were paler than the parts surrounding them, and into which no injection-fluid thrown into the arteries would enter. This form was encountered most often in cachectic phthisical individuals, and appeared to be determined by exposure to cold and initiated by hæmaturia. The other category of cases presented the following pathological aspect. The kidneys had a generally spotty granular appearance, "looking as if fine grains of sand had been deposited in them". The organ was sometimes larger, sometimes smaller, than normal. This appearance he attributed to an abundant interstitial exudation of an opaque material. The entire surface of the kidney became, later on, roughened and covered with countless small nodules of the size of a pin's head, some yellow, some red, some bluish-coloured. The organ was hard and tough, and appeared contracted in every part. The interstitial deposits were less distinct; and the pervading colour was a red-grey, sometimes deeper, sometimes lighter. This kind of kidney was found principally in persons who lived irregular lives, abused alcohol; and the injurious influence underlying it is vaguely hinted at as some disorder of stomach or digestion.

The writers who followed Bright, amongst whom in Great Britain the most eminent were Christison, James Gregory, Osborne, Copland, Elliotson, Graves, and Willis, added clinical information of no inconsiderable value; but some of them busied themselves over-much in controversy upon the etiology of the new disease, and neglected investigating the nature of its pathology. Thus we find doctors differing very early, and ranging themselves in two hostile camps; the one as humoropathologists, teaching that the disease was general, and commenced in a vitiated state of the blood, before the kidneys suffered; the others maintaining that the kidney-disease was primary, and led to the impairment and mal-constitution of the blood.

Dr. Bright, in the publication of his second volume, which appeared in 1831, having established upon irresistible evidence the coincidence of the three facts—dropsy, albuminuria, and special pathological changes of the kidneys—inferred that the renal lesion ought to be regarded as the first cause, or entity of the disease, and the dropsy and albuminuria as the consequences of it.

Christison and James Gregory stood by Bright, and they further advanced our knowledge—Christison by careful clinical examination, both of the urine and of the blood-serum, in various stages and varieties of renal disease. The discovery of urea in the blood, and several estimations of its quantity in renal dropsies, were made by him in some cases of albuminuria; and he was led to accept the idea—first put forward by MM. Prevost and Dumas, founded on experiments made by them in extirpating the kidneys of animals—that urea was not generated by the kidneys, but separated by them.

Christison proved to demonstration the low specific gravity of the serum of the blood that attached to chronic renal disease; confirmed the associated hypertrophy of the heart which Bright had noticed; discussed the essential and non-essential symptoms; showed that general anasarca, although a very frequent, was no necessary symptom of diseased kidney; called attention to pulmonary catarrh, emphysema, and hæmorrhagic apoplexy, as more frequent complications than inflammations of the serous membranes; and pointed out the tendency to death by coma and so-called serous apoplexy, often discovered in these cases, when the necropsy presented congestion neither of the brain nor of its membranes.

Dr. J. Gregory's observations on diseased kidney (*Edinburgh Medical Journal*, 1831, vol. xxxvi, p. 318), connected with albuminous urine, are quite equally remarkable. He fully recognised the fact that the urine might be albuminous in certain disordered states of the system, unconnected with any special pathological alteration of the kidneys. "But", he writes, "when the urine is coagulable, and at the same time decidedly low in density, and below the natural standard in quantity; and when this state of urine has existed for some time, in a more or less marked degree; and when it is accompanied by dropsical effusion, in some of its forms, particularly slight but obstinate œdema of the extremities and face; or when, in the absence of dropsy—by no means a constant symptom—there is intractable vomiting or diarrhœa, we have evidence of organic disease of the kidney, upon which we may rely with much confidence."

Dr. Elliotson, Dr. Copland, and Dr. Graves contended against the prominence given to the renal changes. According to them, the whole system, and especially the blood, was first disordered. Graves, in the *London Medical Gazette*, December 1831, regarded the albuminuria as the cause of the renal changes; while all were agreed that the prognosis of these cases turned less upon the quality of the urine, and the quantity of albumen in it, than upon the associated general symptoms.

In 1838, Dr. Robert Willis published a work on *Urinary Diseases and their Treatment*. It was a work that deserved translation, and it was translated into German by Heusinger, and published at Eisenach, in 1841. Dr. Willis divided albuminous urines into sero-albuminous and fatty albuminous, and regarded the amount of fatty matter contained in any urine as some measure of the gravity or extent of renal degeneration. He further entertained some vague chemical ideas that the albumen in urine might be regarded as a substitution-product from urea (*vide* page 121). In his book, reference is made more than once to Bright's

disease, as a new discovery. Dr. Willis's book, read at the present time, offers little of interest regarding the diffuse diseases of the kidney; but there was a certain order about it that recommended it to book-writers; and it is probable that its appearance in Germany introduced Bright's observations to German readers, and stimulated many to read his clinical reports.

It was in 1838, also, that Martin Solon published in Paris a work on *Albuminuria or Dropsy caused by a Disease of the Kidneys;* and to him in England we owe the vague general denomination of albuminuria for a variety of renal affections, some of which were, but many of which had no claim whatever to be, classed as the kidney-disease which Bright had clinically pourtrayed.

M. Rayer's work, *Traité des Maladies des Reins*, was not yet published, but the materials for it must have been forward in Rayer's hands, for as he himself writes, vol. ii, p. 566, "My first researches on renal disorders were begun in 1830."

As Rayer justly says, to group together, under the head of albuminuria, affections so different in nature and issue as M. Martin Solon did, was practically useless. Albuminous urine is a symptom, not a pathological entity. Evidently there were many passages-at-arms between M. Martin Solon and M. Rayer at the Royal Academy of Medicine; the one maintaining his néphrite albumineuse, with six different subforms; the other, his albuminurie au premier, second, et troisième degré; or, 1. Sans lesion renale; 2. Avec lesion renale; 3. Avec hydropisie; 4. Avec les productions granuleuses du Bright; 5. Avec dégeneraisance variée du tissu renal et productions accidentelles.

To Rayer, however, the thanks of all who study renal diseases must eternally attach, for a work quite unparalleled in the annals of medicine for research and clinical acumen. Its weakest part is just Bright's disease—the acute and chronic forms of diffuse nephritis—and here it falls short, because, at that time, neither the minute normal nor the pathological anatomy of the kidney had been much investigated in Europe.

Hitherto, the disputed points had been a primary renal or a primary blood disorder; but, now that the German observers—up to this date singularly indifferent to Bright's discovery—took up the matter, the nature of the renal lesion began to be closely sifted by the microscope. Was it an inflammatory process, a fatty degeneration, a steatosis, a fibrous degeneration, or fibrosis? Was it one disease from first to last, with various stages, or were there several distinct varieties, each with its own separate clinical history?

Passing over, as we may, with scant notice the early pathological observations of Gluge, Valentin, and Henle, Vogel, Canstatt, and von Siebold, our attention is arrested by Reinhardt's work, published in the *Deutsche Klinik* (von Göschen), November 5th, 1849, who attached all the pathological states of kidney described by Bright to inflammatory processes. He gave the name of diffuse inflammation to the changes in question, because the exudation poured out showed little disposition to organise, and because it extended widely through the affected organ. It was a croupous form of inflammation, because casts came away from the tubular structures; it was an inflammation that pursued various courses, according to the causes that induced it, and the individual it invaded; but he did not regard the various forms of kidney figured by Bright as the result of one single process of disease, but of several successive invasions. Like every other inflammatory process, it might come under observation at different stages of hyperæmic congestion of exudation, with fatty degeneration of epithelium, of new growth of connective tissue, with ultimate contraction like that of scar-tissue.

It is not to be supposed that the professors of pathology in the Berlin and Vienna schools had overlooked conditions so obviously abnormal as the kidneys of Bright's disease presented. Rokitansky, in his text-book of *Pathological Anatomy*, 1842, described eight forms of morbus Brightii, of which the lardaceous kidney was the last; but the clinical symptoms attaching to these were not understood; for the minute anatomy of the kidney, and the physiology of the urine-secretion, had been hitherto only imperfectly studied.

The first important step in advance was Mr. Bowman's philosophical paper on the Structure and Use of the Malpighian Bodies of the Kidney, published in 1842 in the *Transactions of the Royal Society*, which described the minute anatomy of the organ with great care. From the facts before him, Mr. Bowman inferred that the glomerules separated the urine-water, and the secreting tubes and cells the urine-solids; and the situation of the tufts incorporated at the terminals or beginnings of the tubules, indicated them, as he thought, to be an apparatus contrived for washing the more solid secretion out of the renal epithelium. Thenceforth, the study of Bright's disease advanced *pari passu* with anatomical investigation and physiological experiment. To follow it step by step would require a longer review than we can afford to write, although we propose to glance briefly from henceforth at some of the important stand-points, as these have been in succession reached.

For many years in England, Bowman's views were accepted without a doubt, and may be certainly regarded as the foundation-stone upon which the English physicians and pathologists based their doctrines of renal disease.

In November 1845, Dr. G. Johnson published in the *Medico-Chirurgical Transactions* his earliest communication on the Minute Anatomy and Pathology of Bright's Disease (*vide* vol. xxix, 1846). He found that the granulated or mottled aspect of the kidney, associated with albuminous urine and dropsy, was due to an inordinate amount of fat collected in the renal epithelial cells; and he reasoned, correctly enough, that such a distension and infarction of the tubules must encroach upon the intertubular capillaries, retard the circulation through these networks, and lead to engorgement of the Malpighian tufts. Fatty degeneration of the renal epithelium was, he thought, the commencement and essence of Bright's disease; effusion of blood and blood-serum in the urine was the result of abnormal blood-pressure, secondary to the infarction of the tubules.

Even at this early period, Dr. Johnson distinctly taught that the kidneys described by Dr. Bright could not be accepted as different stages of the same disease. Bright's small red granular kidney had little in common with the large white smooth one; and, if the name of Bright's disease was to be retained for a renal degenerative process, which began and progressed by fatty metamorphoses, the white kidney must be separated from the atrophic organ.

Dr. Johnson's communication evoked a notable rejoinder from Dr. Quain, which appeared in the *Lancet* for November 1845, p. 594. Quain writes that, "in more than fifty specimens of this disease examined by me, the fatty condition of the kidney was, in one instance only, sufficient to attract much attention." In the large proportion of cases, he found cacoplastic lymph, either in the form of nucleated cells, or of simple granular matter, or of a deposit that he observed assuming distinctly filamentous or fibrous characters. He assigned the seat of the deposit to the parenchyma of the kidney, external to the tubes, and observed granular matter contained within the tubes themselves. He inferred that congestion preceded the deposits, and that the changes in dispute were from the first inflammatory. He makes three forms of kidney-disease the several outcomes of these different forms of deposit or exudation: 1. The simple enlarged mottled kidney; 2. The truly granular or atrophied kidney; 3. The large, flabby, fatty-looking kidney.

Dr. Johnson's views on fatty degeneration received complete sifting and plain answer by Professor Virchow in his *Archiv*, Band iv, s. 260 (1847), where the inflammatory nature of the initial changes in Bright's disease was clearly enunciated. Virchow further distinguished between simple tubular catarrhal and parenchymatous inflammation, the former recovering completely without further hurt, the other having possible issue in interstitial or glandular hyperplasia.

In reviewing, however, what was don at this date, it would be unjust not to mention a very elaborate paper communicated by Mr. Toynbee to the *Medico-Chirurgical Transactions*, in 1846, on the intimate structure of the human kidney. Toynbee was most successful in his injections, both of the tubules and of the arteries. Dr. Bright had himself furnished him with a great variety of kidneys in several stages of disease, and very good use he obviously made of them, as his drawings and text prove. He was the first to establish distinctly the existence of intervascular spaces (*Med.-Chir. Trans.*, vol. xxix, p. 304) of no inconsiderable size, situated between the blood-vessels and tubuli, and occupied by a substance he named parenchyma. Ruysch had described this as a cellular network, connecting the vessels together. Toynbee recognised the importance of this intertubular parenchymatous network of cells in diseased processes. It may be seen that his drawings of the tubuli uriniferi (*Vide* figs. 2, 6, and 8), entirely confirm the latest modern views (Dr. Klein) on the size and contours of the tubes. He showed how in the second stage of Bright's disease, when the primary congestion of the organ subsided, the swelling and dilatation of the tubuli compressed the intertubular capillaries, while the afferent arteries to the Malpighian bodies became enlarged to eight or ten times their normal dimensions, and proportionally varicose, and how, in the third stage, the parenchyma became hard and appeared composed of elongated stellate cells having fine thread-like prolongations. His views, therefore, formed quite independently of Dr. Johnson, tended to strengthen those of the latter, in his separation of the large anæmic fatty kidney from the small granular vascular one.

In 1847, Dr. Johnson's second communication to the *Medico-Chirurgical Transactions* was published. It discussed the inflammatory diseases of the kidney, which he divided into two classes, traumatic

and constitutional. The lesions, which he attributed to a constitutional cause, some abnormal condition of the blood, he subdivided into four different types or forms: 1. An acute desquamative nephritis; 2. A chronic desquamative nephritis; 3. Simple fatty degeneration; 4. A combination of fatty degeneration with desquamative nephritis. He showed that in all these forms morbid materials were deposited in the tubules, and washed out of them again, forming casts (Franz Simon's fibrinous threads), which were to be of the highest importance as indices for treatment and in prognosis.

In the same volume of the *Transactions* (vol. xxx, 1847) appeared a remarkable paper from the pen of John Simon, who thought it indispensable for correct nomenclature, that the name of Bright's disease should be discontinued. He is convinced that there are at least two forms of disease confounded together under this term, for he too, like Johnson, is an early dissentient or dualist. He separates one form of kidney-disease from the other by the nature of the inflammation which subtends it. One is an ordinary subacute inflammatory process, the other a scrofulous degeneration.

Subacute inflammation of the kidney might, according to his views, be provoked by exposure to cold, by rheumatism or by gout, by intemperance, by the circulation of various fever-poisons in the blood. The products of inflammation, poured out into the tubes, led to blocking and bursting of them, and to liberation of inflammatory exudation as well as of free renal epithelium cells into the parenchyma of the organ; the exudation materials subsequently underwent contraction; the free renal cells developed into cysts. Thus was brought about the small, red, granular kidney containing multiple cysts.

The scrofulous degenerative disease, however, as it had a different etiology, so, too, pursued a different pathological course, which consisted in the successive deposition of fatty materials in the glandular substance, which slowly accomplished its entire disorganisation, and resulted in a large white or mottled kidney. "The mottled kidney," he writes, p. 158, "in an infinitely large proportion of cases remains large and mottled to the end.

That the temperament and health of the individual modifies the course taken by disease in all his organs, who shall gainsay? But the distinctions he drew admit of fixing by no hard and fast lines, and, therefore, as grounds on which to base a classification, do not recommend themselves.

But among the many valuable and most suggestive ideas scattered through this most careful paper, the following passage proves how thoroughly he realised the fact that the peculiar shape and length and alterations in calibre of the tubuli uriniferi modified the final result of inflammatory processes involving them. Thus (p. 142) "the complexity of the tubules, the narrowness of the canals, render them especially liable to be embarrassed by changes in the physical qualities of their secretions.....the delay, accumulation, and obstruent action of which suffice to derange the whole microcosm of the (gland) in which they occur."

Even at this early date the thickened state of the renal vessels had attracted attention, as well as what Bright had observed, the associated hypertrophy of the heart. It is not very easy to ascertain who was the first to perceive that the arterial walls of the renal vessels became thickened. Toynbee noticed the fact in his injections of Bright's kidneys, published in 1846; and Dr. Johnson, in his third communication to the *Med.-Chirurgical Transactions* in 1850 (vol. xxxiii, p. 107), writes to this effect. The changes of the secreting cells involve imperfect elimination of renal constituents from the blood; the nutritional changes do not go forward properly, and this accessory circulatory force becomes impaired. Hence the tendency is for the blood to delay in the capillaries and to require additional pump-force from the heart to drive it forward, when what happens is, that the heart becomes hypertrophied, and the walls of the arteries also.

The same fact is dwelt upon by him later on, as a most important factor in the development and progress of renal disease. It is only necessary to call attention to the matter here, as a part of the history of Bright's disease; its importance will claim notice later on.

At this date, *i.e.*, about 1850, Martin Solon's vague name of albuminuria for acute and chronic renal disease, was in England, as in France, creeping into general use; it recognised a fact, and avoided a difficulty; it implied that the kidneys performed their function faultily, and hazarded no diagnosis upon the nature of the lesion in them. It left room for an open prognosis to be drawn from observation of other symptoms; it might, or might not, be a serious symptom itself. Bright's disease was a term as yet of very uncertain value. English physicians were quite undecided whether it should be held to comprehend one uniform pathological state of kidney, or a variety.

Dr. Owen Rees now published (1850) a volume on *The Nature and Treatment of Diseases of the Kidney*. In this he thoroughly sifted the subject, in what Bright's disease consisted, and to what it should be restricted to—namely, degenerative changes of the kidney, which were the result of past or present inflammatory processes.

After ably showing (p. 40) the fallacy of the argument that a general blood-disease should not be found guilty of inducing degeneration or inflammation in one special organ, he writes, "but so far as our present knowledge extends, it is in the tissue of the kidney itself that we see those first departures from a normal state which produce albuminuria. Many of the changes observed in the blood may undoubtedly be traced to the condition of the kidney." Dr. Rees was the earliest writer to point out that urine, with excess of earthy phosphates in it, gave a copious white deposit on being boiled, which closely resembled albumen, and had often been mistaken for it. He also showed how to obviate error by the well-known reaction with nitric acid. He was too, I think, the earliest to notice the frequent desire to rise and pass urine at night as a symptom of Bright's disease (p. 59), and the hard, wiry pulse, less elastic than in health, and tortuous, which, if connected with a pallid face, is, as he says, very suggestive of the nature of the malady.

In 1851, Frerichs's monograph, *Die Brightische Nieren-Krankheit*, was published in Germany, and carried throughout Europe the name and discoveries of the great Guy's physician, who had linked together albuminous urine, general dropsy, various pulmonary affections, asthma, bronchitis, and pleurisy, uræmic symptoms, and apoplexy, with a peculiar and insidious pathological degeneration of the kidney, and showed how the kidney-disease led to an alteration of the blood, and this alteration of the blood to an hypertrophy of the heart, wholly independent of any disease of its valves.

New and more comprehensive views upon inflammation than those which had hitherto chiefly emanated from the Vienna school were advancing from the north of Germany. The era of fluxions and exudations, catarrhal, croupous, and fibrinous, was drawing to a close. Could the pathological alterations, described by Bright as taking place in the kidney, be left to fulfil the old conditions of an inflammatory process? Could it be interpreted by them?

Frerichs describes the pathological events as succeeding each other in the following order. The mischief began in the kidney by a first stage of hyperæmia and exudation into the parenchyma of the gland; it was continued (his second stage) by various metamorphoses which the exudation underwent; it terminated (his third stage) by retrograde changes and atrophy of the glandular substance. One important feature of the second stage, which he illustrates by a woodcut, is the varicose dilatation of the secreting tubes, sometimes, as he says, to twice or three times their natural size (p. 28); some portions of the tubes retaining their cell-linings in an apparently normal state, others presenting altered and fatty cells in them, and others, again, being left apparently quite denuded, as Dr. Johnson had described them. He admits that the second stage was that which most frequently fell under observation. He makes an acute and a chronic form of the disease. At p. 58, he shows the objection to Dr. Johnson's inference, that the nature and extent of the degeneration can be diagnosed by the casts, because the diseased process exists in different stages at the same time in the same kidney, and because every variety of cast may be present at one and the same time. He considers the amount of albumen in the urine a measure of the intensity of the exudation-process, and explicable upon the anatomical changes in the gland, much of which is destroyed. As to the effect of the removal of renal epithelium upon the escape of albumen, he pronounces no definite opinion. According to him, the immediate effects of renal disease upon the system are: impoverishment of blood; increase of organic materials in it from impurities, which ought to have escaped, remaining combined in the blood. Among the symptoms to which he calls special attention—and his symptomatology leaves little to be improved upon—he notices the occasional follicular ulcers of the colon (p. 103), and the presence of carbonate of ammonia in the blood.

The great novelty of his work was his ammoniæmia theory of uræmia, which may be stated in few words. Urea, he said, as experiments led him to believe, might circulate in great excess in the blood, but would provoke no toxic symptoms, unless it underwent decomposition into ammonia carbonate; and the presence of some special ferment in the blood, as well as of urea, was requisite in Bright's disease for the production of uræmic symptoms. The proclivity of any patient who had renal disease to uræmia could be estimated by the amount of free ammonia in his blood, and its great excess easily be rendered apparent by a glass rod dipped in hydrochloric acid fuming freely when brought into contact with ammonia-laden breath. The original experiments were faulty, and his inferences were not justified by his facts. They obtained very little acceptance. Ammoniæmia has been long since relegated to the limbo of unproven physiological doctrines.

Frerichs' book was strongest in its clinical descriptions of the symptoms marking the different stages of renal disease; these are sketched by a masterly hand.

In 1852, Dr. Wilks published an article, entitled Cases of Bright's Disease, in the *Guy's Hospital Reports*, 2nd series, vol. viii. He began by expressing his preference for the name of Bright's disease over that of Albuminuria; since renal disease, he found, might exist and no albumen escape in the urine, and albuminuria might occur temporarily without depending upon any such lesions as Bright had described in the kidney. Bright's disease, he acknowledged, was still very imperfectly understood, pathologically or clinically; but certain well-observed structural changes in the kidney, accompanied by a regular train of symptoms and secondary pathological phenomena, might be vouchsafed to indicate it. He criticised Frerichs' book, and naturally assailed the weak point in his argument. If the small granular kidney was the final stage of one uniform process of disease, successive inflammatory congestions, exudations, and subsequent degenerations and contractions, how was it that so few examples of the intermediate pathological states were encountered? Why was it, that no single case was mentioned in which the symptoms betokening the large inflammatory kidney could be traced, gradually altering into such as characterised a small granular kidney? or that no case of ascertained small granular kidney was observed as having been preceded by acute symptoms? At p. 238 he writes: "In chronic granular kidney, the urine is often in good quantity, containing no deposits, and may or may not be albuminous." Dr. Wilks pronounces himself as a very positive dualist, and discriminates two principal forms of Bright's disease—the large white and the small granular—and then describes the rarer or lesser varieties, the mixed forms, and secondary forms, of later writers. He distinguishes the red swollen coarse kidney of passive venous hyperæmia; the dense white fibrous kidney (which I shall hope to show hereafter to be the kidney of obstructed urinary outlet); and the simple fatty kidney of phthisis. He is the first author I have read who points out plainly that the large white kidney may have two modes of commencement: either by acute general dropsy, or quite insidiously. He is the first to speak of granular kidneys as indicating senility; to notice how (*vide* p. 256) "the older the patient is, the more liable is he to granular degeneration of the kidney"; and he remarks upon the thick tortuous radial artery, the general anæmia, the characteristic pale urine, and the desire to micturate frequently, as well as the tendency to death by apoplexy or uræmia, in this chronic malady. He compares the changes in the large white kidney to bronchitis in the lungs, which may be recovered from entirely, or may pass on, by extension of the inflammatory processes through the parenchymatous tissue of the organ, to degenerations analogous to those which take place in broncho-pneumonia.

His description of Bright's disease leaves nothing to correct, and little to add; but he is not much captivated (*vide* p. 274) by Johnson's theory of the mode in which the albumen escapes from the blood, attributing the albuminuria, straightforwardly, to obstruction of the circulation through the tufts and capillaries, and not to its transudation through the tubes because of their being denuded of cells.

In 1852, appeared Virchow's pamphlet, *Ueber Parenchymatöse Entzündung*. This form of inflammatory change in the kidneys is thus described by him: the elements of which the actual tissues of the organ are composed swell up, the cells become cloudy, less transparent and more granular, as well as more friable, than they should be. The possible issues are in one of two directions: 1. The epithelial elements may soften down into a proteinous jelly or pulp; 2. They may become milky and undergo fatty metamorphosis. Parenchymatous inflammation in the kidney, he insists, does not exclude the simultaneous occurrence of interstitial hyperplasia. Catarrhal, croupous, and parenchymatous exudation may be combined together, and will then lead to the highest degree of renal degeneration.

Virchow's simple catarrhal affection of the tubuli appears to correspond with Johnson's acute desquamative nephritis; and both allow that this admits, in its slighter grades, of complete recovery. Virchow's croupous nephritis is a graver grade of catarrhal inflammation, in which fibrinous exudations are poured out into the tubules and block them up; and Virchow advises the attachment of the name of Bright's disease, not to any temporary or transitory affection with albuminous urine, but to those graver and more extended inflammatory changes, which, starting from parenchymatous inflammation, ultimately invade every elemental structure of the kidney, and entail its complete degeneration.

Johnson and Virchow are agreed in what they are describing and what they would call Bright's disease; but they differ widely in the terms which they employ to represent the pathological process, and in the method by which they interpret the phenomena. Johnson is a trifle too allegorical with his desquamative nephritis, and Virchow stretches the old-world notion of inflammation prevalent at that time to bursting point with his parenchymatous swelling.

Traube, in his volume on the connection between renal and heart disease, broke fresh ground in 1856, when he distinctly separated the cardiac kidney, *i.e.*, the kidney of passive renal hyperæmia, from the kidney of Bright's disease or primary kidney-disease, and showed that, while valvular heart-lesions entailed kidney-disease in many instances, chronic kidney-degeneration, and especially Bright's atrophic kidney, compelled heart-hypertrophy as an almost inevitable consequence. In this work, Traube summed up, with the master-hand of a clinical teacher, the mode of distinguishing the primary from the secondary disease, writing: "In both, the urine is albuminous; but when the renal degeneration is primary, and the cause of the heart-hypertrophy, and the hypertrophy is adequate to the renal defect, the urine is copious, pale, and generally of low specific gravity, and the amount of albumen in it variable (but seldom considerable); whereas, when the renal degeneration depends upon passive congestion secondary to heart-disease, the urine will be dense, scanty, and high-coloured, and its albuminous contents large in amount." His pathological description of the two kidneys is equally good. "The kidney secondary to heart-disease is large, tough, and extremely blood-gorged in its vascular zone; while the kidney whose degeneration has evoked wide-spread complications and changes secondary to itself as events, although not in importance, will be found atrophic, pale, tough, and granular."

Traube's inferences were criticised by many writers, and with some skill by Bamberger, who, in an article published in Virchow's *Archiv*, Band xi, 1857, p. 12, showed that valvular lesions of the heart (those remarkable forms of accretion of fibrinous vegetation), not only were no rarity in, but formed really a very common incident and complication of, the renal disease (as later experience has abundantly proved, they especially occur in the large white kidney-disease of short course and excessive albuminuria); and that these lesions, and not the impediment to the circulation in the kidney, ought sometimes to be held guilty of the cardiac hypertrophy. He concedes, however, the main issue, Traube's real hit, that in some cases of chronic renal disease the heart was found greatly hypertrophied without valvular disease or any other obvious cause, and for which he was the first person to offer a mechanical explanation.

Meantime, the English observers and physicians were not idle, but, having arrived at the conception of Bright's disease as a renal degeneration, presenting itself in several varieties with distinct pathologies, clinical symptoms, and issues, were directing their attention more to the best mode of distinguishing these separate forms during the patient's life, and at advancing diagnosis, prognosis, and treatment—*vide* Dr. Basham *On Dropsy and its connection with Disease of the Kidneys* (1st edition, 1858), and Dr. Dickinson: "Two essentially distinct conditions of Kidney, giving rise to what is called Bright's Disease" (BRITISH MEDICAL JOURNAL, 1859). By both these writers, good use was made of the microscope in investigating the sediment of the urine, as a clue to the changes taking place in the kidney, and in examining the kidney, in the hope that it might explain how its degeneration had been brought about.

It is an easy and an invidious task to look back now, and say how much of this labour was profitless; how few of the inferences made by Basham as to diagnosis, upon the appearances of renal casts, have been confirmed; and how little light the earlier microscopical examinations of renal disease really threw upon the changes that took place in the tissues of the kidney, and the order in which they succeeded each other. The anatomy of the organ still was very imperfectly ascertained; and as with the lung, so with the kidney, to read the course of disease backwards to its beginning, from the appearances found at the death-stage, is to court failure and invite error.

Dr. Wilks's writings, and the manner in which he had likened renal to pulmonary disease—the analogy he had drawn between bronchitis and catarrhal nephritis, and between bronchopneumonia and catarrho-interstitial renal degeneration—led Dr. Basham on to see further resemblances between tubular casts and sputa; things, of course, which admit of no denial, but advance actual knowledge infinitesimally little.

Those who refer to Dr. Basham's work will see that, at this period, an opinion of the extent and gravity of renal degeneration, instead of being based, as the older writers—Christison and Gregory, and Osborne—had insisted that it should be, on the estimation of the amount and density and solid constituents of the urine as the measure of the capacity of the kidney to perform its function (as Bartels put it later on) ran grave risk of being hurriedly inferred from casts found in the sediment of the urine, which were valuable, no doubt, as additional evidence, but far from being all-sufficient in themselves to base an opinion upon.

In 1859, we find Traube, in his *Klinische Untersuchungen* (page 969), noticing the association of amyloid degeneration of the kidney with albuminous urine. Renal casts passed in the urine during life, and plugs loaded with fatty detritus were found blocking the tubuli uriniferi after death. The kidney presented a waxy appearance; the degenerative change was nearly entirely confined to the blood-vessels; no appearances suggestive of parenchymatous inflammation were perceived, or led him to attribute the plugs or casts to active changes of or in the renal epithelium. Fatty degeneration of the renal epithelium might, therefore, be induced by other causes besides inflammation; and in amyloid, perhaps, as in some other cases, should be attributed to a kind of necrosis.

Casts, as Frerichs had shown, neither by their size, nor their quantity, nor their characters—whether full of cells, or of fat, or of granular matter, or of blood-cells—could be accepted as evidence of the actual state of the kidney; although there was a great unanimity of opinion among observers that fatty casts were signs of ill-omen, and that sediments, which contained large hyaline casts, and numerous white (or compound granular) cells, associated with botryoidal clusters of free nuclei (*vide* Dr. Basham, fourth edition, page 130), usually indicated a most intractable, because most widely diffused, form of renal degeneration.

Differentiation was the order of the day; the pendulum which Frerichs had forced back to Bright's last-issued idea, that his disease was, essentially and pathologically one, interrupted by death, and thus encountered at different stages, was swaying, irresistibly swaying, in an opposite direction.

Beer, in his work on the connective tissue of the human kidney, published in 1859, was calling attention to two distinct forms of interstitial hyperplasia, which he had observed in renal disease: the one circumglomerular, the other intertubular. The circumglomerular interstitial nephritis was, according to him, marked clinically by yellow-coloured urine, of low specific gravity, and presenting little urinary sediment; whereas the intertubular commenced with hæmaturia, and was attended by urine of high specific gravity, and possessing much sediment.

Traube writes in 1860 (*Klinische Untersuchungen*, page 969), appealing that the name of Bright's disease should be given up, because it promulgated error, and led to the confusion together under one head of a great variety of forms of renal degeneration; the parenchymatous inflammation did not constitute it; this was a first change only, which might lead to it. Interstitial nephritis, or interstitial hyperplasia, could be developed without any previous stage of parenchymatous swelling; and parenchymatous swelling was to be found in the renal changes secondary to old heart-affections. Typical parenchymatous swelling existed in the kidney of variola, and in all other acute febrile processes; but this did not necessarily go on to degenerative renal disease. At the same time, he admitted that glandular or parenchymatous swelling of the epithelium of the cortical tubes was an ordinary accompaniment of interstitial nephritis, and of amyloid disease of the vessels of the kidney.

Acts of Parliament and the Queen's pleasure apart, there are few things so difficult to shake yourself quit of as the name of a place, or of a man, or of a disease. While Traube was urging that the name of Bright's disease should be surrendered, because of its vagueness and uncertain applicability, Dr. Goodfellow, in some admirable Lectures on Diseases of the Kidney, published in 1861, was as strongly recommending its re-adoption in England, in lieu of albuminuria, for a varied but peculiar (specific) renal degeneration, which possessed certain well ascertained symptoms, and a moderately precise pathology of its own. He writes (p. 237): "It is from not separating the acute from the chronic stages, and from taking the mixed varieties as so many independent forms, that so much confusion has arisen."

Goodfellow was no blind believer in casts; he advised those who wished to make a sound diagnosis of the extent, and would forecast the issue of any case of renal disease, to go back to estimating the amount of urea excreted *per diem* by the patient; and directed attention to the grave secondary danger undergone by the blood, when the normal elimination of urea was rendered defective, in consequence of any renal inadequacy.

Dr. Goodfellow's lectures showed considerable knowledge of foreign labours, as well as original ideas. He argued (page 54), that the impurity of the blood in chronic renal disease might act, much as solutions of urea in laboratory experiments, in destroying the red blood-cells, and causing them to break up. At page 217, he compiled a valuable table of measurements of the tubuli uriniferi, and of the small arteries of the kidney; and he was the first, at all events in this country, to recognise the important part played by the arteriolæ rectæ as channels whereby the blood could pass from the renal artery by a short cut into the renal veins; when the circulation by the longer route through the Malpighian bodies in the cortical substance, was obstructed by swelling of the tubules, or effusion of fibro-serum into the intertubular lymphatics—a point which had been insisted upon by Professor Virchow in a very interesting pamphlet, published about 1860.

THE CROONIAN LECTURES

ON THE

INFLUENCE OF THE CIRCULATION UPON THE NERVOUS SYSTEM.

Delivered before the Royal College of Physicians.

BY WALTER MOXON, M.D., F.R.C.P.,
Physician to Guy's Hospital.

LECTURE II.—PART I.

IN my last lecture, I endeavoured to describe means whereby the entry and exit of blood to and from the interior of the cranium are so arranged as to favour the maintenance of a constantly sufficient supply to the brain, whilst obviating ill results of undue stress of blood; and I then passed on to the effects produced when great atmospheric pressure forces blood into the closed cavities which contain the nervous centres; and I finally digressed to point out the weakness in the circulation of the lowest part of the spinal cord, which arises through its more precarious supply from above, and want of reinforcement from below. Whilst upon the arterial supply to the spinal cord, it occurs to me to observe a point which has struck me forcibly in reading descriptions of experiments made for the purpose of tracing the course of fibres in the cord, because the mode in which the arterial supply may influence the results of such experiments seems apt to escape notice; and this may be a part of the reason why different observers differ in their results. Thus, for instance, in one of the experiments made by a great master in this branch of investigation, a comparison is set up between the effects upon the sensibility of posterior nerve-roots when incisions are made near together across the posterior columns above and below a single pair of roots, and the effects produced when similar incisions are made far apart, including five posterior roots between them. When such incisions are close together, sensation in the single pair of roots between is lost; when the incisions are far apart, the roots not only retain their sensibility, but appear rather more sensitive than natural. If we bear in mind the posterior spinal arteries and the mode of their reinforcement by occasional branches on the nerves, we shall see that, when the incisions are close together, the posterior spinal arteries above and below are severed, and the small segment is drained of its blood, so that surely insensibility would arise from this cause alone. If, on the other hand, the incisions include as many as five nerve-roots between them, there is a very great probability indeed that a large reinforcing artery will enter the posterior spinal in so great a length, and thus maintain a blood-supply. But it may be asked, Will such an explanation serve to show why the sensibility is increased? We must not, however, assume that evidence of unnatural tenderness is a proof of increased sensibility; this, no doubt, is not the case. I have now under my care in Philip ward a man who has paralysis and insensibility to touch in his right leg, but nothing the matter with his left leg. In this man, a pinch which causes only a smile when applied to his sound limb, produces a cry and a request against its repetition when it is applied to the limb which cannot feel a touch or localise the pinch. Hence signs of pain do not prove sense of touch, and the conductors of normal sensibility cannot be traced by signs of pain. In this man, the skin of the affected limb is pinker and thicker than the skin of the sound limb. This far from unprecedented case shows that we may expect proofs of unnatural sensitiveness to coincide with considerable anæsthesia; and the unnatural sensibility to pain in the posterior roots may itself be taken as some evidence that the normal sensibilities of the part were reduced. In following out the points that have arisen with reference to the circulation of the spinal cord, I have digressed considerably from the main line of my argument, which is bent on inquiring into the soundness of the view which teaches that congestion of the brain is an essential or primary disease.

And now I will return to the effects of caisson-pressure upon the brain, if one can so speak, when we find that the pressure had no effect

at all upon the brain, except to give a general feeling of buoyancy, which was, I think, very properly ascribed to the greater quantity of oxygen that entered the blood under high pressure. The caisson-pressure offers us an example of active and unobstructed connection of the vessels of the brain with oxygenated blood, no complication with a venous state of the circulating fluid being present, so that it may be described as a forcible arterial congestion without impediment to free exit of the blood; an active arterial congestion, purely affecting the blood-supply, and free from complication with disorders of the nervous tissue.

The familiar phenomena of strangulation and of obstruction of the jugular veins, causing forced delay of exit of the venous blood, should not be allowed to complicate the question which I am approaching. But as the sensations accompanying venous obstruction in the neck give rise to a very general bias in favour of the notion of cerebral congestion at large, it may be well for me to state the bearings of this subject on the special question, whether congestion of the brain arises independently as a distinct form, or as several distinct forms of disease. It would be scarcely possible for me to mention all the many modes in which venous congestion of the brain is constantly brought before us in forms more or less pure. Perhaps the subtlest of the causes of such congestion is that which has been well investigated in the study of school-diseases. When children bend over low desks during their lessons, a proportion of them are observed to suffer from headache, and some become faint, and some bleed at the nose; and such results may be ascribed to cerebral congestion. But, in using such an expression, we must notice that the meaning of it covers at least three distinct things. The ill effects which come about through lowness of the desks in schools are set down in detail by Virchow: first, to the mental strain of the learners: second, to occasional check to respiration during close attention; and third, to obstruction of veins by bending the neck. But each of these things is quite different from the others in its mode of operation, widely different indeed; and each in its own way appeals for its special means of relief. Mental overstrain is cerebral exhaustion; lack of respiration is carbonic acid poisoning, together with deficiency of oxygen; and compressed jugulars give delayed exit of venous blood, and consequent venous congestion. The term congestion of the brain has been given in a general way to these rather complicated conditions; and there is no harm in such a use of the term, unless it induces us to forget the several distinct causes which combine to produce the ill results ascribed to it, and in the term congestion of the brain to lose sight of the mental exhaustion and carbonic acid poisoning. Indeed, if we wish to ascertain the effects of obstruction of the jugular veins and retention of venous blood, we must choose some more pure examples of such obstruction.

I will not enter more fully into the effects of impeded flow in the jugular vein, than is necessary to define its relation to the "congestion of the brain" of authors with which I have to do. Such obstruction may be acute or chronic, and may vary in degree in either case from slight obstacle to absolute closure. Many observations of the extent of effects produced by check to the flow in the jugular veins have led me to the conviction, that venous obstruction is borne with so much impunity when it is certainly present and severe, that one must not suppose such obstruction to be inducing serious results in cases when evidence of its existence is absent or trifling.

When speaking of obvious causes of obstruction to the current in the jugular vein, I refer in particular to cases of prolonged paroxysm of whooping-cough, or of the cough of emphysema, and to cases of tumour compressing or involving the jugular vein. When a person is in a seizure of either of the forms of protracted cough which I have mentioned, the evidences of venous obstruction and imperfect aëration of the blood become very apparent, often painfully so, and yet cerebral disturbances but very rarely show themselves. I have been impressed by the small number and slight degree of complaints of cerebral symptoms in such cases. Twice only have I known persons affected with old bronchitis, and habitually almost cyanosed, to stagger and fall in the extreme height of their paroxysms of cough; the description given by the friends was of extreme blueness and turgescence of veins when the staggering occurred, so that cyanosis must have largely shared in its causation. Everyone must have seen the veins rise on the forehead and a dusky colour suffuse the face of persons coughing violently, when, meantime, nothing noticeable happened to the comfort of the brain. What I am seeking thus to establish is the proposition, that congestive strangulation of veins is borne with impunity up to visible and obvious extents, and therefore symptoms cannot be ascribed to it when the visible and obvious conditions of venous overfulness are wanting. Also, I believe that general experience will be with me in recalling how, in examples of tumours in the cervical region pressing upon the jugular veins, and even involving and closing one of them, the comfort of the brain is surprisingly little invaded. One of the most clear-headed and intelligent patients I have seen had the neck enlarged so that, shortly below the chin, it exceeded the girth of the head and face, and these were livid with venous obstruction; yet she denied to my questions every sign of cerebral annoyance. When such ascertained venous congestion, producing obvious retention of blood, fails to cause serious symptoms, unascertained and unproven congestion cannot be called in as a supposition to explain serious symptoms.

I have so far endeavoured to adduce examples, first, of extreme arterial intracranial blood-pressure; and, second, of visible and obvious intracranial venous blood-pressure; so that the absence of serious ill effects, under conditions of ascertained great or evident blood-pressure within the skull, may be within our minds in approaching the consideration of the disorders described under the name of congestion of the brain.

There is still one step remaining before I can proceed to the task of examining into the clinical symptoms described as due to this disease; and that is, to make clear how far it is possible to show, by *post mortem* examination, that a person has died from congestion of the brain. We must spend some time upon this question, because, following and supporting the clinical descriptions of congestion of the brain, we find a morbid anatomy of congestion of the brain; just as after the clinical description of acute pneumonia we find the morbid anatomy of acute pneumonia. And the morbid anatomy of acute pneumonia does verify and explain the presence and the symptoms of pneumonia up to a certain point, failing only in showing why that particular person died at that particular time, and leaving it to clinical observation to answer that question, which is the vitally important question in each case. The *post mortem* examination of pneumonia never tells us why that particular death occurred, but it leaves us in no doubt about the characters of the case; one can be quite sure that pneumonia did exist. But will any morbid anatomy of congestion of the brain afford us the same kind of proof; or do anything of the kind? The question is, Can you, in any individual case, prove by *post mortem* appearances that death was caused by congestion of the brain, or even that a state of congestion of the brain, or overfulness of its blood-vessels, preceded death? I believe these questions must be answered firmly in the negative. In establishing such a negative, one has to meet with a very strong prejudice rooted in the most tenacious of grounds—the ground of convenience and of ancient and universal acceptance. After examining a body dead from brain-symptoms, when all you were able to see in your examination was only that the veins were very full of blood, it is very convenient to be able to say that death was caused by congestion of the brain, and it sounds much better skilled evidence than to say that death was caused by insensibility; so that the doctrine of congestion of the brain is convenient; and the universality of its acceptance may be illustrated by the naive earnestness with which authors of great works adopt it. One author of a great work says, on one page, that patients never die in the first stage of congestion of the spinal membranes; and on another page, he says, that *post mortem* examination shows in the first stage redness of the membranes; but if they do not die, how is the redness known? It is very difficult to deal with a delusion thus deeply rooted in faith and prejudice—a delusion which is much favoured by occasional very striking appearances at imperfectly conducted *post mortem* examinations. Thus, in the Clinical Society's *Transactions*, there is a very remarkable spinal case—probably a case of acute myelitis, but introduced to the Society as congestion of the spinal membranes; and, indeed, the membranes were seen to be frightfully congested. But Mr. Hilton pointed out long ago the necessity of observing whether the cervical veins are divided, before you make a remark upon the congestion of the veins of the nervous centres. And, indeed, if we do not divide these veins, we will be sure to see frightful congestion when we look at the membranes of the brain and spinal cord; but the observers of this case had only opened the cranium and spine when examining these membranes.

I mention these examples only to illustrate how readily the mind of a physician adopts, on insufficient evidence, the assumption of a congested state of the brain; but, in some of our most justly and highly valued text-books, we find, amongst a series of excellent, learned, and ably written articles on particular diseases, that a long chapter on congestion of the brain finds a place; and this chapter gathers groups of symptoms of a disease called congestion of the brain, and collects signs of morbid anatomy of the disease so named; and the gathering of symptoms includes a sweeping together of all such things as are obscure and associated with stupor, and have an acute course; and the collection of anatomical signs includes a sweeping up of all the marks of change in the blood-vessels or texture of the brain, however evidently chronic or ancient. And the collection of chronic and ancient changes stands, then, to the gathering of acute and obscure symptoms as the morbid anatomy of a definite fatal disease, congestion of the brain.

And so in our great books we find this chapter on congestion of the brain, made up of obscure fragments out of the history of all sorts of diseased states. In the work which contains the chapter, we generally find that there is already a chapter on epilepsy, and another on sunstroke, and another on alcoholism; and then, in the chapter on congestion of the brain, we have a treatise on epilepsy that is not quite epilepsy, and sunstroke that is not quite sunstroke, and alcoholism which has changed so that it is now deserving to be called not alcoholism, but congestion of the brain. But, when we ask for evidence that these hazy states of quasi-epilepsy, quasi-sunstroke, etc., are really due to congestion of the brain, we meet with a very difficult state of affairs, very prejudicial to clear dealing with the subject; I mean we are met with a foregone conclusion, a sort of traditional certainty about the matter, as if you ought not to ask for evidence. Believing as I do, that there is no such definite fatal disease, I find this a very unsatisfactory state of affairs; and I was very glad to see, in a recent and very valuable work on medicine, that the author of that work, himself a pathologist of great experience in morbid anatomy, speaks thus of this topic of "congestion of the brain": "So many nervous phenomena are commonly referred to congestion or anæmia of the nervous centres, that we can scarcely presume to pass over them in silence." One could have wished that the conviction thus evinced had led this distinguished physician to deal more summarily with a doctrine upon which he thus confesses himself forced by common reference to touch.

As one finds categorical descriptions of a morbid anatomy of this disease, congestion of the brain, standing on the highest authority in our text-books, I cannot ignore them, or merely say there are no such signs; but must deal with the several anatomical appearances which are advanced, as showing *post mortem* that the brain was congested during life, my position being that there is no valid evidence of the kind. Hence I must now trouble you with an examination of the *post mortem* appearances which are alleged to prove congestion of the brain. We find writers giving four conditions as showing congestion. I will take them *seriatim*. The first condition advanced is a swollen state of the brain, so that it seems, after removal of the calvaria, almost too large for the cavity which contained it. The dura mater seems tightly stretched over it; and, on reflecting this, the convolutions appear broad and flattened, and the sulci less obvious. Now here we have evidence of swelling of the brain; but, as to our power of drawing any conclusion from such a swollen state, it is curious that the description makes no allusion to hypertrophy of the brain, which is treated of elsewhere in the same work, and is known only by its causing a general enlargement of the whole brain. I have never seen such hypertrophy, but the flattening described has very frequently come under my observation; and my impression is, that in no instance did I ever meet with such flattening, unless some obvious cause of expansion of the brain has been present, in the form usually of an increase of the intraventricular fluid, or else of apoplectic bleeding, or of tumour, in which case the swelling and flattening are more localised. The next evidence mentioned is the distension of veins and capillaries with blood. The veins are tortuous and varicose; the grey matter is dark; both this and the white matter show abundance of bloody points and gorged vessels; and this description finishes by saying, "It is extremely difficult to draw the line, and say what is morbid and what consistent with health". Now it is better, nay it is necessary, to say firmly that it is not only extremely difficult, but it is simply impossible, to draw the line, and say what is consistent with health. Indeed, by bringing in the idea of health when the person is dead, we confuse the issue; and I should not mention this, except to remark that the visible state of affairs at the *post mortem* examination is the point that concerns the morbid anatomist, and not the inferential state of affairs during life and health; for this is not any longer at all in the question; which question is, whether the mode of dying, the position of the body after death, or the manner of making the inspection, will not determine the appearance of extreme overfulness of the vessels in the brain of the dead person, independently of the conditions which were antecedent to all this, and led to his having ceased to die. Can we infer, from the amount of blood in the brain after death, the amount during life? Perhaps one could not find a more decisive answer to this question than the answer given by Kussmaul and Tenner. These observers were investigating the effects of ligature of the cervical vessels, and it was most important for their purposes that they should be able to estimate the resulting anæmia of the brain by *post mortem* examination. Their experiments were very numerous. They were testing the results of a simple mode of treatment of the brain; they had it in their power to place the bodies in any position they liked, or in any circumstances of temperature, etc.; and they knew accurately the conditions actually allowed. This is what they say as the result of their investigations. "We could never deduce any results from the *post mortem* examinations undertaken with a view to determine the state of fulness before death of the most important parts of the vascular system *viâ* the arteries and arterial capillaries; and, even in the most favourable instances, when similar inquiries were directed towards the veins, our results could only be looked upon as approximate. It appears, therefore, to us to be especially necessary to study carefully the state of the brain-circulation in asphyxia, narcosis, intoxication, etherisation, etc., in the living animal, according to Donders's method (that is, by insertion of a watch-glass into the skull)." Now, if this is the result when the conditions before and after death were determined and known, how can it be said that the amount of blood found after death in the human brain will show the amount present before death, when the conditions before and after death were unknown? Again, why should we take the amount of blood found *post mortem* in the brain as a criterion of the amount present there during the disorder that lead to death, when the amount of blood present in other parts after death cannot be taken to indicate the amount present before the act of dying? It may be necessary here to examine the exact bearing of evidence in some cases where we appear to accept fulness of blood after death as evidence of fulness of blood before dying. Let us take the most striking example we can choose, in which we might be led to suppose that we are in the habit of drawing such a conclusion, and thus do ourselves an injustice. Now it is true that, where organs are situated close to seats of long continued and positive hæmal obstruction, as, for instance, the liver, or stomach, or lungs, when seen after death from heart-disease, the amount of blood in the vessels of these parts forms a striking feature at the *post mortem* examination. We observe great overfulness of the veins, and we know that overfulness existed during life. But it is not because of the amount of blood found there after death, that we know there was so much blood there during life; for the amount of blood present *post mortem* is really only the result of the mode of dying. Death in mitral disease is due to stoppage of the heart under intense engorgement, so that the great vessels near the heart are very full in the moment of death, and remain so afterwards in the ordinary position of the body; and from this cause there is much blood in the wall of the stomach; and, meantime, our knowledge of the ischæmic state produced by the cardiac obstruction makes us aware that the same condition existed during life; also the presence of excess of tough mucus or superficial ulceration may give evidence to the same effect. But, as to the particular question, whether a great amount of blood in the stomach-wall after death will serve to show that there was a great amount of blood in it before dying; if we were asked that question, we must, I believe, answer it firmly in the negative. Great amounts after death may have been preceded by great amounts before the person began to die, as heart-disease shows us; but the stomach may be deeply congested by sudden disease or accident, causing asphyxia merely as a manner of dying; so that you cannot, because the stomach is purple after death, say that it was so before dying commenced. The importance of this subject in many aspects of medical practice induces me to follow it out fully, because we find it on all hands assumed, and by the highest authorities stated, that redness of the brain shows congestion or even inflammation of it. Thus, in a very thorough and able article on Tubercular Meningitis, we find it said of the membranes of the brain, that they show "that first great sign of inflammation, redness"; and, even in works devoted especially to morbid histology, the same fallacy is encouraged. Rindfleisch, speaking of acute hyperæmia of the brain, says: "A slight flush of the medullary substance, a faint tinge of red mingled with the usual grey hue of the cortex cerebri, must be taken as very significant indications; wherever these are lacking, we must not jump to the conclusion that they did not exist during life". Of course, the question is not of jumping to negative conclusions, but founding sound positive conclusions; and nothing can be more misleading or wrong than such a statement as that a faint tinge of red, mingled with the usual grey hue of the cortex, must be taken as a very significant indication. One is tempted to think the author had not looked carefully into the variations of colour to be observed in brains, as they ordinarily appear before the pathologist: faint tinges of red are constantly to be seen in the brains of persons dead from different diseases; and the blood is often very curiously and irregularly distributed, under entirely indifferent conditions, marbling and mottling the grey matter with pink and purplish tinges. A section of the cortical grey matter, or, more especially, of the corpus striatum and thalamus, will convince any one of this in almost any case. So also it is misleading to speak of that great sign of inflammation, redness, as appearing *post mortem*. During life, redness, when associated with swelling, heat, and pain, is at one with these associates in proving the existence of inflammation. But, after death, the redness, which was due to the enlarged scope of vascular play, ceases, because vascular play has ceased with life. The consequence is

not doubtful; and it is quite certain that, after death, the redness goes from inflamed and congested parts. Such curious issues may turn up on this point, that I think it very necessary to clearly recognise that no degree of redness or pinkness, or overfulness of blood about the brain or its membranes, can prove that there was any morbid state of circulation within the head before the act of dying. Death by asphyxia increases the amount of blood in the head; but a dependent position of the head after death, if only for a short time, will cause a similar increase. It should be taught that it is a sign of ignorance to say, in a coroner's court, that congestion of the brain was found, on *post mortem* examination, to be the cause of a person's death.

Passing on, now, to the next point advanced as morbid anatomy of cortical congestion, one finds the description lays down tortuosity and varicosity of the larger veins of the brain as evidence of such congestion. Now, if by this is only meant the bending of the veins through overfulness, it is but a sign of that overfulness; and Kusmaul and Tenner have disposed of overfulness for us. But, if it be really meant that the veins are varicose, I think moderation of the description is desirable; at least, in the several thousands of inspections conducted by me, I never saw a varicose vein upon the brain. It is true, that we often find the veins thickish and opaque near their endings, but the veins have their share in the general thickening of fibrous parts within the skull in old age. I will take this thickening, along with *l'état criblé*, which is given as another proof of congestion of the brain: *L'état criblé* is a perforated look of section of brain, usually in the corpus striatum, and due to cutting across of dilated channels, which are dilatations of the channels in which the arteries run. The thickish vein and perforated-looking appearance are signs of senile wasting of the brain—such as results in elderly people from a hard life, and results sometimes in younger people from a still harder life, in which they may have poisoned themselves with alcohol, or, by too much continued stress of emotional existence, have been their own poison to the same effect. In the process of growing old the brain shrinks, both as a whole so as to leave space between it and the skull, and interstitially so as to allow spaces to form around its internal vessels, giving *l'état criblé* on section. The skull is thus not sufficiently filled, and then everything movable and within reach is drawn upon to fill the vacuum. The call tells first on the cerebro-spinal liquid, whose function is to supplement the brain in filling the skull. But, when the natural amount of this liquid is insufficient, the blood must enter and be retained to fill the rest of the space. But the excess of venous blood thus retained lends itself to encourage the growth of the lower forms of tissue, especially the connective tissues. Hence, as a consequence, you find thickening of the membranes; and this appears specially in what I called the tidal area, where the locking system in the veins tells most effectively, and where Pacchionian glands in time appear, the vein-walls thickening a little in the meanwhile. Even the cranium itself, having its dura mater kept full of blood, thickens inwards, so tending to reduce the cavity. But, as to the question before us, which concerns itself only with the disease called congestion of the brain, what we have to see is that all these things are most gradual and slow effects of chronic shrinking of the brain, producing secondary effects most gradually and slowly. Thus it all comes gradually about as a progressive system of events, constituting the character of a period of life, and explaining the creeping approach of age; but in no way serviceable to furnish explanation of sudden insensibilities, and other phenomena, described as acute disease under the title of congestion of the brain.

And now let us look at the remainder of the morbid anatomy advanced in support of the supposition, that sudden serious illness is caused by rush of blood to the head. The description lastly sets down, as such evidence, a quantity of blood or hæmatin around the vessels, twisted and varicose capillaries, evidence of bursting of capillaries, orange coloured spots and specks of crystalline hæmatoidin, and especial stress is incidentally laid on the observation of blood-pigment around the vessels in the brains of excitable lunatics. Now there is no doubt that blood-pigment is very frequently met with about unsatisfactory-looking capillaries, when the brain of any adult is searched through with care. At least, I was led to this conclusion when, during the first few years of my office as Pathologist to Guy's Hospital, I used to take away about a cubic inch from the neighbourhood of the island of Reil in every brain I inspected. For, after the vessels of these portions of brain were washed and examined, the result was such as to assure me that, when anyone over twenty-five years of age replies in a satisfactory way to an inquiry as to his health, he expresses the truth of the matter only so far as he is aware; and his answer overlooks the condition of a considerable number of the capillaries of his brain, much in the same way as it overlooks the state of his skin at some pimple, or perchance the caries of some tooth. In fact, were a pathologist with a great microscope to spy through all our brains as we sit here in states of satisfaction, he would certainly see a great deal in the way of tortuous capillaries and dots of yellow pigment: a great deal that under the microscope would look very alarming. But so constant are moderate amounts of the changes now in question, that one cannot justly ascribe any special significance at all to moderate degrees of them; and surely experience would suggest great caution in allowing importance to the observation of blood-pigment in the brains of excitable lunatics, because, if the amount of pigment be little, it is not more than other people have; but if it were much, then would not the question arise, whether the excitable lunatics had struck their heads, or perchance received blows in the course of the care they required to have taken of them? Numerous broken ribs are not unfrequent morbid signs in asylum anatomy. A great deal of blood may be effused in the brain through blows from which people recover. A fatal hæmorrhage into the brain is nearly always a large hæmorrhage; and many people recover from blows which, more or less, approach a fatal result without reaching it. Those who recover must, then, have the moderate amounts of hæmorrhage. I have seen the middle and anterior lobes of the brain stuck fast to the skull, and imbedded in old yellow pigment and hæmatoidin, showing that most extensive crushing of the brain had been survived; so that sharp blows or falls upon the head, such as everybody not more than commonly fortunate has to suffer at least several times in his life, are not without effect in doing more or less to throw out spots of blood here and there for future microscopic observation to regard as evidences of congestion of the brain. But, besides accidental injury, there are other mischances to the blood through fever with purpuric tendencies, or through morbid states of the blood generally; and to these rather than to any such disease as congestion of the brain, or determination of blood to the head, we must be prepared to ascribe those changes in the capillary vessels, and the little spots of blood-pigment, that are found on careful microscopic examination of the brain. They are the results of all the accidents, little and great, that have made their mark, large or small, on the brain in the course of its life. It must be remembered that blood-pigment is probably never removed when once it has been formed, but it remains at the spot as a permanent register of the accident that produced it. I trust that I have sufficiently shown that we have no anatomical grounds for believing that there is any malady whose cause is overfilling of the vessels of the brain with blood.

[*To be continued.*]

ON AN IMPROVED MODE OF EPILATION IN RINGWORM.

As the subject of the treatment of ringworm (*Tinea tonsurans*) is just now attracting special attention, I wish to draw attention to a method of epilation which I have recently practised, and which I believe to be more effective, more expeditious, and less objectionable than epilation by forceps. It is generally acknowledged that epilation is desirable. It is admitted by every one, that epilation by means of the forceps is, at the time when it is most required, that is to say, when the hairs are the most diseased, impracticable, on account of the extreme brittleness of the hairs.

My plan is this, and it is a very simple one. When scabs exist over a patch of ringworm, I peel the scab carefully off in one piece. When scabs do not exist, I produce them artificially, and then carefully peel them off in one piece. Thereupon the under surface of the scab is seen to be thickly studded with the white frosted hair-stumps which are peculiar to ringworm, presenting the appearance of the chin of a grey-bearded man who has not been shaved for a week. Now these stumps are considerably longer than any bits that can be pulled out or rather broken off by means of the epilating forceps; it might be supposed that it is impossible to peel a brittle scab off in one piece, and that it would be painful to attempt it. But the scab may be expeditiously taken off whole and without any pain, if it be removed by means of the small sharp steel spoon that I am in the habit of using for performing "erasion" in cases of lupus. It is sold by Messrs Weiss of the Strand. The scab adheres to the skin *only all round its edge*. By applying the side edge of the spoon to the edge of the scab and then slightly rotating the spoon, the edge may be completely detached all round without hurting the skin in the least degree. Then commencing again at one edge of the now loosened scab, and advancing the spoon along the under surface of the scab, constantly making use of the lever movement which is effected by repeated slight rotations of the spoon, the whole scab may be rapidly removed in one unbroken piece with the effect that I have described.

I should add that I first remove the hair of the whole of the scalp by means of my human hair-clipper, which is sold by Messrs. Adie of Pall Mall, and by the various instrument-makers, and which I believe is now in general use as an aid in the treatment of diseases and injuries of the scalp.

BALMANNO SQUIRE.

THE GULSTONIAN LECTURES
ON
ANÆMIA.

Delivered before the Royal College of Physicians.

BY SIDNEY COUPLAND, M.D., F.R.C.P.,
Physician to the Middlesex Hospital.

LECTURE II.—PART II.

Idiopathic Pernicious Anæmia: Illustrative Cases—Analysis of the Different Forms of the Disease—The term "Idiopathic" not applicable in a considerable proportion—Preponderance in the Swiss Cantons (especially Zurich) largely dependent on Mode of Life—Influence of repeated Pregnancies, Gastro-intestinal Disease, Hæmorrhage, Malaria, and Nervous Disorders in determining a "Pernicious" Anæmia—Pathogeny: Is it due to increased Blood-Destruction or want of Blood-Formation?—Changes described in Blood and in Bone-marrow (Pepper, Cohnheim, Osler)—Its relations to Leukhæmia, to "Pseudo-leukhæmia", to Chlorosis.

I WILL now proceed to detail to you the leading features of cases of idiopathic anæmia which have occurred in the Middlesex Hospital during the past ten years. They are not numerous, and they do not comprise all the forms in which this condition occurs, but they will serve to illustrate my subject.

CASE I.—This has already been published,* and I will content myself with a brief abstract of it. S. D., aged 27, a pale, delicate-looking, but not emaciated woman, married five years, but childless, was admitted, under the care of Dr. Greenhow, on September 7th, 1871, complaining of pain between the shoulders, palpitation, great weakness, vertigo, depression, and coldness of the extremities. The skin was as white as wax, and there was a faint jaundiced tint of the conjunctivæ. The lips were colourless, and the tongue pale, clean, and moist. There was a loud double murmur over the præcordial region, having a friction-like character, and a maximum intensity at a point just inside and a little above the left nipple. There was no enlargement of the liver or spleen, but slight epigastric tenderness, attributed to frequent retching. The pulse was 128, very weak, small, and compressible; respiration shallow; no cough; temperature 100.4° Fahr. The urine was acid, of specific gravity 1013, free from albumen or bile-pigment. Her history was as follows. There was no tendency to hereditary disease; she had had the usual diseases of childhood, and was always rather delicate and subject to palpitation. The catamenia appeared at fourteen, and since then she had had more or less menorrhagia and leucorrhœa. She never, however, had any serious illness till about a year ago, when she began to suffer from diarrhœa and vomiting, with occasional vertigo, but did not complain of pain after food, nor did she vomit blood or pass any *per rectum*. The palpitation now became worse, and was accompanied with pain between the shoulders. These symptoms continued for two or three months, when she got better; but, three months afterwards, she was attacked in the same manner, with the addition of a slight yellow tinge of the skin and conjunctiva, and was again laid up for two months. After this, a second remission occurred, and she remained comparatively well till two months before admission, when the old symptoms returned. The progress of the case was marked by increasing debility, constant nausea, and occasional vomiting. On September 20th, there was some diarrhœa; but neither at this nor at any other time was blood observed in the motions. The pulse, respiration, and temperature remained much the same throughout, the latter never exceeding 102°, and only once descending as low as 98.8°. On October 3rd, she vomited during the afternoon and frequently during the night. The sickness continued, and she sank exhausted on October 5th. At the *post mortem* examination, minute ecchymoses were found studding the inner surface of the dura mater, and a small quantity of slightly turbid fluid coated the surface of a portion of the hemispheres, and lipped in between the convolutions. The brain itself was completely bloodless. There were also ecchymoses on the pulmonary pleuræ, a few old adhesions, and some recent lymph on the right side, but the lungs were healthy. The pericardium contained three ounces of fluid, and showed no traces of inflammation. Not more than an ounce of thin, pale, and watery blood could be obtained from the heart and large vessels, and that was perfectly fluid and did not coagulate. All the other viscera were examined, but showed only intense anæmia. Dr. King, in his comments on the case, raises the question of the anæmia being caused by a derangement of nervous function—supposing, from the analogies supplied by the act of secretion, that the sympathetic system directly controls the act of blood-formation. He draws a parallel between such cases and those of Addison's disease, where the symptoms are similar (except the pigmentation), and where the existence of a nerve-lesion is more evident. It is interesting to find Addison stating that, "in the case last examined, the heart had undergone such a change" (he is speaking of its fatty degeneration), and "that a portion of the semilunar ganglion and solar plexus, on being subjected to microscopic examination, was pronounced by Mr. Quekett to have passed into a corresponding condition". But I do not know of any other facts which can be called in support of Dr. King's reasonable hypothesis.

CASE II.—Emma H., aged 29, unmarried, a domestic servant, admitted, under the care of Dr. Greenhow, on April 20th, 1875. One of her sisters had died of consumption. She herself had enjoyed fairly good health till six weeks before her admission, when she began to feel very tired at her work, which was hard. She had also suffered from occasional vomiting and attacks of fainting; whilst becoming, in addition, paler, and attacked with shortness of breath on slight exertion. She was well nourished, but very anæmic, the skin having a somewhat tawny tint, especially about the neck, axillæ, and back. The mammæ were ill-developed. The heart's action was exaggerated, impulse diffused; visible pulsation of carotids; radial pulse jerking, 120. A soft systolic murmur was audible at the base of the heart, and a well-marked *bruit* in the jugulars. There was slightly impaired resonance at the anterior apices of the lungs, and wavy respiratory murmur; but elsewhere the breath-sounds were normal. There was no enlargement of liver or spleen. The urine was of specific gravity 1025, acid; no albumen. The blood showed a deficiency of red corpuscles, but no excess of leucocytes. The predominant symptoms were vomiting and diarrhœa, accompanied by increasing languor and debility. The temperature was irregular, the highest point reached being 102°, on the evening of admission, and the general range being between 100.2° and 99°; the evening temperature being mostly lower than the morning. The pulse ranged between 120 and 140, and was very feeble, during the last two days maintaining the more rapid rate, whilst the temperature fell to 97.8°. She sank exhausted on May 2nd. At the *post mortem* examination, the general surface and the mucous membranes were noticed to be extremely pale; the skin of the neck, axillæ, and groins being of a pale-brown colour. The mammary areolæ were not pigmented, and no pigmentation occurred at the root of the nails. There was a fair amount of subcutaneous fat, and much in the omentum. The pleural and pericardial sacs contained dark-coloured serum. There were a few subpericardial ecchymoses at the back of the heart, which was fairly covered by fat, its muscular substance being pale and flabby. Both sides contained much thin fluid blood; whilst in the right ventricle a thin, pale, soft clot was met with, diminishing towards the auricle and pulmonary artery. The lungs were pale and bloodless, slightly puckered and indurated at the apices, the posterior part of each lower lobe being engorged with frothy serum. The liver and kidneys were anæmic, but healthy. The spleen was small, pale, and tough. The suprarenal bodies were natural. The semilunar ganglia appeared healthy, but were not examined microscopically. In the stomach the mucous membrane in the pyloric region was thicker and firmer than elsewhere, white, perfectly smooth, and free from mammillation. The only remark I would make upon this case is, that it might as well be described as a case of fatal chlorosis, which it resembled in the mode of its onset; and that the predominance of gastric symptoms was very marked, again suggesting a neurotic basis for the whole disease.

CASE III.—Henry A., aged 43, single, a potman, was admitted under Dr. Cayley's care on September 18th, 1878. His mother had died of consumption, but he had a healthy brother and sister. When ten years of age, he was ill with rheumatic fever for eight weeks, and had been subject to rheumatic pains in all parts of the body. For the past three or four weeks, he had, however, been becoming more sallow and short of breath, and within the past week his feet began to swell. In spite of his occupation, he drank moderately. When admitted, he was extremely prostrate, but free from pain. His skin and mucous membranes were intensely anæmic, and there was considerable œdema of the lower extremities. There were bronchitic *rales* in the lungs. The heart was not enlarged, and no *bruits* were audible; the spleen and liver were not enlarged. There was some diarrhœa. The urine was of specific gravity 1015, acid, but free from albumen. After a week's rest, the

* By Dr. E. King: *British Medical Journal*, November 25th, 1871, p. 615.

œdema had almost subsided, the diarrhœa ceasing also. The temperature varied slightly, being often above 99°; on September 26th, it was 101.8° in the morning. On the night of October 9th, he was attacked with temporary aphasia and slight deviation of the tongue to the *left*, but no other paralytic symptom. The temperature was then 100°; pulse very weak, 120; the heart's action was tumultuous, and a systolic murmur appeared at the base. Next morning he could speak well, and the tongue was protruded straight. Temperature 101°; pulse 108. But the same afternoon he had a similar seizure, when his speech became indistinct, the tongue deviated to the left, and slight paresis occurred on the left side of the face and left arm. Temperature 103°; pulse 120. The paretic condition passed away in a few days; but he became more prostrate and drowsy, and died on October 13th. At the *post mortem* examination, no lesion was found in the brain, which was very anæmic. Hæmorrhagic foci were found in the retinæ. There were some old pericarditic adhesions, much fat on the surface of the heart, and extreme fatty degeneration of its muscular fibres. There were a few subpleural ecchymoses on the surfaces of the lungs, which were engorged in their dependent parts. The liver was paler than natural; the spleen was pale, but soft; the pancreas and suprarenal capsules were healthy; the kidneys were rather tough. A transient hemiparesis was observed in one of Immermann's cases, to which I have referred. In that case, also, no lesion was discovered in the brain. Possibly, in both instances, the cause of the nervous symptoms lay in an undetected minute hæmorrhage. In the foregoing case, also, the large amount of dropsy was unusual, and the kidneys were certainly indurated, but not wasted or fatty. There have been cases where it has been more difficult to decide whether one was dealing with chronic Bright's disease or anæmia simply; and on this ground I have excluded one case, which occurred in 1876, of a man, aged 50, whose symptoms were those of pernicious anæmia, but where the kidneys were more obviously diseased than in the present case.

Case iv.—Caroline F., unmarried, cook and housekeeper, was admitted under Dr. Cayley's care on June 2nd, 1879. Beyond an attack of "inflammation of the bowels", at the age of twenty-four, she had enjoyed good health, but for the past two years had been ailing, losing colour, becoming thin, and suffering from shortness of breath for the past six months especially. She was considerably emaciated, feeble, and anæmic; but her appetite and digestion were good. Beyond unusual visibility of the cardiac impulse, there did not appear to have been any cardio-vascular signs. The anæmia, certainly, was most intense. On June 9th, the hæmoglobin was estimated at 28 per cent., and the red corpuscles were 550,000 per cubic millimètre, or 11 per cent. of the normal. The temperature only rose to 100° and 100.4° on three occasions, being generally normal. There was diarrhœa with occasional vomiting, but neither occurred to a considerable extent; there were no retinal hæmorrhages. Under arseniate of iron, she rapidly improved. On August 23rd, the number of red corpuscles was 37.7 per cent., and on September 22nd, the day before her discharge, 2,080,000 per cubic millimètre, or 41.6 per cent. She remained fairly well for more than twelve months—namely, to Christmas 1880, when her weakness returned. She began to suffer from shortness of breath, palpitation, and occasional vomiting, and was admitted again on March 2nd of this year, having kept her bed for two months. Her skin and mucous membranes were intensely pale, and she complained of great exhaustion, but had a fairly good appetite. The heart's impulse was diffused and thrilling, and a rough systolic murmur was audible at both apex and base, the second sound at the pulmonary cartilage being accentuated. There were also *bruits* in the carotids and in the jugular vein, there being further marked pulsation of the latter. Pulse small and compressible; no retinal hæmorrhages. The urine was of specific gravity 1020, acid, free from albumen. The temperature had not risen above 99°, nor the pulse above 100. The case is still under treatment, principally good diet, rest, and arseniate of iron being prescribed. As yet not much progress has been made; for although, on admission, the red corpuscles numbered only 520,000 per cubic millimètre, or 10.4 per cent. of the normal, and increased nine days later to 620,000, or 12.4 per cent., yet the percentage of hæmoglobin has fallen from 30 to 21. With the increase in the red corpuscles there has been a change in the number of leucocytes, which were to the red as 1 to 52 on admission, and on the 11th 1 to 124. This case must be regarded as one of idiopathic anæmia, although it is lacking in some of the distinctive features, especially the existence of retinal hæmorrhages. The chief point of interest is the improvement which took place during her residence in the hospital eighteen months ago, an improvement which was maintained for upwards of one year. The ultimate prognosis must be considered as uncertain.*

* This patient became rather rapidly worse, and died on March 25th.

Case v.—Emil M., an Italian boy, seven years of age, was admitted under Dr. Cayley's care on January 6th, 1880. His father was alive and healthy; and he had one brother, also very healthy. The mother had died of puerperal fever after her second confinement. This boy had never been a strong child, and had had scarlet fever four years ago. In the summer of 1879, he began to grow very weak, and continued in a weak state until Christmas, when he complained of headache, became listless, objected to move about, and did not care to play. At the same time, he lost appetite, and suffered from a slight cough. He was well-nourished, but extremely bloodless; face of a waxy appearance; lips pale. There was marked œdema of the conjunctivæ. The heart's apex impinged in the normal position, and a soft systolic murmur was there audible. There was also a whirring *bruit* in the carotid, and a well-marked hum in the jugular. There was a slight cough, and some scanty moist crepitation at the bases of both lungs, where also resonance was impaired. There were also signs of some ascitic effusion. The urine was of specific gravity 1015, free from albumen. The pulse-rate throughout was very rapid, from 140 to 160; and its volume small and compressible. The temperature was irregular, falling from 100.6° on the day of admission to 98.2° the next morning, and then varying between 98.4 and 99.8° until the 12th January, when it rose to 102.6°, falling to 99.8°, to rise again to 102.6°, after which it oscillated between 100.6° and 100.2° until his death on the 17th. Restlessness, varied by great drowsiness; frontal headache at times severe; and, towards the close, cramps in both legs, marked the progress of the case, and vomiting occurred on the last two days. There was constipation; never any diarrhœa. There were extensive retinal hæmorrhages and swelling of the optic discs, and on the last day of life he became quite blind. Iron and its arseniate were the remedies employed; and transfusion was entertained, but discarded, as the case seemed beyond recovery. At the *post mortem* examination, the heart was found to be advanced in fatty degeneration; the change being most marked in the left ventricle, the general wall of which was very friable and of a yellow-red colour; whilst the layer of muscular tissue immediately beneath the endocardium—both on the papillary muscles and the parietes—was speckled and streaked by whitish spots and lines. A few opaque patches occurred also in the mitral valves. Both lungs were engorged and purplish in their posterior two-thirds, numerous ecchymotic patches occurring beneath the visceral pleura and in the substance of each organ; whilst the bronchi contained some blood-stained tenacious mucus. The spleen was pale; its follicles were large, prominent, and white. The liver was large, firm; its lobules well defined; the central part of each lobule appearing as a whitish-yellow ring, giving the organ a curious speckled appearance visible through the capsule. This was due to fatty degeneration. The kidneys were simply bloodless. This was a pure case of idiopathic pernicious anæmia, and is interesting on account of the extreme youth of the patient.

Case vi.—Elizabeth Y., aged 21, unmarried, a nurse, was admitted under my care on January 20th, 1880. She had had no serious illness, but for some years had had very little colour, and had gradually become paler. The catamenia, which commenced between the ages of fifteen and sixteen, became abundant and frequent in August 1879; and at the same time she became gradually weak, suffered from giddiness, palpitation, and shortness of breath on exertion. She was well nourished, but extremely anæmic, and complained of great weakness and thirst. There was a marked thrill with the impulse of the heart, and a loud, almost grating, *bruit* at the pulmonary cartilage. The apex-beat was in the normal position. Temperature 100°; pulse 146. The temperature rose to 102,8° in the evening of the 21st; and with remission to 101° next morning, was 103.4° the following evening; the pulse still being very rapid, and the patient having sore-throat and headache. The red blood-corpuscles numbered 2,490,000 per cubic millimètre, or 49 per cent. The catamenia, which had been flowing for ten days before admission, continued, passing into profuse hæmorrhage—so much so, that in five days the corpuscles fell from 49 to 20 per cent. (Jan. 28th). Dr. Hall Davis was consulted; and, on the failure of plugging to arrest the flow of blood, the long continuance of which was assuming alarming proportions, endeavoured to check it by the injection of perchloride of iron; ergot being given by enemata, as it could not be retained by the mouth. She became drowsy and apathetic; the cardiac *bruit* increased in intensity; and, in spite of all efforts, she continued to lose blood; a very marked rise in temperature being noticed as the anæmia became more and more profound. She died on February 5th, a petechial eruption appearing about the trunk and limbs shortly before death. There was a large amount of subcutaneous fat, and the dark red colour of the muscles contrasted with the thin and watery blood. There were extensive subpericardial ecchymoses on the surface of the heart, the muscular substance of which,

especially of the left ventricle, was very pale, speckled, and extremely fatty. There were purpuric spots also over the kidneys. The ovaries were rather large and fleshy, and contained cysts; in the right was a rather recent corpus luteum. The uterine mucous membrane was pale and smooth; a minute sessile polypus, of the size of a pin's head, showing no evidence of ulceration, occurring at the entrance of the left Fallopian tube. The idea that this was the cause of the hæmorrhage was quite untenable. Indeed, the case might be interpreted as the development of the hæmorrhagic diathesis in a chlorotic subject. The chlorosis preceded the menorrhagia, which in its turn intensified the anæmia; and the uncontrollable loss of blood thus arising could not be repaired. Transfusion was clearly out of the question, until that constant bleeding could be stanched.

As I have already remarked, the field of view has been so widely extended since the time of Addison, that one is embarrassed by the attempt to analyse the cases which have been recorded as progressive pernicious anæmia. Some of these clearly belong to the category of Addison's cases, others obviously do not; so that in perusing them one is continually being confused by the assumption that we are speaking of the same things. Undoubtedly it will be a great gain when we can once and for all rid ourselves of the term "idiopathic" in medicine. There must be an underlying cause for every departure from the normal mechanism. But the time has not yet come. So far as I can gather, then, the term "pernicious" has been used in different senses: some simply employing it to serve as the expression of the severity of any case of anæmia, no matter how arising; others stamping it with a specific character, going behind the strict meaning of the word, and implying by it that it deals with a form of anæmia which is wholly peculiar, and only lately known. What wonder, then, at the mystery and obscurity which veil the subject? One by one the criteria attempted to be established between this form of severe anæmia and other forms nearly but not quite as severe, have been or are being broken down; the one that most resists explanation being the intractability of the disease by ordinary therapeutic measures. But there are problems concerned in it which remain to be solved. At present I think we are in a position to take this view, that to a considerable number of cases the term "idiopathic" is inapplicable, there being, in other words, a sufficiency of causes in operation to establish the anæmic condition, but that its *pernicious* and *progressive* characters are impressed on it by changes of which we know nothing, or nearly nothing. It may be urged that this is but begging the question, and removing the idiopathic origin a step nearer. It is hardly so, for I think it justifies us in establishing such a classification as this:—

Anæmia { Symptomatic { Simple. / Pernicious. ; Idiopathic { Simple. / Pernicious.

Such a classification would be warranted by our present knowledge, and would distinguish between the two main forms of pernicious anæmia, destined, like the simple forms, to be merged again into one, when etiology shall be perfected. "Idiopathic" and "pernicious" are not, then, alternative terms, although a large number of the latter fall under the former class. Out of the 110 cases whose records I have studied, in forty no cause has been attributed, or the record is silent on it; in others, the alleged cause is too remote and too slight to have influenced the case at all, but the chief causes which were sufficient and which stood in sufficiently close relation to be regarded as causes were these. 1. *Bad living and food* occurred in eleven cases, often conjoined with other more immediate influences, as pregnancy and lactation, or gastro-intestinal disturbance; the latter no doubt produced by these bad circumstances. It has been pointed out that the great prevalence of pernicious anæmia in the Swiss cantons, especially in Zürich, is related to the impoverished condition of the peasant folk, amongst whom the cases of the disease are most frequently found. They live chiefly on potatoes and coffee, a diet not conducive to healthy blood-formation, and sufficient of itself to lead to anæmia, even of this fatal kind; and the supervention of further debilitating influences nearly sufficiently explains the occurrence of such anæmia. It is objected to this, that the same causes are in operation elsewhere without such results, and that an endemic influence is quite a gratuitous hypothesis; that, when removed from such influences, other subjects recover from their anæmia; not so these, who become progressively worse, uninfluenced by treatment. Looking, however, to analogies from other diseases, and our knowledge of etiology in general, it seems hardly warrantable to prolong a vain search after other causes in the face of such self-evident ones as these; and remarkable as is the fact of this concentration of fatal anæmia to small districts, it is not more remarkable than other facts concerning the geographical distribution of many diseases. 2. An even more potent cause, often associated with the first, is *pregnancy*, especially if the woman be submitted to the exhausting influences of rapidly repeated pregnancies. It was the starting-point of the pernicious anæmia in twenty, or rather less than one-fifth, of the 110 cases. Abortion is liable to occur, and its occurrence is generally followed by the death of the parent, although there may not have been any great loss of blood. Sometimes repeated vomiting in pregnancy is followed by anæmia of this extreme kind, which may also supervene upon flooding in labour, prolonged lactation—causes often enough of a simple symptomatic anæmia, fortunately seldom of a pernicious. Menorrhagia is a sequel as well as a cause of anæmia, and one of the cases appears to have commenced at the menopause. 3. *Digestive* and *intestinal* disorders appear to be at the foundation of several cases, and this, independently of bad diet in many; but clearly the records show that dyspeptic symptoms, vomiting, and diarrhœa, have troubled the patient at the very outset, before the subjective or objective symptoms of anæmia have developed. Frequently, as we have seen, the same gastro-intestinal symptoms appear during the course of a pernicious anæmia. Dysentery and typhoid fever may be followed by an anæmia which becomes pernicious in degree. 4. Malarial influences have been supposed to play a great share in determining the pernicious character, but it is singular in how few cases a distinct history of previous intermittent fever has been obtained; and many of the patients have not lived in malarial districts. Then there are cases in which the profound blood-change has been set on foot by direct nervous shock, by fright, grief, or worry. In a word, the *known* etiological factors of pernicious anæmia are those of simple anæmia. The symptoms of pernicious anæmia are those of simple anæmia aggravated and intensified. The effects of pernicious anæmia are the same as those of simple anæmia, carried to an extreme degree.

If we turn now to those cases where it is impossible to detect with our present knowledge any etiological factors for the anæmic condition—if we deal, that is, with purely idiopathic cases, we are bound to seek for causes within the organism itself. That search has been only in part successful. As in all cases of anæmia a cause must be sought in one or two directions, that of diminished activity of formation of blood, or excess of activity in its destruction, attention must be paid to each of these points, especially as regards the blood and the blood-forming organs. Of these I shall shortly speak.

The degree to which the hæmoglobin may be diminished has not been much estimated; but Quinquaud found that, when it reached 26.5 grammes per 1,000 cubic centimètres of blood—*i.e.*, about one-fifth of the normal quantity—the case was invariably fatal; and then there is also a diminution in the solids of the serum. In this, as in other forms of anæmia, it has not been shown that there is any relation between the number of corpuscles and their richness in hæmoglobin. One of the cases I have related, it will be remembered, gave a diminution of corpuscles to 530,000 per cubic millimètre, or 10.6 per cent., whilst the colour-test for hæmoglobin showed that there was 30 per cent. of that substance. The case is proportionately grave, therefore, when the corpuscles and hæmoglobin are *pari passu* diminished. Quincke is inclined to doubt the value of observations on the amount of colouring matter in this disease, believing that some of it is in an inactive state, occurring as the detritus of the corpuscles. Most of his numerations are remarkably low—*e.g.*, in four cases, one-eighth, one-tenth, one-fifteenth, and one thirty-fifth of the normal, the last being a case in which recovery took place, and the temperature-chart of which is before you. Many observers have met with variations in the size and form of the red corpuscles. Such variations include corpuscles larger than natural; others much smaller and spherical—the so-called microcytes, at first regarded by Eichhorst as pathognomonic of pernicious anæmia, but since abundantly disproved, for they may be absent, and certainly occur in simple anæmia; and numerous smaller and misshapen bodies. Quincke laid especial stress upon alterations in shape; and I place before you a copy of his drawing, which gives an illustration of the multiplicity of shapes and variations in size which the corpuscles may be found to undergo. Similar changes are described and figured by Dr. Finny, and have been observed in other cases, of which I may mention one, for the notes of which I am indebted to Dr. Pye-Smith. Irregular massing of corpuscles, rather than a tendency to form rouleaux; rapid appearance of crenation; pear-shaped, biscuit-shaped, globular forms; an excentric position of the depression on the surface of the globule, or the readiness with which the colouring matter accumulates in the corpuscle at one part, so as to give the corpuscle a nucleated appearance, are amongst the alterations observed after the blood is shed. They indicate a greater proneness to form-changes than in healthy blood, perhaps determined as much by altered quality of the serum as by any integral change in the corpuscles themselves. At the same time, the predominance of small forms and what appear to be broken fragments of corpuscular matter point either to an

accumulation in the blood of imperfectly formed elements allied to M. Hayem's hæmoblasts, or, on the other hand, to evidences of the disintegration of the corpuscles.

Since neither the spleen nor the lymphatic tissues show any evidence of change, the discovery of the blood-forming function of the bone-marrow by Neumann has naturally led to its examination in cases of pernicious anæmia, but with results both positive and negative. Dr. William Pepper of Philadelphia, in 1875, was the first to offer this explanation of this obscure disease, and described definite changes, chiefly of small granular cells, in the marrow of the radius and sternum in one case. Cohnheim in the following years also described a condition of hyperplasia of the bone-marrow, fat being almost entirely absent, and the marrow of a red colour. Besides ordinary marrow and lymphoid cells, he found a large mass of small red corpuscles, a few fully formed ones, and an abundance of nucleated red corpuscles of various sizes, some of which were found in the blood itself. The next most important contribution, is that by a member of this College—Dr. Osler, of Montreal—who in two cases, one in conjunction with Dr. Gardner, and the other with Dr. Bell, made a very thorough examination, not only of the blood, but of many of the bones of the skeleton. The marrow was of a violet-red colour, and almost destitute of fat, containing besides the ordinary elements a large number of nucleated red corpuscles, similar to those described by Neumann as transitional forms between lymphoid cells and red corpuscles. Dr. Osler,* in examining the marrow of the long bones in fourteen cases of chronic disease, found evidences of a similar hyperplasia in only one case. Others have reconfirmed these obsevations; and others, again, have not been able to show any such changes in the marrow, whilst Eisenlohr (*Deutsche Arch. für Klin. Med.*, xx, 1880), finding that the alterations in the blood and marrow, similar to those described, were met with in a case of cancer of the stomach, as well as in one of pernicious anæmia, is inclined to regard these conditions as dependent on the cachetic state rather than the cause of it; and a similar opinion has been expressed by others.

The question, however, cannot yet be entirely disposed of, and there is no *primâ facie* reason against a myelogenic anæmia sometimes occurring. If it do occur, then it points to defect in the normal evolution of the corpuscles, and we have the strange concurrence of appropriation of material by a blood-forming organ and development of the corpuscles up to a certain point, but no further. Meanwhile, research is also being prosecuted in the other directions—viz., increased destruction of blood-elements, Quincke finding large quantities of iron deposited in the liver, kidneys, and pancreas, in one or two cases of this disease; but his observations, as well as the solitary observation of Dr. Finny, as to excess of iron in the urine, require further confirmation before being finally accepted. Further, I may remark that, in two cases of Quincke's the total quantity of blood was estimated by a simple process of calculation of the corpuscular richness before and after transfusion, and it was found in these cases to have fallen to 5 per cent. and 4.34 per cent. of the body-weight, the normal being 8 per cent.

In conclusion, one cannot fail to be struck by the broad resemblance in the midst of difference that exists between the course of a fatal idiopathic anæmia and leukhæmia and Hodgkin's disease (or pseudo-leukhæmia, as it is called)—a resemblance due to the factor common to all of them; the diminution of the oxygen carriers of the blood. In leukhæmia there may be both an increased production of white corpuscles and an incomplete conversion of them into the red. In Hodgkin's disease, or pseudo-leukhæmia, there may or may not be any leucocytosis, but there is certainly deficient formation of red corpuscles; and in idiopathic anæmia there must be either such deficient formation or an excessive consumption of these same elements, so that there is no sharp line of demarcation between the two. Similarly in chlorosis we have a disease, the characteristic of which appears to be an imperfect evolution of the blood, and except in a few instances it does not seem possible to distinguish chlorosis from idiopathic anæmia. I must not, however, be contented with this mere assertion, and propose, therefore, to speak of chlorosis in its relation to idiopathic anæmia at the commencement of my next lecture, when I hope also to enter more fully into the effects of the anæmic state.

* Gardner and Osler, *Case of Progressive Pernicious Anæmia*. Montreal: 1877.

THE Committee of the "Frank Buckland Memorial Fund" have decided the the memorial shall take the form of a bust to be placed in the Fish Museum at South Kensington; the purchase of an annuity to be presented to Mrs. Buckland; and, if there be any surplus, it will be applied in some way to promote the welfare of the fishermen of this country. The honorary secretaries are Colonel Bridges and Mr. T. Douglas Murray, to whom subscriptions may be sent, at 34, Portland Place.

ABSTRACT OF LECTURES
ON THE
ANATOMY, PHYSIOLOGY, AND ZOOLOGY OF THE CETACEA.

Delivered at the Royal College of Surgeons of England.

BY W. H. FLOWER, F.R.S., LL.D.,
Hunterian Professor of Comparative Anatomy.

LECTURE I.

THE primary object for which these lectures were founded was the illustration of the contents of the extensive and valuable Museum of the College. The large additions which have been made since the time of John Hunter its founder, especially during recent years, to the collection of human osteology, rendered it desirable that attention should be directed to the scientific information to be derived from a study of the materials preserved and displayed in that department. Accordingly, for the last four years, the comparative anatomy of man has formed the subject of this course. The osteological characters of various races of Asia, Africa, Polynesia, and America have been discussed as far as the material at disposal would allow. There still remain the characters of the various races of Europe to be considered, and some general conclusions to be drawn regarding the different races which inhabit or have recently inhabited the world, before the subject can be said to have been completed. The acquisition of the Barnard Davis Collection in the early part of last year has more than doubled the materials illustrating the comparative anatomy of the races under consideration, besides supplying others hitherto unrepresented in the museum. The work of removing, cleaning, arranging, and cataloguing the numerous specimens of this collection has absorbed so much time, that little has been left as yet for their scientific examination. As any attempt at the exposition of the variations of the osteological structure of man from the evidence afforded by the newly acquired specimens would be very incomplete, it has been thought advisable to postpone the consideration of the subject to a future time.

The anatomy of the Cetacea, which has been selected for consideration this year, is particularly well illustrated in the museum—better, perhaps, than in any other museum—and is of great interest, though there is, perhaps, no group of animals so difficult for study. The cost of transporting and mounting these large specimens is very great. The anatomy of the soft parts is also difficult to investigate, from the large size of the structures, as well as from the difficulty of getting them dissected, the animals being, for the most part, putrid before the anatomist hears of them, thus rendering the task a very disagreeable one. The disputes which almost always arise as to the ownership of any whale's carcase cast or brought ashore have greatly deterred the scientific study of those animals. The Government, the owner of the land upon which the animal has been stranded, and the fishermen, all claim it; the result being, that not unfrequently the law has to be appealed to before the ownership can be determined, and before matters are settled the animal has become useless to everyone from decomposition. When a whale is stranded on our coasts, it is usually some species of fin-whale, the oil of which is small in quantity, and the whalebone of little use on account of its being so short in the blade; the Greenland whale is never seen so far south as this country.

A great difficulty in treating the subject of whales has arisen from the complication of the nomenclature, different writers using different names for the same species, as well as confusing one species for another. The earliest and one of the best works on cetology is that on the Dolphin by Dr. E. Tyson, written about two hundred years ago. After the lapse of a hundred years, we have the well-known memoir by John Hunter, who devoted much attention to this group, entitled "Observations on the Structure and Œconomy of Whales", which he published in the *Philosophical Transactions* for 1787. Hunter secured and dissected a specimen of the smaller fin-whale or Rorqual (*Balæna rostrata*), seventeen feet long, caught off Dogger Bank. The skeleton of this whale he afterwards mounted, and it is still preserved in the museum. It is interesting to note that this is the second recorded instance of the skeleton of a whale being mounted, the first having been articulated and placed in the town-hall of Bremen in Germany one hundred years before. The picture of the animal still exists in the town-hall of that city; but the skeleton has been removed to the museum. Besides mounting the skeleton of his whale, Hunter made forty-six

bottle-preparations of the soft parts, and several dry preparations, all of which are in the galleries and osteological cases of the museum. Since the time of Hunter, great advances have been made in cetology. Cuvier, Van Beneden, Eschricht, and many others, have worked at the subject; new species have been found almost every year, and are being brought to our knowledge by zoologists of various parts of the world.

The cetacea are true mammalia, and their fish-like appearance is only an adaptation by nature to fit them for living in the water. They are a very specialised order, and cannot be mistaken for any other animals; unlike most orders, they present no transitional forms. Their general external fish-like appearance; the large size of the head, placed on the anterior end of the trunk, without the external appearance of the intervention of neck, with one exception; and the posterior end of their body terminating in a horizontally flattened fin, distinguish them from all other animals. Their only external limbs are the anterior ones, which are reduced to paddles, without any appearance of fingers or nails, and with little or no motion of the elbow-joint. Though there is no trace of hind limbs to be seen externally, yet, in some species of whales, they are to be found under the skin in a very rudimentary form. The external surface of these animals is covered over with a smooth shining skin, from which all hair or anything to obstruct their passage through the water is absent. The only portion of the body on which hair sometimes exists is about the mouth; here a few bristles may be found situated at intervals apart. The animal heat, which in most other mammals is principally retained within the body by a coat of hair or fur, is retained within the whale's body by a thick layer of a particular kind of fat called blubber, situated immediately under the skin. Many of the whales possess a dorsal fin, which gives them a still more fish-like appearance. This fin is, however, not a true fin, but only a fold of skin with an intervening layer of blubber; no trace of it is to be seen in the skeleton. The jaws have teeth set in the gums, or a peculiar substance, arranged in plates hanging downwards from each side of the palate, called baleen or whalebone, though structurally it is entirely different from bone. The presence of either teeth or of whalebone is the basis of the classification of the whales into two great groups. All whales possess a blow-hole, which may be single or double, united or separate, situated on the highest part of the head. Regarding the breathing of whales, erroneous opinions have frequently been entertained. Many persons have imagined that, along with the breath, water is discharged through the blow-hole, causing what is familiarly known as the spouting of whales. The whale never spouts water through his blow-hole, but only exhales air highly charged with moisture, the same as any other mammal. When the sea is calm, and the weather still and frosty, the expired air can be seen rising at the spots where he comes to the surface to breathe, like puffs of steam. This is due to the air having been heated while in the animal's lungs to a considerably higher temperature than that of the surrounding atmosphere. What has led to the belief that the whale discharges water from his blow-holes, is probably the fact that, not unfrequently, he expires before his head is entirely above the surface of the water, the result being that water in the form of foam is driven upwards into the air along with the breath; this phenomenon is especially noticeable when the sea is rough. Another circumstance which has led to the fallacy is that, when harpooned, the whale frequently spouts blood through the blow-hole. The cause of this is, however, entirely different, as in this case the blood comes from the injured lung. Cetaceans all feed on animal food, principally fish; also on cephalopods, crustaceans, octopuses, etc. Only the grampus will eat the flesh of warm-blooded animals and seals. Whales are to be found in all seas and in all parts of the ocean. There are some forms which only frequent large rivers, such as the Indus and Amazon.

THE ANTISEPTIC TREATMENT OF ENTERIC FEVER.

By C. E. SHELLY, M.B.Cantab., Hertford.

In the *London Medical Record* for August 1880 appeared a *résumé* of the papers published by Dr. C. G. Rothe in the *Deutsche Medicinische Wochenschrift*, Nos. 11 and 12, on the treatment which he had successfully employed in enteric fever. This consisted essentially in the administration of carbolic acid and tincture of iodine in frequently repeated doses until apyrexia was produced; and thereafter, at longer intervals, for two or three weeks. The advantages claimed were, rapid and permanent subsidence of the high temperature, and of the vascular excitement (the pulse usually falling before the temperature, and often remaining subnormal in frequency for weeks, but not becoming irregular or intermittent); early subsidence of the gastric symptoms (by the beginning of the second week at latest); after which the patient gained a moderate appetite, and always experienced "a feeling of being quite comfortable"; and uninterrupted convalescence followed. Finally, Dr. Rothe expressed his wish that all who deemed his treatment worth a trial would publish their results, in order that his own observations might be confirmed or corrected.

In a short series of cases of enteric fever which came under my observation a few months since, Dr. Rothe's treatment, slightly modified, was put in practice, with results which were not less gratifying to the patients, I believe, than to myself. I should state at once that all the subjects were young people, their ages ranging from sixteen to twenty-seven years; that none of the cases—with one exception, in which the morning temperature during the first three days on which it was observed, fluctuated between 104.7° and 105.2° F.—were of more than medium severity at the outset; and that the surrounding hygienic conditions were, in all cases, good. Humanly speaking, all the patients would probably have recovered under any form of rational treatment, combined with good and careful nursing. But I was struck by the early and rapid fall of temperature, the retardation and steadying of the pulse, the quickness with which the motions lessened in number and improved in quality, the cleanly tongue, the absence of sordes, the early removal of the abdominal pain and tenderness, the refreshing sleep, the comparatively slight emaciation, and the remarkable unanimity with which all the patients agreed in expressing themselves as feeling quite comfortable after the first few doses of the remedy. No increase of temperature was observed to attend the eruptions of the five successive crops of spots which appeared in the most severe case. No complications were noted.

So small a record of mild cases would be scarcely worth quoting *in extenso*: but, so far as I have been able to test this remedy, it has certainly proved reliable; and I shall be glad to know whether any others find, or have found, it valuable under circumstances more trying than those to which I have had an opportunity of applying it. The theory on which Dr. Rothe founds the name of his "antiseptic (antizymotic) treatment" is that to which the recent discoveries of Professor Klebs (*Archiv für Experim. Pathologie*, vol. xii, parts 2 and 3) give increased importance; and it would be most interesting to find how far the theoretical link between the control of the pyrexia and other symptoms of enteric fever, and the simultaneous administration of an antiseptic medicine would be strengthened, or the reverse, by the systematic examination of the blood and tissues of such patients, after the method of Klebs. The formula recommended by Dr. Rothe is one to two parts of carbolic acid and one of tincture of iodine in one hundred and twenty of water; one tablespoonful to be given hourly until a decided effect is produced on pulse and temperature; thence every two hours until apyrexia follows; and it should be continued for two or three weeks. Under these circumstances, it is not surprising that, "after two or three weeks' uninterrupted administration, toxic symptoms always occurred". In my cases, a draught containing one or two minims of carbolic acid, one to three minims of tincture of iodine, half a drachm of simple syrup, and an ounce of lemon-water, was given every two, three, or four hours, or even less often, without any untoward symptoms, and with satisfactory results. Dr. Rothe recommended oil of peppermint as effectually disguising the flavour of the principal ingredients; but, following out a hint derived from the publication of Lebon's formula, I found essence of lemon even more effectual to this end, and more generally agreeable; and in some cases small doses of nux vomica and of nitro-hydrochloric acid were added to the mixture towards the termination of the disease.

I have mentioned the comparatively slight emaciation; the rapidity with which both flesh and strength were regained was in proportion; and the appetite, although it returned very early in the disease, never attained that craving character which is sometimes an almost painful experience in the convalescence from enteric fever.

I may add that this combination has yielded me good results in cases of choleraic and autumnal diarrhœa, with or without high temperature. Dr. Rothe says that, for the last ten years, he has not ventured to give up its use in phthisis, diarrhœa, diphtheria, etc.

PRESENTATION.—Mr. Whitfield Perkins, upon recently resigning the appointment of Assistant Medical Officer to the City of London Lunatic Asylum, at Stone, near Dartford, was presented with many gratifying testimonials by the officers and employés of the institution, including a pony-carriage, a tea-pot and a coffee-pot, a cruet-stand, a spoon-warmer, a glass centre, a polyglot Bible, a butter-dish and knife, a set of salt-cellars, two pairs of vases, and a case of fish knives and forks—having upon it a suitable inscription, subscribed for by the attendants and artisans.

ABSTRACT OF LECTURES
ON
THE RELATIONS OF SARCOMA TO CARCINOMA.

Delivered at the Royal College of Surgeons of England.

By HENRY TRENTHAM BUTLIN, F.R.C.S.,
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Lecture II.—Œsophagus and Tonsil.

Malignant disease of the Œsophagus is a subject of great interest to the surgeon of the present day; for Czerny, in 1877, acting on a suggestion made by Billroth, resected a small portion of the entire calibre of that canal, removing an epithelial ulcer. The skin-incision was made as in œsophagotomy; and, after the operation, food was introduced through the wound, to the edges of which the lower end of the divided œsophagus had been stitched. Five months later, the patient, a countrywoman, aged 51, was in perfect health, and could feed herself so comfortably through a funnel introduced into the wound, that she refused to undergo an operation for uniting the divided ends of the œsophagus. Mr. Butlin can only find one case of sarcoma of the œsophagus. It is described by Dr. Chapman, occurring a few years since, in America; the patient was a woman aged 45, who died after suffering from symptoms of stricture of the œsophagus for over eight months. The walls of the upper part of the canal were much thickened, close to two tumours, one of which was certainly an enlarged gland. The submucous tissue and subepithelial portion of the mucous membrane of the thickened part were transformed into sarcomatous deposit, which, in the submucous layer, was a dense mass of spindle-cells, forming alveoli filled with large oval cells. Cancer, excepting epithelioma, is almost as rare as sarcoma: out of fifty-eight collected cases of œsophageal carcinoma, fifty-three were of the epithelial variety; two were hard cancer; one soft; and one colloid. Epithelioma of the œsophagus agrees with the same disease in the tongue, not only in being almost the only form of malignant disease attacking the part, but also in being far more frequent in men than in women, four-fifths of the cases collected being from male subjects; besides, the disease is almost confined to middle life. No case is recorded under the age of thirty, and it is exceedingly rare after seventy; although, in one instance, it existed in a man of eighty-four.

Dr. Morell Mackenzie found that, in nearly half his cases of epithelioma of the œsophagus, the upper third was attacked; and observed that the lower third was the least frequently affected. Zenker, Ziemssen, and Petri believe the lower third to be the commonest seat of the disease. Mr. Butlin finds, from his fifty-three collected cases, that though, in the larger number of cases, the upper third was affected, the point of junction of the middle and lower thirds was three times more often attacked than the limit between the two upper thirds; so, by dividing the canal into halves instead of thirds, the number of cases affecting each half is very nearly equal. The accuracy of all such calculations is much impaired by the difficulty of determining, when the disease is widespread, as to its primary point of invasion. Ulceration was found in forty-nine of the fifty-three cases; and the ulcer is generally of the usual type seen in epithelioma of external parts. Sometimes it appears as the breaking-down of a well-defined mass of cancerous deposit. According to Zenker and Ziemssen, the disease begins as a girdle of deposit, or else an "island" generally extending itself into a girdle. This girdle encircles the canal, but in an irregular manner; separate, outlying, and more distant ulcers are sometimes found: these are regarded as of secondary origin. In only seven instances was the disease confined to the œsophagus; out of these, the longest case had only manifested itself by symptoms for four months preceding death. The trachea is the adjacent structure most frequently invaded; then the right lung; then, but much less frequently, the left; the bronchi still less commonly; and the aorta very rarely; in fact, only four times in the collected series. This invasion almost always includes ulceration as well as deposit, with results of self-evident gravity; the recurrent laryngeal and pneumogastric nerves may also be damaged. It follows that the duration of cancer of the œsophagus is so often shortened, that not half the fatal cases die of inanition.—Five died of hæmorrhage, five of suffocation, and ten of various lung-affections: out of thirty-eight cases, where the duration of the disease is noted, twenty died within six months, and only seven lived for about a year.

Microscopically, epithelioma of the œsophagus offers no remarkable or peculiar characters: cell-nests are almost constant. In twenty-nine of the fifty-three cases, the lymphatic glands were recorded to be affected. The real proportion of glandular infection must be far higher; and there is no reason to suppose that carcinomatous infection in œsophageal disease travels, as a rule, less frequently by the lymphatics than in cancer elsewhere; although, in one remarkable case, Gussenbauer found the disease travelling to a gland through blood-vessels, the coats of which were thoroughly cancerous. The affected vessels formed an indurated cord leading to the gland; the cord was first detected, and the gland then observed to be diseased. This is significant; for, in many other cases, where only superficial attention has been paid to structures around a cancerous œsophagus, glands really in an incipient stage of disease must often have been overlooked. Out of the twenty-four cases in which glandular disease is not recorded, in seven it is definitely stated that the glands were normal, or that no secondary disease was present; and, in the most prolonged of these seven cases, the disease had existed only six months. Dissemination of the disease is noted in five cases only; it is, however, not rare to find numerous minute nodules in the mucous or submucous tissue of the œsophagus. These nodules, though never widely separated from the primary disease, or from each other, may spread over a wide area, reaching to the epiglottis and root of the tongue, or to the stomach when the original disease is situated very high up or low down in the œsophagus. Mr. Butlin does not believe them to be true secondary growths carried from the primary disease by lymphatics or blood-vessels, but rather as continuous extension of the primary deposit in fine cords or lines here and there more exuberant. In one case, the tongue was simultaneously attacked by epithelioma; in another, the thyroid body was affected. In five remaining cases of general dissemination, the lungs were infected in four, but not always alone; and the liver and kidneys in one, where the lungs were not involved. In three of the four cases in which the lungs were affected, it appeared almost certain the disease had been conveyed through the air-passages.

Cancer of the œsophagus can only be removed when situated very high up; and, of such cases, but few prove suitable for operation. An attempt to resect a cancerous œsophagus, where symptoms had been observed for eight months, had to be abandoned, the thyroid body and some glands being deeply involved; the patient died four days later. In nearly all the cases in Mr. Butlin's series, the disease was found to have invaded adjacent structures, even when its duration had not extended over four months; and in more than one instance symptoms had only been observed for three months before death. If this operation is to be attempted with a fair prospect of success, it must be within two or three months of the outbreak of the disease high up in the œsophagus, or at the bottom of the pharynx. Fortunately, the growth, in some of these cases, can be reached with the finger; and the laryngoscope may readily aid or confirm diagnosis.

The two recorded cases of hard cancer of the œsophagus are both perfectly authentic. A firm stroma of connective tissue enclosing spaces filled with cells formed the basis of the disease, which extended into adjacent structures. Both were distinguished from any case of epithelioma by their extremely chronic character, one lasting for two, and the other for considerably over three years. The case of soft cancer was examined microscopically by Dr. Coats: the tumour was about an inch and a half long, and grew beyond the trachea into the structures about the arch of the aorta. The case of colloid cancer is described in the nineteenth volume of the *Transactions of the Pathological Society of London*. The disease involved the whole thickness of the lower half of the œsophageal wall and the cardiac orifice of the stomach; it had extended widely into neighbouring glands, and the lungs were in a morbid condition of a suspicious nature.

Primary malignant tumours of the Tonsil are extremely rare. Mr. Butlin has succeeded in collecting twelve cases where the growths have been microscopically examined. Round-celled sarcoma is the most common of the malignant tumours which affect the tonsil, in which a large quantity of round-celled tissue naturally exists; and a delicate reticulum is often found around the cells similar to that of the adenoid tissue of the tonsil. Nine of the collected series of malignant disease of the tonsil were sarcomatous. The sarcomata formed distinct prominent tumours, as did the case of soft cancer, which probably originated in the glands in the submucous tissue. Epithelioma of the tonsil appears as a deep foul ulcer. In all these affections, the disease extends to adjacent structures, and runs a rapid course; yet in one case, not only was the tonsil removed by a timely operation, but the patient is now alive, two years since its excision. The lymphatic glands are always invaded, and at an early stage, even in the sarcomata of the tonsil; a clear proof that sarcoma may produce glandular infection. Dissemination was found in all cases where a *post mortem* examination could be made.

The cases collected by Mr. Butlin, to illustrate both lectures, were arranged for reference in the following tables.

CARCINOMA OF TONGUE—EPITHELIOMA.

No. of Case.	Sex.	Age.	Seat.	Ulceration.	Affection of Surrounding Parts.	Duration to Operation.	Nature of Operation.	Total Duration (in months.)	Cause of Death.	Recurrence after Operation.	Affection of Glands.	Affection of Lungs.	Affection of Other Parts, and Remarks.
1	M.	55	Root	Yes	—	—	o	7	Exhaustion	—	Submaxillary	—	No *post mortem* examination.
2	M.	66	Whole	,,	—	—	o	16	,,	—	,,	o	Left suprarenal body.
3	M.	Middle	Right border	,,	o	9 m.	Removal, division of symphisis	—	—	—	—	—	Result unknown.
4	F.	55	Left border	,,	Palate, etc.	—	■	7	Exhaustion	—	Cervical, and one bronch.	Yes	o
5	M.	60	,,	,,	Floor of mouth	6 m.	Ecraseur, section of jaw	—	—	—	—	—	Well 7 months later.
6	M.	54	Anterior portion	,,	o	6 ,,	Ecraseur	14	Diseased glands	—	Yes	—	No *post mortem* examination.
7	M.	59	Dorsum	,,	Epiglottis.tonsil	—	o	18	Exhaustion	—	Submax.	o	o
8	M.	52	Left side	,,	Jaw	7 m.	Removal of tongue and glands, section of jaw	—	—	—	Sublingual	—	Result unknown.
9	M.	58	Right border	,,	Epiglottis	—	o	12	Hæmorrhage, exhaustion	—	Submax.	o	Epithelioma of cardia of œsophagus.
10	M.	42	Right side	,,	—	8 m.	Ecraseur, right half	16	Hæmorrhage	Yes	Submax., etc.	o	■
11	M.	56	Anterior portion	o	—	4 ,,	Ecraseur, supr. hyd. incision	—	—	—	—	—	Result unknown.
12	F.	41	Border	Yes	o	1 ,,	Free cutting	48	Not epithelioma	o	o	—	No *post mortem* examination.
13	M.	39	Left border	,,	Floor of mouth	5 ,,	Ecraseur	11	Recurrence in throat	Yes	Cervical	—	No *post mortem* examination.
14	M.	48	Right border	,,	—	6 ,,	,,	12	Glandular disease	,,	Cervical, submax.	—	No *post mortem* examination.
15	M.	62	,,	,,	o	4 ,,	,,	4	Operation, secondary hæmorrhage and pneumonia	o	o	o	o
16	M.	52	Left border	,,	o	3 ,,	Ecraseur, half tongue and one gland	12	Gland disease	In gland	Submax.	—	No *post mortem* examination.
17	M.	40	Left side	,,	o	?	Ecraseur	?12	Disease in throat	Yes	—	—	No *post mortem* examination.
18	M.	75	Right side	,,	o	1½ m.	,,	15	Gland disease	o	Cervical, submax.	—	No *post mortem* examination.
19	M.	51	Left border	,,	o	3 ,,	Knife	8	Hæmorrhage, etc.	Yes	Submax.	—	No *post mortem* examination.
20	M.	48	Right border	,,	o	?	,,	—	—	—	o	—	Well two years later.
21	M.	44	Right side	,,	o	2 m.	Ecraseur	10	Exhaustion	Yes	—	—	No *post mortem* examination.
22	F.	32	Left border	,,	o	7 ,,	Removal, half tongue	17	Hæmorrhage	—	Cervical	—	No *post mortem* examination.
23	F.	43	,,	,,	o	7 ,,	Ecraseur, half tongue	7	Operation, tetanus	■	o	o	o
24	M.	59	Dorsum	,,	o	4½ ,,	Ecraseur	—	—	—	—	—	Result unknown.
25	M.	58	Left border	,,	Jaws & cheek	?24 ,,	Free removal	—	—	—	—	—	Well eighteen months later.
26	M.	50	Dorsum	,,	o	?	Ecraseur	—	—	—	—	—	Well nine months later.
27	M.	53	Right half	,,	o	3 m.	,,	3	Operation, pneumonia	o	o	o	o
28	M.	54	Left border	,,	o	2½ ,,	Removal	—	—	In 3 months, and again in 4 months	—	—	Result unknown.
29	M.	47	Right border	,,	o	?	Removal, cautery	—	—	—	—	—	Well 1¾ years later.
30	M.	46	Dorsum	,,	Gum & floor of mouth	—	o	—	—	—	Submax.	—	Result unknown.
31	M.	61	,,	,,	o	6 m.	Ecraseur	30	Diseased glands	o	Submax. cervical	o	Two cancers of seventh right rib, and many in liver.
32	F.	42	Left underside	?	■	2 ,,	,,	—	—	—	—	—	Well 3½ years later.
33	F.	29	Right border	Yes	■	9 ,,	Free removal	198	Recurrence	In 6 years, & again in 2 yrs., & again	—	—	No *post mortem* examination.
34	M.	57	Left side	,,	o	12 ,,	Ecraseur	18	,,	Yes	—	—	No *post mortem* examination.
35	M.	36	Right border	,,	o	9 ,,	Cut out	—	—	—	—	—	Well 6 years later.
36	F.	37	Left half	,,	Gum & floor of mouth	—	o	?12	Exhaustion	—	Many	Both	o
37	M.	68	Dorsum	,,	o	?	Cut out	?	Recurrence	Yes	—	—	No *post mortem* examination.
38	M.	59	Right side	,,	o	4 m.	,,	—	—	—	—	—	Result unknown.
39	M.	45	Left side	,,	o	7 ,,	,,	22	Gland disease	o	Submax.	—	No *post mortem* examination.
40	F.	78	Right side	,,	■	—	o	5	Exhaustion	—	Yes	—	No *post mortem* examination.
41	M.	57	Dorsum	,,	o	?	Ecraseur	—	—	—	—	—	Well 3½ years after operation.
42	M.	64	Left border	,,	o	4 m.	Ecraseur, left half	10	Disease	Yes	—	—	No *post mortem* examination.
43	M.	38	Right side	,,	o	8 ,,	Removal, galvano-cautery	8	Operation, cellulitis	—	Submax.	—	No *post mortem* examination.
44	M.	44	Left side	,,	o	2 ,,	Ecraseur	—	—	In 3 months, & again later	—	—	Result unknown.
45	F.	60	Left border	,,	o	4 ,,	,,	14	"Recurrence in throat"	Yes	—	—	No *post mortem* examination.
46	M.	39	Right border	,,	o	8 ,,	Knife	10	Hæmorrhage, etc.	First after removal of glands, then of original disease	Submax.	—	No *post mortem* examination
47	M.	50	Left side	,,	o	? ,,	Ecraseur	—	—	—	Yes	—	Result unknown.
48	M.	68	Left border	,,	o	7 ,,	Ecraseur, left half	—	—	—	—	—	Result unknown.
49	M.	67	Dorsum	,,	o	12 ,,	Ecraseur	—	—	—	Submax.	—	Result unknown.
50	M.	59	Right side	,,	o	2 ,,	Removal, galvano-cautery	5½	Operation, pneumonia	—	,,	o	o
51	M.	66	,,	,,	o	2 ,,	Ecraseur	—	—	—	—	—	Result unknown.
52	M.	53	Left side	,,	o	4 ,,	Removal	5	Recurrence, etc.	Yes	Cervical, submax.	o	Heart, liver, right suprarenal capsule.
53	M.	34	Right border	,,	o	?2 ,,	,,	—	—	In 2 months	—	—	Result unknown.
54	M.	43	Right underside	,,	o	5 ,,	Removal, section of jaw	—	—	In a month	Submax.	—	Result unknown.
55	M.	46	Left side	,,	o	3 ,,	Removal, galvano-cautery	—	—	Yes	,,	—	Result unknown.
56	M.	60	Dorsum	,,	o	5 ,,	,,	—	—	—	—	—	Result unknown.

CARCINOMA OF TONGUE—EPITHELIOMA—*continued.*

No. of Case.	Sex.	Age.	Seat.	Ulceration.	Affection of Surrounding Parts.	Duration to Operation.	Nature of Operation.	Total Duration (in mos.)	Cause of Death.	Recurrence after Operation.	Affection of Glands.	Affection of Lungs.	Affection of Other Parts, and Remarks.
57	M.	52	Dorsum	?	o	?	Removal, section of jaw	—	—	—	—	—	Well ten months later.
58	M.	44	Right half	Yes	o	6 m.	Removal	12	Gland disease	o	Submax. subling.	—	No *post mortem* examination.
59	M.	41	Left border	,,	Gums & floor of mouth	6 ,,	Cauterised	12	Operation for recurrence	Yes	—	—	Only condition of lungs (pneumonia) mentioned.
60	M.	62	Dorsum	,,	o	3 ,,	Removal	3	Operation, pneumonia	o	—	—	Only condition of lungs (pneumonia) mentioned.
61	F.	51	,,	,,	o	4 ,,	,,	12	Gland disease	o	Cervical	—	No *post mortem* examination.
62	M.	50	Left border	,,	o	13 ,,	,,	26	Recurrence	In 3 months, and again in 3 months	—	—	No *post mortem* examination.
63	M.	38	Left side	Yes	o	3 ,,	Ecraseur	9	Disease	Formation on opposite side of tongue	Cervical, submax.	—	No *post mortem* examination.
64	M.	52	Dorsum	,,	Tonsil	—	o	?	Hæmorrhage, etc.	—	,,	o	o
65	F.	44	Right half	,,	o	?	Ecraseur	—	—	Quickly	Submax.	—	Result unknown.
66	M.	43	Dorsum	Yes	o	2 m.	,,	9	Recurrence	Yes	Submax. cervical	—	No *post mortem* examination.
67	M.	54	,,	,,	o	12 ,,	Removal	14	Recurrence, etc.	Rapid	Sublingual, etc.	Yes	Right ventricle and auricle of heart; liver.
68	M.	48	Left border, etc.	,,	Floor of mouth	4 ,,	Ecraseur, half tongue	—	—	—	Submax., etc.	—	Alive in December.
69	M.	64	Left side	o	o	?	Galvano-cautery	—	—	—	,,	—	Alive in December.
70	M.	29	Left border	Yes	Floor of mouth	—	o	—	—	—	,,	—	Alive in December.

CARCINOMA OF ŒSOPHAGUS—EPITHELIOMA.

No. of Case.	Sex.	Age.	Seat.	Ulceration.	Affection of Surrounding Parts.	Total Duration (in Months).	Cause of Death.	Affection of Glands.	Affection of Lungs.	Affection of other Parts, and Remarks.
1	M.	40	Second and third thirds	Yes	Connective tissue	12	Gangrene of lung, inanition	At bifurcation trachea	o	o Tubercles of lungs.
2	F.	38	Middle	,,	Perforating trachea	7	Inanition	Cervical	Right, one mass	Left kidney, one mass.
3	M.	57	Cardia	,,	Right lung	3	,,	o	o	o
4	M.	47	First third	,,	Perforating trachea	—	Exhaustion after operation	Cervical	o	o Tracheotomy and gastrotomy
5	M.	50	First half	,,	Perf. trachea, conn. tiss., etc.	8	Pneumonia, exhaustion	Tracheal	?	o
6	M.	44	First half	,,	Perforating trachea	?	Exhaustion after operation	Bronchial	o	o Œsophagotomy.
7	M.	45	First half	,,	Connective tissues, etc.	? 3	Gangrene of lung	,,	o	o
8	M.	64	Cardia	o	o	?	Suffocation	o	o	o
9	M.	52	First third	Yes	Perforating trachea	4	,,	Cervical and tracheal	o	o
10	M.	59	Third third	,,	o	4	Inanition	Mesenteric and gastric	o	o
11	M.	52	Third third	,,	Aorta torn	Many	Hæmorrhage	?	o	o
12	M.	38	First third	,,	Perforating trachea	6	Inanition, pneumonia	Gastric	Right	Right ventricle, pericardium, liver, mesentery.
13	M.	72	Second third	,,	o	—	—	Tracheal	o	o
14	M.	59	Second third	,,	Perf. trachea and right lung	—	Inanition	,,	o	o
15	M.	55	First half	,,	Perf. trachea, conn. tissue	8	Gangrene of lung, inanition	—	—	—
16	M.	40	Second and third thirds	,,	Aorta, perf. right lung	7	Gangrene of lung	—	—	— Two fibromata of stomach.
17	M.	42	First third	,,	Conn. tiss., left thyroid lobe	9	Inanition	Cervical	o	o
18	F.	55	Third third	,,	Right pleura perforated	6	Pleurisy	Cervical, gastric	o	Liver and kidneys.
19	M.	60	Second and third thirds	,,	Trachea, connective tissue	6	Inanition	—	o	o Tubercles of lungs.
20	M.	46	Middle	,,	Left bronchus, conn. tissue	5	,,	Cervical	o	o
21	M.	56	First third	,,	Trachea, connective tissue	Short	,,	Bronchial	o	Thyroid (? epitheliomatous).
22	M.	64	First and second thirds	?	Right lung	4	,,	—	o	— Partial *post mortem* examination.
23	M.	40	First third	Yes	—	12	,,	Probably	o	o
24	M.	56	Middle	,,	Aorta, connective tissue	[redacted]	,,	Mediastinal	o	o
25	M.	84	,,	,,	Lung	?	,,	Tracheal	—	— Old stricture at cardia.
26	M.	40	First third	,,	Perf. trachea, conn. tissue	13	Abscess of lung, pleurisy	—	—	—
27	F.	42	Second and third thirds	,,	Perf. trachea and left bronch.	5	Hæmorrhage	Bronchial	o	o
28	F.	51	First third	,,	o	—	—	o	—	— Disease removed by resection about 5 months after onset. Well 5 months later.
29	M.	57	Second and third thirds	,,	Perforating right bronchus	3	Exhaustion after operation	o	o	o Gastrotomy.
30	M.	60	Middle	,,	Trachea, connective tissue	7	Suffocation	?	o	o Large abscess in mediastinum.
31	M.	59	First third	o	o	3	Inanition	Cervical	o	o
32	M.	40	Second and third thirds	Yes	Aorta, right pleura, conn. tiss.	6	Suffocation	?	o	o
33	M.	56	,, ,,	,,	Perforating trachea	9	Inanition	—	o	—
34	F.	63	Middle	,,	Perf. right lung, pericardium, and left auricle	16	Gangrene of lung, etc.	Abdominal, ? thoracic	Both	Stomach, head of pancreas, adjoining surface of liver and substance of liver; suprarenal capsules. Fibroids of uterus.
35	F.	—	Cardia	,,	Connective tissue	? 8	Inanition, pneumonia	Gastric	o	o
36	F.	44	First third	,,	,,	5	Inanition	Cervical	o	o
37	M.	70	Cardia	,,	—	12	Pleurisy, etc.	Probably	o	o
38	M.	61	Second and third thirds	,,	o	4	Inanition	Yes	o	o
39	F.	49	First third	,,	Perforating trachea	7	—	—	—	—
40	M.	51	Middle	,,	Perforating trachea and 1st intercostal artery	Several	Hæmorrhage	—	—	—

CARCINOMA OF ŒSOPHAGUS—EPITHELIOMA—*continued.*

No. of Case.	Sex.	Age.	Seat.	Ulceration.	Affection of Surrounding Parts.	Total Duration (in Months).	Cause of Death.	Affection of Glands.	Affection of Lungs.	Affection of other Parts, and Remarks.
41	M.	65	First third	Yes	Perf. right subclavian artery	6	Hæmorrhage	o	o	o
42	M.	48	First and second thirds	..	Trachea	2½	Bronchitis	o	Both	o
43	M.	50	First third	..	Perforating trachea	6	Inanition	Cervical	—	—
44	M.	62	,,	..	Larynx, etc.	Several	—	—	—	—
45	M.	56	Third third	..	Connective tissue	6	Inanition	Mediastinal	o	o
46	M.	64	First third	,,	Perforating trachea	Several	Hæmorrhage into trachea	?	—	—
47	F.	42	,,	..	Connective tissue	9	Exhaustion	Cervical	o	o
48	F.	31	,,	—	Trachea	4	Inanition	o	o	o
49	M.	67	Second and third thirds	Yes	Pleura, pericardium, perforating bronchus	?	,,	Bronchial	o	o
50	M.	58	Third third	,,	Pleura	12	,,	—	o	Epithelioma of the tongue. Tubercles of lungs.
51	M.	59	,,	..	Trachea, bronchus, right lung	4	Exhaustion	Mediastinal	o	o
52	M.	68	Second and third thirds	,,	o	3	Suffocation	? o	o	o
53	F.	52	First and second thirds	..	Trachea	13	Inanition	Cervical and bronchial	o	o
Hard:										
1	M.	63	First third	?	Trachea, thyroid	39	,,	—	Both	Liver (1 nodule).
2	M.	51	Middle	Yes	Perforating trachea	23	,,	o	o	o Tubercles of lungs.
Soft:										
1	M.	45	,,	?	Arch of aorta		,,	Gastric	o	o
Colloid:										
1	M.	45	Lower half	Yes	Stomach	4	Exhausted	Many	?	

SARCOMA OF TONSIL.

No. of Case.	Sex.	Age.	Seat.	Affection of Surrounding Parts.	Duration to Operation.	Nature of Operation.	Total Duration.	Cause of Death.	Recurrence after Operation.	Affection of Glands.	Affection of the Lungs.	Affection of other Parts.
Round Cell. or Lymphoid:												
1	M.	12	L.	Palate pillars	6	Removal; galvano-cautery	—	—	—	One cervical	—	— Well a month after operation.
2	M.	46	R.	..	3	Removal: Thermo Cautery	—	—	—	—	—	— Well 2 yrs. aft. oper.
3	M.	48	L.	Palate	3	Removal	6	Hæmorrhage	In six weeks	Cervical	Both	Walls of small intestine, peritoneum, mesenteric glands.
4	M.	53	R.	Deeper structures	3	Ecraseur	3	Disease	In three months, and again later	,,	—	No *post mortem* examination.
5	M.	17	L.	Palate	—	o	3	Exhaustion	—	,,	o	Right tonsil; thyroid body.
6	M.	1	R.	Deeper structures	—	o	3	Hæmorrhage, etc.	—	,,	—	Partial *post mortem* examination.
7	M.	58	R.	Base of skull, etc.	3	Galvano-cautery	8	Hæmorrhage	Immediate	,,	—	Do. Do.
8	M.	34	L.	-	2	Removal	—	—	—	One cervical	—	Recovered from operatn.
9	M.	58	L.	Palate, etc.	—	o	2½	Sloughing of tumour	—	Cervical	o	Liver.

CARCINOMA OF TONSIL.

Soft:												
1	M.	62	R.	Skin, etc.	—	o	2½	Hæmorrhage, etc.	—	Cervical	o	o
Epithelial:												
1	M.	60	L.	Palate, tongue, etc.	—	o	2	Bronchitis; exhaustion	—	Cervical	o	o Tubercles of lungs
2	M.	46	L.	Palate	—	o	4	Disease	—	Cervical, etc.	Yes	Liver, spleen, etc.

OBSTETRIC MEMORANDA.

PUERPERAL CONVULSIONS.

MR. SYDNEY-TURNER'S case in the JOURNAL for March 19th is interesting, but more precise details would have added to its value: for instance, the amount and duration of the albuminuria, a most important symptom which is scarcely referred to; the apparent stage at which the development of the fœtus had been arrested, as the peeling of the cuticle showed that the child had been dead for some time; what symptoms beyond the thirst and abdominal pain pointed to the peritonitis, which is casually mentioned; and how the occurrence of the latter was accounted for. I agree with Mr. Sydney-Turner as to the great value of anæsthetics in eclampsia. Ether has given very good results in my hands, though I have seen a mixture of chloroform and ether completely fail in one case. Chloroform produces a temporary diabetes, and is supposed by some to prevent the transformation of urea in the blood (Dr. Murphy). It would be interesting to know if ether acts in the same manner. I have been struck by the small quantity needed to produce anæsthesia; my impression was that the toxæmic condition increased its effect. Nitrite of amyl also causes saccharine urine. This, as well as nitroglycerine, which was advocated in the JOURNAL of the 20th November, for acute and chronic Bright's disease, deserves consideration in treating this affection.

J. B. EMMERSON, M.D., Biggleswade.

CLINICAL MEMORANDA.

RESUSCITATION FROM CHLOROFORM SYNCOPE BY INVERSION OF THE BODY.

THE following case seems to be worthy of record as furnishing another conclusive instance of the value of the postural treatment in cases of chloroform syncope. On October 31st, 1880, I removed an uterine polypus from Mrs. M. She was placed deeply under the influence of chloroform by her regular attendant, and took it well. A much larger one shortly afterwards protruded, which I attempted to remove on March 6th. She was again placed under the influence of chloroform, by the same gentleman. His galvanic apparatus was out of order, but from our former experience we anticipated no danger. I had just passed a portion of my hand into the vagina, and was about to apply the ecraseur, when the pulse suddenly stopped. Respiration ceased almost simultaneously. The lower jaw dropped, the tongue lay between the teeth, and she became more deadly pale than she had previously been. Percussion of the heart, artificial respiration by Sylvester's method, cold affusion, and the subcutaneous injection of ether were successively tried, but without avail. Three or four minutes elapsed while I was thus occupied, and no trace of circulation returned. I then seized her by the shoulders and placed her head upon the floor, while my friend and his assistant elevated her legs. In about a minute, or possibly less, I noticed pulsation in the neck, and replaced her on the bed. There was now distinct cardiac action, but respiration remained in abeyance, and the pulsation grew gradually more feeble. I re-inverted her, and retained her in that position for about two minutes. There was now strong palpitation, and in a short time a few gasps followed, just as in infant resuscitation. There were also several distinct chronic convulsions of the right side. The respiration gradually became natural, and after about five minutes of quiet sleep she awoke, quite unconscious of the whole occurrence, of course. We thought it advisable to defer the operation, and she has had no bad symptoms since.

How far the interference with the genital organs was provocative of the syncope I am unable to say. Experience tends to show that operations on the testicle are not thus provocative, if the chloroform narcosis be deep enough; and midwifery experience is against such a presumption.

The injection of ether under the circumstances is evidently open to discussion, on the point as to whether its powerful stimulating properties might not be counterbalanced by the addition to the narcosis. One cannot discuss such questions very carefully during such an emergency. I would gladly have the opinion of your readers. The patient was certainly, to all appearance, dead for three or four minutes, and the inversion of the body certainly saved her. If I were ever in such a condition, I should wish that, after the position of the tongue had been ascertained to be favourable, and a strong shock or two of galvanism to my phrenic nerves had been tried, I should immediately be inverted.

J. THORBURN, M.D., Manchester.

CASE OF PROLONGED TRANCE.

IN the BRITISH MEDICAL JOURNAL of February 5th, 1881, appeared a short communication by Mr. W. C. Bland, Medical Superintendent of the Borough Lunatic Asylum, Portsmouth, detailing a case of long-maintained fixed position. He has no explanation to offer beyond that of fixed delusion. To me it is entirely clear that the case is one of *trance-rigidity*—a condition which, on good subjects, is produced readily and maintained for a considerable time.

I have had for months under my observation a class of fifteen or twenty subjects, most of whom can be at any moment put into precisely the condition described. I have not yet determined how long these subjects can be kept in this condition, since I have not made a sufficient number of experiments in that direction.

The natural tendency in such cases of trance-rigidity, as in all phases of trance, is to pass into sleep; and from this sleep the subject in a few hours emerges into his normal state. The rigidity in the cases in which I experiment is absolute; the entire body is as stiff as a board; the head may be held in the hands of one person, and the feet in those of another, and there is no sign of bending; and the whole appearance of the body is exactly as here described by Mr. Bland. These subjects go into this condition as they go into all other trance-conditions—as blindness of one or both eyes; colour-blindness of one or both eyes; deafness of one or both ears; anæsthesia of the whole or of one part of the body; abolition or modification of the sense of taste, the sense of smell, or the sensation of vertigo—by suggestion, the expectation that such a result must come about. But these and all other trance-symptoms may occur spontaneously, or may be induced by any disease of the brain.

My explanation of these phenomena has been published elsewhere,* and need not be referred to here. The experiments on these subjects have been witnessed and confirmed by many of the physicians of this city.

GEORGE M. BEARD, M.D., New York.

THERAPEUTIC MEMORANDA.

CHAULMOOGRA OIL AND GURJUN OIL IN LEPROSY.

I HAVE read with interest the article in the JOURNAL of March 26th on chaulmoogra oil in leprosy. I have also tried, and with much success, chaulmoogra oil in true leprosy. I give it internally in doses commencing with ten minims in emulsion with milk; and externally I apply a liniment of one part of chaulmoogra to fifteen of olive-oil to the eruption, the diseased nerves, or the tubercular surfaces. In private practice, I use the "perles", which my patients take without difficulty. Contrary to Dr. Murrell's experience, I find that the oil causes constipation; and in consequence I am in the habit of administering it with castor-oil.

I have, however, obtained much better results at the General Leper Asylum with gurjun oil—wood-oil from the *Dipterocarpus lævis*, as suggested by the late Surgeon-Major Dougall (*Report on the Treatment of Leprosy with Gurjun Oil*, printed at Calcutta, 1875). I enclose a copy of my last official report, which shows the results of the treatment in some cases in which this remedy was tried. In another, all traces of the disease disappeared, and had not returned at the expiration of two years.

Other writers (Report of the Superintendent of the Trinidad Leper Asylum, 1876; Dr. Duckworth, *Med. Times and Gazette*, June 27th, 1874; *Med. Times and Gazette*, Nov. 21st, 1874; cases reported at the Clinical Society by Dr. Powell, 1878) have recorded their experience of this drug in leprosy, which, I feel convinced, is destined to be brought into more general use among lepers.

The cases in which gurjun oil has failed have either been too far advanced or with hereditary taint, or where the disease had been preceded by small-pox, syphilis, or yaws (frambœsia); these are much less amenable to treatment.

JOHN D. HILLIS, F.R.C.S.I., M.K.Q.C.P.,
Medical Superintendent of the General Leper Asylum,
British Guiana, West Indies.

I MAY add my testimony to the value of chaulmoogra oil in the treatment of leprosy. I published a case of true leprosy of the anæsthetic variety. This case obtained great benefit from the treatment by the oil. I first gave the patient five-minim doses three times a day in capsules, as he could not retain the oil in any other form. I gradually increased this dose until the patient took fifteen capsules a day. At the same time, he rubbed the pure oil into the affected parts of the skin twice a day. The patient informed me, when I last saw him, that he was recovering his sensibility in all the patches; that he had no increase of the disease; and that he was recovering the use of the muscles of his hand and forearm, which had been useless, as he told me he was unable to lift a pail of water when he first came under treatment. I am also using the chaulmoogra-oil capsules with marked good effect in non-specific psoriasis.

JAMES STARTIN.

QUARANTINE IN ITALY.—The Board of Trade have received through the Secretary of State for Foreign Affairs, a copy of an Italian Ordinance of Maritime Health, of which the following is a translation. "1881; Ordinance of Maritime Health.—No. 1. The Minister of the Interior, in view of the Law on Public Health of the 20th March, 1865, cap. E, and the Government instructions of 26th December, 1874, in consequence of the appearance of a disease, suspected of being Oriental plague, in the province of Bagdad (Turkey in Asia), decrees:—Art. 1. Until further notice, vessels arriving from this day forth in Italy from the ports of the Ottoman Empire, including Egypt, will not be passed without a medical inspection and thorough disinfection. Art. 2. Vessels arriving from the Persian Gulf will, from this day forth, be subjected to a quarantine of seven days. Art. 3. The cargo or ships mentioned in Art. 2 will be dealt with according to Art. 168 of the Government instructions of December 26th, 1871. The Prefects of the Maritime Provinces are charged with the execution of this Ordinance.—Rome, March 7th, 1881.—The Minister, DEPRETIS."

* In my work *On Trance*; also, *New York Medical Gazette*, February 5th and 9th, 1881. I have also a work *On Induced Trance* now in preparation.

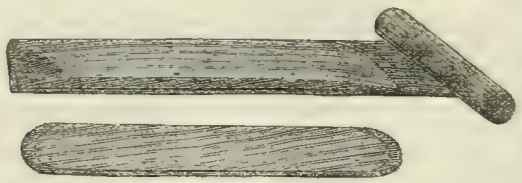
REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

UNIVERSITY COLLEGE HOSPITAL.

COLLES' FRACTURE TREATED BY A NEW SPLINT.

(Under the care of Mr. CHRISTOPHER HEATH.)

THE following notes of four cases of Colles' fracture, for which we are indebted to Mr. Ed. Cotterell, L.R.C.P., the house-surgeon, may serve to introduce to our readers a splint invented by Dr. Carr, an American surgeon, which has been much appreciated by various surgeons in England during the past year. In some respects it resembles a splint designed by Dr. Gordon of Belfast, but was quite independently invented. The construction will be understood from the accompanying drawing.* We quote a description of the splint, and the mode



For the left side.

of using it, given by Dr. Martin (late Staff-Surgeon U.S.A.). The length of the splint "is eleven and one-half inches, its width two inches. It consists of a strip of light wood one-sixth of an inch in thickness, on which is laid a carved wood 'bed' of peculiar form, the irregularly convex surface of which is exactly adapted to the concavity of the lower side of the radius. An oblique cross-piece, or 'bar', round, four inches long, and one inch in diameter, is attached to its distal end." A splint for the proper side is chosen, and along its upper surface is laid "a quadruple fold of old cotton-sheeting, a little wider than the whole width of the splint, and extending from the cross-bar to an inch beyond its proximal extremity. The lower surface of the fore-arm is then laid on this, so that the cross-bar comes very exactly under the metacarpo-phalangeal articulations. Two or three turns of bandage may now be thrown around the middle of the fore-arm, binding it firmly to the splint, and the patient requested to grasp the cross-bar as strongly as may be; in this he may require the aid of the surgeon's hand. This action of the hand will reduce at once a very large proportion of all fractures of the lower part of the radius, and its doing so is a sufficient proof of the perfect adaptability of the apparatus for the lesion for which it is designed. Of course, the surgeon can, if he prefers, reduce the fracture *before* applying the splint; some cases require this to be done, and *all* those in which the fracture is complicated with subluxation of the two rows of carpal bones, which should be looked for sharply, and not placed in the splint till *thoroughly* put in proper position. A properly padded, very light, thin splint strip, say eight or nine inches long and two inches wide, may now be laid along the back of the radial side of the fore-arm from the carpo-metacarpal junction. This dorsal splint is not always absolutely necessary, but may as well be always applied. All that is now requisite is to bandage in the usual way; the bandage may extend upwards from the middle of the metacarpus to the proximinal end of the splint, leaving—and this is *very* important—the fingers to be exercised and even used freely, for holding fork, spoon, etc. After the first week, the bandage need extend no further than to the carpo-metacarpal articulations, leaving the patient free and useful motion of the hand. If the bandage, however, is thus limited, the surgeon should see that the carpus is firmly and immovably attached to the splint; this may be well done by winding a strip of good sticking-plaster, an inch and a quarter wide, three times round the wrist and splint." The advantages claimed for this splint, that it relieves the patient of much discomfort and disability, allowing him to use his fingers and thumb, and thus, and by the excellent position obtained, preventing the stiffness frequently occurring after this fracture, are fully confirmed by the following cases, and by the testimony of Mr. Cotterell, the house-surgeon. The cases were not selected, but occurred in succession; in all, the splints were removed at the end of four weeks, at which time there was no deformity, except in one case, and perfectly movable wrists and fingers in all.

* The London agents for the splint are Messrs. Krohne and Sesemann, of Duke Street, Manchester Square.

CASE I.—A lad, aged 19, fell off a van and sustained a Colles' fracture of the right radius. Carr's splint was applied. At the end of a week the upper splint was taken off, and the lower one only left. Four weeks after the accident the splint was removed. The fingers were perfectly movable, as was also the wrist, and there was no deformity.

CASE II.—An engine-driver, aged 32, applied to the hospital for relief, suffering from Colles' fracture on the right side. Carr's splint was applied. The next day the fingers and the back of the hand were swollen somewhat, so that the bandages had to be loosened. This swelling had subsided by the fifth day after the accident. A week after first being seen, the upper splint was removed, and the fracture was taken down after one month. The result was the same as in Case I.

CASE III.—A boy, aged 11 years, fell off the parallel bars at a gymnasium, and sustained a Colles' fracture of the right radius, and fracture through the lower ends of the radius and ulna on the left. The fractures on both sides were treated with Carr's splints. Recovery occurred on both sides so rapidly, that at the end of a month there was no deformity nor stiffness.

CASE IV.—A lady, aged 56, slipped down outside the hospital, and was brought in with a Colles' fracture of the left radius. The case was treated with Carr's splint. At the end of a month, the splint was removed. The fingers were perfectly movable, but the wrist in this case had not quite so good movement as in the other cases. There was also a very slight deformity to be noticed on the back of the wrist.

SUSSEX COUNTY HOSPITAL.

FIVE SUCCESSIVE CASES OF OPERATION ON THE KNEE FOR THE REMOVAL OF LOOSE CARTILAGE.

(Reported by JOHN C. UHTHOFF, M.D. London, House-Surgeon.)

THESE cases, four of which have been operated upon within the last year, illustrate the fact, which is now becoming well known, that the knee-joint may be opened and the finger passed in to explore, without any serious risk or danger. The greatest care must, however, be taken to avoid inflammation; and in the cases here related the plan generally carried out was as follows. For several days before the operation the patient was kept in bed, and the bowels regulated. Before operating, the leg and thigh were carefully bandaged to a long back splint, with a foot-piece; this being done to ensure perfect rest from the first. Immediately after the operation, the joint was surrounded with ice-bags, and these ice-bags kept on continuously for a period of varying duration (one to two weeks), according to symptoms. In each case the first dressings were not removed for several days, the wound then being found almost healed. For the first few days low diet was enforced, and at all times the bowels kept open.

CASE I (under Mr. JOWERS).—J. G., aged 39, carpenter, was admitted April 9th, 1878, with a loose cartilage in the left knee. He never remembered receiving any injury to the joint. He first noticed the loose body in his knee about four months before admission, since which time he thought it had gradually increased in size. When it got between the bones he had great pain and could not walk; at other times it did not trouble him. A loose cartilage was felt on the inner side of the knee, about the size of a walnut, oval in shape and flattened; no fluid in the joint. On April 18th the cartilage was removed by cutting down immediately upon it. The operation was performed under thymol spray (1 in 1,000); the wound was united by silver sutures, and a pad of lint soaked in compound tincture of benzoin bandaged on. The precautions noted above were observed in the previous and after treatment. Very little effusion into the joint followed. Nine days after the operation, the ice was left off and the dressings removed, the wound being found almost healed. Twenty-seven days' afterwards, he got up for the first time; and at the end of thirty-four days left the hospital, walking well and without pain.

CASE II (under Mr. JOWERS).—H. G., aged 39, a blacksmith, was admitted January 1st, 1880, with a loose cartilage in the right knee. Six months before admission he knocked his knee against an anvil, and it had felt weak ever since. Six weeks ago he fell, and twisted his leg under him; the knee then became swollen and painful, and he has scarcely been able to walk at all since. He has occasionally felt a small hard body in the joint. On admission there was slight effusion into the joint, and a loose body about the size of a hazel-nut could be felt at the upper and outer part of the synovial cavity. This case was operated upon on January 14th, in exactly the same manner as the last case. It was very unfavourably complicated, firstly by the occurrence

of severe hæmorrhage shortly after the operation, for which the dressings had to be removed; and secondly, by his having an attack of rheumatic fever and pericarditis, commencing two days after the operation. Notwithstanding this, the man did well; very little effusion occurred; the dressings were removed and the wound found nearly healed at the end of seventeen days; after thirty-seven days he was up and about, with, however, considerable stiffness of the joint; and at the end of two months he was discharged, with only a little impairment of movement.

CASE III (under Mr. JOWERS).—W. B., aged 28, an excavator, was admitted February 28th, 1880, with a loose cartilage in the left knee. He had had symptoms of loose cartilage for ten months. Three years ago, he fell down in the street and injured the knee. He was a big, muscular, florid man. There was some effusion in the knee, and a small loose body, about the size of an almond, was to be felt on the outer side of the joint below the patella. This was removed on the 6th of March, in a similar manner to the other cases: it was slightly adherent to the tibia, and the adhesion had to be divided. In twelve days the dressings were removed, and the wound was found to be healed; there was no effusion in the joint. In twenty-five days he was up, and in thirty-nine discharged, walking well and without pain.

CASE IV (under Mr. W. FURNER).—W. D., aged 25, a butler, was admitted on March 31, 1880, with a loose cartilage in the right knee. Once, two years ago, and again six weeks ago, his knee suddenly gave way under him, and was afterwards much swollen and painful. There was no effusion in the joint; at the lower and inner side a small loose body about the size of a pea was felt. On April 10th the body was removed, under carbolic spray; catgut sutures and carbolic gauze dressings were used. Four days after the operation the dressings were changed, and the wound was then found to be healed, and there was no effusion in the joint. Eight days after admission the dressings were removed, and also the ice-bags, which had been continuously applied as in the other cases. Twenty-one days after the operation he was discharged, walking well and without pain.

CASE V (under Mr. JOWERS).—E. L., aged 23, a delicate-looking man, a painter by trade, was admitted July 21st, 1880, with swelling and pain in the right knee-joint. For three or four months this swelling had been gradually coming on, and he had been unable to use the limb. There were physical signs of incipient phthisis at the right apex. His leg was placed on a back splint with foot-piece, and kept slung. It was thought that a loose body was felt on the inner side of the joint, and Mr. Jowers therefore determined to open the joint and explore. An incision about four inches long was made over the outer side of the joint, the finger passed in, and some adhesions on the under surface of the patella broken down. No loose body was found, and the wound was sewn up again with silver sutures. The operation was performed under thymol spray, and a pad of compound tincture of benzoin afterwards bandaged on. Scarcely any effusion into the joint occurred. Fourteen days after the operation the benzoin pad was removed, and the wound found quite healed. The ice was then left off. Twenty-two days after the operation the splint was removed; and at the end of twenty-six days he was up, the knee being, however, very stiff. He was still in the hospital on November 10th, and was walking better and better every day, and the stiffness of the joint was rapidly diminishing.

SMALL-POX HOSPITAL, HOMERTON.

HÆMORRHAGIC SMALL-POX: RECOVERY.

FOR the following notes, we are indebted to W. GAYTON, M.D., Medical Superintendent.

S. S., aged 11, not vaccinated, was admitted into the Homerton Small-pox Hospital on June 17th, 1880. Her family history was good. She had always been considered healthy previously to her present attack of illness; but she was ill-fed for some time past, for the reason that her father had been out of work; her principal food consisting chiefly of bread-and-butter and tea. She was very excitable, her mother stating that she was naturally so; and, on being spoken to, jerked in various ways, as though suffering from a slight attack of chorea. She was fairly developed for her age, and in the history of the attack there was nothing particular.

On admission, the chest and abdomen were found to be covered with a petechial rash, consisting of dark red spots of various sizes from a pin's head to a pin's point. Here and there, in this rash, were cutaneous hæmorrhages about the size of a threepenny-piece, dark blue in colour, not raised, and persistent on pressure. There were also a few hæmorrhages of the same size, more or less, on the extremities. An extensive patch of velvety ecchymosis was observed on the outer side of the cornea of each eye. The subcellular tissue of the lids was gorged with blood; and there was also free hæmorrhage from the mouth, but not from any other mucous orifice. The small-pox eruption was scanty: a few papules only on the face, and varying in size, shape, and development. On the extremities, the eruption was also ill-developed; the papules for the greater part having, moreover, a blue sloughy spot in the centre. The tongue was dark in the centre, with a yellowish coating at the sides. The temperature was 103.8° Fahr., and there was a considerable amount of delirium.

June 18th. Conjunctival ecchymosis had spread around the cornea above and below. She was vomiting blood, and had excessive metrorrhagia. The morning and evening temperature was 103° Fahr. In other respects, the condition was the same as on the previous day.

June 19th. The vesicles on the face, arms, and legs were of a yellowish colour, but retaining the blue sloughy centre. The conjunctival ecchymosis in both eyes was now complete. Delirium still continued. Morning temperature, 103° Fahr.; evening, 101.6° Fahr.

June 21st. The pustules on the face were drying. There was no bleeding from any mucous surface; no delirium. Morning temperature 100.2° Fahr.; evening, 100.6° Fahr.

June 26th. The face was almost dry. The subconjunctival ecchymosis was in about the same condition.

From this date, the eruption continued to dry, and the patient slowly recovered. The conjunctival hæmorrhage was gradually absorbed; and the hæmorrhagic spots on the abdomen disappeared, leaving the skin mottled for a considerable time. The patient was discharged cured on September 7th, 1880.

This case is interesting from the fact that, after a somewhat lengthened experience in the treatment of small-pox, and observations extending to upwards of eight thousand cases, a similar one, terminating in health, has not before come under my notice. The very severe symptoms, as shown by the initial petechial exanthem; the cutaneous extravasation of no small extent; the sparseness of the small-pox eruption, and its ill-developed and blood-like contents,—pointed with an almost terrible certainty to death.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MARCH 25TH, 1881.

JOSEPH LISTER, D.C.L., F.R.S., President, in the Chair.

Varix operated on with an Instrument called a Vein-Brooch.—Mr. J. R. A. DOUGLAS of Hounslow reported cases thus treated. He said that the instrument, which was his own invention, produced flat pressure on varicose veins and varicocele, by means of a horn spatula, or one made of horn and steel, with a grooved needle rivetted at the eye-end, and fastening at the point, after passing under the vein, by a catch like a brooch or safety-pin, giving very little pain, and (unlike the old torsion of wire or silk ligature) producing no constitutional disturbance, but obliterating the vein with certainty, and without subcutaneous division. He referred to another extremely simple instrument, invented by Mr. A. Baird Douglas, who was taken prisoner by the Russians at the battle of Telis, outside Plevna. A flat-pointed steel-pin passed to the head through a disc of India-rubber, then through the edges of a wound, and then through another disc of rubber, holding the edges of a wound perfectly and tightly together without other ligature. The extreme tenacity of the rubber prevented its slipping, and the discs could be passed on wire, without moving, in cases of ruptured peritoneum, vesico-vaginal fistula, etc. Wounds thus treated healed by first intention, as the soft rubber prevented the pin from ulcerating out, as did wire and silk ligatures tied with a knot. These instruments were all made by Messrs. Maw, Son, and Thompson. Messrs. Douglas claimed for their inventions simplicity; easy application and easy removal; reapplication in a moment; little pain or constitutional disturbance; assured obliteration of the vein; the cuticle being always visible when the horn only was used; the most unskilled being able to control varicose hæmorrhage; great comfort to those fearing the frightful bleedings from varicose veins by the possession of the vein-brooch. The Director-General also, Professor Longmore of Netley, and other surgeons, who had seen these instruments, fully appreciated their simple use. A large number of Mr. A. B. Douglas's Red-Cross pins were sent, early in February last, to the Transvaal, by order of the Director-General, Sir W. Muir, who had himself invented an elastic band to prevent varix in soldiers. CASES. Police-constable George W—— of Hounslow, aged 43, of thirteen years' service, was ordered by the chief surgeon (when seen at Scotland Yard) to be operated upon by Mr. J. R. A. Douglas. He had suffered great weakness and cramping pains of the right leg, which unfitted him for duty. He had an enormously distended vein of the thigh, with

engorged veins below the knee. Mr. Douglas applied two brooches under the thigh vein, and divided it two days afterwards subcutaneously. Within three weeks the man was fit for duty, and had no bad symptoms, nor had he since suffered, although frequently up to his knees in snow of a night. He stated that he had not had such comfort for years. Police-constable William D———, aged 38, of thirteen years' service in the police, had had diffused varix below the knee for six years; had had ulcerated leg twice; and had been six months on the sick-list for the same. The chief surgeon ordered the operation. The saphena vein, inside and under the knee, was very large and full; below it was a large bunch of varicose veins, and an open ulcer just above the ankle. Mr. Douglas passed one brooch under the big vein, but did not divide it. The ulcer healed during the time he was on his bed, and he soon resumed duty, quite well. The man had been much exposed during the late inclement weather. The vein being deep, and the patient being stout, it was well grasped, not to implicate much skin; there was no mark of operation left. Michael H——, a powerful bricklayer, of Brompton, presented himself as a militia recruit. He had a large varicose saphena vein inside and below the knee; there was also a bunch below that; and he was rejected in consequence. Mr. Douglas operated on him with one brooch, desiring him to remain quiet. Two days afterwards, he was not at home; and it was not until the tenth day that the author removed the brooch, with which he had been constantly walking about. The varix had disappeared. This evidenced the little pain and irritation caused by the operation. He was accepted for the militia thirteen days after the operation. Mr. John ——, Hounslow, aged 40, was operated on this month. He had had varicose veins for six years, with weakness and cramp, and cold extremities. There was an ulcer above the ankle, an engorged vein under the knee, and a large bunch below. The saphena vein was well grasped by an assistant (Mr. H. Bullock), and the grooved needle of a horn brooch was passed behind it, the rubber pad pressing tightly on the vein. The operation did not take a minute. The brooch was removed the fifth day, and the varix had disappeared. The ulcer was now quite healed. There was no constitutional or local disturbance. The last case was one of varicocele, in Private P——, a soldier of the 18th Hussars, who had been left by his regiment in the Hounslow station hospital, having been permanently invalided by Surgeon-General Holton, who had charge of the home district, and came from Woolwich to invalid patients. This patient had a long pendulous varicocele of the left side, quite preventing him from riding, and unfitting him for service. Mr. Bullock grasped the bunch of veins, not to implicate too much scrotum, and Mr. Douglas passed two horn and spring brooches behind the veins, as he thought of dividing them, but did not. On the seventh day, he removed one brooch; and the following day, Dr. Gunning, the army-surgeon in charge, removed the second. The patient left the hospital as soon as his invaliding papers arrived, and so perfectly cured that Dr. Gunning stated that he would reattest him, if otherwise fit for service, should he enlist again.—Mr. A. P. GOULD said he showed, three years ago, pins similar in form to those described by Mr. Douglas. They had been used instead of sutures after amputation of the leg. His were much larger, and the clamp consisted of vulcanised india-rubber. The pin answered admirably, and temporary pressure on the rubber effectually stayed some hæmorrhage which took place.—The PRESIDENT expressed surprise that the brooches were sufficient, by pressure on a single spot, for the cure of extensive varix in the lower limbs.

Extirpation of the Larynx for a Growth originally affecting the left Ventricular Band and Vocal Cord, which subsequently involved the whole Larynx.—Dr. WHIPHAM and Mr. PICK contributed this case. The patient, a commercial traveller, aged 39, consulted Dr. Whipham on May 27th, 1876, on account of huskiness and a constant desire to "clear the throat", which had come on suddenly and without apparent cause. He had been previously free from all throat-affection, and there was no history of syphilis. The man was very nervous; and it was not until June 8th that a view of the larynx was obtained. It was then found that a warty-looking growth, rather larger than a pea, arose from the anterior part of the left ventricular band and vocal cord. After repeated examination, and the passage of brushes into the larynx, with a view of preparing the patient for operation, his nervousness was so far under control, on July 20th, that two small portions were removed by evulsion, with great relief to the huskiness. The case was constantly under observation; but no further operative interference was required till March 3rd, 1877, when three pieces of the tumour (which, microscopically, presented for the most part the appearance of papilloma, but in which at one or two spots there appeared to be a tendency to the production of epithelial cells) were removed by the forceps. The whole of the warty portion was removed at this time, but the vocal cord was thickened generally; the voice recovered tone to a great extent. Subsequently, however, it was found necessary to apply the forceps to a recurrence of the growth on several occasions—viz., June 16th, 1877; January 5th, March 23rd, April 19th, and December 31st, 1878. Early in 1879, the patient had a severe attack of catarrhal laryngitis; and on June 23rd, in that year, he complained of having lately suffered from great dyspnœa, with tenderness over the thyroid cartilage, and some external swelling in this situation. He was admitted into St. George's Hospital, and in the course of the following six weeks several pieces of the tumour were removed. Again, in October 1879, a large piece was taken from the larynx. By March 1880, a great change had occurred in the state of the parts: the growth involved the whole ventricular band and vocal cord; the left ala of the thyroid cartilage was pushed outwards and was tender, dyspnœa being at times urgent. Towards the end of April, the dyspnœa threatened suffocation; and Mr. Pick, after examining the patient, performed tracheotomy, from which the recovery was perfect. During the next six months, the disease progressed rapidly; the whole larynx being involved by the middle of October, when a large lobulated mass was felt in the position of the left ala of the thyroid cartilage. In the early part of November 1880, some hæmorrhage occurred through the tube; and at the end of the year he was readmitted into hospital, with a view to some radical operation. Shortly after his readmission, this hæmorrhage recurred to a somewhat alarming extent. After consultation with his colleagues on the previous day, Mr. Pick proceeded to extirpate the larynx. On January 16ths 1881, having introduced a tampon-cannula, Mr. Pick made an incision, two and a half inches in length, in the median line of the neck; and a second incision, at right angles to it, across the middle of the thyroid cartilage. On reflecting the skin, the growth was found to involve the left ala of this cartilage. The thyroid cartilage was then divided vertically in the median line, and the two halves separated, when the whole larynx was found occluded by the growth. The left ala was removed, and subsequently the right also. The cricoid cartilage, and the remains of the arytenoids, were then freed from their attachments and removed; and, finally, the epiglottis, which was involved in the disease, was cut away. The wound was carefully explored; and all traces of the growth, as far as possible, were removed. No vessel required ligature. The operation occupied three-quarters of an hour, and the patient was not much exhausted at its close. The wound was plugged with sponges. Slight hæmorrhage occurred after the operation, which was arrested by the introduction of an additional sponge. Nutrient enemata were ordered every four hours; and for the first two days the patient's progress was satisfactory. On the third day, however, his temperature rose to 103.2° Fahr., and his skin became dry; his pulse ran up to 142. On the fourth day, he complained of severe pain about the ensiform cartilage, and his expression became anxious. Rapid exhaustion set in, and he died on the morning of the fifth day after the operation. At the necropsy, right pleurisy and pericarditis (presumably pyæmic) were the chief lesions found. Among the many points of interest in the case, the following were brought especially before the notice of the Society. 1. For three years, the microscopic appearances of the growth were for the most part those of papilloma. 2. The long duration of the disease (four years) was rather in favour of its having been an innocent growth in its earlier stages, although microscopic examination showed that, even at the onset, there was in one or two places a tendency to epithelial proliferation. 3. The above facts, and the limitation of the growth to the larynx, were favourable to the success of the operation of extirpation. 4. If the operation had been undertaken as soon as the malignant aspect of the disease became manifest, success might have been the result. 5. The plan of dividing the thyroid cartilage and removing each half separately was preferable to the method adopted by Dr. Foulis of removing the larynx entire; and for these reasons: firstly, that, by separation of the alæ, a good view of the extent of the disease was obtained at an early period of the operation; and, secondly, there appeared to be less danger of wounding important structures.—Dr. F. SEMON, who had been present at the operation, expressed his admiration of the skill with which it was performed. His tampon-cannula had been depreciated on account of the ill-success which had attended its use in one case. The accident had been due to over-inflation of the instrument. This seemed to affect the vagus, and so stopped respiration quite suddenly, but it returned when the pressure was diminished. He would caution future users of the tampon not to distend it too suddenly or too much. He did not doubt that the growth was epitheliomatous at the date of the operation; and he felt that interference to this extent could be justified only after irrefragable proof of a malignant growth had been obtained. Simple papilloma had for its worst result suffocation; and this could be provided against by tracheotomy. Bleeding, however, would indicate malignancy; and, when this had been demonstrated, operation should forthwith be resorted to for removal of the involved structures by excision. Excision on any other grounds would be an indefensible proceeding. In many cases, a papillomatous

growth had been removed again and again without any degeneration into epithelioma taking place. About the time of Mr. Pick's operation, a case was reported from Berlin, which aptly illustrated this conclusion. Tracheotomy had been performed on a child suffering from papillomatous degeneration of the whole larynx, and was subsequently repeated. Thyrotomy was next resorted to; and, the growth continuing after it, excision of the larynx was advised. Eventually, however, an endolaryngeal operation resulted in complete cure of the case; and the teaching of it was distinctly against the extirpation of the larynx for simple papillomatous disease. Dr. Semon, however, thoroughly concurred in the need for this measure in the case described in the paper; and was of opinion, with Mr. Pick, that, had it been resorted to some months earlier, a more satisfactory ending could have been anticipated.—Mr. PICK explained that he wished excision had been done at the time when tracheotomy was performed: *i.e.*, when he first saw the patient. His idea then was to incise the thyroid in the middle line, and thus investigate the extent of the disease; at the same time, removing the left ala of the cartilage, which was then evidently affected.

Intracranial Disease, involving several Cranial Nerves.—Mr. W. SPENCER WATSON reported this case. A married woman, aged 36, who had suffered from miscarriages, and a severe flooding after a confinement, was seized with neuralgic pain of the left side of the face, with loss of sensation in the same side of the face, ptosis, and loss of smell, taste, and hearing of the same side. After the symptoms had persisted seven months, twenty-grain doses of iodide of potassium were given, three times a-day, with the effect of rapidly relieving the pain in the parts, and restoring the senses of smell, taste, and hearing; and partially restoring the paralysed upper lid, and the paralysed ocular muscles. There was a relapse after the relief had persisted for more than a month, and the condition of the patient was still unsatisfactory at the last time of seeing her. The amount of iodide of potassium taken, in a continuous course of thirty-one days' duration, was between three-and-a-half and four ounces.—Dr. BUZZARD said that such mixed forms of paralysis were not uncommon in constitutional syphilis. Sometimes, with peripheral affections of the fifth nerve, the portio dura of the same side was involved; the perfectly anæsthetic conjunctiva and ulcerated cornea being their accompanying symptoms. Whether this ulceration was a consequence of disturbance of trophic nerves, or consequent on exposure to irritation of foreign bodies, remained a physiological problem. Without doubt, coincident disease of the fifth nerve and the portio dura resulted in ulcerated cornea; but the case described was an interesting one to physiologists, from the fact, that, by the existence of ptosis, the eyeball had been protected from irritation of foreign bodies, and no ulceration of it had taken place, notwithstanding that the fifth nerve had been a long time diseased. In spite of the iodism, he would have pushed the iodide of potassium, and specific treatment by mercury also. —Dr. WHIPHAM explained that the iodism might be prevented by dilution of the iodide mixture. Even when giving doses amounting to two scruples, three times a-day, he had been able to avert the symptoms of iodism by freely diluting the medicine, each dose being divided into several portions, and swallowed with much water.—The PRESIDENT thought the marked good produced by the iodide indicated the advantage of pursuing the same treatment further. He was not aware that iodism was avoidable by dilution. Was the drug so beneficial when thus administered? It was well known that large doses would accomplish what meagre ones would not. He would like to see the effect produced by mercury pushed further in such a case.—Dr. WHIPHAM replied that he was quite convinced the good effect of the iodide was in no sense diminished by dilution.—Dr. DOUGLAS POWELL had been taught the fact, that dilution prevented iodism, many years ago. His own experience was, that the drug was thereby rendered more efficacious.—Dr. RADCLIFFE CROCKER remarked that the addition of strychnia in small quantities to the iodide mixture stopped the coryza. Arsenic also was powerful to arrest the skin affection.—Mr. WATSON agreed that mercury should be employed in treating the case further. He had tried it, but ceased its continuance on account of the gastric disturbance thereby created. He intended to push it on cessation of the pain, which had been very severe. He quite coincided in Dr. Buzzard's explanation concerning the cornea. Cases had occurred in his practice, in which healing of the ulcers had been promoted by keeping the lids down by the aid of plaster. It was possible that the trophic nerves were so disturbed as to lead to inflammation internally. His experience of the dilution of the iodide mixture confirmed that of other observers. He found its efficacy increased also by the addition of a small amount of carbonate of ammonia.

MEDICAL MAGISTRATE.—Mr. George P. Dale, F.R.C.S.Eng., of Scarborough, has been placed on the commission of the peace for the North Riding of Yorkshire.

OPHTHALMOLOGICAL SOCIETY OF GREAT BRITAIN.

THURSDAY, MARCH 31st, 1881.

WM. BOWMAN, F.R.S., President, in the chair.

Orbital Tumour and Double Optic Neuritis.—Mr. STREATFEILD showed a boy, aged 12 years, who had had a prominence of the frontal bone, extending from the frontal eminence to the supra-orbital notch, for about four months. When first seen, a month ago, he complained of occasional headache, chiefly in the left frontal region, and that his sight was worse at times; the roof of the orbit could be felt to be slightly depressed; there had been no vomiting, or any symptom of constitutional disturbance; vision with the right eye was twenty-seventieths, with the left twenty-fiftieths. Dr. Silcock (assistant at Moorfields) discovered that there was double optic neuritis, perhaps most marked on the right. He was ordered iodide of potassium, which, in increasing doses, he had taken ever since; headache grew worse, and the swelling increased during the first fortnight, but for the last week the pain had grown less, though vision had deteriorated, and was now only twenty-hundredths on the right, and twenty-seventieths on the left. When he was first seen, Mr. Streatfeild had supposed the case to be merely one of distension of the frontal sinus, but when, in addition to the external swelling, double optic neuritis was found, it seemed clear that there was some growth, possibly from the frontal bone, extending inwards and pressing upon the brain.

Case of Retinal Hæmorrhage.—Mr. SEBASTIAN WILKINSON brought forward a case in which retinal hæmorrhages had occurred without obvious cause, about a year ago. Later double optic neuritis and marked diminution in acuity of vision supervened. The arteries were rigid, and there was some evidence of a scorbutic tendency; but there was no albuminuria. He desired to elicit the opinion of the society on the cause of the hæmorrhages.

Normal Vision in Conjunction with Swollen Disc.—Mr. MORTON brought forward two cases to illustrate the co-existence of normal vision and swollen disc (choked disc). In one case, which had been under observation for five months, there was a history of an antecedent blow; the second case had been watched for two months. In neither had vision ever been affected.

Discussion on Optic Neuritis in Intracranial Disease.—Dr. STEPHEN MACKENZIE resumed the adjourned discussion on optic neuritis. He agreed with Dr. Hughlings Jackson that it was impossible to distinguish between choked disc and optic neuritis, and that the changes in Bright's disease might be indistinguishable from those in cerebral tumour. He showed two patients, one of whom had, three years ago, double optic neuritis from lead-poisoning. Under treatment, all the symptoms passed off, and ophthalmoscopic examination now revealed nothing to suggest the former condition. A second case showed the atrophy which follows neuritis. In at least half the cases of optic neuritis coming under the care of physicians, there was no loss of sight, and he thought that many cases of true intracranial disease were set down to malingering, owing to the neglect of the routine use of the ophthalmoscope. His experience was that the ophthalmoscopic appearances furnished no precise indication of the disease producing the neuritis, so that we could not speak of a syphilitic neuritis. As to the mode of causation, Dr. Mackenzie inclined to the hypothesis that the neuritis was an extension-process from the brain. Dr. Gowers had brought forward valuable evidence in support of this; and the speaker had reported one confirmatory case. He thought that we ought to search for traces of progressive inflammatory changes from the tumour to the optic tract. He thought, too, that early and temporary loss of sight might be explicable on this theory of inflammation, which might lead first to changes in the vessels, and so, by affecting the blood supply, lead to temporary loss of sight. He thought it of the greatest importance to treat cases of optic neuritis early, and thought that iodide of potassium gave the best results.—Dr. BUZZARD showed a woman who illustrated the coexistence of fits, beginning unilaterally, with double optic neuritis. She had atrophy of both optic discs, and total loss of sight. There was a history of syphilitic disease, and there could, he thought, be little doubt that had the optic neuritis, which had no doubt preceded the atrophy, been recognised during its activity, and the patient subjected to treatment, she would not now be blind. He believed that optic neuritis occurred in cases of cerebral hæmorrhage, thrombosis, or embolism, only when there was co-existent Bright's disease. He agreed with Dr. Hughlings Jackson in believing that the optic neuritis was due to vaso-motor action. It was asked why, if this were the mode of causation, the optic nerve was singled out? but he questioned whether this was the case. Owing to mechanical peculiarities in its relation to other parts, the optic nerve would show the changes very markedly; but in cerebral tumour the pain in the head, often limited to the region of the fifth nerve, might be

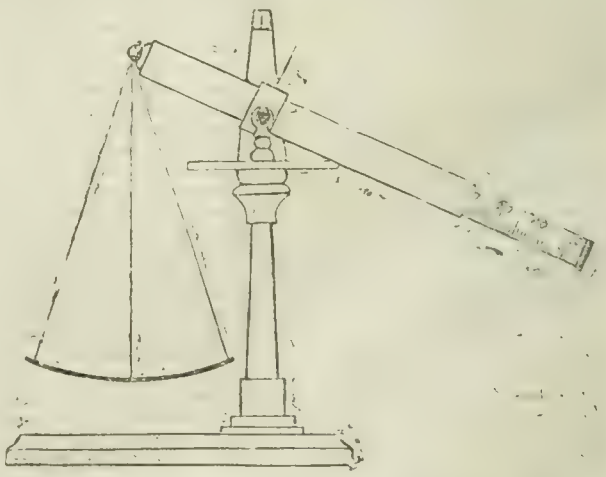
due to a condition of that nerve similar to that which in the optic nerve produced the swollen papilla. So vertigo might be due to an affection of the auditory nerve, and vomiting and retardation of the pulse to implication of the vagus.—Mr. JONATHAN HUTCHINSON agreed with Dr. Jackson that it was not possible to draw any line between choked disc and optic neuritis. As a surgeon, he had seen many cases which led him to believe that neuritis of the optic nerve did occur quite independently of cerebral disease; as an instance, he mentioned the case of a gentleman whom he had treated for a hard chancre: eighteen months later the patient consulted Mr. Hutchinson for slight disturbance of vision, and there was then marked double optic neuritis, which cleared up quickly under treatment. He had been consulted in the case of a young girl, who complained of absolute loss of sight in one eye. He first saw her about a fortnight after the onset of this symptom, but could find no evidence of any diseased condition. A week later, however, there was well-marked optic neuritis in the affected eye, but the patient never had any cerebral symptoms. These were not isolated cases, but types of large classes. He, therefore, believed that some of the cases —especially those occurring in connection with syphilis—were due to primary neuritis. In Bright's disease, too, and in lead-poisoning, the neuritis might be supposed to exist quite independently of cerebral disease. Other forms of neuritis ought to be studied; as Dr. Buzzard had said, cases occurred in which paralysis or other symptoms of disturbance of other cranial nerves were best explicable on the theory of a temporary neuritis. He had often noticed that the sickness and headache were coincident with the height of the neuritis; might not these symptoms be due to the neuritis? He thought that cases often occurred in children when there was a history of severe cerebral illness (sometimes following measles), probably of the nature of meningitis or encephalitis, in which optic atrophy and loss of sight were consecutive to a neuritis occurring during the presence of the cerebral symptoms.—Dr. GOWERS thought that optic neuritis might occur in chlorotic girls, reach a well-developed stage, and disappear under iron in the course of a fortnight. In Bright's disease, in which optic neuritis existed (without retinitis), the cerebral symptoms were always marked, and the neuritis improved under ordinary treatment. His observations had led him to believe that optic neuritis might be due to hypermetropia; and in all the cases of anæmia in which there was neuritis there was hypermetropia, though not in sufficient degree to have alone produced so much neuritis. He thought that white spots at a distance from the inflamed papilla might always be seen in the well-marked stage of neuritis due to Bright's disease, and that the advancing neuritis of tumour was deeper in colour than that of meningitis. He was glad to think that we were to hear no more of "choked disc", involving the theory of the scleral ring acting as a constrictor; but he believed that the swollen papilla did act mechanically to produce vascular obstruction. He thought that the temporary loss of sight without neuritis, spoken of by Dr. Jackson, might be due to an inflammation of the nerve nearer the chiasma, passing off before it reached the disc. He doubted whether there was much evidence from analogy in support of the vaso-motor theory of the origin. Distension of the sheath of the nerve, the great lymph-channel, occurred so frequently, that its significance could not be neglected; though it might not be able to produce neuritis, it might intensify it. Specimens which he had shown at the last meeting showed that traces of inflammation, so slight near the eyeball as to be scarcely recognisable, might be well-marked near the chiasma; and as it was known that the papilla was peculiarly prone to inflammation, it was not improbable that the inflammation of the disc was due to extension.—Dr. BROADBENT had recently had under his care a girl who had suffered from vomiting, headache, double optic neuritis going on to atrophy, and great mental hebetude; the symptoms followed sudden cessation of menstruation. With the restoration of this function the symptoms cleared up, though the blindness remained, owing to the marked atrophy; and in a second similar case, *post mortem* examination enabled him to substantiate the absence of any gross intracranial change. As to the question of causation, he thought that all the phenomena were best explained on the supposition that the swollen papilla was produced by the pressure of the distended sheath; by increased intracranial pressure, fluid was forced along the sheath and strangled the nerve. In uræmia and rheumatism, as in intracranial tumour, there were conditions leading to increased intracranial pressure. Optic neuritis in Bright's disease was, in his experience, always associated with high arterial tension. He had been struck by Dr. Jackson's statement that unilateral optic neuritis, when it did occur, occurred on the side opposite to the tumour; he had seen one such case, in which he thought the absence of neuritis on that side had been due to the position of the tumour preventing the entrance of fluid into the sheath. Incision of the optic sheath did give relief to the symptoms. With regard to the vaso-motor process, he had the same difficulties as Dr. Gowers; if it were accepted it only landed us in worse difficulties.—Dr. BRAILEY would draw a distinction between optic neuritis and swollen papilla, which might be quite independent of neuritis, as he believed it was in the cases of dysmenorrhœa. Local conditions, such as tumour of the orbit, or intraocular tumour, were always accompanied by swollen papilla, which might also follow, by an extension of the inflammatory process, upon wound or ulcer of the cornea; local embolism also might give rise to the same condition. He thought it well, therefore, to recall to the recollection of the Society the fact that local diseases or injuries might produce a condition of the papilla not distinguishable from that due to intracranial disease.—Dr. WALTER EDMUNDS did not think that distension of the sheath of the nerve could be looked upon as a cause of the change in the disc, for he believed that it was itself secondary to the condition of the trunk of the nerve. Microscopic examination showed inflammatory changes in the nerve, a corpuscular infiltration which travelled down the course of the blood-vessels; and he believed that intracranial tumour produced optic neuritis secondarily through the intermediation of an encephalitis or meningitis. When, in tumour of the orbit, swollen papilla was produced, evidence of inflammatory changes in the connective tissue of the nerve might always be found.—Dr. HUGHLINGS JACKSON briefly replied upon the discussion. He agreed with Dr. Buzzard that, if neuritis came to be generally recognised at an early stage and then submitted to treatment, atrophy would be less frequently seen, and there would be fewer blind people. He was not enamoured of the theory of vaso-motor origin, but on the whole he thought it the most plausible. He was glad, however, to find that many able and competent observers disagreed with him, as it was by such divergence of opinion that the truth might eventually be most certainly reached.

The PRESIDENT in a few words expressed the unanimous thanks of the Society to Dr. Jackson, and the meeting then adjourned.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

NEW TUBULAR BALANCE FOR DISPENSING.

I HAVE succeeded in constructing a balance in which no tangible weights are required, the long arm being elongated or shortened at pleasure, whilst its centre of *mass* takes the place of a constant weight in supplying the power. Having but one pan and unequal arms, this instrument somewhat resembles the ordinary steel-yard, from which, however, it is altogether distinct, in having no constant external sliding weight to become corroded or tampered with; in having no notches on the long arm—a source of fallacy in the results; in the almost ridiculous simplicity with which it is set for use; and in the mathematical precision secured in its working.



I take a couple of tubes of equal length and density, one of which slides within the other like the divisions in a telescope. Near the end of the outer tube there is a pan suspended, to hold the substance to be measured. The two tubes, one within the other, are now used

as a single lever rod. A point is found on this rod, from which, if suspended, the system with its empty pan attached will balance itself. This point is the fulcrum (see diagram).

When using a weighing machine thus constructed, all tangible weights are, as I have said, dispensed with. In the ordinary lever rod a given force or power (P) would be applied at the end of the long arm in order to counterpoise a weight (W) at the end of the short arm. Instead of this, advantage is taken in the tubular balance of the weight of the movable tube itself, the centre of mass of which forms at once its power (P) and its point of suspension. The shifting of this point to or from the fulcrum is analogous, therefore, to altering the length of an ordinary lever rod and applying a tangible constant weight at its end. In both cases, the results are equally correct.

To graduate the balance, draw out the tube a short distance until the system is horizontal. At the point where it emerges from the outer tube, let a mark o be made for zero (diagram). Now put a weight, say of thirty grains, into the pan, and withdraw the tube until equilibrium is re-established. The length of tube thus withdrawn is measured from 0° to 30° (diagram). If this interval is divided into three equal parts, it is obvious that each part will indicate ten grains, and if each or these is subdivided into ten parts or intervals, each will indicate a single grain. When marks and numbers are made on the movable tube to show these several indications, the graduation is completed, and the scale is fit for practical use.

The novelty of the balance consists, therefore, not in the principle involved, which is as old as the lever itself, but in the interesting fact that a couple of tubes may be so adjusted as to render them available for developing this lever principle in all its integrity, so that quantities may be weighed with certainty, and with as much facility as with any other ordinary balance.

In a balance thus made, there are certain advantages, amongst which may be mentioned, first, its exceeding *simplicity*. The sum total that can be weighed is embodied, unseen, immovable in the inner tube, and this *constant* again acquires a different yet certain value as it advances to or recedes from the fulcrum. Secondly, is the *care with which it is set* for use. The graduated scale, for instance, is not made by using a multiplicity of little weights, but by finding a given length of tube for a given standard weight, and then dividing this into fractional parts. Thirdly, as *to economy of time;* actual experiment may decide whether the mere movement of a tube to the degree required for a given weight shall take as long as the search for one amongst a group of little weights. JOHN GORHAM, M.R.C.S., etc., Tunbridge.

TINNED STEEL-WIRE FOR SURGICAL PURPOSES.

MESSRS. SAMUEL LAW AND SONS (Cleckheaton), desire to call our attention to their patent tinned steel-wire. Its great strength and elasticity give it, they say, pre-eminence over all other kinds of wire hitherto used for the manufacture of stilettos of every kind. They have forwarded a few stilettos made for the hollow needles of subcutaneous syringes, a trial of which appears to justify their claim of its superiority over other kinds of metal. When the hollow needles have been partially closed, either with rust or a crystallised alkaloid salt, the stilettos are so strong and elastic that they can easily clear away any obstruction, and thus prevent the frequent trouble of sending them to the instrument-maker for repair.

Messrs. Law and Sons supply either stilettos, or a sufficient quantity of the wire from which to make them to last a very long time, if used even with less than ordinary care, for the hypodermic needles, at an extremely reasonable charge. They keep in stock, also, every other gauge or thickness of the wire, to suit other purposes.

NOISELESS COAL-BOXES.

MR. J. GILLESPIE has invented a noiseless coal-box, consisting of an ornamental wood cabinet, divided into a series of compartments, each of which contains a hand scoop made of zinc, and arranged in rows. These scoops, being filled with coal before the cabinet is brought into the room, can be withdrawn in a perfectly noiseless manner, and the fire replenished without any disturbing sounds. Scoops of three different sizes are contained in one row, which enables a large or a small quantity of coal to be put on the fire at one time, the shape preventing the coals from falling out when the scoops are withdrawn. We published on March 26th a letter from a correspondent, a medical man, speaking in very high terms of the utility of this invention in the sick room. The noise of putting coals on the fire from an ordinary coal-box is often distressing to the patient in the sick room, and even to many nervous and irritable persons in their normal state of health. The present invention has, therefore, an obvious sphere of utility. It has the advantage of being ornamental, as well as useful. The agent is J. Powell, 35, Upper Thames Street, E.C.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, APRIL 9TH, 1881.

INTOXICATING LIQUORS IN THE ARMY.

IN Committee of the House of Commons on the Army Discipline Bill, Mr. Caine moved the insertion of a clause providing that the sale of all intoxicating liquors in canteens and other places of refreshment in garrisons should be prohibited, and the supply of spirit-rations on the march discontinued. He said that he proposed this clause, as the best means known to him of effecting some change in the deplorable state of things which existed in the British Army arising out of drunkenness. He cited the opinions of various military and medical authorities as to the non-necessity for alcoholic liquors, and the inadvisability of their issue on the march especially. He was supported by Mr. Kinnear, Mr. A. M. Sullivan, Mr. Illingworth, Sir W. Lawson, and Mr. W. Fowler; but was opposed by Mr. Childers, Colonel Stanley, Sir A. Gordon, Sir W. Barttelot, and others. The arguments used in favour of the clause were those familiar to all who have studied the polemics of the subject; viz., that alcoholic drinks are unnecessary and even injurious; that permitting them to be sold or issued by authority induces soldiers to become drunkards; and that drunkenness is at the bottom of three-fourths of the crime of the British Army. It is undeniable, and will be admitted by all who have had to do with troops, that by far the largest part of the crime, and we may also add, a very large part of the sickness in the army, are due to drink. The anxiety and desire to improve the habits of soldiers, and increase their sobriety, was expressed most fully even by those who opposed the clause on other grounds; but doubts as to the efficacy and advisability of the measure proposed were justly urged. Spirits are no longer sold in canteens; and this is a good measure, in spite of Colonel Colthurst's opinion to the contrary. But to prohibit beer is likely to drive the soldier from the canteen, where he can get wholesome beer and is under supervision, to the public-house, where he will, in all likelihood, get less wholesome liquor, have the opportunity of drinking spirits, and be under no supervision or restraint. The question of the necessity or value of drinking beer at all under ordinary circumstances is too large a one to discuss; but it must be admitted, in the case in question, that no harm has been proved as yet to arise from its moderate use; and that the soldier is more likely to use it moderately at his own canteen than in the public-house with disreputable companions. The efforts made by the institution of coffee-taverns, etc., to wean him from intoxicating liquor, are excellent, and will, it is hoped, be followed by a gratifying amount of success; but it is at least very doubtful whether the suppression of beer altogether would not be followed by the evils we desire to avoid. It would also be necessary to prohibit intoxicating liquors at the sergeants' mess; and for the matter of that, to be consistent, at the officers' mess also.

As regards the issue of spirit-rations on the march, there are also differences of opinion; but, on the whole, there is a more general consensus as to their being undesirable, if not wholly useless. The opinion of most practical soldiers is, that the troops would be better without them; and the experience of campaigns and arctic expeditions is, on the whole, against their indiscriminate use. On this question, a body of important evidence was collected by the late Dr. Parkes, and published in 1875, with reference to the Ashanti campaign of 1874.

Allowing for variations in opinion, the results seemed to show that the issue of a rum-ration was, under certain conditions, useful, provided attention was paid to quantity and time of issue. Dr. Parkes's short work (*On the Issue of a Spirit-ration during the Ashanti Campaign of* 1874; Churchill) is the more valuable, as it contains in the appendix the records of direct experiments made upon soldiers at Netley. The conclusions arrived at were that, for men marching, a ration of spirits before or during the march was hurtful, and that extract of meat or coffee was much better, and of real usefulness. After a fatiguing march, especially in such a country as Ashanti, the spirit-ration was, in the opinion of some officers, useful, as it acted as a sedative, and ensured more profound and tranquil sleep. The amount, however, ought not to exceed half a gill, diluted with water; this represents about one ounce and a quarter of absolute alcohol by measure, the average quantity which Dr. Parkes's experiments showed could be completely oxidised in the human economy. Collating the experience of campaigns and the results of direct experiment, we may arrive at the following conclusions.

1. Spirits are not an absolute necessity in the field.

2. Given before or during a march, or work of any description, they are nearly always calculated to do harm.

3. The only case in which exception need be made to the above rule is, when men are near the end of a long and fatiguing march, which it is necessary should be accomplished. Then the issue of a spirit-ration may probably supply the necessary stimulus for completing the work; but it must be on the condition that no further work shall be demanded until after a sufficient period of repose.

4. The issue of a ration at night, when work is done, may be useful as a sedative, and in inducing calm and refreshing sleep.

5. Under any of those circumstances, the ration ought not to exceed two ounces and a half (half a gill) of spirits—equal to one ounce and a quarter of alcohol; and it ought to be given well diluted with water—hot, if possible.

Even in the cases where its utility is, with limitations, admitted, it is still a question whether extract of meat might not be better, as it certainly would be attended with less chance of evil result, should it not accomplish the immediate end contemplated. Admitting, however, that, in cases where rapid stimulus is required, alcohol is more useful than any of the proposed substitutes, there seems to be no valid ground for continuing its issue on campaigns as a regular ration. It would be better to carry it as an extra, and only issue it by the advice and with the concurrence of the medical officer.

THE PLAGUE IN MESOPOTAMIA.

THE Constantinople correspondent of the French *Times* forwards to that paper some interesting details as to the measures taken by the International Commission of Hygiene, permanently established at Constantinople, for the purpose of watching the mode of propagation both of plague and of cholera, and giving timely warnings to European countries of the dangers which threaten them. The Mesopotamia and Persian Kurdestan plague is endemic. The epidemic which is now spreading over Mesopotamia declared itself at the end of last September. In November it travelled to Chenafie, and in January appeared at Diaria, a three hours' journey from Nedjef. It is quaintly described as spreading like an oil-spot (*il fait la tache d'huile*), which well indicates the difference between the mode of propagation of plague and that of cholera, which latter bounds from place to place, leaving intervening tracts unattacked. This regular and equal diffusion of the plague, which the expression "oil-spot" graphically describes, facilitates greatly the application of energetic measures for its localisation, such as have been taken by the Constantinople Board. The Hygienic Council of Constantinople believe that the presence of plague in Mesopotamia may be attributed to the habits of the Arabs, the nature of the soil, and the constant bringing of dead bodies to the sacred shrines of the Mohammedans. The inhabitants disregard all laws of hygiene, even the most elementary. They live in mud cabins, surrounded by filth of all kinds. The soil lies below the level of the Tigris and Euphrates, and it is cut up by innumerable canals, generally in a very unwholesome condition. Thus inundations are frequent, and the soil is always swampy. The people eat the flesh of beasts that have died from the epizootic maladies which devastate their herds. But the circumstance most favourable to the propagation of plague is the conveyance of thousands of dead bodies across Mesopotamia by Persians, who are all Mussulmen Shiites (sect of Ali), and bury their dead in the sacred cities of Kerbella and Nedjef. The one idea of religious Persians whose fanaticism has not been undermined by education, is to be buried in a sacred spot. Poor people endure incredible privations, in order to leave enough money at their death to pay the expenses attending the exportation and burial of their remains at Kerbella, Nedjef, or any of the sacred spots in Mesopotamia. The bodies of the deceased are thus stored in all parts of Persia till the number is sufficiently large, when they are sent to Mesopotamia. These funeral caravans follow the route of the valley of Kirmancha, and enter Turkey by the Pass of Khaneguia. The processions stop at the different places of sepulchre and bury their dead. At Nedjef (Mesched Ali) from ten to fifteen thousand corpses are interred annually. The total number thus imported from Persia reaches on an average thirty thousand per annum. It is not necessary to insist on the necessarily fatal consequences of this peripatetic charnel house, or travelling "morgue" filled with bodies, frequently of those who fall victims to plague and typhus, that have, perhaps, been dead thirty or forty days. At certain seasons of the year all the roads leading to Mesopotamia are poisoned by the miasma of these putrefying dead bodies. The conductors of these funeral caravans are constantly being decimated, and the beasts of burden die on the road. The Turkish authorities at Constantinople and Bagdad, realising the immense importance of the work undertaken by the Council of Hygiene, have agreed to help it by every means in their power. At Diaria, between the 15th and 27th of January, there were thirty known deaths from plague; the scared inhabitants took refuge at Nedjef. Here, in the beginning of March, in a population of seven thousand, one hundred deaths were certified in three days. M. Zitterer, medical and sanitary inspector at Bagdad, lost no time in establishing a cordon of troops round the infected places. Izzet Pasha, commander-in-chief of the Bagdad army, in compliance with the order of Said Pasha, prime minister, hastened to place at the disposal of the sanitary authorities all the troops of that province. The sanitary doctors of Khaneguia, Solezmasne, Bassorah, and even Hodeida, were immediately summoned to the infected districts. The military doctors of the Turkish army offered their services, which were gratefully accepted. The lazar-houses which are provided in case of an epidemic have all been opened; others are temporarily constructed of tents and matting. Fifteen hundred Persian pilgrims, who are accidentally within the sanitary cordon, are detained under surveillance. An official order against conveying dead bodies within the sanitary cordon has been issued. This cordon is strictly supervised; it is organised in the following manner. The first cordon isolates the infected district; the second cordon circumscribes the first, and is connected with a line of quarantine placed in the rear. In order to cut off infection from the line of Bagdad and the Tigris, this immense territory is under the surveillance of cavalry troops, who stop all traffic to-and-fro. In the interior of the first cordon, disinfection is stated to be energetically practised; bed, bedding—even the clothes, tents, and dwellings of the plague-stricken are destroyed by fire. The inhabitants of the villages thus sacrificed are transported to a healthy situation, and are provided by Government with all the necessities of life. Western countries have little to fear from this epidemic. Leaving out of consideration the efforts made to stay the outbreak, deserts separate it from the coast of the Mediterranean. The International Council of Health have now unanimously adopted the proposition of a French delegate, to establish a permanent medical station in the districts stricken with plague. Every possible means ought certainly to be taken to destroy this focus

of infection; for, if at a future time the railways now proposed come into actual existence, the district will be within easy communication with the sea-coast, and the health of European countries will be gravely threatened.

BUTTERINE.

Probably there are few articles of food, the manufacture of which has been shrouded in greater mystery than butterine. It was originally introduced into this country in an unsatisfactory and somewhat discreditable way. The imperfect state of the analysis of butter rendered it probable that the manufacturers of this imitation would be able to pass it off on the public as the real article. For a long time, they succeeded in this, and it was only when analytical processes improved, and the detection of the spurious compound became easy, that the name of butterine was resorted to, expressly because it was so near in sound and appearance to butter, that the public might readily be led to believe in its identity.

Hippolyte Mège's first butterine was a very different and inferior article to that which is now sent to this country. It was, in fact, well-washed dripping. Its sale was small; it found little favour except for common shop-pastry, and was almost unknown as a domestic article, because it was flavourless, and unpleasant in appearance.

It seems singular that this state of things—that of about nine years ago—is the only one which presented itself to most of the speakers in the recent debate on this subject in the House of Commons. It was Dr. Playfair only who seemed to rise to the consideration of the butterine trade as it is at this time; and even Dr. Playfair himself was a little behind date in estimating the ability of chemists to deal with such substances, and to detect them in admixture.

The butterine trade has grown now to such a magnitude, that it is impossible to stop it. The substitute for butter has become a recognised article of food, filling a definite place in our national bill of fare; and, by virtue of this rapid growth, it has become unquestionably necessary to regulate and supervise the imports and manufactures to some extent. There are almost as many grades of butterine as of butter, varying in purity, flavour, and appearance. The best butterine is almost as palatable as the best butter, and certainly far superior to the greater part of the so-called salt butter eaten in this country; while the commonest kinds are simply unfit for human food.

To distinguish between these classes or grades, we must look for a moment at the process of manufacture. To make the best butterine, the fat of recently slaughtered animals (most generally those which have been killed for "tinning") is melted in a copper, skimmed from floating impurities, and decanted from the curd and traces of muscular matter which settle. This melted fat is then washed repeatedly, by blowing high-pressure steam into it until the water, settling to the bottom, has taken away all the dirt, and left the fat perfectly clean. This fat, if allowed to cool, would be simply very clean and very insipid dripping. The true art of the butterine-maker now comes into play. With this melted fat is mixed a suitable proportion of fresh milk; the two are thoroughly mixed, and the mixed mass tinted with annatto, slightly salted, and then churned almost exactly in the same way as cream would be churned to make butter. This process changes the tasteless fat to palatable butterine, which can scarcely be distinguished from butter except by analysis.

There can be no possible objection to the use of such a food as this. It is clean, wholesome, and far less likely to become tainted than genuine butter.

But we have to set off against this a considerable quantity of butterine, so-called, which has been made by inferior processes. Worst of all, perhaps, is the "swine"—*i.e.*, butterine made from pigs' fat. The surplus fat of the pig finds a ready market as laid at a good price; and, if it be of really good quality and pure colour, there is no temptation to make any other use of it; but if the sample be a little discoloured, or not quite sweet, the temptation to mix it with milk and colour it is great; and we believe it is in this way that the most objectionable samples of American butterine are manufactured. No doubt, the traffic in this class of fat should be stopped; but chemists have not yet succeeded in satisfactorily discriminating between the fat of pigs and of oxen; and, until this process is perfected, it seems useless to merely prohibit the introduction of pig-butterine to this country.

Another fertile source of bad butterine is the manufacture carried on in London itself, under the very eyes of the authorities. Good suet is far too dear in London to be made into butterine; so the enterprising makers buy dripping, kitchen-stuff, old bones, and cooks' "perquisites" in general, and, subjecting these to a defective and slovenly process, turn out an article which resembles butter only in colour. Such manufactories as these ought to be suppressed; and yet we could point to more than one or two within the four-mile radius which do a flourishing business and yield large profits. It is evident that no great difficulty could arise in the proper supervision and control of this home manufacture; and some energetic steps in this direction would go far to remove the causes of the present outcry.

Nothing more seems to be necessary as far as the wholesale trade is concerned. The sales of good butterine may certainly be left alone; and those of bad butterine had better be controlled. As regards the retail trade, it might perhaps be possible to secure the substitution of some other name for butterine. If this were done, the provisions of the Sale of Food and Drugs Act are quite strong enough to deal with the rest of the matter, and ensure that no mere substitution of butterine for butter should take place.

THE DEBATE AT THE OPHTHALMOLOGICAL SOCIETY.

The latest-born offspring of the union of medicine and surgery gives signs of a vigorous adolescence; but, with the proverbial lavishness of youth, it devours, in a single discussion, matter that might have supplied food for a session. Owing to the view which Dr. Hughlings Jackson took of his duties as opener, and the consequent great length of his address, the whole of the discussion had to be compressed into a single night. Subsequent speakers endeavoured, with more or less success, to keep within the bounds of the subject originally proposed for discussion—namely, the mode in which optic neuritis was produced in intracranial disease. Dr. Jackson advocated, but not very forcibly, the theory of its production by vaso-motor disturbance; and met with little support from those who followed in the debate. All the pathologists seemed to be agreed that, where optic neuritis occurred in the course of intracranial tumour, inflammatory changes were to be recognised in the trunk of the nerve; and Dr. Stephen Mackenzie boldly asserted his belief—in which he was supported by Dr. Walter Edmunds—that, in the neighbourhood of the intracranial growth, an inflammation of brain or meninges occurred, which was propagated through continuity of tissue to the nerve, and so to the optic disc. To this, it may be objected that it is difficult to understand why the optic nerve should be singled out; but, have we any definitive evidence of this selective process? May we not, from the facility with which we can watch and register the changes in the optic nerve, have been led to give it an isolated position, which it does not deserve? Does its condition essentially differ from that of the other cranial nerves, when growths exist within the cranial cavity? May not the facial neuralgia, occurring in this disease, be due to neuritis of the fifth nerve; the vertigo and tinnitus to a neuritis of the auditory nerve; and the retardation of the heart and other visceral troubles to a neuritis of the vagus? This, we believe, is at present no more than conjecture; but, as Dr. Gowers observed, there are mechanical peculiarities in the relation of the nerve to its sheath, and in the papilla, which would lead to an intensification of any descending inflammatory process when it reached the disc; and Dr. Broadbent is so impressed by the power which distension of the sheath of the nerve has in disturbing the circulation of the disc, that he believes the swelling of the disc to be always produced by the overdistension of the sheath, which overdistension is itself brought about by the rise of intracranial pressure, due to the presence of a new growth. The theory above referred to, of a descending neuritis continuous through

the brain-tissue, or its membranes, with an inflammatory process about the site of the new growth, as the mode of production of the "optic neuritis", seemed to find most favour with the Society; and has certainly the advantage of simplicity to recommend it. Amid so many discrepancies, it is satisfactory to find at least one note of agreement, and that, too, in relation to so important a subject as treatment; all were ready to acknowledge that optic neuritis, if left to run its course, might result in a permanent, and more or less serious loss of sight; and there was an almost equal unanimity in recommending iodide of potassium, in gradually increasing doses, as the best means of dealing with the condition, and, in a large number of cases, holding out good hopes of a favourable result, if resorted to early enough.

ILLNESS OF LORD BEACONSFIELD.

DURING the past seven days the illness of the Earl of Beaconsfield, of which we were able to give a detailed account last week, has presented the ordinary variations of cases of this nature. From hour to hour, and from day to day, the condition of the illustrious patient has alternately afforded reason for hope and for anxiety. The general character of the case is one of gout, with bronchial catarrh, culminating in occasional attacks of spasmodic dyspnœa. After some improvement up to Monday, his lordship's physicians found on the evening of that day that the temperature had risen considerably, and they were naturally anxious lest pulmonary congestion, which threatened, was setting in. But a very severe attack of gout in the knees, which came on early in the morning, was followed quickly by a fall of the thermometer, and considerable relief to the general symptoms. Again a period of progress set in, broken by an occasional attack of spasm of a slighter character; and on Wednesday evening the most cheering bulletin that has been published since the commencement of the Earl's illness was issued. On that evening, however, his lordship insisted on sitting in his chair for a short time, from the effects of which he suffered, for, towards three o'clock on Thursday morning, the respiration became oppressed, and a somewhat alarming attack of spasmodic breathing, attended with more prostration, came on, the physical signs giving evidence of congestion of the base of the right lung. Happily, the means of relief were immediately applied, and were quite successful. After expectorating a large quantity of muco-purulent matter, his lordship was greatly relieved, the respiratory frequency falling, and the exhaustion passing off. On Thursday forenoon we ascertained that the noble Earl was in most respects in much the same condition as he had been for several days. Now, however, the general symptoms seem to show that the gouty attack has in a great measure spent its force; and it is to be hoped that with it the local bronchial symptoms will decline. Still, the debility resulting from such a severe attack, at Lord Beaconsfield's time of life, constitutes a grave complication which must exercise the skill and patience of his medical advisers.

MYOPIA IN SCHOOLS.

PUBLIC attention was called last week by a leading article in a contemporary, to the supposed increasing prevalence of short-sight in public schools. The article was called forth by a passage in the annual report of Wellington College, in which the medical officer refers to the frequency of short-sight amongst the boys, and cites Mr. Critchett's authority for the statement that our public schools are manufacturing a race of short-sighted people.

There can be no question that, while it is very undesirable to create an alarm disproportionate to the evil, or to victimise any individual institution concerning which nothing exceptional has been proved, this matter of myopia in schools should receive more attention than it has received hitherto. We may say at once, however, that we are not inclined to believe that our large public schools do more of this mischief than others, and we know from observation, that in some of our latest and best board-schools, the children work under conditions as favourable as are anywhere to be found.

The well-known labours of Professor Cohn in Breslau, confirmed, as they have been, by many subsequent observers in Germany and elsewhere, have placed it beyond all doubt that there is a close connection between school life and the development of myopia. The pre-disposition to become myopic is doubtless often hereditary, but the active cause of the elongation of the eyeball lies in the close and continuous use of the eyesight upon near objects during childhood and youth, in fact, in educational pursuits. It appears then, at first glance, that we have before us at best a choice of evils. Shall we become a race of highly educated men in spectacles, like the Germans, or shall we preserve the integrity of our eyes by remaining comparatively ignorant and uncultured? But the matter is not really so serious as this. The Germans have educated very widely, perhaps excessively for something like a century, yet the relation of myopia to education has been but little noticed until within the last few years. We, in England have educated less laboriously indeed. As regards the great mass of the people, we have, until lately, hardly educated at all; and we have the great advantage of a national propensity for out-door games and sports, which, by maintaining a good physique, counteract the unfavourable influences of study and confinement. The result is, that we have remained, on the whole, comparatively free from myopia. But it is none the less true that we are tending in the wrong direction. Education has lately been immensely widened in its operation in this country, so that the comparative immunity from myopia hitherto observable among our lower classes, is in danger of being lost; while, amongst the more educated, there is already a deplorable frequency of imperfect vision, and positive disease of the eye from this cause. Clearly it is high time to give more heed to the matter; and we are sanguine enough to believe that, by the observance of the rules which science and common sense dictate, the mischief may be kept under without detriment to the cause of education.

In the meantime we want, for comparison and guidance in the future, accurate facts as to the present prevalence of myopia. The only figures, so far as we know, are those obtained by Mr. Priestley Smith from an examination of about 1,600 board-school children in Birmingham, and of 350 students training for masters and mistresses of elementary schools. In these two classes, its frequency was equal to about 5 per cent. and 20 per cent. respectively. In addition to statistics of this kind, we want examinations of the same set of children on joining and on leaving a school; and, as time goes on, the examination of the same classes of a community in succeeding generations.

It is of much importance that this matter should be brought under the notice of teachers generally; everyone at the head of a school should understand what short sight is, and should know that those conditions which oblige the scholar to bring his eyes and his book unduly near together—namely, insufficient or ill-directed light, ill-constructed and improperly placed desks and seats, bad paper and bad type, etc.—are active causes of the disease. Further, it should be more generally known than it is, that a child who does not see as accurately as other children, needs to be examined as to the nature of the defect no less than the child who cannot hear distinctly, or who cannot walk without a limp; the serious and damaging degrees of myopia which now so commonly come under notice a few years too late, would then in most cases be avoided. The publicity given to the instance of Wellington College may lead to much good. We commend the subject to the attention of the medical officers of other schools and colleges.

MR. ANDERSON CRITCHETT was on Tuesday last appointed Ophthalmic Surgeon to St. Mary's Hospital.

A SOCIETY of Public Hygiene has been formed at Bordeaux, on the model of the Society of Public Medicine and Professional Hygiene at Paris.

DURING the thirteen weeks ending last Saturday, the metropolitan death-rate averaged only 23.4 per 1,000, against 27.1 and 27.3 in the corresponding periods of 1879 and 1880.

ANOTHER French journal is announced to appear on and after April 1st. It assumes the form of a review of military medicine and surgery, and is edited by Dr. Deloule, surgeon of the hospital of Val de Grace, Paris.

A TELEGRAM just received from the Consul-General at Bagdad, says that the quarantine reports regarding the plague show the average of deaths to be about thirty daily at Nejef. There has been no death for ten days at Kufa; and the disease is on the decrease in the neighbourhood of Jaara.

AT the meeting of the Committee of the International Medical and Sanitary Exhibition on the 6th instant, an area of 8,000 square feet was allotted on the application of 225 exhibitors. The period during which further applications for space can be entertained has been extended to April 16th.

AT the Royal College of Surgeons of England, Mr. Jonathan Hutchinson will deliver six lectures on the Laws of Inheritance in Relation to Disease; and Dr. Gerald F. Yeo three lectures on the Contractile Tissues. Both courses will be delivered in June, on days which will be announced.

DR. CHRISTIAN has presented to the Paris Société de Médecine a memoir on the relations of locomotor ataxy to general paralysis, which has met with much approval from the profession in Paris. His conclusions are these (*L'Union Médicale*, April 3rd): 1. The difference between the grey substance of the brain and that of the medulla is greater and more marked than is generally believed; 2. The lesion is not identical in locomotor ataxy and general paralysis; 3. These two diseases are absolutely distinct and absolutely independent of each other; 4. They may be found together, but even then they are due to different forces: the one having acted directly on the medulla, and the other on the brain; 5. Their existence cannot be positively affirmed, except when they manifest themselves by their characteristic symptoms.

THE GOVERNMENT CALF-LYMPH STATION.

THERE would seem to be some difficulty in securing suitable premises for the new Government calf-lymph station, since the daily papers have this week contained an advertisement from the Office of Works requesting offers of premises for the purpose. The situation is to be within a radius of four miles from Charing Cross; and the requirements are, "stabling, etc., for about twelve calves; an open yard, with the usual accessories; and a house adjoining, with suitable rooms for operating purposes, and for the residence of a caretaker". There ought not to be any trouble in securing the use of premises available for the purpose, except on the ground of expense; and it is to be hoped that the Government will not mar their good resolution by carrying it out in a niggardly or cheeseparing spirit.

MEDICAL INSURANCE.

UNDER this heading, there appeared in a contemporary, on the 30th ult., an able letter from Mr. C. J. Radley, one of the working members of the Committee of the Metropolitan Provident Dispensary Association, which, as our readers are aware, was called into existence some months ago through the exertions of Sir C. Trevelyan and others. Mr. Radley's letter was written to show that it was not, as alleged, due to the high price charged by chemists for dispensing prescriptions, but the dread of the cost of skilled medical advice and attendance, which led to the great abuse of the out-patient department of hospitals. He then proceeds to show that, "in the medical institutions connected with friendly societies in the midland and northern counties, the members and their families in 1879 contributed nearly £15,000, the insurance covering more than 100,000 individuals, and there being a net profit carried to reserve at the end of the year of more than £600". "The whole of this machinery was created and managed by the members, and was entirely free from patronage or charity. This result was achieved in a group of thirty towns." Mr. Radley, as a representative member of the Foresters' Society, is an active propagandist of the provident dispensary movement, and, from his position and intelligence, is admirably suited to speak and write in their name.

THE NOTIFICATION OF INFECTIOUS DISEASE.

THE progress which the question of the compulsory notification of cases of infectious disease is making, in the estimation of sanitary authorities and the community at large, must be eminently gratifying to those members of our Association who have been the pioneers in urging the adoption of this important security to the public health. It will have been seen from our parliamentary intelligence of last week (p. 534), that the Solicitor-General for Ireland has expressed, on behalf of the Government, their entire approval of the object of the Bill introduced by Mr. Dwyer Gray on the lines of Mr. Ernest Hart's "model clause", to make such notification compulsory in Ireland in all places where the sanitary authorities desire it. If this Bill were referred to a Select Committee, with instructions to take evidence as to the results of the various systems of notification at present in force in different towns in England, very valuable indications would be obtained as to the direction that general legislation on the subject (which cannot be long delayed) should take. Efforts to obtain information on the question have been made on behalf of our Parliamentary Bills Committee, and more recently by Dr. Dudfield on behalf of the Kensington Vestry; but such information has necessarily been somewhat incomplete, and can hardly be expected to be so convincing to our legislators as evidence collected by themselves. Moreover, the question needs ventilation, and the greater publicity that can be given to it the better. It is only by much insistance that the subject has attracted the attention of the London sanitary authorities; but it seems, now that it is really understood, to be meeting with much favour at their hands. An encouraging meeting of delegates was held on the 23rd ultimo at the Kensington Town Hall, at which, though some nonsense was talked, resolutions were unanimously passed in favour of the compulsory disclosure of infectious diseases, and of compulsory removal to hospital of all persons who cannot be properly treated for infectious disease at home without danger to others. The President of the Local Government Board will be asked to receive a deputation of the delegates to support these resolutions, as he has already been asked to receive a deputation of our Parliamentary Bills Committee on questions that include those discussed at the Kensington conference. The information upon which that conference proceeded was to a large extent based upon the labours of the Parliamentary Bills Committee, so that the two deputations may be regarded as practically unanimous in their wishes. Considering the widely different points of view from which the two bodies necessarily regard the subject, their agreement upon what should be done may be considered as tolerably complete evidence of the soundness of their case; and it may be hoped that Mr. Dodson, who is not so overburdened with legislative business as some of his colleagues, will be induced to give his immediate and earnest attention to the subject. No promise of "careful consideration" can be regarded as satisfactory at the present stage of the question; it is ripe for immediate action; but, unless the initiative be taken by the Government, there is little present prospect of success in piloting a Bill through Parliament.

VACCINATION AND REVACCINATION.

M. BLOT, in the name of a Commission of which he formed part, in conjunction with MM. Guyon, Parrot, Hervieux, Cohn (d'Alfort), Legouest, Guéniot, Depaul, Fauve, Larrey, Th. Roussel, and Tarnier, have presented their report to the Paris Académie de Médécine on the question whether vaccination and revaccination should be made compulsory in reference to the Bill presented to the Chamber of Deputies by M. Henri Liouville. The report commences by stating that the incontestable prophylactic value of vaccination is superabundantly demonstrated; the events of the war of 1870-71 having put the finishing stroke to that demonstration. The only objection to vaccination

of any importance, in M. Blot's opinion, is the danger of inoculating syphilis with vaccine; but science and the use of animal vaccine have reduced these most exaggerated fears on this score to their proper dimensions. Another objection combated by M. Blot is the often advanced argument that no one has a right to attack individual liberty; to this he replies, that the limits of this liberty should be precisely determined by the general good; as M. Bouley has justly remarked, the liberty of spreading disease is certainly that one in which the public advantage is most interested in restraining. M. Blot adds that vaccination should be so much the more rendered compulsory because all other means indicated by the science of hygiene, such as isolation, disinfection, etc., do not suffice to give immunity from small-pox. The proof that vaccination is the best of all prophylactics is that variola has ceased to be an infantile disease wherever compulsory vaccination is practised in a regular manner, as in Bavaria, Sweden, etc. The influence of vaccination on the number of deaths amongst persons attacked with small-pox may be studied in one country, Sweden, where vaccination has long been compulsory. In the prevaccination period (from 1774 to 1801), the average of deaths was 1,973 per million inhabitants; in the non-obligatory vaccination period (1802 to 1816), 479 deaths per million; and in the period of compulsory vaccination (1817-1877), 189 deaths per million. Thus, the average of deaths in each million of inhabitants has diminished from 1,973 to 189. Revaccination is the necessary sequence of vaccination, which, as a rule, only procures a temporary immunity. The utility of revaccination is as clearly demonstrated as that of vaccination. M. Blot's report was adopted with unanimity by the Commission, with the exception of one vote only.

ANTIVACCINATION TALES.

THERE would seem to be a nest of antivaccinators in the Isle of Wight. Not so long ago, we had occasion to expose the fallacies of an alleged case of "terrible injury from vaccination" at Ventnor, which obtained much local credence, but which was clearly shown by Dr. Stevens of the Local Government Board to have had nothing to do with vaccination at all (see vol. ii, 1880, p. 751). A somewhat similar case has just been made the subject of investigation by Dr. Stevens at Sandown. A man wrote to the board of guardians complaining of the death of his child from blood-poisoning as the result of vaccination by the public vaccinator of the district. The guardians very properly summoned all the parties concerned to appear before them; and, after a long inquiry, Dr. Stevens stated that pneumonia, for which the child had been treated, had damaged a large part of the right lung, which crippled the child's circulation; and it died exhibiting all the symptoms that would be expected from such crippling. It was altogether out of the question that vaccination could have caused the death. He had seen the child from whom the deceased child was vaccinated, and it was as healthy a child as could be seen anywhere. Five other children had been vaccinated from the same lymph, and they had all taken remarkably well, making it perfectly conclusive that there was no fault to be found in the lymph. The result of this inquiry, though perhaps hardly satisfactory to the antivaccinators, will no doubt tend to allay a good deal of unpleasant feeling which has been manifested with regard to the case.

REVACCINATION.

THE following paragraph, from the report of the committee of the *Exmouth* training-ship, has been sent by Mr. Albert Pell, M.P., to the *Times*, as containing remarkable and conclusive evidence of the protection afforded by vaccination, and, as such, has been extensively copied in country papers. It is, of course, so far satisfactory, to learn that all the boys on board the *Exmouth* undergo revaccination, which we know, by abundant experience, is an almost certain prophylactic against an attack of small-pox; but no one will gain additional grounds for belief in revaccination from the inconsequential report of the *Exmouth* committee, which reads thus:

"The following report by the medical officer of the ship will, your committee think, be a valuable contribution to the information already obtained by the managers upon the subject of revaccination, viz.: 'Having been desired to report on the revaccination of the boys, I beg to state that all the boys who have been admitted on board the *Exmouth*, numbering 1,400, with the exception of those boys who at the time of their admission bore recent scars upon their arms, were revaccinated by me with necessarily various results as regards character of vesicles produced; but in nine-tenths of the boys the effects were such as to imply their previous susceptibility to small-pox.' Your committee may add, as evidence of the protection afforded by the revaccination, that, although a large number of the boys' friends have visited the ship, and the boys are allowed to visit their friends, the boys have enjoyed a complete immunity from small-pox, not one case of this disease having occurred during the five years the ship has been established."

ARMY MEDICAL SCHOOL.

THE summer session of the Army Medical School at Netley was opened on Monday, the 4th instant. The introductory address was delivered by Professor Aitken, F.R.S., the chief part of his discourse being a review of some of the leading advances which have been made in the progress of the science and practice of medicine during the last twenty years. Forty surgeons on probation for the Army Medical Department, and twenty-two candidates for commissions in the Indian Medical Service, had arrived at the close of the previous week to attend the courses of instruction. A noticeable feature in the lecture-room was the absence of any naval uniforms among those of the sister services. As before mentioned in the JOURNAL, candidates for commissions in the Royal Navy are, in future, to be instructed in the specialities of their duties on board ship at Haslar, instead of Netley.

INTERNATIONAL MEDICAL CONGRESS.

As the time of the meeting approaches, the evidence of general interest in the Congress becomes increasingly apparent. In several of the Sections, the number of communications already promised is large enough to fill up the entire time likely to be at their disposal; and these are by contributors whose high scientific character is sufficient guarantee for the merit of their intended papers. The choice of the Executive Committee of a representative of French medical science to give the fourth of the general addresses, has fallen upon Dr. Maurice Raynaud, a distinguished physician and an accomplished orator, the author of *Le Médecin au Temps de Molière*, as well as more strictly scientific works of high merit. In Paris, a lively interest is taken in all that pertains to the Congress by a large number of the hospital physicians and surgeons; and a number of medical men from the provincial French towns and schools have signified their intention to be present. Cordial notices continue to appear in the foreign medical journals, and a highly complimentary one in the *Berliner Medicinische Wochenschrift* is particularly worthy of notice. The editor, Dr. Waldenburg, says that the Executive Committee are making the most strenuous efforts to render the meeting by far the most comprehensive and magnificent medical congress held up to this time, and to obviate the objections which are often and justly to be made against international meetings. He especially points out the comprehensive and practical nature of the programme, which, he thinks, should give the most general satisfaction. The Empress of Germany herself, who, as is well known, lends the weight of her high position, as well as her own personal activity, to all projects for the alleviation of the sufferings of the sick and wounded, whether in peace or in war, has sent a letter in which she expresses her lively interest in the Congress, and her intention to delegate the distinguished director of the Augusta Hospital in Berlin (her special charge), Professor Küster, to represent her at the Congress. The College of Surgeons have decided to give a *conversazione* in the Hunterian Museum on Friday, August 5th; and the preparations that are being made, both in respect to public and to private hospitality, will not be unworthy of so great an occasion, and one, indeed, of which so very great expectations have been formed abroad. The Society of Apothecaries of London have liberally granted the sum of £52 10s. to the funds of the Congress, and the College of Surgeons of Ireland the sum

of £25; and it is hoped that all intending subscribers to the Congress will signify the amount they wish to give as soon as possible, as otherwise the Executive and Reception Committees are unable to finally decide upon the programme of entertainments, the cost of which, for so large a number as that which is expected, will be necessarily large.

INOCULATION OF SALIVA.

On the occasion of the reading of the letter of M. Pasteur by M. Parrot to the meeting of the Académie de Médecine, relating to experiments by inoculating rabbits with the saliva of children who had died of ordinary diseases, M. Vulpian presented to the Academy a note, in which he communicated the results of analogous experiments performed by him in his laboratory at the Faculty of Medicine. M. Vulpian injected under the skin of rabbits saliva collected at the very moment of the experiment from perfectly healthy individuals; and this injection killed the rabbits so inoculated in forty-eight hours. The blood of these rabbits was found filled with microscopic organisms; among which was found a special organism, discovered by M. Pasteur in the course of his experiments with inoculation of the saliva of a child who had died of rabies. One drop of this blood, diluted in ten grammes of distilled water, and injected under the skin of other rabbits, also brought on the death of these animals; the blood of which was similarly filled with microscopic organisms. These singular results, of which the interpretation is by no means easy, present also the no less singular peculiarity of not being stable. Rabbits placed in identical conditions, and inoculated with the same saliva, experienced no ill effects from their inoculation, and continued in excellent health. It would, therefore, appear that experimental microbiology is not yet on the way to become either an easy or clear science, notwithstanding M. Pasteur's *fiat lux*.

THE PROPAGATION OF SYPHILIS BY RAZORS.

M. Despres has lately published two cases in which syphilis appeared to have been communicated through the medium of the razor during the process of shaving (*Journal des Connaissances Médicales*, December 2nd, 1880). In the first case, a man, aged 54, of steady habits, and with no history of venereal disease, was shaved by a barber on July 11th, 1880. The man observed, after being shaved, that he had three small cuts on the chin. On July 25th, the patient (who had had no relations with women for ten weeks) noticed a swelling at the site of each of the cuts first noticed after the shaving. On September 1st, the patient came under the care of M. Despres, having been sent to that surgeon as a case of epithelioma. On examination, there were found three ulcers on the chin, surrounded by some red and moderately hard callosities. There was a hard gland beneath the jaw, but none elsewhere. No other signs of syphilis were discovered at that time. On September 15th, a papular syphilide appeared. The second case, that of a young man aged 22, was in many respects similar to the preceding; in him, also, the initial lesion appeared on the chin, but the patient did not remember having been cut by the razor. In due time, glandular enlargement and a general syphilide followed.

OBSTETRICAL PRACTICE IN CHINA.

The nineteenth half-yearly volume of the valuable *Medical Reports of the Chinese Imperial Maritime Customs* has just been received from Shanghai. The reports are always rich in obstetrical notes; and noteworthy amongst those recorded in the present volume are the notes of Dr. E. J. Scott on eighty consecutive cases of labour in his practice at Swatow, seventy-eight of which occurred at full time, and two at seven months. All the cases were of single births and head-presentations—a somewhat remarkable result. Thirty-three of the infants were girls, and forty-seven boys; and there were only two deaths of children at full time, and two of children born at seven months. The forceps was used only twice in the eighty cases, and chloroform only six times. Dr. Scott never uses chloroform unless specially requested to do so, or he sees some special reason for its use, as he is inclined to the belief that it conduces to inertia of the uterus. In the six cases in which he administered chloroform, three of the children born died, one at full time, the other at seven months. Dr. Scott has not found any particular tendency to inertia of the uterus at Swatow more than elsewhere, there being fair uterine action in most, if not all, of his cases. He considers his immunity from cases of *post partum* hæmorrhage to be due to his practice of always giving a full dose of ergot just as the head of the child is passing over the perinæum, using ergot freely if there be any threatening of bleeding afterwards. He considers himself very fortunate to have so far escaped this unpleasant complication, so common in tropical climates, especially in India; and has always given the hæmostatic properties of ergot the credit of it. To the use of ergot may, perhaps, be attributed the relatively frequent retention of the placenta (four in eighty cases), as Dr. Scott is careful to maintain steady pressure over the fundus with his hand till the placenta is expelled. Certainly ladies living in the South of China may congratulate themselves on the easy process of parturition there, if Dr. Scott's eighty cases at all represent the practice of other obstetricians in that part of the world.

PRIZES OF THE ACADEMY OF SCIENCE IN PARIS.

The Montyon prizes for 1880 have been awarded, so far as they concern medicine and surgery, as follows: Three prizes of the value of 2,500 francs (£100) each: 1. To Professor Charcot, for his work on Localisation in Diseases of the Brain; 2. To M. Louis Jullien, for his treatise on Venereal Diseases, and his Statistical Researches on the Etiology of Tertiary Syphilis; 3. To M. Sappey, for his writings on the Lymphatics of Fishes. Three honourable mentions, 1,500 francs (£60) have also been awarded: 1. To M. J. Chatin, for his work on the Organs of Sense in the Animal Kingdom; 2. To M. Gréhaut, for his three memoirs on (*a*) the method of Elimination of Carbonic Oxide; (*b*) on the Absorption of Carbonic Oxide by the living organism; (*c*) Comparative Researches on the Exhalation of Carbonic Oxide by the Lungs, and on the Variations of that function; 3. To Dr. Guibout, for his new Clinical Lectures on Skin-diseases. The Bréant prize of 5,000 francs was awarded to Professor Colin of Alfort, for his experiments on Septicæmia and Charbon; the Godard prize, to Dr. Paul Ségond, for his work on Acute Abscesses (*abcès chaud*) of the Prostate, and on Periprostatic Inflammation. The Dusgate prize, of the value of 2,500 francs (£100), for the best memoir on the Diagnostic Signs of Death, and of preventing premature inhumation, has not been awarded this year; but the Academy has given an "encouragement" of 1,000 francs (£40) to Dr. Onimus; another of the same amount to M. Peyraud; and one of 500 francs (£20) to M. G. Le Bon. The Boudet prize of 6,000 francs (£240 sterling) has, as we have already announced, been awarded to Mr. Lister, F.R.S.

CONTINUOUS ŒSOPHAGEAL CATHETERISATION.

At the meeting of the Société de Chirurgie of Paris on March 2nd, M. Lannelongue advocated the use of a method of artificial alimentation, which, though as old as the century, has as yet received but little attention. In lunacy practice, it is not uncommon to feed a patient, who refuses sustenance, through a catheter passed from the nasal passages into the stomach; the novelty consists in applying this method to cases of œsophageal stricture, and in the permanent retention of the catheter *in situ*. The nasal mucous membrane soon grows habituated to the presence of the catheter, which gives rise at most to a little simple coryza; in one case of malignant stricture of the œsophagus, M. Krishaber retained the instrument in position for 305 days. M. Lannelongue considers this treatment to be of advantage in œsophageal stricture, whether malignant, fibrous, or spasmodic in nature, and in dilatation of the œsophagus. M. Verneuil said that he had long hoped to obviate, by some such means, the pain attending deglutition after excision of the tongue and other serious operations about the face, which caused such suffering that patients were sometimes found to refuse all food, preferring death by starvation to the agony caused by the ingestion of food. In a case in which he had recently extirpated the whole tongue (by Sédillot's operation), he had gradually habituated the patient to the

presence of the catheter, and had operated with the sound in position; the result had been most encouraging, no discomfort was experienced from the presence of the catheter, and the only drawback had been a slight attack of indigestion on the third day, probably attributable to overfeeding.

SCOTLAND.

DR. ABRAHAM WALLACE has been elected Professor of Midwifery in Anderson's College, Glasgow, in the room of the late Dr. J. G. Wilson.

EDINBURGH UNIVERSITY AND SCHOOL OF MEDICINE.

ALL the classes in the Medical Faculty and in the extramural School of Medicine, Edinburgh, closed on Thursday, March 31st. The summer session begins on Tuesday, May 3rd; the examinations in clinical surgery begin on Monday, May 2nd; and in clinical medicine on Tuesday, May 3rd.

PHILOSOPHICAL SOCIETY OF GLASGOW.

AT a meeting of this Society, held on March 30th, Professor McKendrick showed the apparatus for demonstrating the rhythm of the pulse by means of sound, which he is in the habit of employing when lecturing to his class. It consists of a sounding flame, fed by gas, which passes through a small chamber, having the floor of it made of a very thin membrane. This membrane placed over the pulse is acted on by it, so as to regulate the supply of gas to the sounding flame. Thus, the note of the flame is affected, the pitch rising and falling; and in this way the pulse beats; and any variations in them are indicated to the ear.

ANDERSON'S COLLEGE, GLASGOW.

A MEETING of the trustees of Anderson's College, Glasgow, was held on Monday, for the purpose of electing a teacher of midwifery in the college, in place of the late Dr. J. G. Wilson. The candidates were: Dr. A. Wallace, Dr. M. Cameron, Dr. W. L. Reid, Dr. S. Sloan, and Dr. A. J. Thomson. There was a large attendance of trustees; and three divisions took place before a decision was arrived at, when Dr. Wallace was elected by a considerable majority. Before leaving Edinburgh, Dr. Wallace had for two sessions been assistant to Professor Laycock, and was also specially attached to the professor of midwifery.

UNIVERSITY OF ABERDEEN: CLOSE OF THE MEDICAL CLASSES.

THE classes in the Faculty of Medicine rose on Thursday, March 31st. Professor Pirrie announced that the Shepherd Memorial Gold Medal for Surgery had been gained by Mr. Thomas W. Griffith. Professors Struthers and Stirling alluded to the important improvements regulating graduation in medicine, whereby, amongst other improvements, students will be admitted to examination in botany and natural history at the end of their first winter session. These regulations will take effect at the ensuing examination term in August.

ROYAL MATERNITY AND SIMPSON MEMORIAL HOSPITAL, EDINBURGH.

THE thirty-sixth annual meeting of the contributors to the Royal Maternity and Simpson Memorial Hospital, Edinburgh, was held last week, and was presided over by Dr. Haldane, President of the Royal College of Physicians. From the report submitted, it appears that, during the year, 222 labours were conducted in the hospital, and 365 at the homes of the patients. Sixty-seven pupils had attended the in-door and out-door practice of the institution. It had been proposed to appoint a head nurse to superintend the nursing arrangements, but this step is in the meantime delayed. During the year, six deaths occurred. The managers are making arrangements for setting aside one ward for the reception of respectable married women who are specially recommended to the hospital. A scheme had also been started for the purpose of looking after the children born in the hospital, whose mothers had necessarily to place them in the care of strangers. A convalescent home has also been started by Miss Cullen, in the vicinity of the hospital, for mothers, who, though fit to leave the hospital, will be benefited by further special care until completely recovered and fit for their duties. It is more than a pity that so valuable and energetic an institution should have had a falling off in its funds, the income having fallen short by £275. The meeting elected directors; and the various speakers strongly recommended the charity to the benevolence of the community.

BERWICK INFIRMARY AND DISPENSARY.

THE annual meeting of the supporters of the Infirmary and Dispensary, Berwick, was held last week. The annual report stated that, during the year, twenty-six patients had been treated in the infirmary. The income exceeded the expenditure by a few shillings.

COMBE LECTURES ON PHYSIOLOGY.

THE courses of lectures on physiology under the arrangement of the Combe trustees have been remarkably successful. The lecturer, Dr. Andrew Wilson, has lately finished the courses of ten lectures each in Dunfermline and Dundee, where the interest taken in the subject by all classes of the community is an earnest of the value of teaching in a subject which is of more than mere superficial value in the proper education of the public.

GLASGOW UNIVERSITY COURT.

AT a meeting of this Court, held on the 1st instant, the following appointments, for the next four years, were made: Dr. Hector C. Cameron, to be Examiner in Surgery and Clinical Surgery; Dr. Donald Fraser, of Paisley, to be Examiner in Medicine and Clinical Medicine; Dr. Alexander Macalister, of Trinity College, Dublin, to be Examiner in Physiology and Pathology.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General, for the week ending March 26th, it appears that the death-rate in the eight principal towns, during the week, was 23.5 por 1,000 of estimated population. This rate is 0.7 below that for the corresponding week of last year, and 0.4 above that for the previous week of the present year. The lowest mortality was recorded in Perth—viz., 15.6 per 1,000; and the highest in Leith—viz., 27.8 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.0 per 1,000, being 0.8 less than the rate for last week. Acute diseases of the chest caused 138 deaths, being 26 less than the number for last week. The mean temperature was 35.0°, being 9.2° below that for the week immediately preceding, and 3.8° below that for the corresponding week of last year.

IRELAND.

BY a Concert given on the 18th ult., a sum of £53 17s. has been obtained for the Belfast Hospital for Sick Children.

ANOTHER Coffee-Stand was opened last week in Belfast, being the tenth since 1874 established in that town under the auspices of the Irish Temperance League.

DR. HAMILTON, of Dromahair, and Dr. Lucas, were last week presented with medals from the Humane Society, for saving the life of a boy who fell into Lough Gill.

TRICHINOUS DISEASE.

THE Irish Local Government Board have followed the example of their English colleagues in issuing a circular letter to sanitary authorities with regard to trichiniasis, and the cooking of pork. The Board draw attention to the very serious diseases in man which result from eating the flesh of pigs that have become infested with minute parasitic worms; and whilst stating that it is upon the imported flesh of foreign pigs that suspicion of being thus infested has recently fallen, consider it prudent to regard all pigs as liable to parasitic disease. Inasmuch as the meat infested with these worms cannot be recognised by any popular test, and the worms themselves can only be detected by careful microscopic examination, it becomes important to take precautions

against harm to man in the case of meat from all pigs. The only known means of avoiding disease in man from this dangerous quality of meat from pigs is by very thorough and efficient cooking. To be efficient, the cooking of pork, of hams, of bacon, and of other articles, should be prolonged for about half as much time again as is customary; but, if there be reason for thinking a particular sample of meat to contain the parasites, it ought not, on any account, to be eaten, no matter how it is cooked. The Board, at the same time, remind the authorities of their powers under Sections 132-136 of the Public Health Act of 1878, in relation to the sales of diseased, unsound, or unwholesome meat; and suggest that they should enjoin their medical officers of health and sanitary sub-officers to use special vigilance in carrying out those provisions.

CONVALESCENT HOME, STILLORGAN.

THE annual meeting of the friends and supporters of this institution was held last week; and, from the report, we learn that the bequests paid in during the year amounted to £1,523, which, in compliance with the usual course, has been placed to the credit of the investment account. A difficulty still exists of obtaining a suitable water-supply for the home, but the committee are making efforts to remove this great drawback, which they trust will soon be successful. The utility of the hospital continues to increase, the number of persons admitted during the year amounting to 763, being 101 more than in the previous twelve months.

TYRONE COUNTY INFIRMARY.

THE report of Dr. Thompson, surgeon to the infirmary, for the past year, shows that during 1880, 549 patients were admitted into hospital, which, with 33 remaining in the institution from the previous year, made a total of 582; while 626 were attended to at the extern department. Eighty operations were performed, including 2 amputations of the thigh, 3 of the breast, 5 partial amputations of the hand, 1 partial extirpation of the tongue, 20 cases of cancer of the lip, and 1 strangulated femoral hernia. Of those operated on 3 died, 2 from blood poisoning and 1 from exhaustion. In the latter case, the thigh was removed more to relieve suffering than with any hope of recovery. Fifteen fractures and 4 dislocations were admitted to the wards; and 14 fractures and dislocations were treated externally, all recovering with good, useful limbs, with one exception. The fatal case was a double compound comminuted fracture of the leg, and the ankle-joint was opened into by a compound comminuted fracture of the small bones in the immediate contiguity of the joint. Amputation might have saved the patient's life, but would not be allowed. The mortality amounted to 13, being equal to 2.4 per cent., and, although slightly in excess of that of the year preceding, was principally due to the large number of serious cases under treatment. The report is a satisfactory one, as showing the amount of work done; and Dr. Thompson is to be congratulated on the results of the skill and attention he has shown to the patients under his charge. The income was £1,485 11s. 5d., and the expenditure £1,389 17s. 5d., leaving a balance of £95 14s. to the credit of the hospital. The average daily number of patients in the hospital was 39.2, and the cost per head £2 10s.; while the average expenditure per bed occupied was £35 6s., and the average duration of each patient in the infirmary 25 days.

CORK WORKHOUSE.

A SPECIAL committee of the guardians, appointed to inquire into the overcrowding which exists in the lunatic, idiot, and epileptic department of the workhouse, have reported that it will be necessary to provide proper room for them; and have suggested that the present nursery ward be added to the lunatic department. This would afford ample accommodation for the insane, with power to classify them; and a new building should be erected, to accommodate the nursery women and infants, on a plot of ground containing six acres. Dr. Nugent, one of the inspectors of lunatic asylums, states that, having recently visited the lunatic wards in the Cork Workhouse, he found in them an aggregate of 148 individuals—128 females and 20 males—for the most part utterly demented or epileptic. He approves of the proposed nursery arrangement, not alone for the obvious utility of the measure in favour of the children themselves, but also for the large structural space that will be thereby rendered available for the insane females, who are now badly provided with dormitory and day-room accommodation. The matter was brought under the notice of the guardians last week; but a discussion on the report has been postponed for a month.

HEALTH OF BELFAST.

AT the monthly meeting of the Belfast Dispensary Committee, held last Monday, the reports of the dispensary medical officers of the various districts on the health of the town were received. The reports generally were satisfactory, showing that Belfast is perfectly free from small-pox, and that only a few cases of fever exist.

HOSPITAL FOR WOMEN AND CHILDREN, CORK.

THE annual meeting of the subscribers to this institution was held last week, presided over by the Archdeacon of Cork. During the past year the total number of patients treated at the hospital was 1,015, of which 209 were admitted to the wards. Of the latter, 142 were received free of charge, 63 paid sums varying from half-a-crown to ten shillings per week, and 4 were private patients paying from a guinea to thirty shillings weekly. The average cost of each bed occupied was £33 15s. 3d. Of the 209 intern inmates, 167 were discharged cured or relieved, 10 were not benefited, 20 remained in hospital on 31st December, and 12 died. The gross receipts for 1880 show a decrease of upwards of £100, as compared with 1879—a falling-off which took place under every source of income except subscriptions. As a consequence of this decrease the financial condition of the hospital is far from satisfactory, and it is absolutely necessary, if the hospital is to be continued, that a larger share of support should in future be accorded to it by the public than it has hitherto received. The Board of Management call attention to the fact that it is the only hospital for children in Cork, and that it is the means of affording relief to a class of women who would, in all probability, suffer in silence at their homes, to the permanent loss of health, and perhaps life itself, rather than face the publicity of a general hospital. To carry on the institution successfully, an increase in the yearly income of about £90 is required; and as a means of meeting the existing debt, and providing for the immediate future, some ladies interested in the hospital purpose to hold a bazaar. The board regret to have to announce the resignation of Prof. H. Macnaughton Jones and Dr. Curtis from the active medical staff of the hospital; but the former gentleman will continue his connection with the institution as consulting-surgeon.

WAREHAM AND PURBECK RURAL DISTRICT.—Referring to the prevalence in his district of infectious diseases—especially those which attack children—Dr. Stainthorpe comments upon the difficulties with which a medical officer of health is beset in his attempts to prevent the spread of such diseases. The chief of these are, he thinks, inability to obtain information of the occurrence of cases, the impossibility of securing the isolation of the patient in the majority of workmen's cottages, the unwillingness on the part of many to carry out disinfection in a thorough and systematic manner, and the popular idea that, at some time or other during life, every one must of necessity suffer from several of the more common infectious diseases. He makes recommendations with regard to each of these matters, which, if not quite practical under the conditions of the district, are yet sound enough in theory. During the year 1880, 186 deaths were registered, 64 of which were of children under the age of five years. Nineteen persons reached the age of 80 and upwards. Of the zymotic diseases, measles, scarlatina, and whooping-cough were the most fatal, and epidemics of each of these are recorded as having passed over the greater part of the district. All the eight deaths from whooping-cough occurred in children under one year of age. The number of deaths from phthisis compares favourably with that of the previous year, the diminution being perhaps due to the excessive rainfall of 1879. The moisture of the soils of the dwellings thus caused hastened, Dr. Stainthorpe thinks, the deaths of many who were already subjects of the disease, and excited it in those who were predisposed.

SELECT COMMITTEE ON THE CONTAGIOUS DISEASES ACTS.—March 16th, 1881.

Mr. Henry Lee was called in and examined by Mr. Stansfeld, the examination being afterwards continued by Mr. Osborne Morgan, Mr. Cavendish Bentinck, Dr. Farquharson, and other members of the Committee.

Mr. Lee is strongly opposed to the Acts, but, like all the medical witnesses recently examined, has had no personal or practical acquaintance with their working. He believes that the infecting and non-infecting sores depend upon two entirely different poisons, having no relation to each other; and he holds that the two may co-exist in the form of the mixed chancre. The general purport of Mr. Lee's evidence may be briefly epitomised as follows. He believes that the primary infecting sore may be cured by a course of mercury properly carried out, and that secondary disease may thus be prevented in most cases. In this his opinion is directly opposed to that of Dr. Drysdale, as mentioned last week. He condemns the classification by the Army Medical Department of all primary sores under one head as unscientific and useless, and thinks that a competent army surgeon ought to be able to distinguish the infecting from the non-infecting form correctly, without waiting for the constitutional effects to appear. The possibility of doing this with any approach to scientific accuracy will hardly, we think, be generally admitted. The tendency of his evidence was to minimise the severity of the non-infecting sore, which, according to Mr. Lee, does not incapacitate a soldier so much even as gonorrhœa, although it may occasionally have serious complications. The proper test of the Acts is, he thinks, in their effect on true syphilis, which is infinitely more serious, and in which, it is alleged, there has been little or no decrease. The failure is attributed to the difficulty which attends the discovery of this form of disease with certainty. Many women, he thinks, are passed as sound while still in a contagious condition, the outward signs being slight, or altogether absent. The reduction which has been effected has been only in the non-infecting sores, and these were already diminishing rapidly under increased cleanliness, and from other causes. These sores, moreover, are said to have been decreasing rapidly of late years throughout the population; so much so that, whereas formerly they were in the proportion of about three to one, the proportion at the present time is about three to one the other way. We are not aware that this remarkable alteration has been noticed by other surgeons—at all events, to anything like the extent alleged. It must, however, if it has occurred, have affected equally both the army and the prostitute class. The argument, therefore, would seem to prove rather too much; for, if there has really been this enormous increase in the proportion of infecting sores, and the other form is now comparatively rare, there ought to have been a corresponding increase in secondary disease in the whole army: whereas the most that can be said is that the rate has remained nearly stationary, and this, as we stated in commenting on Dr. Drysdale's evidence, can hardly have been effected in any other way than by the effect of the Acts in reducing the number of infecting sores in the fourteen protected districts, which contained in 1878 more than 55,000 men. It is too much to be asked to believe that the exclusion of all the women in those districts, who can be found to show any trace of syphilitic disease, should have no effect whatever in reducing the amount of disease amongst the men who frequent them. The gist of the argument seems to be this. There is an admitted diminution in non-infecting sores, but this is owing to causes outside the Acts; therefore the Acts are a failure as regards this form of disease. They are also a failure as regards the infecting form, because secondary disease has not diminished. But it is not denied that primary sores have diminished by more than one half at the protected stations, as compared with the others, and these protected stations contain more than half of the whole home army. In what, then, has this decrease taken place? It must have been in either one form of sore or the other; and it is difficult to see how it can have been caused otherwise than through the Acts, for both sets of stations have been under the same general sanitary influences throughout.

As regards the detection of disease in women, Mr. Lee thinks the soft sore is easily discoverable; the indurated sore offers more difficulty, and may often escape detection. He considers that syphilis is very frequently communicated through the secretions of a syphilitic woman, even although she may present no *local* signs of disease in the form of a sore, either primary or secondary; and that more than half the disease would be thus communicated by women who had passed the periodical examination. He admits, however, that he has no knowledge of the way in which the examinations are carried on, and that a thorough scrutiny of the whole body, which, we believe, is always made by the examining surgeon, would be almost sure to show some evidence of disease. He would expect by such an examination to be able to detect it himself.

Mr. Lee believes, also, that syphilitic blood is contagious, although its inoculation has always been attended with difficulty in the experiments which have been made to prove it. The contagious character of the secretions of syphilitic patients, as well as of syphilitic blood, is generally admitted as possible; but Mr. Lee broaches a doctrine which we believe to be a novelty. He holds that the admixture of blood with the secretion greatly increases its virulence, and that, although a woman may show no outward sign whatever, if her disease be not thoroughly eradicated, the mixture of the smallest quantity of blood with her secretions will enable her readily to communicate a syphilitic infection.

As an instance of the inutility of the Acts in suppressing syphilis, Mr. Lee mentions the case of a woman who was discharged from the Portsmouth Lock Hospital as free from disease, and who straightway communicated disease to eight men. The only foundation for this story, however, was that it was told to Mr. Lee by a gentleman from Portsmouth, who had been told by a third person that this had taken place. The gentleman did not say that he had any personal knowledge of the case; nothing was stated about the eight men, or whether they might not have contracted disease from other women. In fact, the story was entirely unsubstantiated, and was based upon nothing better than this second-hand hearsay.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A meeting of the Committee of Council will be held at the offices of the Association, 161A, Strand, London, on Wednesday, the 13th day of April next, at 2 o'clock in the afternoon.

Francis Fowke, *General Secretary.*

161A, Strand, London, March 15th, 1881.

BRANCH MEETINGS TO BE HELD.

North of England Branch.—The spring meeting of this Branch will be held at the Grand Hotel, Tynemouth, on Thursday, April 28th, at 3 P.M.; G. B. Morgan, Esq., President, in the chair. Members wishing to read papers, and those intending to be present at the dinner (at 5 P.M.), are requested to communicate at once with T. W. Barron, M.B., Honorary Secretary, 10, Old Elvet, Durham.

Yorkshire Branch.—A meeting of the Branch will be held at Ripon on Wednesday, April 27th, at 5.15 P.M. Members intending to make communications are requested to write at once to the Secretary.—A meeting of the Branch and the profession will also be held at the Philosophical Hall, Leeds, at 5 P.M., on Wednesday, April 6th, to consider the report on Medical Education; P. E. Miall, Esq. (President), in the chair.—Arthur Jackson, Secretary.

South Wales and Monmouthshire Branch.—The next meeting will be held at the Cawdor Arms Hotel, Llandilo, on Thursday, April 28th. Gentlemen intending to be present, and desirous of reading papers, etc., are requested to communicate with Alfred Sheen, M.D., Honorary Secretary, Cardiff.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ORDINARY MEETING.

The sixth ordinary meeting of the session was held at the Medical Institute, on the 10th instant. The chair was occupied by the President, Mr. R. Prosser; and there were forty-five members present. Apologies were received from Mr. J. S. Gamgee and Dr. Rickards.

New Members.—The following were elected as members of the Branch: Mr. Ernest Hardwicke, Solihull; and Mr. Walter Flewitt, Birmingham.

Communications.—The following communications were made.

1. Mr. Furneaux Jordan showed a patient, aged 9, with Caries of the upper part of the Dorsal Vertebra, in whom he had fitted a plaster-of-Paris jacket with a "jury-mast". He explained the details of the process, and pointed out the complete immobility of the application.

2. Mr. T. F. Chavasse showed a patient, aged 9, from whom he had taken a Tumour in the Right Side of the Neck. During the operation, it had to be carefully dissected from a close connection with the pneumogastric and sympathetic nerves. There was still marked contraction of the pupil, decrease in the size of the palpebral fissure, and slight ptosis. The tumour was sarcomatous in nature, and the patient had done well.

3. Mr. Furneaux Jordan showed a modification of Bigelow's Aspirator Apparatus for Washing out Fragments of Stone from the Bladder, and illustrated its application and utility.

4. Mr. West showed a specimen of Necrosis of the Tibia following Acute Periostitis. The patient had made a good recovery.

5. Mr. Lawson Tait showed a large Extraperitoneal Cyst which he had removed after a formidable operation (the patient died on the third day); also a Cyst of the Uterus which had contained about twelve pints of purulent fluid, and which was removed by an operation involving much trouble; also an Enlarged Ovary, taken from a case where there was abscess of both ovaries and Fallopian tubes, all of which were removed with considerable difficulty and risk from hæmorrhage.

6. Mr. T. F. Chavasse showed a specimen of very fine Gilt Wire for operative purposes.

Resolutions—The following resolutions of the Council of the Branch were received and adopted.

1. "In reference to the mode of election of officers, Council, and representatives of the Branch in the General Council of the Association, the Council are of opinion that the resolution passed at the general meeting of April 8th, 1880, be rescinded, and that this recommendation be submitted to the Branch at the next general meeting."

2. "Your Council, having discussed the resolution passed at the general meeting of February 10th, and referred to them for consideration, are of opinion that the promoters of the Skin and Lock Hospital have acted irregularly and prejudicially to the public interest, in the election of medical officers by mere nomination at a private meeting convened by circular. The public and the profession have a right to require that public offices shall be publicly filled, and that they shall be open to competition."

A proposal that the latter resolution should be sent to the Birmingham daily papers and the medical journals was negatived after discussion, and an amendment carried that it should be sent to the medical papers only.

Officers and Council.—The nominations for officers, Council, and representatives of the Branch in the General Council of the Association were received.

Antiseptic Osteotomy.—Mr. WEST opened the adjourned discussion on Mr. Bartleet's paper on Antiseptic Osteotomy, and showed a case. Mr. Furneaux Jordan, Mr. F. E. Manby, Mr. Lawson Tait, Mr. T. F. Chavasse, Dr. Barling, Mr. Jordan Lloyd, Mr. E. L. Freer, and Mr. Reginald Harrison of Liverpool made remarks. Mr. Bartleet replied.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

THE seventy-eighth meeting was held at the Harp Hotel, Dover, on Thursday, March 17th; Mr. ASHBY G. OSBORN in the Chair.

Wine at Dinner.—Dr. PARSONS's proposal, with regard to relieving the Honorary Secretary of the duty of providing wine at the dinners at the common cost, was carried.

Papers.—The following were read.

1. Notions begotten of Attendance upon Two Thousand Labours. By Mr. Edward Garroway. This led to a lively discussion.

2. On Embolism: with Specimens. By Dr. Thomas Eastes.

3. On Phlebitis. By Dr. Bowles.

4. Mr. Charles Lewis showed a morbid specimen: Stricture of the Ileo-cæcal Valve, with extensive ulceration of the small bowel, and two or three constrictions in the ileum and jejunum.

Dinner.—Fourteen of the members afterwards dined together.

VICTORIAN BRANCH: ORDINARY MEETING.

THE ordinary monthly meeting of the above Branch was held at the Hall of the Royal Society, Melbourne, on January 19th; Dr. CUTTS in the Chair.

The late Dr. John Day.—The PRESIDENT referred to the death of Dr. Day, and the great loss the profession had sustained by his decease. It was moved, and unanimously carried, that a letter of condolence be sent to Mrs. Day. Dr. Carstairs, who attended Dr. Day in his illness, explained that he had died from typhoid fever complicated by Bright's disease of old standing.

Proposed Australian Journal.—The Honorary Secretary, Dr. LOUIS HENRY, reported that communications were in progress between the Victorian, the New South Wales, and South Australian Branches, relative to the establishment of a new journal.

Council of the Branch.—On the recommendation of the Council, it was resolved that each year three members of Council should retire, who should not be eligible for re-election; the resolution to be embodied in the rules.

Papers.—1. Dr. CARSTAIRS of Geelong read a paper on the Use of the Peroxide of Hydrogen in the Treatment of Albuminuria unconnected with Organic Disease of the Kidneys, illustrating it by cases of albuminuria, of scarlatina, of pregnancy, and of a case of double pneumonia. The aim of the paper was to show that suspension of the functions of the organs of primary digestion (the stomach, but chiefly the liver) was the cause of albuminuria; that observation of the symptoms agreed with the results of scientific investigation on this point; that the indications of treatment were—1. To relieve the stomach by rest—cold water at first only being given; then the very lightest articles of diet in small quantities; and, as improvement took place, a gradual but cautious increase in the amount and variety of the food, as it could be borne; 2. By mild aperients and diaphoretics, acting on the bowels and skin to relieve the liver; and 3. By the administration of the peroxide of hydrogen, presenting a substance rich in albumen, which readily parts with one of its atoms of oxygen in the presence of oxygen, and so contributing to the oxidation of that substance, its disintegration in the liver, and its conversion into urea and lithic acid, which it is the function of the kidneys to eliminate.—Mr. GILBEE considered that diabetes and Bright's disease were very frequent in this colony.—Dr. JAMIESON believed that the quantity of oxygen in the peroxide of hydrogen administered was too small (half-drachm doses every four hours) to have an oxidising influence (in diabetes) on sugar sufficient to destroy its action on the blood. He thought that the large doses of ozonic ether given acted as a stimulant; and that nature's reparative action played some *rôle* in the cure of albuminuria after scarlet fever or eclampsia.—Dr. L. HENRY drew attention to the fact that it had been found that mental depression sometimes caused albuminuria, the reduced action of the heart being principally concerned in the result.—The PRESIDENT seemed sceptical as to the selective oxidising power of the peroxide of hydrogen in diabetes or albuminuria. Speaking as a practical man, the tendency of non-organic albuminuria to spontaneous recovery was very great, other conditions being favourable.—Dr. CARSTAIRS, in reply, said he could adduce cases equally strong in proof. In albuminuria, twenty years ago, he had been satisfied that disordered liver was its cause; so that, entertaining this view, he had less difficulty in explaining the effect of the remedy. In the albuminuria after scarlatina, he had been singularly struck with its effect. As to the alleged quantity being inoperative, he thought the latent oxygen was much greater than was supposed. A spare diet was imperative.

2. Dr. MCCREA read a paper on Scarlatina. He considered that treatment in the malignant cases occurring in this colony had very little influence, the blood being quickly poisoned. Insanitary conditions complicate the disease. Suppression of the functions of the skin throws a much greater amount of work on the kidneys, and they are consequently more liable to suffer than any other organ. He considers it necessary in all cases to give an emetic, and after its operation a warm bath should be administered; should the emetic fail to act on the bowels, a mild purgative should be given. Good ventilation should be secured. The diet should consist of bread-and-milk, and plenty of cold water with a little lime-juice. After the diminution of the temperature, the diet might be more nutritious. The room should be fumigated every night with burning sulphur, and kept for a quarter of an hour as nearly filled as the patient can bear with the fumes. Should the temperature reach above 103° Fahr., the patient should be immersed in a cold bath for fifteen minutes, if necessary, three times a day. Should symptoms of albuminuria show themselves, the whole loins should be painted over with strong iodine liniment, daily, to the verge of blistering, and warm baths used frequently. External applications will effect more good than internal remedies in this complication. In malignant cases, a change of locality was desirable. The wet pack was a powerful and successful remedy.—Dr. MCMILLAN considered the wet pack of great value.—Dr. WHITCOMB had used the sulphocarbolate of soda in scruple doses with great benefit.—The PRESIDENT had found that the severity of the disease was associated with the early swelling of the glands of the throat. Local conditions, he thought, had something to do in determining the severity of the symptoms. He quite thought that little medicine was needed. He had used the pack, but had begun with the hot pack, as he thought the shock of the cold rather hazardous.—Dr. NEILD described his experience under the hydropathic treatment, as illustrating the pleasures of the process, etc.—Dr. MCCREA, in reply, said that there was in the cold pack an advantage with the shock, on account of the revolution of effect it occasioned.

STAFFORDSHIRE BRANCH: ORDINARY MEETING.

THE second ordinary meeting of this session was held in the board-room of the Infirmary at Stafford, on Thursday, February 25th, 1881. Present: Mr. W. H. FOLKER, President, in the Chair, and seventeen members.

New Member.—The following member of the Association was elected a member: G. Russell, M.B., of the North Staffordshire Infirmary.

Rules of the Branch.—The meeting considered the rules, as recently

revised by the Council. Each rule was separately read over; and, after several alterations had been made, all were approved and unanimously passed. Upon the resolution of Dr. Fernie, the rules were ordered to be printed, and a copy to be sent to each Branch member.

Communications.—1. Mr. Spanton made some remarks upon his method of operating for the Radical Cure of Hernia; and he gave a demonstration of a recent modification of the operation, which he believes will be an improvement.

2. Mr. E. J. Gray commenced the reading of a paper upon Alcoholism and the Treatment of Inebriates. Its conclusion was adjourned until the next meeting.

CORRESPONDENCE.

THE DENTAL REGISTRATION CLAUSES.

SIR,—As Mr. Tomes is quite able to take care of himself, I will not presume to enter into the matter at issue between him and your correspondent "Dens Sapientiæ". I would, however, with your permission, draw attention to an assertion made in the opening part of his letter which appeared in yours of April 2nd. The permissive scheme of the Government is referred to in the following terms, "The Lord President's Bill contained a clause enabling the Dentists' Association, or any person to submit a scheme for examination", etc. At page 15, Minutes of Medical Council, April, 1878, the clause stands thus.

"The General Medical Council may, if they think fit, submit to the Privy Council a scheme for the examination", etc.

How then can it be said that any person is enabled to submit a scheme? I am fully aware that any person might submit a scheme to you as the Editor of an important and powerful JOURNAL, and that you might, if you thought proper, insert it in your pages; but as the scheme has to be submitted to the Privy Council by the Medical Council, such sophistry is hardly worth a thought, and yet it seems to me to be the only ground on which such a misleading statement could be made.

The allusion to the Dentists' Association is even more remarkable, inasmuch as at the time when the terms of the Government were under consideration, the formation of a Dentists' Association was not even contemplated.—Yours obediently, JAMES SMITH TURNER,

Honorary Secretary, British Dental Association.

THE RECENT APPOINTMENT AT THE ROTUNDA HOSPITAL.

SIR,—I cannot allow Dr. Atthill's letter, which appeared in your JOURNAL of the 12th instant to remain unnoticed. It would have been better had he permitted the matter to rest.

In my opinion no letter could be more calculated to mislead. Dr. Atthill would have us to understand that he, as "Master" of the Dublin Lying-in Hospital, had but little to say to the appointment of consulting physician to that institution. The governors, forsooth, are the sole electors to the office, and they perform their duties, as electors "above board" at a general meeting subsequent to that on which the candidate had been proposed.

Now, strictly speaking, the appointment is virtually in the hands of the master. The manner in which Dr. Atthill (in common with nearly all those that preceded him in the office of "Master") was appointed is as follows: There are a certain number of governors provided by charter. Some of these are *ex officio* and constant. The majority are fluctuating, some being life-governors, and others yearly. The life-governors pay, or have paid for them £100; and the yearly governors pay, or have paid for them £15 or so *per annum*. A candidate for the mastership is not elected on his professional merits, but on his power to make governors, either by his own or by borrowed money. The governors which he makes vote for him; it is on that condition they are made. The candidate keeps his yearly ones "up" and probably sports two or three "lifers". If he can obtain a majority "by hook or by crook" he succeeds. Many have been the aching hearts during these struggles.

Dr. Atthill had his majority, and got "in" as master; had he not the majority, he would still have been "out in the cold", and I would have been spared the writing of this letter. The doctor still carries his majority with him, and there is even a possibility, that the governors of the outgoing masters may, somehow, be made available for the incoming master.

Of course, Dr. Atthill's governors supported Dr. A.'s nomination, and he obtained the post for his old friend and former colleague in the Adelaide Hospital. And why should he not—why can he not be candid—why beat about the bush?

Dr. Atthill tells us he consulted with several of the governors, both lay and medical, whose opinions always had great weight with him, and to whose "advice" he pretends to have willingly deferred. In other words, he was actuated by their advice in proposing the man he did. We all remember how Mrs. Proudy used to ask the advice of the junior clergy of her husband's see, "Don't you think"? etc. Why all this refined feeling of the dignified doctor. He wanted the post for his friend, he got it for him, and he is fit for the same. As to the question of taste, that is a matter I should not enter upon; but I take this opportunity of saying, that the sooner this hospital is placed upon a more wholesome footing as to elections, the better for the public, and for the dignity of the profession,—which latter Dr. Atthill has always had so much to heart.—I am, Sir, yours faithfully,

LOOKER ON.

AXIS-TRACTION FORCEPS.

SIR,—It is a matter of congratulation for the profession when any of the members of it turn their attention to improvements in the construction of the midwifery-forceps. The most important modification in their structure that has been made in recent times is unquestionably the adaptation, which we owe to M. Tarnier, of rods jointed to the blades so as to allow of axis-traction with the double-curved instrument. Hence I welcome the praiseworthy effort of Dr. Lyon to furnish a modification of the Tarnier rods which would be available for application to British forceps. But, as he has offered some objection to the axis-traction forceps which I have already placed before the profession, I should like to meet these at once; and I venture to affirm that Dr. Lyon himself, if he had had practical experience of the instrument, would have found his objections invalid.

1. He thinks it an objection, that my traction-rods are permanently attached to the forceps. But, in my earlier attempts at constructing an useful instrument, I began with movable rods, which I ultimately rejected for three reasons. 1. The introduction of the movable rods after the forceps had been applied to a head high in the pelvis caused in some cases considerable difficulty, and always occupied some time. 2. When any portion of the traction-apparatus is not permanently attached to its blade, it is apt to be mislaid. 3. The more I have used the axis-traction forceps, the more I have become satisfied that they ought to be employed in every kind of forceps-case, whatever be the situation of the head. I think it is a mistake for a practitioner to apply a pair of double-curved forceps either at the vulva or the os uteri, or anywhere between, without having the apparatus attached for correct axis-traction; and no one should ever use an instrument which would tempt him to dispense with the true traction-handle. My students are now taught and trained in this universal applicability of axis-traction forceps; and even where I have failed by theoretical reasoning to convince the mind of the superiority of the new to the old forms of the forceps, the direct experience of the practical class succeeds in producing conviction.

2. Dr. Lyon thinks "the right traction-rod is much in the way during the introduction of the upper blade". This objection is purely imaginary. When it is pushed forward past its shank, as it can easily be, it is not the least in the way, and does not complicate the application of the blades.

3. Dr. Lyon says, "Mechanically, they are weak at the point of attachment of the rods to the blades of the forceps". I have just tested the pair with which during this week I have delivered two primiparæ: one in my own practice; the other in consultation with my friend Dr. Sidey. They bear, without yielding, a weight of 200 lbs. They might have borne much more; but I do not care to test them more. No man, in pulling with forceps, uses, or ought to use, so much force. Perhaps it would be well for both mother and child if traction-rods were constructed just of such strength as to ensure their breaking whenever the obstetrician began to apply a force exceeding 150 lbs.

I do not wish to criticise Dr. Lyon's model; but, as it is of the highest importance that obstetricians who make trial of the value of forceps constructed on Tarnier's principle should not be misled by any imperfection in the construction of the instrument, it is necessary to insist on the importance of securing the blades by means of a fixation-screw adapted close to the lock. I myself tried India-rubber rings, towels wrapped round the handles, and various kinds of catches at different parts of the handles; and was obliged in the end to return to Tarnier's fixation-screw slightly lessened in size. I cannot, in the limits of a letter, pretend to discuss the subject; but I would emphatically warn any of my professional brethren who wish to use axis-traction forceps against employing any contrivance for fixing the blades that is employed at a distance from the lock, and that does not admit

of easy fixation when each traction-effort is to be made, and as easy relaxation when the traction is suspended.—I am, etc.,

ALEXANDER R. SIMPSON.

52, Queen Street, Edinburgh, March 1881.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, March 31st.

The Hampstead Hospital Case.—Mr. FIRTH asked the President of the Local Government Board whether the statement made at the last meeting of the City of London Union, that the costs of the recent Hampstead Hospital case amounted to £40,000 or £60,000, had any foundation in fact; and whether he had now ascertained what was the estimated amount of such cost; and whether there was any and what statutory authority enabling the Metropolitan Asylums Board to expend the money of London ratepayers in such litigation, or upon what ground such expenditure was approved by the Local Goverment Board.—Mr. DODSON.—I do not know what the costs in this case amount to, but I think that there can be no doubt that this statement that such costs amount to either of the sums in question must be an exaggeration, as the costs of the managers up to the beginning of the present year did not amount to one-sixth of the last named sum. I am not aware that there is any express statutory authority enabling the managers to pay the costs of the proceedings which had been instituted against them; but, having been advised by high legal authority that they had a good defence, it was open to them, as to any other public body, to defend what they believed to be their legal rights; and having regard to the importance of the subject they might have been exposed to reproach had they failed to do so.

Cholera at Chicago.—Mr. O'SHAUGHNESSY asked the President of the Board of Trade whether his attention had been called to the fact that an outbreak of cholera which had occurred in the town of Chicago, had been attributed by physicians of that town to the use of butterine, into the composition of which lard enters largely; and to the statement made by these physicians that the process of making butterine does not require so high a temperature as to kill the germ of disease in lard; and whether the Government would consider the advisability of taking measures of precaution by inspection of butterine and other similar commodities imported into this country to prevent the dissemination of disease by their use.—Mr. CHAMBERLAIN did not know the names of the physicians referred to, and had no means of ascertaining whether they were men of any authority. Many opinions adverse to those described might be given. As regards the last question, he had no evidence whatever that was trustworthy to show that any disease had been disseminated by butterine or any similar commodities.

OBITUARY.

JOHN DAY, M.D., GEELONG, VICTORIA.

IT is with great regret that we chronicle the death of an Australian colleague, John Day, M.D. and M.R.C.S.Eng., who died at his residence, in Geelong, Victoria, on the 10th January of this year. Dr. Day was born on November 21st, 1816, at St. Botolph's Priory, Pembrokeshire, South Wales. He received his medical training at the Middlesex Hospital, where he afterwards became one of the resident staff. At the time of the gold discoveries, he emigrated to Australia, where he very soon made for himself a secure and respected position. He is well known as the author of the following contributions: "Allotropic Oxygen in its relation to Science and Art"; "On the Use of Ozonic Ether and Lard as a means of preventing the Spread of Scarlet Fever"; "On Peroxide of Hydrogen as a Remedy in Diabetes"; "Wooden Hospitals, their Advantages from a Sanitary Point of View"; "Application of Nascent Oxygen to Disinfection and Deodorisation of Wounds and Ulcerated Surfaces". Dr. Day was also the discoverer of the well-known blood-test, which has made his name famous in England and on the continent of Europe.

THE *Liverpool Medical and Surgical Journal* (a continuation of the *Liverpool Medical and Surgical Reports*) will in future be published twice a-year, the first number appearing in July. In addition to original papers and societies' transactions, it will contain reviews and bibliographical notices. Books and pamphlets for review should be addressed to the editor, Medical Institution, Liverpool.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

Mr. JOSEPH EDWARD COLLINGWOOD has been unanimously re-elected by the guardians of the Grantham Union as medical officer of the Corby District, at a salary of £30 *per annum*. Mr. Collingwood being non-resident, the appointment is necessarily for three years only. An offer was, somewhat against professional etiquette made by another of the medical officers of the union, to take charge of the district at a reduced remuneration of £22 *per annum*, but to this gentleman the same objection as to non-residence applied, and the guardians very properly felt that as Mr. Collingwood had served them for many years, and had always given satisfaction, he should be allowed to retain the post.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

SALFORD.—Dr. Tatham's report on the health of Salford, during 1879, is a very complete and interesting document, though unduly late in appearance. He starts by referring to the influences injuriously affecting the public health of the borough, classing especially amongst these the wretched habitations of the poor in certain of the lower quarters; the faulty and unwholesome system of excrement disposal by midden-privies, and the contamination of the subsoil by imperfect drainage; badly paved yards, and soakage of excrement from leaky middens. He next describes the customary action taken by his department for discovering the causation and origin of disease, and for preventing its spread. These particulars are full of interest, and prove what can be done when the health-officer is in earnest over his duties. Some tables given by Dr. Tatham show that, in 1879, no fewer than 24,883 inspections were made; that 4,797 notices were served for the abatement of nuisances; that 74 parcels of infected clothing were stoved or destroyed; that 518 samples of food were purchased for analysis; and that 438 animals were removed from improper situations. In addition, effectual supervision was maintained over the common lodging-houses, houses let in lodgings, private slaughter-houses, dairies, and cowsheds, and the very numerous offensive trades of the borough. To the improvements effected under Dr. Tatham's auspices may fairly be ascribed, part at least, of the reduction in the mortality of the town, which in 1879 was the lowest on record (24.9 per 1,000). Of the total of 4,495 deaths, 1,230 (or 27.4 per cent.) were under the age of one year, and 2,215 (or 49.3 per cent.) under the age of five years. To zymotic diseases, 893 deaths (or 19·9 per cent. of the total number) were referred—the death-rate from these causes being equal to 4.0 per 1,000. Measles was much more fatal than in the two preceding years, and caused 193 deaths. The deaths from scarlet fever numbered 203, against an average of 145. No less than 72 per cent. of these deaths occurred in children under five years. Dr. Tatham gives some striking instances of the dangerous surroundings of a number of scarlatina cases discovered by him: one being at a dressmaker's, where two children, apparently dying of malignant scarlatina, lay in a room where there were at least a dozen suits of children's clothing in course of preparation; and another, at a pawnshop, where a child, desquamating profusely, was sitting close to large bundles of bedding that would be taken out of pawn on the following Saturday. It was some time before this last case was discovered, and meanwhile not fewer than a dozen persons had been attacked through its agency. Fevers are now much less prevalent at Salford than in the earlier years of the operations of the health department—the rate, per 100,000, being 39 in 1879, against an average of 79. To typhus fever only 4 deaths were referred; these were sporadic cases, and were imported into the borough. Typhoid fever must, unhappily, still be regarded as endemic in Salford—52 deaths being registered from it during the year. Dr. Tatham acquits the water-supply of share in this result; but he thinks that the milk-supply is frequently to blame for the production of typhoid; though, failing prompt information of attacks of the disease as they occur, he is unable to trace many of the cases to this or to any other source. He urges, therefore, the great importance of compulsory notification of infectious disease—a subject which the Town Council have quite rightly dealt with in their local Bill of the present Session. The deaths from the other classes of disease call for no special remark, except that the mortality from cancer continues to be unduly high.

STALYBRIDGE.—The annual reports presented by Mr. Roberts Dudley on the health of this borough are statistical only, and give no information as to the sanitary conditions of the district, or as to the cir-

cumstances in which infectious disease has appeared there. It is true that 1,280 general nuisances are stated to have been removed, and that additional privy accommodation is reported as provided; but there are many other matters requiring notice in health-reports that we look for in vain in Mr. Roberts-Dudley's statement. We are glad to find that the irrational date up to which the last report was made has been substituted by the 31st December—so that the figures of Stalybridge can now be more exactly compared with those of other places. During the year, a total of 514 deaths occurred, equal to a rate of 21.64 per 1,000, against 20 97 in 1879. Forty-three per cent. of the deaths occurred in children under five years of age, and twenty-five per cent. in children under one year. Mr. Roberts-Dudley considers the infantile mortality high; but he thinks Stalybridge stands better than any other Lancashire town similarly situated. He believes there will be no great diminution in the death-rate of large towns until some means are devised to diminish the infantile mortality; and he thinks pure air, good food, and especially good nursing, would do more than anything else to bring about such a beneficial and desirable result. Zymotic diseases caused in all 75 deaths—13 of these being due to measles, 4 to typhoid fever, and 38 to diarrhœa. It is stated that there were no local causes to account for the latter disease, which could only be attributed to atmospheric influences. In all cases where infectious disease was known to exist, the houses were at once visited, and the necessary instructions given.

THE HEALTH OFFICERSHIP OF JARROW.

A somewhat stormy discussion took place at the last meeting of the Jarrow Town Council with regard to the appointment of medical officer of health for that town. Up to a year ago Jarrow combined with Hebburn and South Shields to employ the whole services of a medical officer of health, at a total salary of £475 a year. When Mr. John Spear was appointed to a post on the staff of the Local Government Board early in 1880, this arrangement ceased; and Dr. M. M. Bradley, a local practitioner, was appointed health-officer for Jarrow, at a salary of £100 a year. Dr. Bradley seems from all accounts to have performed his difficult duties honestly and well; but there have undoubtedly arisen difficulties through his being engaged in private practice (which Mr. Spear was forbidden to undertake), and a motion was therefore made at the Council meeting that the health-officer should devote his whole time to the duties of his office. Probably but few people would object to this in the abstract; but when the proposal was made (and by a medical alderman) that the salary to be offered for the whole time of the health-officer should be £150 a year, it was natural that it should meet with opposition. Several councillors inquired what sort of officer could be expected for £150 a year; and indeed it is difficult to understand how a medical man can have seriously expected to secure the whole time of a duly qualified medical officer of health for so miserable a pittance. Had the proposal been for combination with adjoining authorities in the appointment of a a health-officer debarred from private practice, the proposal would have been intelligible; but it is hardly reasonable to expect that the whole time of a practitioner of the qualifications required of the health-officer of Jarrow can be got for £150 a year, or even double that amount. It would seem by far the better plan, if the existing arrangement is to be altered, to revert to the combination of authorities which, under Mr. Spear's auspices, worked so well. But unless some more rational proposal is made than that to which we have adverted, there would appear no reason for disturbing Dr. Bradley in the position which he has filled with credit for upwards of a year.

VENTILATION OF SEWERS.

Sir, I have read and considered Mr. Chesshire's letter in the JOURNAL of February 26th with great interest, for I think it is likely to lead to instruction to himself and to other ventilation of a subject which sanitarians and many unnamed sanitary authorities pass over too lightly. Mr. Chesshire advocates the interception of the [illegible] and other putrescible solid material of sewage at the fountain head(?), and their retention in sealed receptacles; the object of these sealed receptacles, presumably from the context, being to keep these said solids from the air and consequent decomposition. What is to be the construction and nature of this sealed receptacle which is to accomplish this great result? Is it to be made cellular, each cell capable of receiving its deposit and automatically sealing it up? Or, if one large receptacle, how about the air in it to begin with? A bottle partly filled with any putrescible material and tightly corked and sealed, still contains air enough for decomposition of the contents.

Well, a receptacle, however hermetically constructed, with a fresh pipe running into it from the house generate gas under such a pressure as would readily overcome the most complete system of trapping. *Per contra*, I think those sanitarians are right who say that all sewage-gases escape at once by suitable means into the open air, dilution, they become innocuous. This can only be secured by complete ventilation of house-drains and sewers. Ventilation of drains gets into and prejudice of colour; because those who profess to carry it out don't take the trouble to understand the elementary point, "What is ventilation of drains?" The mere insertion of a small metal pipe from the drain to the roof is not ventilation; though this, unfortunately, is all that is attempted in most cases. Ventilation of a drain sewer should include: 1. An inlet for fresh air; 2. An outlet for sewer air and gas (these points Dr Carpenter taught years ago in his *Preventive Medicine*, page 99); 3. Some means to secure that the current in the outlet shall always be an up-draught (e.g., Kite's patent).

Another important point as regards the outlet is, that it should be of the same size as the drain-pipe; so that, if pressure be created from any cause in the sewer-system, the pressure will find relief as easily by the ventilator as by the house-drain; and so our traps will escape the burden of a pressure which, as a rule, they are ill-fitted to bear. For my own part, I hope to see the day when sewer-gas, as a source of specific disease shall not be. Under existing systems, as Dr. W. Budd has justly said, the sewer is but "the prolongation of the diseased intestine"; and it is more—it is a huge laboratory, as a rule, for the unlimited manufacture and distillation of specific organisms and lethal gases, which necessarily, for the most part, find their way into our atmosphere, and not unfrequently into the water, which thousands have to drink.

But why not abolish this "continuation of the diseased intestine" system? Let us keep our excreta out of our drains entirely. There is abundant evidence in the North of England that both large and small communities can be efficiently dealt with on the pail system. Amongst the poorer classes, a simple pail is best, which cannot get out of order. It provides as much decency as any other closet system amongst the same classes, and is infinitely preferable to the stinking midden or the filthy soil-pan so rarely washed out. For the higher classes, if they wish for something more refined, there are Moser's, Moule's, and many other excellent mechanical dry-system closets, any of which can be purchased at a small cost, which secure perfect decency, and are nuisanceless; and which, from the resulting isolation, would free our houses of the sewer-gas that ninety-nine out of every hundred of the closets fostered by the water system only too readily pour out into our homes. Our excreta thus kept out of our sewers, we need no longer worry about sewer-gas or the pollution of our streams. A great saving in water (often an expensive item) follows; and, above all, the vexed question of "disposal" is solved by the conversion of the excreta into valuable dry guano.

For those, however, who will have drains and water-carriage, the only safe method is to isolate the house from the sewers. For this purpose, I have advocated that everything should be run straight out of the house, and, by properly trapped inlets, into a Field's flushing tank, which must be carefully ventilated with a full-sized ventilating pipe up to the roof. The tank, of course, would discharge into the drains; and, being automatic, would only need occasional inspection. By such a system, sewer-gas must necessarily be excluded from the house-pipes. But the best method, I think with Mr. Chesshire, is to keep our excreta out of our drains. It can be successfully carried out, and it solves the difficulties of many a perplexed authority.—I am, sir, yours truly,

FRANK L. STEPHENSON,
Medical Officer of Health for Honiton.

PUBLIC HEALTH MEDICAL APPOINTMENTS.

COOMBS, S. Wellesley, F.R.C.S., L.R.C.P.Ed., appointed Medical Officer of Health to the Claines Local Board, Worcester.

MORTOM, Augustus, L.R.C.S.Ed., reappointed Medical Officer of Health of the Luton Rural Sanitary District.

MILITARY AND NAVAL MEDICAL SERVICES.

VOLUNTEER AMBULANCE SERVICE.—Honorary Surgeon Tomkins, of the 7th Lancashire (Manchester) Artillery Volunteers, has been delivering a course of lectures, on Ambulance and Aid to the Sick and Wounded, to a class composed of the officers, non-commissioned officers, and men of the 7th regiment. The class has been put through a theoretical and practical examination by Surgeon-Major Hutton, of the Rifle Brigade. The class has been instructed in the means of stopping hæmorrhage, the treatment of broken limbs, the remedies in cases of poisoning, etc. The class acquitted themselves in the examination in a highly satisfactory manner.

THE MEDICAL OFFICERS AT KANDAHAR.

In our number of the 5th March, we had the pleasure to publish a letter from Major-General Phayre, C.B., to the Adjutant-General in India, a copy of which one of our correspondents forwarded to us. In continuation, we insert the Government of India's appreciation of the services of the medical officers therein named, in the following letter:

"Office of the Adjutant-General in India, Head-Quarters, Fort William, January 25th, 1881. Copy of letter from the Secretary to the Government of India, Military Department, to the Adjutant in India, No. 9,492 K, dated January 20th, 1881.

"I am directed to acknowledge the receipt of your endorsement, No. 1,815 (Camp), dated January 13th, 1881, forwarding a letter from Major-General Phayre, C.B., bringing to notice the services of the Medical Department, noted in the margin, during the march of the Second Division, Southern Afghanistan Field Force, to Kandahar; viz., Deputy Surgeon-General Bruce, Bombay Medical Department; Surgeons-Major M. Cogan, A.M.D.; H. Jagoe, M.B., A.M.D.; and R. Keith, M.D., A.M.D.

"2. The Governor-General in Council, I am to state, has read with much satisfaction the testimony borne by Major-General Phayre to the excellent services rendered by these officers; and I am to beg that an expression of the approbation of the Government of India may be conveyed to the medical officers referred to.—By order, (Signed) T. E. GORDON, Colonel, Deputy Adjutant-General."

HOSPITAL AND DISPENSARY MANAGEMENT.

THE BATTERSEA PROVIDENT DISPENSARIES.

THE fifth annual meeting of the Battersea Provident Dispensary, since it was put upon a provident instead of a charitable basis, was held on January 20th, 1881. From the report which was presented by the honorary secretary, it appeared that above 6,000 persons had become members during the year 1880, and they had received nearly 15,000 attendances from the medical officers. About a quarter of these had been at the patients' own homes, and the rest on the dispensary. The financial position was reported to be satisfactory; and the balance available for division amongst the four medical men was £415 7s. 9d. It is a proof how well the provident dispensary meets the wants of the population, that since the reorganisation of the dispensary in 1875, the sum divided amongst the medical staff has increased as follows: 1876, £112; 1877, £242; 1878, £271; 1879, £355; 1880, £415. It appears that nearly 2,000 persons yearly who join the dispensary, let their payments lapse. Some, doubtless, remove from the parish; many find it inconvenient to leave their homes in order to call at the dispensary at the specified time; while others forget when their payments are due. To meet this difficulty, a collector has been appointed, who calls on all members who prefer to make their payments in this way instead of at the dispensary. And, so far as there has been time to judge, this plan seems likely to prove successful.

A second provident dispensary in Battersea parish, known as the Wandsworth Common Provident Dispensary, was opened two years ago. Its second report has just been issued. From this we gather that the total number of members is 1,168. This dispensary is, in effect, the out-patient department of Bolingbroke Pay Hospital, and the patients are attended by the resident medical officer. Its financial position is very encouraging, and the dispensary is undoubtedly popular in the neighbourhood.

THE DENTAL HOSPITAL.

AT the twenty-third annual meeting of the governors and subscribers of this institution—Mr. Thomas H. Hills presiding—the committee's report stated that the total receipts for the year amounted to £1,234, which included a balance brought forward of £240 12s. 9d. The sum received for donations and subscriptions amounted to £794, and from the Hospital Sunday Fund £58. The total expenses were £988, leaving a balance of £255 in hand. The medical report stated that 28,578 cases had been treated during the year. The report was adopted unanimously. The meeting then proceeded to elect the officers for the ensuing year, and approve of the revised rules, after which a vote of thanks was accorded to the chairman for presiding.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology, at a meeting of the Board of Examiners, on the 4th instant, and when eligible will be admitted to the pass examination.

Messrs. David C. M. Lunt, Lewis Brown, Frederick W. Bennett, Gilbert L. Barritt, and William A. Evans, students of Owens College, Manchester; J. Nicholson Kaye, of the Leeds School; Rudolph J. Maas, of the Toronto School; John Kaeser, of the Bale School; Bryce Gordon, Bombay School; Henry G. Bryer, of the New York and Leipsic Schools; Arthur Overton, Liverpool School; James Limont, Edinburgh; Robert S. Coulthard, Bristol School; Walter B. Platt, of the Harvard, Berlin, and Vienna Schools; Isaac Hartley, of the Newcastle School; and John D. Price, of the Birmingham School.

Eight candidates were rejected.

The following gentlemen passed on the 5th instant.

Messrs. Harry F. Wylde, Ernest S. Reynolds, John Stevenson, John H. Jones, Robert Jennings, and William E. Wilson, of Owens College, Manchester; Edgar A. Hughes, Harold Simmons, and William C. Lysaght, of Bristol; William Travis and Arthur W. Dawson, of Liverpool; Edgar Beaumont and Herbert Child, of Leeds; Arthur Hepworth, of Newcastle; Leonard H. Armstrong, of Cambridge; Charles J. Evers, of Birmingham; and John H. Potter, of Sheffield.

Seven candidates were rejected.

The following gentlemen passed on the 6th instant.

Messrs. John W. Bentley, George Thomas, and William J. Black, of Owens College, Manchester; Charles B. Waller and Percy R. Mander, of the Westminster Hospital; Frederick W. Hatchett and Ambrose E. L. Charpentier, of St. Thomas's Hospital; Robert H. Peck and Robert H. Martin, of University College; Hugh C. Thurston, of the Bristol School; Haward A. Bredin, of the Liverpool School; Herbert J. Robson, of the Leeds School; Joseph A. Hutchinson, of the Newcastle School; James T. Lilburne B.A.Cantab., of the Cambridge School; Francis J. G. Mason, of St. Bartholomew's Hospital; George W. Hill of St. Mary's Hospital; William C. Parsons, of the London Hospital; Thomas Greaves, of the New York School and King's College; and Arthur W. Ogle, of the Middlesex Hospital.

Five candidates were rejected.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, March 31st, 1881.

Locke, George, Aylesbury.
Morris, Gerald de Courcy, 65, Albany Street.

The following gentlemen also on the same day passed their Primary Professional Examination.

Dawson, William Edward, London Hospital.
Tireman, Arthur Lumley, Guy's Hospital.

MEDICAL VACANCIES.

THE following vacancies are announced :—

BETHLEM HOSPITAL—Two Resident Medical Students. Applications by April 9th.

BRAINTREE UNION—Medical Officer and Public Vaccinator. Salary, £100 per annum. Applications to be sent on or before Friday, the 15th inst.

BRITISH LYING-IN HOSPITAL—Physician to the Out-Patient Department. Applications on or before April 9th.

CARLISLE DISPENSARY—Assistant House-Surgeon. Salary, £90 per annum. Applications to the Honorary Secretary.

CARRICKMACROSS UNION—Medical Officer for Donaghmoyne Dispensary District. Salary, £100 per annum, with £15 per annum as Medical Officer of Health, registration and vaccination fees. Election on the 11th inst.

CARRICKMACROSS UNION—Medical Officer for Raferagh Dispensary District. Salary, £100 per annum, with £15 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 22nd instant.

CITY OF ABERDEEN—Medical Officer for the City. Salary, £300 per annum. Applications by April 9th.

CHELTENHAM GENERAL HOSPITAL AND DISPENSARY—Junior House-Surgeon and Dispenser. Salary, £80 per annum. Applications by the 19th April.

GENERAL INFIRMARY, Hertford—House-Surgeon and Secretary. Salary, £100 per annum. Applications on or before April 22nd.

HOLLOWAY AND NORTH ISLINGTON INFIRMARY—Two Medical Officers. Particulars from the Resident Medical Officer.

HULL AND SCULCOATES DISPENSARY—House-Surgeon. Salary, £150 per annum. Applications by April 10th.

LANCASTER UNION—Medical Officer. Salary, £45 per annum. Applications by April 15th.

LIVERPOOL ROYAL INFIRMARY—Resident Medical Officer. Salary, £100 per annum. Applications by April 20th.

PAROCHIAL BOARD OF KILARROW AND KILMENY—Medical Officer. Applications to Mr. Peter Chisholm Bowmore, Islay.

POPLAR HOSPITAL FOR ACCIDENTS—House-Surgeon. Salary, £100 per annum. Also Deputy House-Surgeon. Applications to the Secretary.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY—Two Assistant House-Surgeons. Salaries, £65 and £50 per annum. Applications to the Honorary Secretary of the Medical Staff.

SUNDERLAND INFIRMARY—Two House-Surgeons. Applications by May 4th.

THE HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Junior Resident Medical Officer. Salary, £50 per annum. Applications by the 27th April.

THE LEEDS AMALGAMATED FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION—Assistant Medical Officer. Salary, £140 per annum. Applications by April 18th.

TOTTENHAM TRAINING HOSPITAL—House-Surgeon (single). Salary £150 per annum. Applications by April 30th.

WEST SUSSEX, EAST HANTS, AND CHICHESTER GENERAL INFIRMARY—House-Surgeon. Salary, £80 per annum. Applications on or before April 9th.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY AND FEVER HOSPITAL—House-Surgeon. Salary, £150 per annum. Applications before May 1st.

MEDICAL APPOINTMENTS.

CARDEW, G. Arthur, M.R.C.S., appointed Medical Officer to the Branch Dispensary of the Cheltenham General Hospital, *vice* C. Spurway, resigned.

FOX, T. Calcott, M.B., M.R.C.S., appointed Physician to the Skin Department of the North-West London Free Dispensary for Sick Children.

KIRBY, Thos. Charles, L.K.Q.C.P.I., appointed Consulting Physician to the North-West London Free Dispensary for Sick Children.

LILLEY, G. Herbert, M.D., M.R.C.P., M.R.C.S., appointed Assistant Surgeon to Her Majesty's Convict Prison, Portland.

MCGEAGH, William, M.D., appointed Honorary Assistant Medical Officer to the Ladies' Charity and Lying-in Hospital, Liverpool.

NEWSHOLME, A., M.B., M.R.C.S., appointed Surgeon to the City Dispensary, *vice* J. A. Kingdon, F.R.C.S., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

SPARROW.—On the 5th instant, at Southsea, the wife of Dr. G. Gordon Sparrow, of a daughter.

MARRIAGE.

WHERRY—CUST.—On the 2nd of April, at St. Botolph's Church, Cambridge, by the Rev. W. M. Campion, D.D., Rector, Hon. Canon of Ely and Rural Dean, George Edward Wherry, M.C.Cantab., F.R.C.S., to Albinia Lucy, eldest daughter of Robert Needham Cust.

DR. DOWNING, Dispensary Medical Officer, Queenstown, has consented to take charge of the Intercepting Hospital at that place, at a remuneration of £20 per annum; Dr. Townsend having retired in his favour.

VACCINATION.—Dr. Moxon, medical officer for the Matlock District of the Bakewell Union, Derbyshire, has obtained the Government grant of £9 1s., for successful vaccination in his district.—Mr. John H. Wraith has received a grant of £28 14s., for efficient vaccination in the Darwen District of the Blackburn Union. This is the third which he has received.

MEDAL FOR SANITARY SCIENCE.—The Council of the Royal Institute of British Architects have accepted Mr. Ernest Turner's offer to present a silver medal to the candidate in the first obligatory examination under By-law 14 who most distinguishes himself in subjects connected with sanitary science.

INDIA-RUBBER SURGICAL APPARATUS.—In order to prevent India-rubber surgical apparatus from becoming hard and brittle, and losing their elasticity, or to restore it to them, Dr. Pol recommends that they should be steeped in a mixture of one part of ammonia to two parts of water, and be left in it from some minutes to half an hour, or an hour at the most, until they regain their original elasticity.

MARCHAND ON THE CONDITION OF THE LOWER SECTION OF THE UTERUS AT THE END OF PREGNANCY.—The death of a primipara, twenty years of age, from rupture of a varicose vein at the end of pregnancy, gave an opportunity of examining the uterus at this period. The uterus was removed unopened, the child taken out, and the uterus hung up in Müller's fluid. The author found (*Breslau Artzl. Zeitschr.*, 1880, No. 22) the canal of the cervix two inches long, of which the lower two-thirds had the form of a canal, two-fifths of an inch in width, while the upper third was funnel-shaped, base upwards at the os internum. Stretched roof-like across the base of the funnel were the membranes, and the whole space of the canal was filled with a tenacious mucous plug.

PUBLIC HEALTH.—The annual rate of mortality last week, which was the thirteenth week of this year, in twenty of the largest English towns averaged 21.9 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Leicester 13, Sheffield 17, Norwich 17, Bradford 18, Newcastle-on-Tyne 18, Brighton 19, Birmingham 20, Leeds 20, Portsmouth 20, Sunderland 20, Salford 20, London 21, Wolverhampton 22, Plymouth 22, Nottingham 23, Liverpool 24, Hull 25, Bristol 26, Oldham 28, and Manchester 28. Scarlet fever showed the largest proportional fatality in Sunderland and Wolverhampton; and whooping-cough in Portsmouth, Newcastle-upon-Tyne, and Liverpool. Of the 20 deaths referred to diphtheria in the 20 towns, 10 occurred in London, 2 in Portsmouth, 2 in Birmingham, and 2 in Liverpool. The death-rate from fever was highest in Wolverhampton. Small-pox caused 60 more deaths in London and its suburban districts, one in Newcastle-upon-Tyne, and none in any of the eighteen other provincial towns. In London, 2,608 births and 1,547 deaths were registered. The deaths were no fewer than 302 below the average, and gave an annual death-rate of 21.8. The 1,547 deaths included 56 from small-pox, 39 from measles, 26 from scarlet fever, 10 from diphtheria, 26 from whooping-cough, one from typhus fever, 7 from enteric fever, 4 from ill-defined forms of continued fever, 16 from diarrhœa, one from simple cholera, and not one from dysentery; thus, 186 deaths were referred to these diseases, being 75 below the average. The deaths referred to diseases of the respiratory organs, which had been 345 and 348 in the two preceding weeks, further rose to 358 last week, but were 131 below the average; 221 were attributed to bronchitis and 88 to pneumonia. Different forms of violence caused 64 deaths; 58 were the result of negligence or accident, among which were 26 from fractures and contusions, 6 from burns and scalds, 6 from drowning, and 14 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 39.1°, and 5.3° below the average. The mean was considerably below the average on each day of the week. The coldest day was Sunday, the 27th ultimo, when the mean was only 35.8°, and showed a deficiency of 7.2°. The general direction of the wind was N.E., and the horizontal movement of the air averaged 15.8 miles per hour, which was 3.3 above the average. No rain was measured during the week. The duration of registered bright sunshine in the week was equal to 62 per cent. of its possible duration. The recorded amount of ozone was considerably below the average during the week.

HEALTH OF FOREIGN CITIES.—From a table, in the Registrar-General's last weekly return, may be gathered the following facts, bearing upon the recent health and sanitary condition of various foreign cities. In the three largest Indian cities, the death-rate averaged 28.9 per 1,000, and was equal to 30.2 in Bombay, 30.7 in Calcutta, and 45.5 in Madras; small-pox caused 47 deaths in Madras, showing a further increase upon recent weekly numbers. In Alexandria, the rate was equal to 36.2. In twenty European cities, according to the most recent weekly returns, the average annual death-rate was equal to 31.6 per 1,000, showing a marked excess upon 21.9, the average rate in the twenty large English towns last week. In St. Petersburg, the rate was equal to 56.0; and the fatal cases of typhus and typhoid fever, which had been 74 and 85 in the two previous weeks, further rose to 102. In three other northern cities—Stockholm, Copenhagen, and Christiania—the death-rate did not average more than 23.2; the highest rate was 28.7 in Stockholm, which corresponded with the rate in the previous week. The Paris death-rate showed a further increase to 32.5; 45 deaths were referred to typhoid fever, and 27 to small-pox. The rate was 23.3 in Brussels, and 22.8 in Geneva; "fevers" caused 5 deaths in the former city. In Amsterdam, Rotterdam, and the Hague, the rates were, respectively, 29.0, 25.6, and 19.4, and no epidemic fatality is noted. The list includes seven German and Austrian towns, in which the death-rate averaged 29.6, and ranged from 23.8 and 24.8 in Dresden and Berlin, to 39.6 and 41.3 in Munich and Breslau; small-pox caused 24 deaths in Vienna and 5 in Buda-Pesth, and diphtheria 28 in Berlin. In three Italian cities, a still higher average rate (31.7) prevailed: the rate was 26.2 in Venice, 32.5 in Rome, and 34.0 in Turin; the deaths in Turin included 11 fatal cases of diphtheria. In four of the largest American cities, the recorded death-rate did not average more than 25.8; it was 31.0 in New York, while it did not exceed 20.9 in Baltimore. Diphtheria and scarlet fever were fatally prevalent in New York and Brooklyn; and small-pox caused 45 deaths in Philadelphia, against 49 in the previous week.

COVENTRY.—Though the general death-rate of this place was lower than in 1879, a considerable increase took place in the number of deaths from zymotic disease. This, however, was almost entirely due to the epidemic of infantile diarrhœa which occurred in the summer, and caused 77 deaths. To the various causes which combined to produce this result, Dr. Fenton has evidently given much and careful attention. Scarlatina was prevalent in the city throughout the year, and was more malignant in its nature than in 1879. The fever hospital received ninety of the sufferers from scarlatina, with very satisfactory results, for it was clearly demonstrated, in several instances, when fresh outbreaks occurred in new and uninfected neighbourhoods, that the early removal to hospital of the first case or cases, completely stopped the dissemination of the fever. In one district this course was found impossible, and several cases were allowed to remain in the houses in which they occurred. As a result, the disease spread, and remained in that district, and more than 70 per cent. of the total number of cases and of the deaths took place there. A total of 348 cases of infectious disease came to Dr. Fenton's knowledge during the year, and the large number of 6,316 articles, principally bedding, and articles of clothing were disinfected. In other departments of sanitary work evidences of equally viligant work appear, though there is yet a great deal to be done. The general death-rate was 21.1 per 1,000 or 0.3 less than in the preceding year.

ERITH.—The local board of this place have commenced an onslaught on the evil-smelling factories on the banks of the Thames; but they seem to have overlooked the pressing need to the district of a system of drainage. Mr. Easton has made some very elaborate plans for this purpose, but they still lie at the board's office, and in the meantime drainage has, perforce, to be into cesspools. Mr. Jessett says that "the general health of the parish was very good during the year," the death-rate being 14.64 per 1,000. There was a very sharp and extensive epidemic of measles at the commencement of the year, though the disease was of a very mild type. Isolated cases of scarlet fever and chicken-pox also occurred.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY .... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th. 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. George Lawson will read a short paper showing the Evil Results which follow Partial Operations in Cases of Cancer of the Breast. Mr. Reginald Harrison (of Liverpool): Acute Prostatitis.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. C. Higgens: Case of Vascular Protrusion of the Eyeball. Mr. Arthur E. Barker: Nephrectomy by Lumbar Section.

WEDNESDAY.—Epidemiological Society of London, 8 P.M. Surgeon E. G. Russell: Certain Points in connection with Malarial Fevers in India.—Royal Microscopical Society, 8 P.M. Mr. W. H. Shrubsole and Mr. F. Kitton: On the Diatoms of the London Clay.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

EMULSIONS OF COD-LIVER OIL.

SIR,—I understand that it is the unanimous wish of the Fellows of the Medical Society of London, that a thorough trial of the new principle of preparing emulsion of cod-liver oil (suggested by Dr. Fothergill's recent paper) should be made with a view of testing its therapeutic value. Being myself also desirous of further knowledge on this important subject, I beg you will publish the following offer from me.

I shall be pleased to make a donation or present of such emulsion to as many as twelve different hospitals (where a careful trial of it will be made), to the value of at least two guineas to each hospital; and will prepare the emulsion of the finest cod-liver oil, and according to the suggestions of the physicians of the hospitals where it is to be tried, using as emulsifying agents either bile or choleate of soda and extract of malt. I can also guarantee to make a permanent and palatable emulsion. I hope that twelve hospitals will forthwith avail themselves of this offer of a donation. Acceptances of this offer will be attended to in the order in which they are received, until the number of twelve acceptances is reached.

My object is (as a pharmacist) to learn, from the experience of the medical profession, the value of bile, choleate of soda, and extract of malt, as emulsifying agents in increasing the usefulness of cod-liver oil.—Yours very respectfully,

Snow Hill, E.C., March 30th, 1881. S. M. BURROUGHS.

P.S.—I make this offer at the suggestion of the Medical Society of London.

SIR,—I should be glad if any of your numerous readers would inform me whether there is any assurance or insurance office where one could insure for a weekly sum in case of illness.—I remain, yours truly, WILLIAM A. ROSS, M.R.C.S., etc.

The Square, Alderney, Channel Islands, March 27th, 1881.

A HARD CASE.

SIR,—At 7 o'clock on a dreary damp night last November, I found myself on the way to a midwifery case over two miles' distance. During my conversation, I discovered that it was a young unmarried girl, with a hint that I should not be paid. After waiting about half-an-hour at the bedside, and no pains occurring, I made an examination, and found the rectum loaded with fæces. I ordered a dose of castor-oil, making occasional visits upstairs until 10.30. The pains diminishing as time went on, I left, with instructions to send again when a change took place. Hearing nothing during the night, I called on my rounds the next morning. The mother of the girl said that I ought not to have left, etc.; that the child was born a quarter of an hour after I went away; but afterwards admitted it was over two hours; and who also said that she did not get settled for the night until 2.30 A.M. A neighbour, who was in the room the night before, told me she left an hour after I did, and that the mother had told her, that morning, that the birth took place an hour after she left. I brought an action against the mother for my fee; and the judge decided against me, because I had only fulfilled half my contract.

I wish to compare another case (to show the well known uncertainty in such) with one a few yards' distance from the above. It was that of a woman whom I had attended on three previous occasions. On my arrival, I found that the liquor amnii had escaped; there were slight pains every twenty minutes, and the os was of the size of a sixpence. I left after remaining an hour, with instructions to send when any change took place. Hearing nothing more during the night, I called on the following morning, and found my patient downstairs, and about her work. Nearly three weeks elapsed before the child was born.

Without the slighest feeling of disrespect towards one of the most able, impartial, and respected judges on the bench, the law stands thus: That, when you are summoned to attend a midwifery case, you must wait until it is over, even if it be three weeks, as in the above, unless the parties think fit to send again.

The case must be considered hard, considerating that I felt too unwell to dine with a friend; that I was suffering fearfully from lumbago; that I had to sit in a filthily dirty down-stair room, with a large heap of dirty clothes on each side of a scanty fire (the house of a laundress); that I had to walk home in a thick fog over two miles; that I was insulted the next morning; and that I had to pay fees into court, six shillings, and then lose the case. This would make many a young fellow, bent on going into this noble profession, think twice before he exposed himself to such hardships. May I ask what I could have done?—Your obedient servant, L.R.C.P., L.R.C.S.ED.

ON the authority of a telegram from Chicago, the *American* of March 15th states that leading physicians attribute the "winter cholera", which has prevailed alarmingly in that city this winter, to the use, not of Lake water, but of "butterine", in the composition of which hog products largely enter. They say "the process of making the compound does not require the temperature which is necessary in refining lard, and the germ of the disease might pass through the process without being killed".

THE STOMACH-PUMP.

SIR,—Your correspondent, "Quæstor", may find the anecdote relating the discovery and introduction of the stomach-pump in Bransby Cooper's life of Sir Astley. I do not happen to have the book by me, but I think it occurs in the last volume. As Mr. Godfrey remarks, it was a gardener of the name of Reid who invented it and brought it to Sir Astley Cooper, somewhere about 1825. It is to Sir Astley's credit that he at once grasped the value of the discovery, and introduced it to the profession.—Yours, etc., FRANK SHEARAR.

Carlisle, March 27th, 1881.

SIR,—For the information of "Quæstor", and in reference to the reply which ascribes the invention of the stomach-pump to Mr. Jukes, I have extracted the following footnote from Beck's *Medical Jurisprudence* (page 435, 2nd ed., 1825).

"It is certainly astonishing that Mr. Jukes should claim this as an invention of his own, since Renault evidently proposed it many years before him. The work of the latter is reviewed in the *Edinburgh Medical and Surgical Journal* for 1811. But even were this not so, we can still adduce a prior claim to the invention in question, for our own country. Dr. Physick, of Philadelphia, published a paper in 1812, in which he mentions that he successfully applied the syringe to a child poisoned with laudanum; and Dr. Dorsey afterwards cured two individuals by the same treatment. That distinguished surgeon, however, subsequently states that Dr. Alexander Monro, junior, first suggested the invention in 1797, although he (Dr. Physick) was ignorant of the fact when he applied it practically. I conceive Dr. Physick is entitled to the honour of having been the first who saved life by its means."—I am, sir, your obedient servant, THOS. SCATTERGOOD.

Leeds, March 30th, 1881.

NORWEGIAN BOXES.

SIR,—In the exhibition of 1861, some Norwegian boxes lined with a thick layer of felt were shown, for the purpose of keeping food warm for a long time when put into them hot. Where can these boxes be bought?—Yours truly,

124, Fulham Road, S.W., March 28th, 1881. V. POULAIN, M.D.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

TRICYCLES FOR FEMALES.

SIR,—I am pleased to see that tricycling is advocated by "Nestor", especially as an exercise for females under special circumstances. There seems to me to be nothing at all indelicate in a lady riding a tricycle, if properly and neatly dressed. I have noticed a double tricycle for a lady and gentleman, or two ladies, that seems to be driven up and down hill with the greatest ease and safety; and I have frequently ridden a single machine by the same makers (the Exeter Bicycle and Tricycle Co.), called the "Devon"; and I am really surprised at the delightful exercise it affords. I can accomplish a long ride (ten or fourteen miles, say), without being at all fatigued; and I am sure that, if medical men were to more frequently ride the tricycle themselves, they would very soon recommend it to their patients as a most useful and enjoyable method of affording exercise to both sexes.—I am, yours, etc., ARTHUR KEMPE.

20, St. Sidwell's, Exeter.

A QUESTION OF TREATMENT.

SIR,—I beg to suggest the careful application of a weak solution of perchloride of mercury to the patch of discoloured skin described by "Enquirens" in your JOURNAL of March 26th; I should say two or three grains to the ounce. Possibly the preparation of chrysophanic acid employed by "Enquirens" has not been as strong as the child's skin would bear. I have lately used the ointment (1 in 8) on a child aged seven years, having gradually increased the strength from 1 in 24; the application produced no great discomfort, though continued for some time.—Yours truly, L.K.Q.C.P.I.

CHAULMOOGRA OIL.

SIR,—I have been reading the article in the number of the JOURNAL for March 26th on Chaulmoogra Oil. In 1878, I published a pamphlet on the Gynocardia odorata, collecting principally what was known up to that date on the plant as a medical remedy. I became acquainted with it thirty years ago, when living in India; and published, in the *Indian Annals of Medical Science* for April 1854, a paper by Dr. F. J. Mouat on "The Chaulmoogra". I wish to draw particular attention to this paper, as it contains the report of a remarkable cure of secondary syphilis treated by chaulmoogra in the Bengal Medical College Hospital; and I have reason to think the oil is a most valuable remedy for the complaint above-named. Perhaps this was not known to the writer of the article in your JOURNAL, as the disease is not referred to.

Dr. Mouat gave the remedy in the form of a pill from the seed, as it would be obtained fresh in that form in India; but as it has been found that the seed deteriorates after a time, I have only imported the oil expressed from the seeds; and in this form it retains its virtue for years, kept in a cool place.

The paper of Dr. Mouat to which I refer is reprinted in my pamphlet, which can be obtained of Messrs. Corbyn, Stacey, and Co., 300, High Holborn, who are now preparing a new edition of it.—Your obedient servant, R. C. LEPAGE.

Brighton, March 28th, 1881.

A SUSPENSORY BANDAGE.

SIR,—Allow me, through your JOURNAL, to introduce to the notice of your readers a suspensory bandage, which I have used for several cases, and find it as efficacious as it is simple to make. It can be constructed from an ordinary roller bandage as follows. Having tied a portion of the bandage round the waist sufficiently tight to prevent it from slipping over the hips, take another piece long enough to pass between the thighs, tying in front and behind to the abdominal portion, slit it at one end for a distance a little more than the length from the top of the scrotum to the front of the band round the abdomen, to which it must be fastened; pass the penis through the hole thus formed, and carry the bandage round the front to the back of the scrotum, sewing together the edges of the bandage, so as to form a bag for the scrotum; then slit up the remainder of the bandage, carrying each half round the lower border of the gluteus maximus to fasten to the abdominal belt above the hips, thus keeping it out of the way of the anus. It can easily be regulated to draw the genitalia forwards, backwards, or upwards, by raising or lowering the fastenings to the abdominal belt.

The advantages I claim for this bandage are, its simplicity of construction, cheapness, cleanliness (as, if soiled, it can easily be replaced), and comfort, combined with its efficiency.—Yours, etc., PRACTITIONER.

A PROVINCIAL TEACHER.—You will be readily admitted to attend the examinations now going on at the College of Surgeons; but all the provincial students have been examined. The authorities, taking into consideration the great inconvenience and expense of keeping them so long in town, admit them early; thus, on the first, second, and third days, there were sixty-three. The chairman of the Board is Mr. Arthur Durham, of Guy's Hospital. At the two anatomical tables there are: at A, Messrs. T. P. Pick, of St. George's, and Mr. E. Bellamy, of the Charing Cross Hospitals; at B, Messrs. W. Rivington, of the London, and J. Langton, of St. Bartholomew's Hospitals. At the two physiological tables there are: at C, Messrs. W. M. Baker, of St. Bartholomew's, and J. McCarthy, of the London Hospitals; and at D, Mr. B. T. Lowne, of the Middlesex Hospital, and Dr. Yeo, of King's College.

MEDICAL ETIQUETTE.

YOUNG MEMBER B.M.A.—We can have no hesitation in expressing our opinion that such remarks as are attributed to B. are highly improper and slanderous; and we have no doubt that, if they were substantiated, heavy damages would be obtained for uttering them. We would advise that A. should direct his solicitor to write to B., intimating that, if he did not make a retractation and apology, proceedings would be commenced against him. This suit might be instituted in the County Court, which, by a recent enlargement of its powers, now takes cognisance of cases of slander and libel.

HYPODERMIC SYRINGES.

SIR,—I have had a good deal of trouble, first and last, with my hypodermic syringe. Frequently the points become broken, as my eyesight is not good enough to prevent my injuring them against the case and bottle when in use. How are the points made and sharpened? Are there any means by which I could sharpen them myself? —Yours truly, THOS. JONES.

MR. C. W. BUCK (Settle).—Membership of the British Medical Association is not necessary in order to entitle a practitioner to attend the International Medical Congress. Information on all requisite matters may be obtained from the Secretary, Mr. William Mac Cormac, 13, Harley Street, W.

ANCIENT USES OF BETONY.

SIR,—If I might be allowed to supplement Dr. Murrell's interesting notes on the ancient uses of betony in medicine (BRITISH MEDICAL JOURNAL, April 2nd, p. 540). I should like to refer you to Pliny's account of the herb (*Hist. Nat.*, lib. xxv, cap. 46). He there derives the name from its repute among the Vettones, a tribe in Spain. He calls it a herb worthy of praise above all others. It was the leaves, rather than the root, in which virtue resided. These were dried and pulverised for a variety of uses. A wine was made of them, and a vinegar "for the stomach, and to clear the eyes". "It was held in such esteem", he says, "that the tenement in which it grew was considered free from the effect of any evil influence". It is worth while, also, noticing that Celsus (*Medicina*, lib. v, cap. xxvii. sec. 10) adduces this "herba Vettonica" as sovereign against the venom of serpents; and Gerarde, in his *Herball* (1597), gives a curious account of the plant's virtues, under no fewer than nine heads.—I am, sir, your obedient servant,

HENRY T. WHARTON, M.A.Oxon.

39, St. George's Road, Kilburn, April 4th, 1881.

COMMON SENSE IN THE PULPIT.

WHEN so much nonsense is talked about vivisection, it is rather refreshing to read the enclosed extract from a sermon against cruelty to animals delivered in Aberdeen by the Rev. Dr. Milligan.

"Speaking of the practice of vivisection, Dr. Milligan said it was an unquestionable fact that it had been the means of obtaining much valuable scientific knowledge, and relief from suffering had been provided, which extended not only to mankind, but to the lower animals; but he maintained that experiments upon animals should never be repeated after the scientific fact for which they have been made has been established, or for the gratifying of an idle or vain curiosity. The ablest and best men of the medical profession are clearly of opinion that, although the practice of vivisection ought to be discountenanced as much as possible, yet within certain bounds it is not only justifiable, but absolutely necessary; and, therefore, to merely declaim against the practice would not tend to much good."

NEMO.—The value of a general practice is ordinarily estimated on the cash receipts for one year, taken from an average of three years; thus, supposing the receipts were £600 in 1878, £650 in 1879, and £700 in 1880, total £1,950; then the practice would be worth £650. The time during which the vendor has carried on the practice is an important element for consideration in calculating the value of the purchaser's investment; but the above-mentioned rule is the one that best commends itself to our judgment. It is especially desirable that "Nemo" should look well into the cash receipts; he should take nothing on verbal statements.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. Edward Skinner, Sheffield; Mr. W. O. B. White, Tipperary; A Member; Mr. T. Edgelow, London; Mr. J. H. Wraith, Darwen; Dr. Thin, London; Dr. J. A. Smith, Edinburgh; Dr. A. Wise, Geneva; L.K.Q.C.P.I.; Max; M.D.; Dr. Schwirtens, Berlin; M. R. Allen, Manchester; Dr. Godson, London; Mr. T. Scattergood, Leeds; Messrs. Markland and Davy, Leeds; Mr. Burroughs, London; Dr. A. Gamgee, London; Mr. E. W. Forster, Darlington; Our Paris Correspondent; Dr. Wallace, Colchester; Mr. Balmanno Squire, London; Dr. Humphrey, Cambridge; Mr. G. Eastes, London; Our Edinburgh Correspondent; Dr. J. Rogers, London; Mr. A. Brailey, London; Dr. G. Kemp, Barnstaple; Dr. R. E. Carrington, London; Our Glasgow Correspondent; Dr. J. Morton, Bristol; Mr. W. A. Ross, Alderney; Mr. F. Shearar, Carlisle; Mr. Joseph Coats, Glasgow; Mr. J. J. Byrne, Preston; Mr. T. Cook, London; Mr. G. Steet, London; Our Dublin Correspondent; Mr. T. M. Stone, London; Dr. McNaught, Newchurch; Mr. H. T. Butlin, London; Dr. M. C. Reed, Plymouth; Mr. S. W. Coombs, Worcester; Dr. W. Lamond, Jarrow-on-Tyne; Quæstor; Dr. J. Warren, Boston, U.S.A.; Our Aberdeen Correspondent; Mr. T. Taylor, Brotton; Dr. Saundby, Birmingham; Dr. Priestley Smith, Birmingham; Dr. James Allen, London; Dr. George Dale, London; Dr. Sawyer, Birmingham; Mr. Miller, London; Mr. J. Smith Turner, London; Dr. S. Smith, Sheffield; Rusticus; Dr. De Chaumont, Southampton; Mr. John Lowe, Lichfield; Dr. W. T. Law, St. Leonard's; Dr. William Macewen, Glasgow; A. B.; Dr. Moxon, London; Mr. E. White Wallis, London; Mr. A. W. Dowding, Plaistow; Mr. H. T. Wharton, Kilburn; Mr. Walter Whitehead, Manchester; Dr. Crichton Browne, London; Mr. Arthur Kempe, Exeter; Mr. H. C. Calley, London; Mr. Malcolm Morris, London; Mr. J. E. Collingwood, Corby; Mr. James Hughes, Middlewich; Dr. Jesson, Dartford; Dr. Hamilton, Dalbeattie; Mr. J. E. Butler, Liverpool; Dr. A. H. Bland, London; Mr. J. H. Thomas, Wellingborough; Dr. L. Waldenburg, Berlin; Dr. Henry Tomkins, Manchester; Mr. S. C. Smith, Halifax; Mr. John Stanton, Chorley; Dr. Joyce, Cranbrook; Mr. G. Thruer, Hoddesdon; Dr. W. Ewart, London; Mr. J. W. Compton, Evansville; Mr. S. Snell, Sheffield; Dr. Flint, Scarborough; Mr. J. N. Radcliffe, London; etc.

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THE CROONIAN LECTURES
ON THE
INFLUENCE OF THE CIRCULATION UPON THE NERVOUS SYSTEM.

Delivered before the Royal College of Physicians.

By WALTER MOXON, M.D., F.R.C.P.,
Physician to Guy's Hospital.

Lecture II.—Part II.

If, indeed, we cannot prove by *post mortem* examination that a person has died from congestion of the brain, the evidence which would lead us to declare the existence of such a state during the person's life ought to be the more conclusive. Let us now inquire if this is truly the case. I have already asked your attention to the degree of turgescence of the veins of the head and face indicating a like degree of pressure within the veins of the cranium, which is met with frequently under various circumstances, and which does not give rise to serious or important symptoms; strangulation becomes very decided and obvious before any serious cerebral effects result from it. Hence we must not suppose or assume its pressure unless we can see the veins evidently turgid; and although total stoppage of the jugular veins by ligature will produce speedy death, yet, inasmuch as we thereby deprive the brain of its blood-circulation, so that life ceases with the cessation of vital changes in the respiratory centres, we have here a set of consequences which ensure death, apart from pressure of venous blood upon the brain. Indeed, I have never met with any example in which venous pressure upon the brain, as distinguished from the effects of carbonic acid poisoning, has produced grave symptoms. And I advanced the example of caisson-pressure as affording an instance of extreme degrees of intravascular pressure of blood upon the nervous centres uncomplicated with a venous state of the blood; and it was shown that, under a pressure of three atmospheres, continued for as many hours, no unpleasant results were experienced; so far otherwise, indeed, that the labourers worked more buoyantly in the denser air. It was when the pressure was taken off that trouble came. As one more example to show how well an obvious amount of arterial pressure is borne by the brain, let us take the case of unusually violent action of an hypertrophied heart. It is not, of course, to be supposed that in all or most cases of cardiac hypertrophy an excessive action of the heart would tend to congest the brain, because for the most part the heart enlarges in order to overcome an obstruction at its orifices or an obstruction in the capillary system. In these cases, the hypertrophy does but follow after, and usually far after, the requirement which it subserves, and the large labouring heart is all too feeble for its extra work. But we meet occasionally with more rare examples, wherein a large heart certainly does appear to exert an exaggerated force throughout the vessels. A striking example of this is in the Clinical Ward at Guy's Hospital, in the case of a man of early middle age, who has regurgitant aortic valves and a very greatly hypertrophied heart, which raises the præcordial region, and in its beating shakes forcibly the lower part of the chest. The innervation of the heart is here deranged, as if by a touch of exophthalmic cachexia superadded; for the heart's action is very rapid, and digitalis, in any doses I dare give, shows no power of reducing its frequency. The effect of all this in the temporal and radial arteries is remarkable; they are bent into a meandering form, and are tense to touch, each beat of the heart making them spring rather sharply. Those who witnessed the force evidently at work within these arteries, and conceived the same action as going on within the cranium, formed the impression that the arterial strain must be excessive there, allowing all that the bend of the carotid canal could do to moderate the distension of the arteries in their transmission through the base of the skull. Yet this man said that his head was quite free from unpleasant sensations; and, when I induced him to cough, and otherwise to use strong pressure of his expiratory muscles, so that the veins rose in his neck, the heart beating, meantime, still more strongly and quickly with his exertion, no ill effects occurred in the way of morbid sensations in the brain. This example is not a very rare one, although the coexistence of rapid action of the heart, with great hypertrophy and absence of evidence of aortic obstruction, offered a combination calculated to put great stress upon the interior of the vessels, and the strain was visibly great in the superficial arteries. Indeed, under similar circumstances, especially in cases of exophthalmos, we witness an extent of more or less violent and certainly obvious over-action in the cervical vessels, producing no noticeable discomfort in the brain, and certainly nothing of the nature of serious and important symptoms.

Hence, as we pass to consider what clinical evidence there is to show that serious and important diseases are due to cerebral congestion, we do so having first recognised that, visibly, forcible arterial action does not produce these symptoms; and, visibly, great venous congestion does not produce them, and *post mortem* evidence is incapable of proving that cerebral hyperæmia was present before the act of dying. Still pursuing the question before us, the next thing will be to learn what evidence is offered in the symptoms ascribed to cerebral congestion to show that fulness of the cerebral blood-vessels causes the attacks described under that name. If we look at the descriptions of the supposed disease, we find it has all the advantage of being well portrayed by the best describers, including a most trustworthy and universally trusted authority upon the subject of brain-diseases in general; so that we may fairly assume that all that can be said for the disorder is well and fully said. The disease would merit such treatment, if it is indeed capable of appearing in no fewer than four distinct and very widely diverse manifestations, and if in each of these it may constitute an obscure and rapidly fatal malady. The symptoms of such a disease must merit the closest attention; and so I may ask you to let me now give a full account of the symptoms described as those of one of the forms of congestion of the brain: it is called the convulsive form, and these are the symptoms given. "There are usually the premonitory signs of congestion, but these may be very slight; there may be no forewarnings, and the patient may be seized during sleep, or while making some unaccustomed effort. When the attack occurs during sleep, it is difficult, and sometimes impossible, to say in what manner it commenced; but when it has come on while the patient is awake, and friends are around him, it has been usually observed that much discomfort has preceded it for a few seconds, minutes, or hours. A tight cravat worn while making undue exertion, a sudden alarm, or an indigestible meal rapidly swallowed, may be the immediate antecedents."

"The patient more or less suddenly becomes confused, then apparently half unconscious, makes some unintelligible sounds, turns red and then blue in the face, staggers for support, looks round him wildly and imploringly, and then sits down or falls down convulsed, and a paroxysm, epileptiform in character, supervenes. From this he recovers partially, exhibiting great confusion of mind, headache, muscular feebleness, and sometimes partial paralysis of one side or of one limb. The attack is occasionally followed by quasi-maniacal excitement, lasting from half an hour to three or four hours; after which, the patient becomes exhausted and falls into a heavy sleep. From this state he may recover, or, during sleep, a second or third attack of convulsions may come on. When congestion of the brain has assumed this convulsive form, the patients, so far as my own experience extends, have usually been in middle life, and have recovered. But in other cases, when the age has been further advanced, the attacks have recurred more frequently, the intervals between them have become of shorter duration, and the patients—less sensible and less reasonable after every paroxysm—have presented the appearance of those whose attacks have been apoplectiform at their commencement." This description, coming from the pen of a masterly describer, puts vividly before us the condition depicted; but that condition appears so exactly like epilepsy in a plethoric person, that one is rather puzzled to detect a difference between the convulsive form of congestion of the brain on the one hand, and epilepsy in such a person on the other, and one gladly turns for guidance to the directions for diagnosis, which tell us that: "From epilepsy, the diagnosis may be made by a consideration of the previous history; in the one, there have been the premonitory symptoms of congestion of the brain; in the other, no such phenomena have presented themselves; in the former, the patient is usually of middle or advanced age; in the latter he is young, and is either under twenty years of age, or has not far exceeded that period of life; in the one, the period of most marked congestion is at the moment of seizure; in the other, congestion of the face and head is most marked as the attack is passing off; in the former, there may be some moaning sound; in the latter, the epileptic cry; in the one, there is the sudden onset of an acute disease; in the other, the attack of a chronic malady." Thus it appears that the points of distinction in the attack are the middle or advanced age of the patient; the comparison of the colour of his face in the beginning and in the subsequent course of his fit; and the moaning sound in congestion, as compared with the "epileptic cry" in epilepsy.

As to the latter point, we, however, find the same distinguished authority speaking thus in an admirable description of epilepsy itself:

"Others do not cry, but emit a moaning sound, which is, as it were, squeezed out of them by the quasi-tonic contraction of the muscles of the chest." Thus the moaning sound does not help us, if we bear in mind the account of true epilepsy. Again, as to age, the same full and excellent account of true epilepsy informs us that a considerable proportion of first attacks occur about the fortieth year of life; so that the age of the patient would appear to be no valid criterion, and then the only thing remaining is the play of colours in the patient's face during the fit. Thus the convulsive form of congestion resolves itself into an attack which is exactly like epilepsy, except in the plethoric appearance of the patient. But are we then to suppose that plethoric persons do not have epilepsy? If this is not the supposition, how are we to deal with the case of a red-faced person who should have a true epileptic fit? How should we distinguish between such an attack and an attack of congestion of the brain? One looks in vain through the description for any criterion. There are all the stages of epilepsy: the blue tinge appearing on the red of the face; the groan; the fall; the struggle; the stupor; and even the final, and perhaps almost maniacal, excitement at the close. Even the tight cravat and the full meal, which appear in the description of congestion, do not really help us, because the true epileptic might have on a tight cravat, or might have had a full meal. The evidence, then, of congestion of the brain is utterly worthless, unless you assume that those plethoric persons do not have epilepsy; and that, after a full meal or in a tight cravat, epilepsy is not epilepsy. But the question whether such persons have epilepsy is not even raised by the description, which changes the whole fundamental pathology of the seizures because the sufferer's face is red and he has just had his dinner. I have quoted from the writings of one who is so entirely master of the subject of nervous diseases, that the evidences in favour of congestion of the brain would certainly all be fully and fairly stated in his description of it. Yet surely we have seen but very trivial ground for raising the convulsive form of congestion of the brain as a distinct kind of disease; and we further have even some proof of a positive kind to show that you cannot judge of the amount of blood in the brain by the amount of blood in the face. At least, in sleep, we now know the brain to be pale; yet in sleep the face is more congested than it is under ordinary conditions when awake. If you look at a sleeping person, you may commonly observe, everywhere about the head, signs that would show congestion: the contracted pupils; the suffused conjunctiva, often causing an excess of secretion from the mucous surface, or the well-known puffy state of face and eyelids found in the morning in cases of Bright's disease and other conditions; the reddened and perspiring state of the skin conspicuous in many people in deep sleep, and often wetting the pillow in phthisis; yet, in spite of all these signs of congestion outside the cranium, the brain within it is shown to be pale in sleep. So far, then, from redness of face proving congestion of the brain, the best known instance bearing on the question shows the brain to be paler when the face is more congested than the average.

The importance of the question whether, as asserted in some text-books, disease and death are really due to a rush of blood into the vessels of the brain, or whether, as I believe, no serious symptoms or ill results are produced by blood rushing into or pressing within the blood-vessels of the brain, will, I trust, justify me in pursuing the examination of the asserted symptoms of cerebral congestion, still searching for evidence that these symptoms are due to congestion of the brain. Yet, as to the form of the disease, that is called apoplectiform cerebral congestion, I will not go into detail, because the kind of attack of sudden insensibility, which has long been known by this name, has been so thoroughly treated of by the late Professor Trousseau, and by him was so entirely well proved to be really epileptic, that I need only refer for evidence to Trousseau's lecture upon the subject. In that lecture, he says: "During the first years of my practice, I saw a pretty large number of cases of apoplectiform congestion; but for a long time I have not seen any. Yet other medical men see as many as before. Let us, therefore, inquire on whose side the error lies." And then he gives proofs of the epileptic nature of such attack, which I think so convincing that they need only to be read to clear up any doubt upon the matter. It is, perhaps, due to Professor Trousseau's influence that the most modern English teaching is coming round to the same view, as shown in the most recent and one of the best of our text-books, in which we find it written: "The true apoplectic attack, in which the patient falls down suddenly comatose, is now generally admitted to be epileptic." As a small further contribution to the previous evidence upon the epileptic nature of apoplectiform cerebral congestion, I will only point to one feature in descriptions of the attack; and that is, "the pulse at the moment of the attack is sometimes suspended at the wrist". Of course, it is plain that suspension of the pulse would not be likely to produce congestion of the brain; and, indeed, it is clear that suspension of the pulse must cause anæmia of the brain. But I will bring forward some facts in my next lecture which will, I trust, show that suspension of the pulse accompanies and marks the onset of attacks of epilepsy, and is the cause of paleness of the face in the epileptic onset. I need hardly say that the question at issue is one that practically is important; for, if the attack is epileptic, it calls upon us for remedies, and requires such as reduce the general excitability of the nervous system, and especially for such specifics as potassium bromide. But if the attack is indeed congestion of the brain, then it calls upon us for local treatment of the head, more or less of the nature of depletion.

If we seek in the two remaining forms for evidence that the disease is really due to congestion of the brain, we are met with proof to show that the contrary is really the case. The characters of the third, or "febrile form", are those of an attack accompanied by marked elevation of temperature and general pyrexia, dull oppressive headache, etc. Recovery is said not always to be observed. "The distress may persist; there may be alternately convulsions and delirium; or there may be changes from overexcitement to drowsiness—the latter gradually becoming relatively more marked until the patient passes into a state of stupor, from which he may never rally." Now, if such a group of symptoms were to come upon a healthy person, it is a fair question whether the medical attendant would be well advised in resting satisfied with an opinion that the case is one of congestion of the brain. If the attack ended fatally, would he not have to inquire which of the eruptive fevers, or what form of blood-poisoning, had seized and killed the patient without allowing time for the development of the distinguishing characters of the attack? In every case in which I have known a healthy person fall into febrile coma, that person has proved to be suffering from a definite disease which needed to be discovered. For example, a little girl at Tottenham, having precisely these symptoms, was said to have died within twenty-four hours of "congestion of the brain". Scarlet fever appeared in her sisters within twenty-four hours more, showing what was the matter. A man approached very near to death, being quite comatose, with elevated temperature; he then developed a most profuse urticaria, and forthwith recovered. Had he died, we should not have known better, perhaps, than to have called his disorder cerebral congestion. Such instances might be multiplied indefinitely. I am ready to admit that such a term as congestion of the brain is useful to the practitioner in some of his difficulties; and, so far as it is understood to signify only that the case to which it is applied is cerebral and obscure, there is no harm in it. Nay, there is a certain advantage in its indefiniteness; whilst it meantime does not usually carry an unduly sudden or alarming impression to the minds of the patient's friends. But, for all this, it is surely undesirable to make this conveniently vague term take a place in strict medical teaching, and to use it there as covering several widely diverse disordered states, which can be only very vaguely pourtrayed even by our best clinical describers, seeing that there must arise a great temptation to stop at this idea of congestion of the brain, when further inquiry would have shown the true nature of the case. It is true that we are compelled to use some terms to give expression to all that we can know of obscure disorders, and it might be thought that "congestion of the brain" stands thus on a par with "sciatica" and "colic"; but there is a wide difference between these at first apparently parallel examples. When a person has pain in the course of his sciatic nerve, we search for aneurysm or other tumour which might cause the pain; and, if we do not find any such cause, we say that the case is one of sciatica. Even here there is a danger of our too easily taking up with the easier diagnosis of sciatica—a danger which not unfrequently induces the practitioner to overlook an organic cause of pain. However, there is nothing wrong in describing pain in the course of the sciatic nerve as sciatica, since the term means only sciatic nerve pain. Likewise, in the case of such an expression as colic, the term applies without doubt, whatever be the nature of the colic pain. The term involves no supposition of a definitive cause of the complaint, and there is nothing positively misleading in the use of it. But in the example of "congestion of the brain", employed in a similar vague way, there is this important difference, that the term does signify a fulness of, and pressure of blood within, the cerebral vessels; which fulness and pressure may not exist, and, I think I have shown, probably do not exist. Thus whereas, in any prepossession with the idea of sciatica, we only incur the risk of sometimes failing to reach the whole truth of individual cases, we are probably entirely wrong at all levels when we use the term congestion of the brain. Again, this term does not only apply to one definite kind of pain like sciatica and colic; but it is made to include convulsive disease, apoplectiform disease, febrile disease, and mental aberration—thus extending its shadow and obscurity to confuse a very large part of the otherwise clear history of diseases of the brain.

We could not, perhaps, have a better example to show how far the description of these diseases as congestion of the brain is correct, than we meet with under the form I am now discussing—the febrile form of cerebral congestion—for we see the whole group of symptoms described as the febrile form of cerebral congestion appear as "cerebral rheumatism" in rheumatic fever. Now in cerebral rheumatism, with its perfectly characterised febrile congestion of the brain, we happen to have very decisive evidence that there is no congestion of the brain, but the exact opposite of this. Ten years ago, one did not know what to do with the rapidly fatal brain-symptoms which occur in some cases of rheumatic fever. I tried bleeding, and large doses of brandy and large doses of quinine, but all the patients died. The plan now successfully adopted is well known. I first practised it in 1870, and an account of the case was published by Mr. De Liefde, the house-physician. I mention it because of the somewhat rude thoroughness of the treatment. The patient had passed through the stage of muttering delirium, and was settling into insensibility; when at a temperature of about 106°, he was put at once into cold water at 60°. The result was, that this almost comatose and dying man shortly became as sensible as any of the bystanders. Now, the effect of such a sudden plunge into cold water must be to drive blood from the surface of the body to the deeper parts, including the brain. Indeed, the treatment is the extreme reverse of that putting of the feet and hands into hot water, which is recommended for cerebral congestion. Yes, doubtless rightly; and if you placed the feet and hands in hot baths, you must tend to draw blood away from a congested brain; and, *per contra*, by placing not only the feet and hands, but the whole body in very cold water, you must tend to do the opposite of this, and drive blood to the brain. But, in this case, in which every symptom described as cerebral congestion was at its highest degree, and on the point of a fatal issue, the extreme reversal of the treatment for congestion, this driving of blood to the brain wakes up the man in the most magical manner.

Thus the third form of so-called cerebral congestion belies this view of its nature, by passing off under treatment which must add to any congestion really existing in the brain. Let us now look at the last of the forms of so-called cerebral congestion—that noted as delirium. The description is of a patient of advanced age, who, after some hours or even days of undue taciturnity, becomes cheerful, or gay, or hilarious; he talks loudly and incoherently, but rarely exhibits any violence. He gets out of bed, wanders about his room or ward, opens drawers, puts on his dress, and is bent upon doing something which he cannot explain, or which, if expressed in words, is unnecessary, unaccustomed, and absurd. He is under a delusion of unfixed character, and can usually be directed and controlled without much difficulty. This being the description of the ailment, it may be well to see how far it is a good thing to teach it as a sufficient view that such symptoms are due to congestion of the brain, by giving shortly the history of a case of the kind. Not many months ago, I was asked to see an elderly man whose relatives were said to be quite worn out with taking care of him, on account of his insane conduct. The medical gentleman in charge of his case said that the disorder was congestion of the brain, a bodily disease, and not mental, so that he refused to certify to the patient's insanity. When I saw the man, I found a state of affairs completely justifying this view, according to those who teach that there is a delirious form of congestion of the brain. Mr. P. was fifty-nine years of age. The poor fellow had been knocked down and robbed two years before, and of late he had shown great depression of spirits. Then he grew excited, and talked, and was pleased at the idea of going home. He got out of bed, and wandered about his room, and opened drawers, and dressed himself in the middle of the night, and wanted to go home through the second-floor window or over the balusters of the stairs. But there was no fixed character in his delision; sometimes he was content to stay where he was, under the idea that the Queen had made all the days Sundays now. He was generally submissive, too, and managed without any difficulty, except the fatigue of constantly watching him. He had his wandering attacks almost nightly between September and December. This man's disorder corresponded in all points exactly with the so-called delirious form of congestion of the brain; so that the medical practitioner in attendance, trusting his book, was justified in saying that the man had congestion of the brain, and not insanity. But meantime, this madman was endangering his own life very seriously, and causing the gravest overstrain to the members of his family, who were unequal to the care of him. Certificates were immediately signed, and he was put into comparative security, from which the entirely baseless theory of congestion of the brain was keeping him, through the accurate knowledge the doctor had of his teaching. I think one may say, without prejudice, the utterly baseless theory of congestion of the brain. Such excitement does not show congestion of the brain. The best marked cases I have seen of this kind of insane delirium have occurred in heart-disease. Yes; it may be said, exactly the condition to congest the brain. But no one would say that, if he were to bear in mind the kind of hydraulic difficulties that affect the circulation in heart-disease. It is true that, in heart-disease, you have congestions enough; but the congestions occur in the dependent parts of the body, because the inanimate power of gravitation takes hold upon so much of the blood as a weak heart cannot drive, and draws so much blood downwards; but, in doing so, it draws away from the head and other upwardly disposed parts of the body, which are thus kept empty in proportion as the dependent parts are full. And, indeed, in a severe case of delirium, which occurred in a man with cardiac dropsy in Philip Ward of Guy's Hospital, I put the matter to a severe test. The miserable man, after weeks of breathlessness and sleeplessness, became insane, with the symptoms I have read to you as those of cerebral congestion. I had his pillows taken away, and kept him asleep with chloral for three days. At the end of that time, he was allowed to wake, and he was then quite sane again; and he afterwards recovered so far as to lose his dropsy and leave the hospital. I believe that, if I had kept his head high, he would have died. The symptoms were those of exhaustion in an anæmic brain.

Indeed, the circumstances in which cerebral excitement appear are so far from being of a kind to show an exaggeration of the powers of the circulation, that, from this point of view, we can only wonder how it has come to pass that excitement of mind occurring in the aged, the exhausted, and the dying, is so generally interpreted as signifying an excess of circulation in the brain. The reason, doubtless, is on account of the natural way in which we infer, from the violences set up by a disturbed mind, that a like violence must be at play in the brain, as the organ of the mind. It is so natural to suppose that activity of the eye and tongue and hand must mean activity of the circulation which feeds the nervous centres of the eye and tongue and hand. It is thus that the sight of overactive mental states brings to the medical mind the idea of too great fulness of the blood-vessels, as naturally as the sight of the diurnal course of the sun in the sky brings to the popular mind the idea that the sun goes round the earth. In either case, it is only by further consideration that the fallacy of evidence so apparently obvious is made certain. Reflection will show that the activity of the delirious person may be negative, because it may take its rise through a want of the adjustment of balance of self-restraint, to which a good circulation in a healthy brain gives rise. And the aged and exhausted state of the sufferer points directly to such a negative cause; whilst the treatment also must recognise the negative condition, and do all that can be done to feed the brain and support the system. The decisive style employed by specialists in brain-disease, in their pathological descriptions, has done much to encourage the widely spread delusion as to congestion of the brain. The diseases such as acute mania, for which they seek the anatomical causes, offer a most impressively violent and active behaviour of the brain; and so little appears *post mortem*, except perhaps a full condition of blood-vessels, that the temptation to dwell upon this state of fulness, and make much of it, has proved irresistible, even when a reasonable doubt of the importance of congestion has forced itself upon their notice. Thus, one of the least conventional of brain-specialists, Griesinger, after allowing that, in his first edition, the significance of hyperæmia had been greatly exaggerated, goes on, nevertheless, with really unabated confidence to assert the usual fallacies. First, he says that, from the changes found after death, increased fulness of the vessels during life is to be assumed. "To this, therefore, a certain connection with the morbid state is to be ascribed"; an obvious fallacy if, by a certain connection, he means a causative connection; and, unless he means a causative connection, his remark has no meaning at all. He then goes on to give the usual account of redness, etc., on the brain, which I have already sufficiently discussed, and ends by saying, "this hyperæmia may easily pass into actual inflammation", a thing which it is utterly impossible that anyone could know. The fact is, that the notion of a flooding of the brain with blood is always ready for use, so that it can be drawn upon by anyone in difficulties for an explanation. And thus, if the alienist needs something to stand for a cause of violent mania, it is congestion of the brain. If the practitioner in charge, when head-disorders do not include madness, wants an explanation of seizures that are the exact reverse of mania, fits in which, instead of violence, you have oppression and stupor, he has it: it is congestion of the brain. If the question is of some "wiry old person"—the expression is not mine—whose circulation is, one would think, too poor to congest anything; if this old person shows negation of brain-activity, still it is congestion of the brain. If a person has drunk enormous quantities of alcohol and is comatose, this, too, is congestion of the brain; and if he has been out in the sun, and has a cerebral seizure, this, too, is congestion of the brain.

I suppose there must be a certain satisfaction in exchanging the

obscurity that beclouds our ideas of disorder of the nervous system, of whose order we know so little, for a disturbance of the hydraulics of the blood, about which we can know much more; even though the result is only a translation of the terms, in which the symptoms are interpreted to the mind, rather than an explanation of the symptoms. There is, indeed, no true explanation attempted, for no one who asserts that congestion of the brain causes mania, is able to say at all what causes the congestion of the brain.

I have thus far endeavoured to establish these propositions: first, that atmospheric pressure so great as to force blood into the vessels of the brain more thoroughly than could be done by any intrinsic forces of the circulation does not produce cerebral symptoms; second, that strangulation and carbonic acid poisoning lend no support to a supposition of independent congestion of the brain; third, that morbid anatomy is unable to show any evidence of general overfilling of the blood-vessels of the brain; fourth, that in the disease described as congestion of the brain, clinical evidence of overfilling of the cerebral blood-vessels is utterly wanting, and that the state of circulation present in these disorders can be shown in typical instances to be the reverse of an overfulness. From all this it follows that there is no pathological justification for our setting up congestion of the brain as a distinct kind of disease, nor for our pretending to explain cerebral symptoms by the assumption of congestion of the brain; for the forcing of blood into the brain whilst the blood is good and properly aërated, and is within its vessels, affects only favourably the functions of the brain as far as our evidence goes. I cannot quite tell where or how the idea arose, but it appears to have been very anciently and naturally supposed that when the senses are lost or submerged, this can only happen through their being drowned in the blood. But the example of sleep is contrary to this rough notion, for Mr. Durham, twenty years ago, showed that the brain is pale in sleep, and other experimenters have since confirmed the observation. We have a daily occurring analogy in every living person which would lead us to expect insensibility to occur with a pale brain, rather than with a brain loaded with blood. Again, fainting teaches us the same lesson: we see in fainting the senses pass into abeyance through bloodlessness of the brain. On the other hand, I do not know of a single proven example in which the senses are lost by pressure of blood within the vessels of the brain. If you object to this, that strangulation gives such an instance, it must be remembered on the contrary that strangulation involves a stoppage of circulation, and of all vital changes in the brain; and again, that it must be very thorough to cause unconsciousness. Hence strangulation has no bearing as a fulness of the vessels of the brain; whereas the caisson-pressure gives us the most absolute proof that immense pressure of the blood into the cerebral vessels only increases the comfort of the brain, and, in fact, shows that the brain is glad of blood, and the more the better, so long as it is good and does not burst the vessels. I shall now endeavour to point out that bursting of the vessels occurs only in relatively bloodless brains; and so apoplexy has no bearing in favour of congestion of the brain.

The theory of congestion of the brain has been taken from a too simple and superficial notion of the relation of the brain to its blood-supply. If we take a primitive view of this matter, and suppose the skull to be a closed cavity containing more or less blood, our course of thought would naturally run much in this way. Persons seized with sudden unconsciousness, and dying, are found to have an escape of blood within the brain which compresses it; and other persons attacked in a practically identical way show no such escape of blood. It is, then, in the absence of reasons to the contrary, easy and natural to suppose, as an explanation of all this, that, in the cases where bleeding occurs, the blood before bursting the vessels was pressing very severely inside them, and was distending them and filling the skull overfull, and squeezing the brain very effectually. With such an idea in the mind it is, further, easy to think that, when no bursting of the vessels occurs, this squeezing of the brain by blood in the vessels would cause the same results as the pressure of blood escaping from the vessels when they burst; and from this point of view it is even possible to regard the bursting of a vessel and the bleeding into the brain as a thing of secondary importance, and to believe that the apoplexy is really set up when a certain engorgement under pressure is reached, which pressure may or may not burst a vessel; but whether it does or no matters little, for the pressure on the brain is the same whether the blood is in or out of the vessels—and, indeed, this opinion has been held and openly stated.

But such a line of reasoning overlooks or underestimates the efficiency of the means whereby the cerebral circulation is relieved, and it overlooks the nature and consequences of arterial tension; and especially it overlooks the fact that apoplexy, when not the result of aneurysms of the cerebral arteries or of embolism of those arteries, is nearly always the consequence of the high arterial tension of Bright's disease, and is almost limited to cases of granular kidney and of hypertrophy of the heart.

I do not think that the considerations that arise from what we know of sanguineous apoplexy have been reflected upon the naïve and simple, but plausible, conception of congestion of the brain, as this conception was formed by our predecessors; for, with what we now know of the circulation, arterial, capillary, and venous, we may prove that the notion of a filling of the vessels of the brain with blood so that they compress the brain is unfounded, so far as sanguineous apoplexy is concerned. The relation of apoplexy to Bright's disease, and through Bright's disease to high arterial tension, throws significant light on the whole of the subject, and proves that the bursting of a small cerebral artery, and the consequent bleeding, does not arise from any general vascular fulness in the cranium, but from tension in the arterial system only, which tension leads to the rupture of the vessel and bleeding. Now, high tension in an artery means resistance to the flow of blood from it into the capillaries, and diminished flow through them into the veins. Hence we see that the high tension in the artery, which eventually bursts it, takes its rise in a cause which prevents supply of blood to the capillary veins, so that the higher tension in the arteries indicates a cause excluding blood from the far more capacious veins; and hence, in proportion as the blood is disposed to burst the artery, in just such proportion is the venous system underfilled. And, in fact, it thus happens that, instead of blood bursting out in apoplexy through a general overfulness of vessels in the skull pressing on the brain, the vascular system as a whole is underfilled.

And this is not a merely theoretical view, although I think the theory itself will stand any examination. But, in fact, before the consideration of the question from a theoretical point of view offered me this explanation of observed facts, I had observed that those brains in which apoplexy occur carry signs of old anæmia, and, indeed, present the appearances characteristic of atrophy from deficient supply. I am not here speaking of apoplexy from such accidents as aneurysm or embolism, but of ordinary apoplexy in elderly subjects; and I believe it will be found true that the symptoms which give warning of coming danger—the giddiness and transitory numbness, etc.—are evidences of capillary and venous anæmia of the brain, which is starving under the resistance offered to the entry of a due amount of blood.

Thus, so far from an apoplexy being significant of a general filling to the bursting-point of the intracranial vessels, causing such a fulness under pressure as would compress the brain, it is only in the arteries which are small and not capacious that any excess of blood, or rather excess of tension in the blood, is present; and the idea of a cranium crammed with blood which, if it did not burst the vessels, would equally squeeze consciousness out of the cerebral texture, may be regarded as altogether mythical, and as belonging to bygone and ignorant times.

PAROTID ABSCESS CAUSED BY A FRAGMENT OF HAY.

At the beginning of last October, a healthy young man consulted me about an enlargement of his right parotid gland. The swelling was not very tender, but caused very great discomfort in mastication. I prescribed what I considered suitable remedies, and saw him occasionally. Weeks passed away, but the swelling and discomfort did not diminish; and about Christmas, finding that he had two decayed and tender molar teeth, I advised him to consult a dentist.

At the end of February my patient came back to me. He had had both his teeth extracted, but his parotid gland was bigger than ever. The tumour had been formerly of the natural colour of the skin, but it was now covered with an inflammatory blush, and seemed to point in one particular spot. A deep puncture was made with a sharp narrow knife, and matter followed the incision. The wound continued to discharge for ten days, and at the end of that time a piece of hay somewhat more than one-third of an inch long escaped, the wound closed, and the swelling subsided. The patient was under treatment altogether just six months.

The explanation of the case now seems simple enough. In the early part of September, he went into the country for his holiday, and he distinctly remembered chewing some hay while he was watching a cow being drenched. A fragment of the hay became lodged between the gum and the cheek, but by working his jaw about, he thought he dislodged and swallowed it. For several days afterwards he had considerable pain in eating, but he attributed this to having sprained the muscles of the jaw in his efforts to dislodge his enemy. A month afterwards, the swelling of the parotid began. There can be no doubt, I think, that the little fragment of hay passed into Stenson's duct when it was thought to have been swallowed, and gradually worked its way up to the salivary gland in front of the ear where it ultimately made its escape.

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THE LUMLEIAN LECTURES
ON
BRIGHT'S DISEASE.

Delivered before the College of Physicians.

By REGINALD SOUTHEY, M.D.Oxon., F.R.C.P.,
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Lecture II.—Part I.

In 1863, Rosenstein's work on Kidney-Disease was issued from Berlin. Like Frerichs, he regarded Bright's disease as one essentially uniform pathological process, encountered in various stages, according as life was cut short or prolonged; the kidney at the time of death presenting different aspects, according to the stage reached, and the particular tissue at that time predominantly altered. But his synonym for it was "diffuse nephritis", by which he implied that every element in the kidney—tubes, blood-vessels, and matrix-tissue—were involved.

He separated various renal affections, in which albumen occurred in the urine, from Bright's disease: 1. The congested kidney of passive hyperæmia; 2. The slighter catarrhal forms of nephritis, in which albuminuria was often a very temporary affair; and 3. Amyloid degeneration.* His conception and his description of the mode of commencement of diffuse nephritis, however, entirely corresponded with those changes in the renal epithelium, to which Virchow had assigned the name of parenchymatous inflammation. He says: The renal cells and the matrix-wall of the tubes swelled up simultaneously in the first stage of hyperæmia; in the second stage, exudation took place, not on the bare surface, but into the renal cells themselves, which distended the tubuli and encroached upon the intertubular spaces, and squeezed the blood out of the cortical capillaries. Two courses were now open (the third stage); either the epithelium might decay, the secreting tubes atrophy and spontaneously collapse (as Dr. Johnson had surmised); or the inflammatory changes might extend to the interstitial matrix-tissue of the glands, which became, either locally or generally, the scene of cellular hyperplasia.

There is a good deal here, of course, taken at second hand from the pathological authorities of the time; and there is no particular advance, except in interpretation of the facts observed, upon Frerich's ideas; but the description of the symptoms was, and is still, admirable; and the book continues to be in Germany the best text-book of renal diseases.

In 1860-61, Dr. Dickinson published two papers in the *Medico-Chirurgical Transactions*, vol. 43, page 144, based upon clinical records and necropsies at St. George's Hospital. He divided Bright's disease into two varieties: 1. The tubular disease, primarily a catarrhal affection of the renal tubes, leading to the large, smooth, white, or mottled kidney; and, in cases which lived long enough, advanced to some degree of atrophy. 2. The intertubular disease, in which he surmised that an exudation, thrown out between the tubes, finally starved and involved both secretory tubes and Malpighian bodies in gradual destruction—this process leading ultimately to the formation of the atrophied granular kidney.

Dr. William Roberts, in his *Practical Treatise on Renal Disease*, published in 1865, treats the subject, as he writes (page 296), "rather from a clinical than an anatomical point of view". A good many new anatomical features in the kidney were just then being brought to light by Henle and Schweigger-Seidel. He classified Bright's disease under two main heads, as acute or chronic. The former corresponded to the inflammatory dropsy of the old physicians; the desquamative nephritis of Johnson; the first stage of Frerichs; the parenchymatous nephritis of Virchow; the acute diffuse nephritis of Rosenstein; and the acute tubular disease of Dickinson. The chronic Bright's disease was a less satisfactory group, involving, as it did, relapsed or protracted acute cases, and others which had been chronic from the beginning. He pronounces himself promptly on the subject of fat in the renal substance, and in the epithelium of the tubes, as an alteration associated with most varied pathological changes, and special to no one type of renal degeneration (page 297). He recognises three types of chronic Bright's disease: 1. Large white kidneys, lapsed acute cases; 2. Cases chronic from the beginning, red granular contracting kidney; 3. Lardaceous or amyloid kidneys.

* Rosenstein also separates the fat kidney, like the fatty liver, wholly from Bright's disease, and from amyloid degeneration. This is the kidney which Rokitansky described as "steatosis". I am by no means clear what kidney is here intended. One case after poisoning by phosphorus is included in this chapter.

The first edition of Dr. Grainger Stewart's *Practical Treatise on Bright's Disease* was published in 1868. He makes catarrhal and croupous nephritis the first stage of parenchymatous nephritis, but the main feature of his work is the accurate distinction drawn by him between that secondary atrophy with coarse granulation, which follows in some protracted subacute forms of tubal or parenchymatous nephritis in which the renal epithelium has been destroyed and fattily degenerated, and the interstitial tissue only relatively increased, and the primary insidious cirrhotic atrophy of the kidney, in which the interstitial tissue is absolutely increased in quantity by active hyperplasia. He, too, is the earliest writer to state how many mixed forms of renal degeneration are encountered in practice; as, for example, of cirrhosis with parenchymatous inflammation, and of parenchymatous inflammation with superadded amyloid degeneration.

Bright's disease was shrinking within narrow bounds. First, it had been held to comprehend every renal affection in which the urine was albuminous; then it could be applied as a synonym to any kind of nephritis; but, in 1869, the Nomenclature Committee of our College determined to separate acute Bright's disease from chronic morbus Brightii. Acute Bright's disease was to be a name applicable to acute renal dropsy, as this presented itself after scarlatina or exposure to cold. Chronic morbus Brightii was to serve as a group, having three subdivisions: (*a*) granular; (*b*) fatty; (*c*) lardaceous kidney.

In 1870, Professor Klebs of Prague (*vide Handbuch der Pathol. Anatom.*, Band 1, s. 645) found minute anatomical reasons for separating altogether that acute form of nephritis which followed scarlet fever, diphtheria, small-pox, and other acute febrile disorders, from acute Bright's disease, acute diffuse nephritis as described by Virchow and Rosenstein.

In the postscarlatinal disease, he, with Professor Axel Key, had discovered that the brunt of the disease did not fall in the first instance upon the renal epithelium and the tubules, but upon the glomeruli themselves. The Malpighian capsules were constructed externally of a filamentous framework of fine fibrous tissue, wholly distinct from a cubical pavement-epithelium lining their interior; elongated processes from the connective tissue framework of stellate form, and distinguished by angular nuclei, served, in the healthy state of the parts, to restrain or limit the movements of the several claws or loops of the capillary lobulations inside the glomerules. But, in the form of disease under notice, these connective-tissue corpuscles swelled up, the nuclei multiplied in their interiors, until the whole glomerule, swollen to twice its natural size, consisted wholly of closely packed nuclei; which either compressed, emptied, or obliterated the capillary tuft.

It was thus that the blood in the intertubular capillaries was brought to stand still, for none passed through the glomerule; hence the general capillary turgescence, hyperæmia, with the distortion, pallor, and undue prominence, of the glomerules, which many other observers had noticed; and hence, too, most of the subsequent events.

Facts so self-evident could only have been overlooked, because the opportunities for investigating them had been few, for few cases of scarlet fever died just at this stage of the disease; and because, at a later stage, the swelling up of the tubes rendered the primary change more difficult of recognition.

It is the opinion, however, of later writers, that the original facts, as interpreted by Klebs and Key, have been amply confirmed, and that this is the original lesion. In the kidneys of those who die in a sufficiently early stage of scarlatinal nephritis, little else than this swollen nucleated condition of the glomeruli is apparent, the changes in the tubules or the stroma of the organ being quite unimportant. The tissues round about, as often described, are hyperæmic, just as in embolism, from blood-stasis, or greyish-red, as the epithelium in the renal tubes a little later on swells up, the vascular zone and tufts of vasa recta in the cortico-medullary part being intensely blood-gorged.

Let us recapitulate the events, since to some who hear me they may be novel. The circulation of the blood through the glomerules—some or all (seldom all), but yet much more universally than in ordinary nephritis—is greatly impeded, if not wholly obstructed, by the multiplication of nuclei and accumulation of albuminoid materials inside the glomerules; hence blood-stasis and hyperæmia in the intertubular capillaries, in the first place; and, later on, the patient living long enough, migration of blood-cells into the spaces between the tubes, perhaps into the tubules themselves.

Kelsch, writing subsequently in 1874, entirely confirms Klebs's view, that the glomeruli are the parts first affected; he speaks, too, of the wide separation from each other of the renal tubuli by an embryonal cell-tissue; refers the cloudy swelling of the renal epithelium and subsequent tubal changes to blood-starvation, arrest of the normal changes, and, foremost, to the lack of the urine-water derived from the glomeruli, which ought to wash the solid renal secretion out of the renal cells.

Certain it is that, in an early stage, these cells do present a yellow coloration, refract light highly, and fail to be affected by æther; showing that the change is not due to fine fat-granules.

Klebs's discovery has become the subject of much subsequent inquiry. It has lately received the fullest confirmation at the hands of Alfred Meyer of New York (*75 Band der Sitzb. der k. Akad. der Wissensch.*, III Abth, Janner Heft. Jahr., 1877); and by Cohnheim in his *Vorlesungen über Allgemeine Pathologie*, 1880.

In 1874, M. Kelsch published in Paris his views on Bright's disease, in which he protests with some bitterness against the German conception of its being a morbid process divisible into three stages, like a play in three acts. He thinks the first stage is evolved entirely out of the imagination of the pathologist; that the second—Virchow's parenchymatous inflammation—has nothing really in common with inflammation; that the changes in the cells should be regarded as anæmic necrosis. He separates the congested kidney, with its morbid interstitial changes, from nephritis Brightica; considers—as, indeed, Klebs, Cohnheim, and most recent writers do—postscarlatinal nephritis as involving true interstitial changes, as commencing by what he calls the deposition of embryonal cells, multiplication of nuclear cell-tissue around and in the glomeruli; regards the changes of the renal epithelium as wholly secondary, or as retrograde metamorphoses, the consequence of an impeded supply of nutritive fluid. The period of embryonal tissue-growth, according to him, is marked by general swelling of the organ, but terminates by fibrillation of the connective tissue and atrophy. Bright's disease, for him, is interstitial nephritis. And descriptions of the process show his indebtedness to Lecorché for his account of *sclérose rénale*, and to Grainger Stewart for his of kidney-sclerosis.

Kelsch, then, admits differences of issue, but recognises much uniformity in the actual pathological changes, in which he is in accord with the best latest observers. His work was followed in France, in 1874, by the appearance of M. Charcot's *Leçons sur les Maladies du Foie et des Reins*. Charcot is a much more decided separatist or dualist in his views on Bright's disease, being quite of the same idea as Grainger Stewart, Johnson, Dickinson, and Bartels, that the small red granular kidney owns a pathology wholly apart from the white kidney, even in its ultimate contracted state.

In 1875, two memorable works appeared, which have advanced our knowledge of renal disease considerably. Lancereaux's article "Reins" was published in the *Dictionnaire Encyclopédique des Sciences Médicales*. In this, the morbid anatomy of Bright's disease and its varieties is minutely described; and the controverted points, as to the why and how the peculiar circulatory arrangement and anatomical disposition of the tubes compel certain consequences, are ably pointed out. Besides this, Professor Bartels's "Krankheiten der Harn-Apparates" came out in Ziemssen's *Handbuch*.

The merit, as we think, of Bartels's last great work attaches most of all to the clinical observations contained in it. Upon minute pathological points, other writers, possessed of more practical knowledge of histology, may be more trusted. Upon gross differences, he was as competent to pronounce an opinion as any one was; and the distinction which he draws between the various types of diffuse renal disease must be admitted: they claim universal approval. In his work, he describes:

1. The hyperæmic changes of the kidney, active and passive.

2. The ischæmic or blood-stasis changes, of which the choleraic kidney is taken as an example.

3. Parenchymatous inflammation, of which he makes two subdivisions: (*a*) the acute, which may become chronic; (*b*) the insidiously commencing, or chronic from its outset. Most physicians will admit the accuracy of the distinction made here, and its practical importance.

4. Interstitial connective induration-changes, or renal cirrhosis. As to the mode of commencement of this type, Bartels is far more guarded and prudent than Kelsch was, or than most authors who had preceded him, and incurs no risk of the imputation of having evolved any pathological problem out of his imagination. He discards Gull and Sutton's hypothesis, but offers none of his own.

5. Amyloid degeneration. The general symptoms of renal disease, the importance of ascertaining the functionary capacity of the kidneys, towards distinguishing one variety of renal degeneration from another, are pointed out by the hand of a master of clinical medicine; and we venture to predict that his chapter on uræmia will long be referred to as the best on that subject that has been compiled in any European language.

The history of Bright's disease has been brought down by us to 1875, the date of the appearance of Professor Bartels's article in Ziemssen's *Cyclopædia*, vol. ix; but it would be left very incomplete if we left it there, and did not review Professor Bamberger's very remarkable article on Bright's Disease and its Relation to other Diseases. This appeared in Volkmann's *Sammlung Klinischer Vorträge* in 1879 (No. 173, p. 1533). Bamberger commences by distinguishing between the large white, the contracting white, and the small red granular kidney. He states that it was found essential for statistical purposes at Vienna to distinguish between them, and make three subdivisions of morbus Brightii—the acute form, the chronic form, the renal atrophy form: separations which closely correspond with Frerichs' three stages of the disease, although by no means implying that the ultimate small red granular kidney was, at any stage of its history, a large smooth white organ. He fully admits the difficulty occasionally presented of placing the kidney-case at the necropsy into the category to which it strictly belongs; entirely corroborating what Virchow said in his *Cellular Pathology* (iv Auflage, p. 447), that we encounter kidneys after death in which parenchymatous, interstitial, and amyloid changes are so intermixed, that it is impossible to say what condition of tissues prevails.

Aufrecht's experiments in tying the ureters of animals proved that both parenchymatous and interstitial nephritis might be provoked by one and the same cause—obstructed urinary outflow; temporary obstruction producing parenchymatous changes; more prolonged pressure upon the tubules, hyperplasia of connective tissue. (*Centralblatt fur die Med. Wissenschaften*, 1878, No. 35.)

But Bamberger's own personal experience, the microscopical examination of every large white kidney that came under his own observation during a whole year, taught him that, in every instance, interstitial hyperplasia was an adjunct of the parenchymatous swelling of the tubules. The increase of connective tissue, it is true, was not equally diffused all through the organ (as in extreme red atrophy), but localised here and there in little nest-like patches, where obviously the interstitial or intertubular spaces were widened, the fibres thickened, and the nuclei multiplied. Portions, too, of the new tissue presented fine granular fatty dottings and degeneration. Bamberger, therefore, could not go so far as the English writers, Bartels, or von Buhl, and separate the large white from the small red kidney by its minute anatomy, any more than he felt justified in separating it by its etiology; and he assumes that Klebs's views, as already stated, were correct, and that glomerular interstitial hyperplasia was probably the starting-point of the changes which culminated in parenchymatous degeneration.

Clinical observation again led him to the same conclusion; namely, that, although two distinct types of disease might exist, mixed forms were to be met with; and that in every grade of intermixture, and complicated occasionally with amyloid degeneration as well. In practice, he had encountered cases where every symptom during life, insidiousness of origin, frequent micturition, etc., suggested granular atrophy, yet which the *post mortem* examination showed to have been produced by ordinary (chronic) parenchymatous change; and others presumptively parenchymatous from history and course, which lived a very long time, and finally exhibited very much contracted kidneys. Clinical histories, therefore, although great helps, could not be entirely relied upon for distinguishing the one from the other. If it were asked on what features we rely most to guide us to a correct diagnosis during life, most clinical physicians would answer, "The duration of the case, the early or late appearance of dropsy or of blood in the urine, whether hypertrophy of the heart co-existed or not". Yet none of these symptoms, singly or together, can always be trusted to.

Bamberger holds that the question of unity or dualism in Bright's disease is an open one, and that the small red granular kidney may still turn out to be what Bright and Frerichs thought it to be—the final stage of a process essentially and pathologically the same as that which leads to the formation of tubular or parenchymatous disease. But, pending decision, he found it advisable to divide his cases of Bright's disease into the following broad categories: 1. Those in which the kidney-disease is primary, original, self-initiated (*selfstandige*); of these he had collected 807 cases, or 33 per cent. of his grand total; 2. Those in which the kidney-disease admits of having been secondary, because associated in the same body with a number of other profound and important changes—changes which might be pleaded as sufficient causes of the renal degeneration, impossible to be regarded as consequences of it, and not to be looked upon as accidental complications. The total number of these secondary renal cases which he brings forward is, inclusive of 120 doubtful ones, 1,623, or 67 per cent. of his grand total. He explains by a happy figure how these classes differ one from the other, not so much in feature or in anatomical fact as in interpretation and prognosis, by saying, "Look at pneumonia as an acute idiopathic phenomenon, and pneumonia incident to rheumatism, to septicæmia, to fever, to the puerperal state".

The primary renal disease is more typical, the secondary renal disease less uniform. In 42.6 per cent. of the primary renal cases, the heart is found to have undergone hypertrophy; whereas in the secondary

cases, excluding, of course, those secondary to valvular lesions, endo-arteritis, and emphysema, the heart is only implicated to the amount of 3.3 per cent. of the cases.

The secondary forms may be very obvious or very insidious, acute or chronic; at one time more interstitial, at another more parenchymatous; often mixed with amyloid degeneration; but, as a rule, the renal mischief only plays second fiddle, and is an adjunct to other serious diseases. Still, at times and in some cases, the renal clinical symptoms, although secondary, assume a great importance, and engage more attention than the general condition out of which they arise.

Bamberger's primary form of Bright's disease comprised both glandular or parenchymatous and interstitial nephritis—807 cases in all. Of these, he observed 67 cases which were acute in their commencement and course, 357 which were entirely chronic, and 383 which lived on to renal atrophy. As regards age, he proffers a most reliable table. Excluding the scarlatinal form, which, early as well as latest authorities acknowledge, is not morbus Brightii in Bright's sense, the facts stand thus.

Decennium.	Cases.	Males.	Females.
1	1	0	1
2	59	33	17
3	121	64	53
4	149	63	56
5	156	94	62
6	152	78	74
7	115	57	58
8	55	22	33
9	8	4	4

The greatest proportion of acute to chronic cases—54 to 13—occurred between the ages of 20 to 40; between 40 and 60 years of age, the chronic cases preponderated, the ratio being 214 chronic to 143 acute; while between 50 and 70 years, the large proportion of cases were atrophic kidneys. His table of the general primary diseases, to which morbus Brightii was secondary, gives us these etiological moments in the order of their frequency and importance.

Morbus Brightii.

Primary Disease.	Acute.	Chronic.	Atrophic.	Totals.	Percentages on 2,430 cases.
Tubercle; phthisis; scrofula	47	257	77	381	15.7
Valvular heart-lesions	19	117	86	222	9.1
Gravidity and puerperal state	80	56	16	152	6.3
Disorders of urinary channels	11	72	51	134	5.5
Suppurations	42	77	10	129	5.2
Alcoholism; cirrhosis	16	68	33	117	4.8
Carcinoma	13	55	35	103	4.2
Pulmon. emphysema	6	51	28	84	3.5
Typhus and typhoid	42	14	2	58	2.4
Syphilis	4	29	10	43	2.
Scarlatina	18	—	—	18	0.7
Ague and malarious fevers	1	9	3	13	0.5

Various other maladies, he admits, may be provoking causes of secondary Bright's disease; cholera, pneumonia, diphtheria, variola, scorbutus, dysentery, acute atrophy of the liver. He proceeds to argue that, if so many predisposing causes invite these localised renal pathological processes, albeit we may allow three forms or varieties of degenerative change to them, there must be some noxious influence they exercise upon the kidney which we ought to be able to discover. Do these noxious influences admit of being grouped and reckoned? Yes. 1. We can take count of certain poisonous substances—viz., phosphorus, lead, alcohol, ague, infectious fevers, decomposing pus from extensive exposed suppurating surfaces—or contaminating principles of which we have learnt in the blood, which it is the object of the kidney to eliminate from the system, although, unfortunately, it may damage itself in the task. At least one-third of the predisposing diseases probably act thus. 2. We perceive the malinfluence upon the kidney exercised by disorder of the circulation through this organ; how valvular lesions of the heart, emphysema and cirrhosis of the lungs, curvatures of the spine, invite disease in this way. 3. Lastly, we have learnt from Aufrecht's experiments on animals, and many of nature's own experiments on man—as compression of the ureters by tumours; obstruction of the urinary outlets, as effected by urethral strictures; hypertrophy of the prostate gland, and various bladder-affections—that the kidneys as secreting glands suffer pathologically, and become the seat of secondary morbus Brightii, parenchymatous or interstitial nephritis, when the urinary passages are anywhere obstructed, and the urinary secretion has to be conducted under conditions of abnormal urine tension.

[*To be continued.*]

THE GULSTONIAN LECTURES
ON
ANÆMIA.

Delivered before the Royal College of Physicians.

By SIDNEY COUPLAND, M.D., F.R.C.P.,
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LECTURE III.—PART I.

Idiopathic Anæmiæ (continued)—Chlorosis: Reasons for and against its separation as a Distinct Disease—Congenital Defects (Vasculo-Hypoplasia, Virchow) cannot be at the root of all Cases—Its obvious Relations to Altered Conditions of Life and Work—Relations to Menstrual Irregularities—Symptoms of those of Anæmia—The Blood in Chlorosis—Effects of Treatment—Cardio-vascular Symptoms of Anæmia: Cardiac, Arterial, and Venous Murmurs—Their Mode of Production—Anæmia as a Cause of Heart-Disease (Goodhart).

MR. PRESIDENT AND GENTLEMEN,—In my last lecture, I endeavoured to show that pernicious anæmia must be considered as the outcome of a severe anæmia, whether symptomatic or idiopathic, its progressive course and frequently fatal issue being induced by changes, of which there is yet but little information either in the normal formation of the blood or in its destruction; and I propose to-day to speak, in the first place, shortly about chlorosis, which I believe to be a form of anæmia depending on similar changes, and therefore to be considered as falling under the head of idiopathic anæmia. I know that this is contrary to prevalent teaching, and perhaps may be regarded as a retrograde step, for the tendency is undoubtedly rather to analyse diseases than to effect syntheses of conditions which have a superficial resemblance. But, where the distinctions are so finely drawn and so subtle as they are in respect to chlorosis, such analytical severance is hardly justifiable, perhaps harmful, and certainly productive of confusion. There is only one certain ground for such severance, and that is the one which follows from Virchow's discovery, in some cases of chlorosis, of what appear to be congenital defects in the circulatory mechanism, to which I shall presently refer. Setting that aside, there does not appear any marked distinction between chlorosis, in its development and progress, from other forms of anæmia of idiopathic origin, save only that, in many of the latter, the progress is uninfluenced by treatment. The point of view taken by those who argue for the separation is, that chlorosis is a distinct morbid entity, of which the anæmia is but a symptom;* that it is marked by nervous derangement, and frequently by menstrual disorder, as much as by anæmia; but the same may be said with equal warranty of the forms of anæmia to which it should be allied. The anæmia itself is but a symptom, which in its turn brings other symptoms after it; and in both chlorosis and in the idiopathic anæmia of the adult, the anæmia prevails over every other symptom.

The reasons which, so far as I can gather, are advanced in favour of regarding chlorosis as a distinct disease, are these: its almost complete limitation to the female sex; its apparent dependence in some way on the menstrual function, and the changes undergone by the organism at puberty; certain nervous conditions, and certain peculiarities in the composition of the blood, and the structure of the blood-vessels. To consider each of these in turn. It is well known that the female sex is more readily influenced by anæmiating causes than the male; the blood is less rich in hæmoglobin, and its quantity is less. Any influence liable to create a demand on the blood is more likely to lead in the female to anæmia than in the male; and not only at puberty, but during pregnancy, the puerperal period, lactation, and the menopause, anæmia may arise and become profound. There is no essential difference between the anæmia produced at any of these periods. Nor is the limitation to the female sex of a condition indistinguishable from chlorosis invariable. I have at present under my care a youth, well developed and well nourished, who is the subject of an anæmia conforming in its history and characters, and I may add in its curability, to the most typical cases of chlorosis; and, from time to time, such cases of male chlorosis are recorded. More than this, in later life, the male, like the female, appears to be liable to the development of an insidious anæmia, without wasting, which in all its leading features resembles

* Moriez: *La Chlorose*. Paris: Masson. 1880.

chlorosis. It may be initiated by the same influences, mental, physical, hygienic, and other, which initiate chlorosis; it is not so common or so frequent, because in adult life the balance between blood-formation and destruction is more evenly maintained.

The dependence of chlorosis upon the menstrual function is not so absolute as is often supposed. The importance of that function and of its regular continuance is doubtless great, and of considerable influence upon the blood; and, at puberty, there must be a considerable readjustment of the forces of the organism when the processes of ovulation and menstruation are established. There must be an increased demand on the blood then and at every recurring menstrual period; and, although we may be unable to state precisely what the influence is, we are persuaded that there is a connection between the normal evolution of the blood and of these processes. At the same time, menstrual irregularities often neither precede nor accompany the development of an anæmia indistinguishable on other grounds from chlorosis; whilst both amenorrhœa and menorrhagia are as frequently secondary to the anæmic condition as initiatory of it.

The same might be said of those nervous symptoms which frequently predominate in chlorotics to such an extent, that some have desired to place chlorosis among the neuroses. For, whether we regard the mental and emotional characteristics, or the liability to neuralgiæ and other nervous disorders; whether we consider the influence of psychical perturbations in determining the development of the anæmia, there is no firm distinction between chlorosis, as generally understood, and ordinary anæmia.

There remain two very important reasons which, if established, should suffice to justify the separation. The first is one to which I have frequently referred—viz., that in chlorosis the alteration in the blood is solely a diminution in its hæmoglobin, and in no other constituent. If this obtained of no other anæmia, the distinction would be of value. But, unless we enlarge the boundary of chlorosis until its territory becomes conterminous with that of idiopathic anæmia, this distinction will not hold. For it has not been proved, except in a few cases of pernicious anæmia, that the serum-albuminates are diminished in other forms of idiopathic anæmia besides chlorosis. There would seem to be no evidence of such diminution except when dropsical symptoms occur, and in those cases where there is general inanition. But in very many of the cases of idiopathic anæmia of the adult, the body is well nourished; and in this respect shows no difference from chlorosis. Lastly, there is Virchow's discovery of certain vascular anomalies in chlorosis, which of themselves, if of general occurrence, would suffice to create a distinction on the surest basis—viz., an anatomical one. I may be permitted to briefly describe these anomalies, which have also been met with by Rokitansky and Bamberger. There is considerable narrowing of the aorta, which can hardly admit the little finger, instead of the thumb, its normal size. It is quite infantile in size. Its walls are much thinner than normal, but their elasticity is very marked, even excessive. The intima is the seat of irregular thickenings in the form of wavy or trellice-like elevations, with ridges, between which are depressions. The inner coat is, moreover, often the seat of diffuse fatty degeneration, limited to the superficial layers, and forming yellow patches and striæ, especially between the intercostals in the posterior wall of the aorta. Sometimes, this degenerative change extends to the muscular coat. Finally, there are anomalies in the origin of the branches of the aorta, particularly seen in the irregular disposition of the intercostals. With these vascular imperfections, there is sometimes a small imperfectly developed heart, but more often a large one, dilated and hypertrophied. The reason for this diversity is explained by Virchow, who, believing that the whole condition is one of arrested development of the vascular system (associated sometimes with stunting of the body), and, one may add, of the blood, would recognise a small heart as part of this general change; but, if the volume of the blood increase, this, together with the narrowness of the aorta, would be a sufficient cause for the enlargement. This vascular hypoplasia may or may not be associated with an ill-developed condition of the uterus and ovaries, which Rokitansky thought the rule in chlorotics. But neither of these congenital defects—or, more correctly, defects in the evolution of the vascular or of the generative apparatus—can be considered as underlying every case of chlorosis, or, at any rate, existing as a cause of the anæmia. Moreover, the vessels are liable to great variations in size; the intercostal arteries are very inconstant in their mode of origin; and narrowness of the aorta has been often described in cases where there were no symptoms of chlorosis during life. It is, however, a valuable and suggestive contribution to the subject, opening up the line of thought that, in chlorosis, we have a condition dependent on imperfect evolution of the blood and vascular system. But no proof has been given that the diminution in the size of the vessels has not followed upon diminution in the total quantity of blood.

The history of chlorosis presents, in the majority of cases, a distinct etiological factor or factors, which cannot be ignored. Those who are most frequently its subjects are young women who have exchanged the light and air of the country for arduous domestic work in a town house, withdrawn from sunlight, undergoing considerable physical exertion in climbing stairs, or engaged in sedentary occupations in crowded and ill-ventilated rooms, or in many other ways subjected to conditions which we know to be prejudicial to healthy nutrition; whilst, at the same time, by reason of their age and sex, they are more susceptible of such influences. There are changes then at work, both around and within the organism, all tending to the same end. It would be absurd to eliminate from the category of chlorosis all the cases in which there are these etiological factors, because in other cases the disease developes without them; for it is impossible to say to what extent they act in inducing the anæmia. And the symptoms of chlorosis are those of anæmia. The increasing pallor, breathlessness on exertion, palpitation, headache, vertigo, and general nervous irritability, the fatigue induced by slight effort, the physical and mental inertia, the cardiac and vascular signs, the marked thirst, frequent derangements of digestion, and the character of the urine. These and other symptoms can be directly attributed to the anæmic state. Nor is the course of chlorosis quite apyrexial in all cases. It is often so, but it is not very unusual to find a temperatuure of about 99°, with slight exacerbations to 100° or 101°, a mimic reproduction of the irregular "anæmic fever" that appears in pernicious anæmia. Finally: What are the characters of the blood in chlorosis as regards hæmoglobin and corpuscles? This has been thoroughly inquired into of late years; and, in my first lecture, I referred to some of the facts concerning this matter.

I may briefly recapitulate and extend these points. There is invariably a reduction in the total quantity of hæmoglobin, a reduction reaching, according to the early researches of Duncan, about one-third of the normal. According to Quinquaud, the hæmoglobin is diminished about one-half in moderate chlorosis, varying between 70 and 30 grammes, instead of 125 grammes (which is the normal quantity), per 1,000 grammes of blood, and the capacity for oxygen is very greatly reduced. The same observer declares further that the chief saline constituents of the corpuscles—the potash salts and chlorides—are appreciably diminished, but that there is no change in the amount of the stromal globulin. In a series of observations by Hayem, where the number of corpuscles was estimated in relation to their richness in hæmoglobin, this latter was found to be on an average about 50 per cent. of the normal, and in a few cases, in which I have made similar calculations, this diminution has been almost as marked. But there is not, as a rule, a corresponding diminution in the number of corpuscles. The mean of eighteen numerations by Hayem gives 3,520,000 corpuscles per cubic millimètre of blood, or 70.4 per cent. of the normal; and of seven cases, I find a mean of about 3,000,000, or 60 per cent., there being, however, remarkable variations in the total number of corpuscles in different cases. For example, in one well-marked case, where the percentage of hæmoglobin was only 45, the number of corpuscles was 4,058,000; whilst in another the number of corpuscles was only 2,090,000, with 32 per cent. of hæmoglobin. Such examples as these—and they might be multiplied—prove what I have before pointed out, that the number of corpuscles is only one factor in the degree of an anæmia, their value as to hæmoglobin being the more important factor. Especial attention has been paid in chlorosis, as in pernicious anæmia, to alterations in the form and size of the corpuscles. Malassez declares that the corpuscles are, as a rule, larger than those in health in the ratio of 1.09:1, and others have found a certain number of truly giant corpuscles, with a diameter of 12μ instead of 7.7μ (Hayem). More striking, however, is a departure from the normal in the contrary direction, such, according to Hayem, occurring in undue proportion. He lays much stress upon the abundance of those small elements or "hæmatoblasts", which, it will be remembered, he considers as the early form of the adult corpuscle, and believes their accumulation to point to the incomplete development or evolution of the blood. The same observer has also noticed great variations in the form of the corpuscles, which bring to mind the variations described in pernicious anæmia by Quincke. I cannot say that I have been enabled to confirm this; certainly the corpuscles seem to be very variously sized, and to be more plastic and softer than in normal blood, forming rouleaux which are far more irregular, where the corpuscles, too, seem to be flattened out and otherwise slightly altered in form; but the extreme variations in size and in form, except after exposure (when they more rapidly become crenated than do healthy corpuscles), I have not seen.

The effects of treatment, especially of ferruginous medication, are so remarkable in those cases of idiopathic anæmia which are styled chlorosis, as to be in sharp contrast with the other forms occurring in the adult. In a very short time, under such medication, the blood re-

gains nearly its normal standard. Sometimes this improvement is permanent, but often the anæmia returns at some later date, under the influence of some exciting cause. There is an anæmic tendency in such individuals which might be explained on the anatomical defects described by Virchow (in which case the disease would be practically incurable), but which seems more probably dependent on a defective evolution of the blood-forming organs.

I have ventured to point out these matters because of the difficulty, which I feel sure is a real one, of deciding in any given case whether it is a chlorosis or not. It is not a mere question of nomenclature; if that were all it would matter no whit by what name we signified these conditions; but it is the difficulty which has arisen in consequence of the word "chlorosis" being held to convey more than the word anæmia, and being also arbitrarily considered inapplicable to idiopathic anæmia arising in later life. It may be most desirable, as Immermann (in his article on chlorosis in Ziemssen's *Cyclopædia*) rejoices to think it is the case, that in chlorosis we have a distinct malady rescued from being merged in the "great ocean of anæmia"; but, unless its distinctive features can be more sharply defined than they are at present, the difficulty of separating it from other forms of idiopatic anæmia will constantly be felt.

I desire now to speak shortly of two of the more constant and striking effects produced by the anæmic condition—the signs furnished by the heart and blood-vessels, and the influence it has in determining fatty degeneration. Upon the former of these points, which has been the object of much controversy and speculation, I hardly feel qualified to speak with authority, not having studied the matter so deeply as many. It seems to me, however, that, as regards the production of so-called hæmic murmurs, we have to consider, not only the factor of the blood-impoverishment, and especially its diminution in quantity, but also the factor of the conditions of the walls of the heart and blood-vessels induced by that impoverished blood. Indeed, the idea that the murmurs are solely due to the first of these factors has, I believe, been almost abandoned; it did not afford an adequate explanation, and seemed to be contrary to physical laws. As regards the purely *cardiac* murmur, there are at least two conceivable explanations for it in which the condition of the muscular walls (dependent on the anæmia) is primarily concerned. One of these is that the heart is dilated, and the murmurs are produced by its cavities being incompletely filled, and the other that there is actual regurgitation through the tricuspid and mitral orifices owing to the imperfect action of the enfeebled papillary muscles deranging the mechanism of the valves. Besides the cardiac bruits, there are murmurs produced over the pulmonary artery and aorta. All of these murmurs are systolic in time, and vary much in intensity and situation; the most constant seat being at the base of the heart, the next at or within the left apex. Dr. Pearson Irvine, whose loss we have had so greviously to deplore, studied this subject for a long time, and embodied his conclusions in a paper read before the Royal Medical and Chirurgical Society in 1877. He started from the ground that dilatation, especially of the left ventricle, is the chief cardiac change in chlorosis—an opinion promulgated by Stark,—and endeavoured to explain the murmurs, not obviously vascular, on the fact of this dilatation. One may admit the fact that in many chlorotics there are signs of this dilatation. The matter, however, is very difficult of clinical proof, but it is supported by the *post mortem* evidence of hypertrophy by Virchow and Lewinski—a hypertrophy which is as conceivably produced secondarily to a dilatation, as to a narrowed aorta. The known relation between anæmia and fatty degeneration of the heart supplies us with ground for believing that in slighter cases the heart muscle is enfeebled; and probably also its innervation is affected by the impoverished blood. Dr. Irvine distinguished four cardiac murmurs in chlorosis, having their points of maximum intensity over the left auricle and its appendix, at the left apex, over the fourth left costal cartilage, limited there or transmitted downwards to the right or left, and lastly, in the fifth left space, below it or over the sternum adjacent to it. He was inclined to attribute the production of these murmurs to the dilatation of one or both ventricles, and did not favour the view that any of them were due to regurgitation. The regurgitant hypothesis, which explains the auricular murmur as well as those met with about the region of the apex, is supported on the left side by the almost constant accentuation of the second pulmonary sound, and on the right side by the occurrence of jugular pulsation. The mechanism of this regurgitation may be either a slight inadequacy in the contraction of the papillary muscles, or it may be dependent on dilatation. Although the basic systolic murmur may be in many instances due to this regurgitant eddy into the auricular appendix, there can be no question that bruits are heard strictly over the aortic and pulmonary areas. Of the mode of the production of the former (which are not common) no adequate explanation has been given; but of the latter, the true pulmonary bruit, we have Quincke's view that, in the cases where it is marked, the lung is retracted and the pulmonary artery slightly compressed at every systole; and we know how pressure by the stethoscope will increase the intensity of these bruits.

The murmur heard in the carotids and other arteries is only an exaggerated degree of what can be heard in health, and is probably due to the impaired tones of the vessel allowing it to be more readily influenced by slight pressure.

The hum in the jugular vein—to which more significance has been attached than it merits, as shown by Dr. Herbert Davies—is produced by pressure, and increased in intensity whenever the flow of blood is accelerated. This is illustrated in the influence of posture—its increase in the standing position, in the rise and fall of the otherwise continuous blowing sound with the respiratory movement, the increased respiration into the chest with every deep inspiration being accompanied by increase in the intensity of the murmur, which can be entirely arrested by forced expiration. It is noticed also that the auricular and ventricular diastole influence slightly the intensity of this bruit, so that in it we have a measure of the variations in celerity of the venous blood-flow.

I ought not to leave this part of the subject without alluding to the hypothesis advanced by Dr. Goodhart (*Lancet*, 1880, vol. i, p. 479), that anæmia may be at the foundation of some of these valvular diseases, especially of the mitral valve, the etiology of which is still obscure. He thinks the evidence conclusive that in anæmia there is ventricular dilatation, just as there is *post mortem* evidence of muscular degeneration, and suggests that the continuance of regurgitation may submit the valves to so constant and irregular a strain as to lead to alterations in their intimate structure, thickenings and puckerings, productive of permanent regurgitation, and possibly some stenosis.

DEFECTIVE NERVE-POWER AS A PRIMARY CAUSE OF DISEASE, WITH ITS SPECIAL RELATION TO DIPSOMANIA.*

By STEPHEN S. ALFORD, F.R.C.S.

Much of my time of late has been devoted to efforts for promoting the recovery of dipsomaniacs. Those lapsing into dipsomania are generally of a highly nervous, sensitive, lively temperament. This condition often has its commencement in mistaken efforts to sustain exhausted nerve-power, arising from continued overstrain and irregular work at high pressure; or from hereditary inability to endure the ordinary stress and troubles of life; or from a system exhausted by indulgences and late and irregular hours; or even by indolence and *ennui;* each and all being modified by circumstances of society, and by atmospheric and climatic conditions. In studying these cases, and their etiology, my attention has been directed to the harmful effect produced by the above causes acting on defective nerve-power.

As an old practitioner, I do not pretend to enter into the new physiological or pathological researches as to molecular disarrangements, but trust the few practical observations I can make may lead to a discussion on this subject. Surely, the effect of low nerve-power is not sufficiently recognised as a primary cause of disease. If the nervous system, including the cerebral, spinal, and sympathetic centres, with the sensorial and motor nerves distributed over the body, form its working, regulating, and protecting power, it is evident that their defect or disarrangement must more or less interfere with the functions depending upon them. We know for instance that, even when the nerve-power is only temporarily defective, the controlling influence of the vaso-motor nerves may so fail, that the smaller blood-vessels lose their elasticity, and, becoming distended with blood, produce the appearance seen in blushing. We further see this in the face of the drunkard as the effect of repeated stimulation; the vessels, from being frequently dilated, become at length permanently enlarged. Does not deficient nerve-power, as exhibited in the form of insufficient control over the vaso-motor nerves, cause the first dilatation of the smaller blood-vessels, which, by being intensified or frequently repeated, may pass into inflammation? Or further, by producing a modified increased flow of the vivifying stream, may not this defective nerve-power so interfere with the nutritive processes as to cause perverted deposits and dangerous structural changes, as exemplified in tubercle, cancer, and other destructive formations which occur in an asthenic condition of the system? Thus, what is ordinarily a healthy reparative process, becomes in our system, by defective controlling nerve-action, a destructive power which may end in death. The effect of defective or irregular nerve-power is also evi-

* Read before the North London District of the Metropolitan Counties Branch of the British Medical Association.

lent in glandular secretions, on which depend the functions of important organs, the natural secretion being either increased, diminished, or perverted. This is exemplified by the action of the nervous system in producing a deficiency or superabundance of bile, or in the formation of an excess of sugar, as in diabetes. Similar disarrangements of healthy action may occur in any of the secreting organs when the exciting, controlling, nerve-power is out of gear. Most of the ailments from which we suffer seem to depend, in the first place, on defective nerve-action.

As preservers of health, it behoves us to endeavour to arrest the evil at its source; we must not treat symptoms alone; much time and suffering may be saved by tracing a disease back to its primary cause, so as to have reliable principles of action. By thus recognising the primary disturbing cause, and preventing the first run down of nerve-power, much may be done to arrest disease. This neurasthenia or low nerve-condition is first recognised by lassitude, as seen in a more marked form in the utter prostration which precedes acute attacks of disease. Whenever we feel tired, and overdone nature plainly tells us she is exhausted, and will not be neglected with impunity, to force her by stimulants to continue work is a dangerous experiment, which, if often repeated, will sooner or later end in a complete breakdown. But, while yielding to this needed repose, other functional disarrangements may need attention. Insomnia, with drowsiness and gaping, is a distressing condition, arising from cerebral exhaustion; it does not so much produce special local affections, as a miserable misanthropic state. The true restorer from this condition is rest, with a carefully regulated diet, avoidance of stimulants, and general attention to the secretions. These may be beneficially supplemented by mild nerve-tonics. Sick-headache is an early symptom of nerve-exhaustion, and the rest which it enforces upon us often prevents other dangerous attacks. Sick-headaches chiefly prevail during the more active and anxious period of life, between the ages of fifteen and fifty. Hay-fever is another nervous idiosyncrasy, attacking those whose nerve-powers are on the stretch; barristers and other close mental workers being especially liable to it.

There are numerous morbid fears arising from deficient nerve-power, such as fear of places, fear of society, dread of being alone, apprehensions of various kinds; causeless, but real and distressing, fear of everything and everybody. Any function may be more or less disturbed, simulating real disease, and in this respect resembling hysteria, although hysteria generally arises from some special local cause. Spinal exhaustion is manifested by restlessness and physical excitement. Dr. Beard of New York has devoted special attention to this subject; for its fuller treatment, I refer you to his numerous publications. He calls this nervous exhaustion neurasthenia. The past neglect of this negative nerve-condition has resulted in much erroneous treatment, and often the aggravation, rather than the alleviation, of disease.

Exhausted nerve-power may arise either from excessive, late, or irregular mental work, unhealthy employments, contaminated air, intemperance in any form, indolence or *ennui*, climatic influences, or the exactions of society, and other apparently unavoidable artificial conditions of life. It frequently arises from hereditary causes.

Unless brought under early and careful treatment, neurasthenia may lead to melancholia, dipsomania, epilepsy, insanity, and other distressing conditions.

The treatment must be chiefly directed to general regimen, aided by mild nerve-tonics and electricity.

Dipsomania or inebriety is defined by Dr. Beard as "a fundamental disease of the nervous system, primarily of a functional character". Dipsomania, as well as insanity, paralysis, chorea, neuralgia, and other diseases of the nervous system, must be considered scientifically as belonging to the departments of neurology and psychology. It is associated with periodic mental depression, insomnia, general nervousness, tremors, mental irritability, hallucinations, delusions, moral decline, and in some cases trance, any or all of which conditions may precede, accompany, or follow an attack. These symptoms, however, are not found in all cases, nor in the same case at all times; but each paroxysm is invariably connected with an irresistible craving for stimulants, opium, or chloral.

Dipsomania and mere drunkenness are two distinct conditions. The former is irresistible, independent of the ordinary efforts of the will, often quite unconnected with temptation, and arises from an individual condition; whereas drunkenness depends more on outside allurements. Like neuralgia, hay-fever, and insanity, dipsomania is periodic; whilst the vice drunkenness is constant, or only modified by external circumstances. Dipsomania may be either hereditary, or the result of an inherited nervous diathesis, and transmitted like other family diseases. Drunkenness, it is true, may arise from an inherited vicious temperament, but can be distinguished by the character of the individual.

Dipsomania or inebriety may be sudden in its attacks, following the action of physical injury, direct or indirect, such as blows on the head, concussion of the brain or spinal cord, sunstroke and its effects, any traumatic injury that disturbs the harmony of the organism; diseases of both a local and constitutional character which affect the system also react in this way; hæmorrhage, typhoid fever, rheumatism, and nearly all disorders of the stomach and liver, which break up and pervert healthy nerve-power, are liable to react in inebriety. After severe injury or disease, the natural nerve-vigour is lowered, and departure from health comes on quickly. Neurasthenia or asthenic nerve-power is the common indication in these cases of the departure from health. Neurasthenia is to the nervous system what anæmia is to the blood.

Inebriety also results from psychological causes, as depressing disappointments, hereditary nervous susceptibility, malformation of organs, or defective powers, either in function or structure, which may be diverted into inebriety from the slightest exciting cause, or the desire to relieve exhaustion. Inebriety may be the result of long continued painful emotions, either of fear or of joy; bad company, exhausting indulgences, or the mysterious effects of mind over body; all forms of suspension, alteration, and change in action of mental functions.

Whenever the strain in the nerves and brain is beyond a certain stage, exhaustion follows, for which stimulants are taken. Inebriety is a craving to satisfy this want, and the greatest effort of will is powerless to resist the infatuation for stimulants. It is important to diagnose between dipsomania and drunkenness, since the efforts for the treatment and recovery of dipsomania do not apply to the mere drunkard, and may be even of little avail for him. The man who drinks recklessly, from companionship and sociability, is very different from one who, in spite of most earnest striving to avoid drinking, is irresistibly impelled to do so. We can no more draw distinctly the line of demarcation between drunkenness and dipsomania, than we can determine precisely where day ends and night begins. Inebriates generally have a strong desire to overcome their failing, although, when unaided, they are powerless to do so. As in other nervous diseases, the mind can be made to act on the body; so that, when stimulants are withdrawn, it then forms an important element in assisting the recovery. An inebriate during the intervals has no desire for alcohol. This is not the case with the drunkard, who is always ready for his beverage. The inheritance of inebriety follows the same laws as other nervous diseases. Drunkenness and inebriety are allied to each other much as eccentricity is allied to insanity, the former often passing into the latter. One of the chief predisposing causes of inebriety is civilisation, entailing, as it does in its modern development, so great an expenditure of nerve-force; and its action in this way is seen more amongst the higher and middle classes, and those who live by brain-work and indoor occupations.

Inebriety has arisen amongst us and progressed *pari passu* with other nervous diseases, to which class it belongs. The exciting causes of inebriety are stimulants, opiates, and chloral, which, by acting in a secondary manner upon low nerve-powers, produce the diseased condition known as dipsomania.

In America, an apparent paradox exists, for, while there is less excessive drinking and more total abstinence than in any country of the world, still there is more inebriety. The explanation of this is found in the fact that, from climatic and other surrounding circumstances, stimulants can scarcely be taken by a nervous temperament, even in moderation, without inducing inebriety. There is universally an absence of stimulants at all meals in the United States.

Atmospheric influence is another undoubted exciting cause of this affection, as sometimes indicated by the production of a paroxysm from exposure to sea-air, easterly winds, and other similar changes.

The treatment of inebriety must be carried out on the same general principles as for all other nervous diseases; firstly, by the removal of the exciting causes, and secondly, by fortifying the system with sedatives and tonics. The exciting cause can only be effectually removed by confinement in a retreat, thus separating the patient from alcohol, opium, or chloral. The necessary period of restraint varies from a few months in mild cases, to even years in the more confirmed cases. When the care and treatment of inebriates are more generally recognised, and effectual opportunities exist, so that cases can be treated in early stages, greater success will be obtained. In America, it is estimated that one-third of inebriates under treatment recover, another third are restored for a time, and the remainder are unaffected by treatment. This is as large a proportion of recoveries as we find in any other class of disease; in insanity, only one-tenth of those under treatment are restored to health.

As to special treatment, we find that, whilst the patients are under the alcoholic influence, bromides, in large doses of one to two drachms freely given, are of decided use. Diluents of barley-water with lemon-juice, butter-milk, or similar drinks, form an important feature of treat-

ment in the early stages, acting as diaphoretics and diuretics, and thus clearing the system. Vapour-baths have a useful and soothing effect, and divert and occupy the attention. Cannabis indica is useful to promote sleep and soothe the patient. As soon as the restless craving has abated, we must order exercise and light occupation, together with a mild diet, including a free use of fruit, but avoiding butchers' meat. The red cinchona bark is certainly useful in restoring nerve-power, while caffein and coca can be taken when special nerve-exhaustion arises. The various nerve-tonics, as quinine, arsenic, and strychnine, can be given with benefit. Iron is not so useful, unless in the presence of anæmia. Total and constant abstinence from stimulants is essential. After recovery, to prevent a relapse, as well as in the course of treatment, religion certainly has a fortifying influence in aiding the resistance to the craving, which will return from time to time. It is also important to avoid old associations and habits. My observations in America have convinced me that, under judicious management, a large proportion of dipsomaniacs may be recovered. At present, no sufficient opportunity exists in this country for their treatment. Efforts are being made to establish a pattern inebriate home in this country; and a meeting is to be held at the Mansion House on May 17th, at 3 P.M., to start such an institution, to be called the Dalrymple Retreat for Inebriates.

GUNSHOT WOUND OF THE BRAIN: DEATH AFTER SEVEN WEEKS.

By ALEXANDER NEWINGTON, M.B.Cantab.,
Wheatley, Oxon.

ON the afternoon of December 4th, 1880, I was summoned to see a farmer who had attempted suicide by shooting himself under the chin with a small revolver. The patient had already been seen by my friend Mr. Briscoe, surgeon to the Radcliffe Infirmary, Oxford, who had dressed the wound, and requested the friends to hand the case over to me.

The man had been in a desponding state for some time; but, on the evening before the attempt, he had friends visiting him, and they did not observe anything strange either in his conversation or manner, and he seemed to be in his usual spirits. On the morning of the 4th, he rose earlier than usual, and went out to his farm, although it was dark. He had evidently roamed about for some time, and, about 8 A.M., when a mile and a half from his home, he fired a small revolver in a perpendicular direction under his chin; he appeared then to have fallen across a sheep-trough, and bled profusely, as quite a pint of blood was found in the trough besides what was on the ground. About two hours after this, he returned home, walking erect, with his greatcoat wrapped round his neck. On the road home, he had to get over three hedges, one of which was a difficult one, with a nasty ditch on the far side. When he reached home, it was noticed he could not express himself except in monosyllables. He passed through the house, and locked himself in a privy in the garden. After some time, he was induced to open the door, when he was led into the house and taken up to bed.

At 3.30 P.M., I arrived, and found J. B., a well-made man of forty-six years, in bed. He was very restless, requiring three men to hold him in bed. There was congealed blood about the neck, mouth, and nose. The left eye was slightly protruding, and the eyelids much swollen and ecchymosed, especially the upper lid. The face was rather drawn to the left side. He was unable to speak. I found a small wound under the chin, about two inches behind the symphysis of the lower jaw. The right side of the body was paralysed. There was no ptosis of the right eye. Pulse 60; temperature normal. I was told that, soon after being put to bed, he became comatose, and remained so for some time. At 9 P.M., he was comatose; pulse 60.

December 5th, 11 A.M. He was comatose. The left pupil was rather contracted; both pupils acted to the stimulus of light. Pulse 60; temperature normal. At 9 P.M., he was still in the same condition. I passed a catheter, and drew off a pint and a half of clear urine. Pulse 60.

December 6th, 11.15 A.M. He had just got into bed, having suddenly got up and walked four times round the room, and looked out of the window for some time. I was told he had gradually come to himself. He could say "yes" and "no", and evidently understood when spoken to. The paralysis of the limbs was quite gone, but that of the face remained. Pulse 64. At 4 P.M., he was constantly rubbing his face with a handkerchief, as if washing. He opened both eyes. I passed the catheter. Pulse 100.

December 7th, 11.30 A.M. He was able to speak better, and answered rationally. The bowels had been moved after an aperient. Pulse 80. At 3 P.M., I got him out of bed, and induced him to pass urine.

December 8th. He could put more words together. He hesitated much, and spoke very slowly. He was restless at times. Pulse 110: temperature normal; respirations 19.

December 9th. There was further improvement in speech. He said his head "felt funny", and that the roof of his mouth felt sore. He opened his mouth wide when asked to do so. I could see where the bullet had passed through the posterior third of the left hard palate, but could discover no mark of injury to the tongue. He was cheerful, and had a good appetite; he swallowed easily. His memory was very defective.

December 10th. The improvement in speech was maintained. He looked distressed, and complained much of headache. He protruded his tongue easily; it turned to the right at the middle line. He said there was a little pain at the back part of the tongue. Pulse 96 temperature 100.

January 9th, 1881. He had made steady improvement up to this date.

January 10th, 11 A.M. I found him very dull, and weak on his legs. His right hand was weaker than his left. I was told he had a restless night, and wandered a good deal. At 7 P.M., I was sent for in a hurry. He had been vomiting since 5 P.M. He had complete paralysis of the right side, but no ptosis. Pulse 60; temperature 102.6; respirations 19.

January 21st. He was very talkative; he repeated everything said to him. He could tell the time by the clock over the mantel-shelf in front of his bed. He could get his right hand up to his face. Pulse 120, very feeble.

January 22nd. He vomited after food.

January 24th. He was still able to move the right hand to the face. He was very dull. The catheter had been used daily since the 14th instant. Pulse 130, very feeble. At 11.30 P.M., he died very quietly.

Post Mortem Examination.—Sixteen hours after death, I made an examination of the contents of the skull, Mr. Briscoe assisting me. Rigor mortis was well marked. On removing the calvarium, the general appearance of the dura mater was healthy, with the exception of a spot about the size of a shilling over the top of the left frontal lobe, which was congested. There was no mark of injury on the inner surface of the calvarium. On removing the dura mater, it was found adherent at the spot where it appeared congested; in fact, a portion of the brain-substance adhered to it when peeled off. Three small plates of bone were found in the depression of the frontal lobe caused by removing the dura mater; one was about a fourth of an inch square. The base of the brain was normal, except a small depressed scar in the posterior frontal convolution. A director with slight force could be passed into this depression, and out at the lacerated spot in the superior frontal convolution. On dividing that portion of the brain to the inner side of the director, a canal was seen extending along the course of the probe, and this evidently had become partially obliterated through the process of reparation. We had expected to find an abscess on opening this canal, and were surprised to find it nearly healed, and no trace of the bullet. We next proceeded to cut through the outer surface of the left frontal lobe, when about an ounce of pus escaped, and the lobe appeared to collapse. In the cavity, we found the bullet, which was a small conical one, weighing one drachm. Just in front of the articulation of the lesser wing of the sphenoid with the orbital plate, and about three-fourths of an inch to the left of the crista galli, was a jagged hole half an inch square, with two or three pieces of lead on the edges of the opening. A probe, passed into this, went to the back of the eyeball and to the outer side of the optic nerve. It could not be passed throughout the course the bullet had taken, as repair had taken place.

REMARKS.—It will be seen, from the clinical history of this case and the *post mortem* examination, that the bullet, having entered two inches behind the symphysis of the lower jaw in the middle line, passed through the back of the tongue, the left hard palate, the outer and back portion of the left nasal cavity, to the inner side of the left optic nerve, and passing through the orbital plate and left frontal lobe, must have struck the calvarium and rebounded into the left frontal lobe. The case is interesting in many ways: the distance the man was able to walk after so severe an injury; his inability to articulate; the gradually increasing condition of coma up to 2 P.M., he then gradually becoming restless, and exhibiting a great deal of strength, although one side was paralysed; the return to coma lasting a day and a half. The fact of regaining his strength again so rapidly is also interesting, and the gradual improvement up to January 10th, five weeks after the injury. No symptoms of acute inflammation of the

membranes of the brain ever showed themselves; and this was accounted for in the necropsy by finding no signs of inflammation in them, except at one small spot where the bullet impinged upon them. No apparent rigor took place about the 10th; but no doubt, when the vomiting supervened, an abscess was then forming in the frontal lobe. It appears to me, from the clinical history and *post mortem* appearance, that the man might have recovered physically, had the bullet passed out at the head instead of rebounding into the brain, and producing more extensive injuries.

CLINICAL MEMORANDA.

SERPIGINOUS ULCERATION OF FOOT; VICARIOUS MENSTRUATION.

A. M., aged 37, a woman with clear signs of acquired syphilis, had her left foot ulcerated for seven years. The ulceration appeared in a small round area on the outer side of the left metatarsus, gradually spread over the ankle and dorsum of the foot to the sole, involving a large surface, but healing from behind. The sore was painful, the discharge offensive, the fœtor being notably increased at the menstrual periods. Two and a half years ago, the ulceration, having extended over all the plantar aspect of the foot, implicated the whole surface of the four outer toes.

In February 1879, when the patient came under observation, the skin covering the ankle and the dorsum of the foot was cicatricial, glistening, freely movable, not contracted; the sole of the foot anteriorly and all the smaller toes presented an ulcerated surface, covered with unhealthy exuberant granulations, discharging fœtid pus, and very painful. Previous treatment had included the administration of mercurials, but with no good effect. Other means, local and constitutional, having failed, in May 1879, iodoform was applied locally with marked advantage—sedative, antiseptic, and curative.

Commencing in February 1879, and occurring monthly for fifteen months, there was hæmorrhage from the ulcerated end of the second toe, rather profuse, and sometimes lasting a week. The onset of the hæmorrhage was usually preceded by violent pains across the metatarsus; the flow was increased by the dependent posture; the blood rapidly coagulated. Meantime, there was no discharge *per vias naturales;* but on the cessation of the vicarious, recurrence of the normal menstruation took place. The patient habitually menstruates rather profusely, and for a lengthened time.

Iodoform ointment was used throughout. The two terminal phalanges of the four smaller toes dropped out—a circumstance that greatly impressed the patient as to the potency of the drug, conceiving, as she did, that they were "drawn" by the application. When bleeding had ceased, the foot was nearly well, and soon afterwards quite healed. No operative interference was required.

April 2nd, 1881.—The new skin has not given way. The limb, much atrophied from disuse during the four years that the patient could not put the affected foot to the ground, has recovered itself, and the foot is quite serviceable.

James Allan, M.A., M.D., New Wandsworth.

THERAPEUTIC MEMORANDA.

A CASE OF BELLADONNA-POISONING, TREATED WITH PILOCARPIN.

The subject of the "antagonism of therapeutic agents" has of late been brought so prominently before the profession, that the notes of the following case will probably be read with interest.

Mrs. M., aged 42, drank by mistake a wineglassful of a liniment at 9 P.M., December 23rd, 1880. Fortunately for her, she had had a hearty dinner about four hours before. She discovered her mistake, and took two teaspoonsful of mustard in water, with no effect; walked a short distance into town, purchased an emetic, which she drank, returned home, and felt dizzy, her sight going, and shadows before her eyes. She lost the power of speech, became greatly excited, had convulsions, and vomited slightly, and then lapsed into profound stupor. At 10.45 P.M., I saw her for the first time. Her pupils were widely dilated, not acted on by light; her face was swollen, and of a bluish colour, more especially her lower lip, the mucous membrane of which appeared as if it had been blistered; the pulse was imperceptible in one wrist, almost so in the other; respirations 25. I introduced a stomach-tube, pumped in a mustard emetic, and washed out the stomach thoroughly. In half an hour she had vomited freely, and sensibility was slightly returning, but she soon lapsed again into complete stupor. From this time until 2 A.M., she was treated with cold affusion to the head, and flagellation with a wet towel over her heart. At 2 A.M., I heard from my friend Dr. Harvey (who had ordered the liniment for her) that she had taken two ounces and two drachms of belladonna liniment *(P.B.)*. There being no marked improvement in her condition, I determined to try pilocarpin. This I procured at 3 A.M., and injected subcutaneously one-fifth of a grain every fifteen minutes. After the third dose, there was a decided improvement; consciousness was evidently returning, her countenance became more natural, her pulse could be distinctly felt, and she was able to raise her hands to her mouth and throat. At 3.45 A.M., I administered a fourth dose of one-fifth of a grain. This had an effect on both pupils, which began to contract under the influence of light. She was evidently fast recovering, had a drink of tea and milk, and was able to speak. At 4.30 A.M., she was so far recovered that I thought it safe to leave her, desiring her friends to send for me should she relapse into her former state. When I saw her again, at 10 A.M., she had had a refreshing sleep, from which she awoke, saying that she did not remember anything which had occurred. She had had in all four-fifths of a grain of pilocarpin; it appeared to act as a direct antidote to the belladonna; it did not cause the least perspiration. She continued to feel slight dizziness for two days, with dilated pupils; but was, in every other respect, quite well. I gave her half a drachm of tincture of opium each night. The third day, she had perfectly recovered.

Nicholas Grattan, L.R.C.P.Ed.,
Surgeon to the Cork Hospital for Women and Children.

OBSTETRIC MEMORANDA.

MONSTROSITY.

On Saturday, March 12th, I was called to see Mrs. B. On arrival, I found that, while sitting before the fire, without any pain, the membranes ruptured, and a quantity of water escaped, the floor being soaked all the way up to the bedroom. She expected to be confined in the following month, so that she was probably now about eight months gone. On making an examination, I found the os dilated to the size of a five-shilling piece, soft, and easily dilatable; it was impossible to make the presentation out, though I passed my left fingers into the uterus, the head and body of the child were so high up. As she had no pains, I left after waiting an hour, merely ordering her to be kept in bed. On Sunday morning, I found her much the same; no pains; and she had slept a little in the night. In the evening, also, she was much the same; but as her bowels had not been moved for a few days, I ordered her a dose of castor-oil, to be taken the first thing in the morning. On Monday morning, she said she had had a few pains in the night, but nothing to speak of. On making an examination, I found that the head had descended into the pelvis. I made the presentation out to be face, as I could feel the mouth; and as she had no pains, and it was still rather high up in the pelvis, I again left her. On calling in the evening, I found that it had descended into the pelvis, and I could feel the presentation quite easily. I felt the face, but no head; but I passed my fingers round the neck of the child, and so quite satisfied myself of the presentation, and that it was a monstrosity. Having first given a full dose of ergot, two teaspoonfuls of ergeta dissolved in half a teacup of boiling water. This dose had no effect whatever; so I got my finger round the neck of the child, and commenced traction. This way seemed to me to be easier than version; though, if the case occurred again, I think I should prefer version. After some little time, I succeeded in getting it lower; but, unfortunately, at this time, the head came away at the neck. I managed, however, to pass my fingers under the shoulders; and pulling with considerable force, I extracted the body; during this time, the patient had no bearing-down pains at all. The body and extremities of the child were all formed properly, excepting the feet, which were club-footed. The placenta was partly adherent; and as there were no pains, it necessitated my introducing the left hand into the uterus, in order to remove it. There was no flooding, and the uterus contracted firmly. The patient recovered rapidly, without a bad symptom. The head consisted of a face, with eyes, nose, etc., and the jaws were formed, the lower one being more prominent than the upper, with teeth. There was no skull, only a few bones at the back of the face. Unfortunately, I did not take it home and carefully examine it. The woman states that she always had a great fear and dread of dogs, and if she saw one in the streets, she would go out of her way in order to avoid meeting one; but she has no recollection of having been frightened by a dog, or anything else, during the time of her pregnancy.

J. Howell Thomas, L.R.C.P.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

LONDON HOSPITAL.

A CASE OF FIBROID GOÎTRE CAUSING PARALYSIS OF BOTH RECURRENT LARYNGEAL NERVES, AND GIVING RISE TO APHONIA AND DYSPHAGIA.

DR. MORELL MACKENZIE, in his annual course of lectures at the London Hospital Medical College, showed a case of which we are enabled to give the following particulars. The patient was a man, Robert R., aged 50, in whose family history there was nothing of importance, and who in early life had enjoyed good health, with the one exception that he had had rheumatic fever. He had served for eight years in the army, most of the time in India, whence he had been invalided, about twenty-one years ago, for dysentery. He has had several attacks of gout; the last about five years ago. His present trouble has lasted about six months, beginning with some tickling in the throat, and hoarseness of his voice. Somewhat later a difficulty in swallowing came on. At the present time the thyroid gland is slightly enlarged, extremely hard, and appears entirely to embrace the trachea and œsophagus. Laryngoscopic examination shows complete paralysis of both vocal cords, which remain immobile in the cadaveric position, *i.e.*, in a position midway between adduction and abduction (the position which they assume in complete paralysis of the nerves supplying the laryngeal muscles, and in the dead body). The patient can sometimes speak in a hoarse tone, but generally is unable to sound his voice at all. The breathing is clear, as a rule, but sometimes there is a "catch", accompanied by a stridulous sound, owing to insufficient abduction of the cords in inspiration, or to a coarse vibration of the ary-epiglottic fold. In coughing, the characteristic sound produced by non-closure of the glottis is very marked. The sensibility of the larynx is unimpaired. The dysphagia has been stationary during the last three or four months; solids can only be taken in minute pieces—even "slops" pass with difficulty. There is a sensation of the morsel sticking just above the jugular fossa, and the act of deglutition causes pain from the xiphoid through between the shoulders. He frequently hawks up thin mucus, and food is sometimes returned through the nostrils. He finds it painful to lie on the back, and there is marked tenderness down the left side of the spine, corresponding to the lower half of the gullet. He has lost weight and strength considerably (weight before illness, 10 st. 11 lb.; two months after beginning, 9 st. 7 lb), but his appearance is still hale and hearty.

In commenting on this case, Dr. Mackenzie observed that he had already reported two other cases in which bilateral paralysis of the larynx resulted from enlargement of the thyroid gland. In one of them, the enlargement was of a simple fibroid character, whilst in the other it was malignant. Dr. Mackenzie pointed out that such cases as the present one were extremely liable to receive a mistaken interpretation: in this case the dysphagia and the loss of weight had at first raised a suspicion of malignant disease of the œsophagus, and the goître, when first seen, was so small that it could only be discovered on careful examination. While under observation it had increased, and now distinctly embraced the trachea; and it was, no doubt, by direct pressure on the œsophagus that the dysphagia was produced, though it was probably aggravated by some slight inflammation of the œsophageal mucous membrane, produced by the effort to pass the food beyond the obstructing thyroid. A case he had shown to the class last year demonstrated that the pressure of an enlarged and hard thyroid could almost obliterate the lumen of the œsophagus. The paralysis of the vocal cords was, no doubt, due to pressure by the enlarged gland on the recurrent laryngeal nerves. When the patient made a violent effort, he could sometimes succeed in producing a little tone, and this condition was frequently to be noticed in such cases; the reason was obscure, but it was a clinical fact that slight power of adduction of the cords might, and as a rule did, remain after total loss of the abduction. Possibly this might be due to the relation of the adductor to the abductor filaments in the nerve trunk, the latter lying, perhaps, more superficially, and thus protecting the former. By some anatomists it was held that the central abductor (the arytænoideus proprius) was innervated from the superior laryngeal; and if this be the case, an easy explanation of the retention of partial power of adduction is afforded. Others have supposed a separate nucleus in the encephalon for the abductor filaments. Practically, however, in this case the man was unable to bring his vocal cords into apposition: a condition which not only resulted in loss of voice, but also, by rendering it impossible for him to hold his breath, prevented him from making any considerable exertion, and interfered, further, with the coughing up of phlegm—a symptom which caused much inconvenience.

Compared with this state, paralysis of one vocal cord produced wonderfully little inconvenience. Dr. Mackenzie had been recently consulted by a young actress, who complained that her voice had been very weak ever since she had had an operation performed on her neck three years previously. She stated that she had to make considerable effort in speaking, and found much difficulty in making herself heard in a large theatre. She had no soreness in the throat, nor cough, nor expectoration. On examining the neck a scar was found running down from just below the lobe of the left ear, along the anterior edge of the sterno-mastoid for a distance of nine centimètres. With the laryngoscope the left vocal cord was seen to be immoveably fixed, somewhat nearer the median line than the usual cadaveric position; in other words, the action of the abductor of the left cord was more completely overcome than that of the adductor. On phonation, the right vocal cord crossed over the middle line, and met the paralysed cord. On inquiry it was found that a fibrous tumour had been removed from the patient's neck in March 1878, by a well-known and skilful surgeon in Edinburgh. It is scarcely necessary to point out that in many cases a tumour cannot be removed without damaging the neighbouring parts more or less, and that no blame whatever can attach to the operator in this case. As far as is known, the functions of the nerve have never been restored after complete division of its continuity. But the intimate interlacement of the fibres of the nerves of opposite sides mitigates in all the organs except the larynx the unfavourable results that might be expected to follow: in the larynx, separate definite filaments are supplied to the various muscles on each side by the nerve of that side, and damage to the nerve on one side is, therefore, necessarily followed by definite muscular paralysis.

Amongst analogous cases may be mentioned that of Mr. Cock, who wounded the pneumogastric in performing pharyngotomy for the removal of a foreign body; that of Kappeler, who, in tying the carotid artery, included the vagus in the ligature; and that of Billroth, who excised a piece one inch and a half in length from the right vagus. In all these cases there was permanent paralysis of the corresponding vocal cord.

BRADFORD EYE AND EAR HOSPITAL.

A CASE OF FOREIGN BODY IN THE EYEBALL, REMOVED BY THE USE OF AN ELECTRO-MAGNET.

(Under the care of Dr. BRONNER and Mr. APPLEYARD.)

GEORGE H., aged seventeen years, of Halifax, was admitted as an in-patient March 23rd, 1881. The patient stated that on Monday, March 7th, as he was hammering a piece of iron wire, he felt something strike sharply on the left eye. Directly afterwards, he could not see distinctly, as there seemed to him to be a dark shade in front of the eye. There was no pain. He saw a surgeon, who gave it as his opinion, that there was a foreign body within the eye. He was recommended to come to this hospital, and did so on March 23rd. On that day, there was much congestion of the conjunctiva, and deeply seated hyperæmia of the ciliary region. The surface of the cornea generally was free from any opacity or opalescence; but, just below its centre, was a transverse cleanly cut wound, nearly one-eighth of an inch in length, having slightly projecting edges, although apparently adherent to each other. Passing downwards and backwards through the lower part of the pupil (which was a little smaller than when in the middle state), was plainly visible a flat whitish-looking plate, with a dull surface, measuring about one-tenth of an inch in breadth, bounded on each side by a straight edge, reaching and apparently perforating the capsule of the lens, which was cataractous. A molecule of whitish glairy lens-matter lay on its surface. The iris seemed to be quite uninjured by the passage of the foreign body; the under surface of the latter simply lay on the lower pupillary margin.

March 24th. Under methylene, the corneal wound was trephined, slightly extended at each end, and an unsuccessful attempt made to remove the foreign body by introducing the flat, tapering end of an electro-magnet, worked by a single cell of potassic bichromate. Failing to remove the foreign body through the wound of entry, it was decided to perform an iridectomy inferiorly, but to delay till next day on account of the dulness of the light.

March 25th. Under ether, iridectomy was performed inferiorly, through a large marginal corneal wound. During the operation, the plate fell from its site, and hæmorrhage from the wounded iris obscured

its position; recourse was therefore again had to the electro-magnet, the flat end of which was carefully introduced into the anterior chamber through the marginal corneal incision; and, when in position, the circuit was closed. After a short interval, the electro-magnet was removed; and, luckily, a piece of iron, about one-tenth of an inch by one-fifth of an inch, was found adherent to its tip.

REMARKS.—So far, the case is progressing favourably; the inflammation present at the time of operation having subsided. The electro-magnet used is one made by H. Hess, 104, Ritter Strasse, Berlin.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.

INJURY TO ONE EYE: ENUCLEATION: SYMPATHETIC IRITIS IN THE OTHER SETTING IN FIVE DAYS AFTERWARDS.

(Under the care of Mr. LLOYD OWEN.)

WE are indebted for the following notes to E. W. WOOD-WHITE, M.B., House-Surgeon.

The patient, a healthy, intelligent servant-girl, aged 16, was injured in the left eye by a fork on September 23rd, 1880. When admitted into the hospital on October 8th, she had a small corneo-scleral wound in the horizontal meridian outer side; the iris was incarcerated, the capsule of the lens was wounded, and the swollen and opaque lens-matter was pressing forward; the globe generally was injected and painful.

On the day of admission, the lens was removed by Gibson's method. After the operation, three leeches were applied to the temple, and hot fomentation-pads kept continuously over the eye. Pain did not cease after the operation; and, as day by day the tension of the eye became gradually reduced, and vision was not regained, the globe was enucleated on October 22nd to relieve pain. At this time, vision of the right eye was perfectly good, and there was no evidence or suspicion of sympathetic mischief.

On October 27th (five days after enucleation), the patient noticed that the right eye became uncomfortable, and vision slightly hazy. The following day, attention was drawn to the eye; the iris was found to be dull, and attached by very soft adhesions to the capsule of the lens; there was some ciliary redness, the aqueous humour was a little cloudy, and vision was reduced to fingers at three feet. The treatment ordered consisted of careful bandaging of the eye, hourly instillation of a strong solution of atropia, three leeches to the temple, liberal inunction of unguentum hydrargyri night and morning, and quinine internally. The pupil expanded completely after a few instillations of atropia, and it was then ordered that they should be used only sufficiently frequently to maintain full dilatation. In ten days, the pain and the iritis had quite disappeared, some photophobia only remaining. The mercurial inunctions were discontinued after the fourteenth day, only the slightest constitutional affection having been produced. The eye was kept in modified light for five weeks, when, no further evidence of mischief being apparent, the eye was gradually exposed to full daylight.

On February 11th, vision equalled $\frac{20}{XX}$; the iris was active, bright, and free from adhesions.

WARRINGTON INFIRMARY.

CURIOUS GUNSHOT INJURY TO THE BRAIN.

(Under the care of Mr. C. E. RICHMOND.)

THE following very interesting case was brought to the infirmary on the evening of October 26th, 1880. On the evening in question, the ticket-collector at the Warrington Station saw a young man, with his pipe in his mouth, get out of a carriage and walk down the platform. Noticing that the blood was streaming down his face from a wound in the head, and that he hastily pocketed a pistol, he accosted him, and asked if he had shot himself. Receiving an affirmative reply, the collector took the pistol from him, and handed him over to the police. Declining the offer of a cab, he walked to the infirmary, a distance of about a quarter of a mile.

On admission, he was perfectly conscious; gave his name, address, and all personal particulars, except his motive for having shot himself.

On examination, a small circular wound was found, about an inch and a half above the right external angular process of the frontal bone, and just behind the temporal ridge. The diameter was about one-eighth of an inch, and the edges were blackened by powder. The pupils were quite equal, and, with the exception of vomiting, which occurred twice, there was apparently no symptom of brain-lesion. Exploration with the probe, grasped close to the point so as to guard against its entering the cavity of the skull, showed the track of the bullet to have been slightly forwards until it reached the skull, where the edge of a punctured fracture could be felt. Chloroform was administered, and an incision made to lay bare the fracture. This was found to be somewhat circular, about three-eighths of an inch in diameter; and on its anterior edge lay a flattened and jagged fragment of lead, apparently scraped off from the bullet in its passage through the bone. When this was removed, the brain could be seen to be wounded, the track of the bullet extending to an unknown depth. As, from the history of the case, the injury to the brain was in all probability very extensive, further operative interference was eschewed.

After the operation, and five minutes after the cessation of administration of chloroform, stertorous breathing commenced, accompanied by intense eversion of both eyes, the pupils of which were contracted to a pin's point. This lasted for about one minute, when he soon recovered complete consciousness, and complained of nothing but slight pain in the head. The eyes were normal, both in direction and in the size of the pupils. Both before and after the operation, however, vomiting was frequent. The wound was dressed with carbolised sponge, ice-bags were applied to the head; and chloral and bromide of potassium were administered internally. Some cartridges found on the patient, corresponding to the revolver, showed a conical bullet weighing sixty-six grains, and having a diameter of seven millimètres at the base.

October 27th. The patient had a quiet night. The pupils were normal. The tongue (protruded quite straight) was furred. The bowels had not acted. About 7.20 P.M., he had slight twitching in the mouth and eyelids, accompanied by a flow of saliva and blood from the mouth, the eyes being turned up and not everted; this condition lasted about three minutes, when he regained consciousness. Temperature at 9 P.M., 101.0°; no vomiting.

October 28th. He was quite conscious and sensible. The wound was dressed; it presented a healthy appearance. Temperature at 8 P.M., 103.1°; pulse 100. There was no vomiting nor convulsions during the day. On the following day, at 11 A.M., the wound was slightly sloughy. Temperature 102.4°; pulse 84, slightly irregular. The eyes and pupils were normal, but everted during sleep. Vomiting was absent. The patient lay in a listless state, but was semiconscious; there were unceasing though slow movements of irritability towards the left side, and occasionally there was stertorous breathing. Five grains of calomel and a simple enema caused a copious evacuation. At 8 P.M., temperature 102.2°; 11.40 P.M., pulse 88, irregular. During the day, he had had long periods of dozing, followed each time by a few minutes of restless movement. In his sleep, his right eye had been turned up and out, the left eye being normal. Breathing was intermittently stertorous. He vomited his food (egg and milk).

October 30th. Through the night, he had twitched with his hands, foamed at the mouth, and both eyes were turned towards the left side. At 11 A.M., the pulse was 112, irregular; temperature 102.2°. Mild delirium had set in; irritable movements still continued; the patient frequently moistened the thumb and finger of his right hand with his lips, and then made movements on the counterpane as of sorting or counting papers (his employment was that of a telegraph clerk). The wound was fairly healthy. He took but little food. At 4 P.M., he lay with his mouth partially open; his position varied from the back to the left side only; he picked at the bedclothes, chiefly with the left hand. At 6 P.M. and 8 P.M., he had slight convulsions, in each case after swallowing a little milk. He felt occasionally for the bandage round his head, as though it irritated him. At 10 P.M., the temperature was 101.3°; pulse 84. He had had incessant convulsions all through this night, his eyes being drawn to the left side. He lay now continuously on his back, and only moved his fingers, not his limbs. He took only milk, some of which he immediately vomited. The skin was hot and moist; the pulse very small; respirations very shallow and irregular, about 40 to the minute; temperature 105.0°. The skin was bathed in perspiration. The convulsions were longer and almost incessant, though the movements were only slight. At 12 midnight, the temperature was 107.7°. He died at 12.45 A.M., on November 1st. Rapid *post mortem* discoloration set in about the face, neck, and chest.

The *post mortem* examination showed a circular fracture of the inner table, about the same size as that in the outer table. Its edges were somewhat depressed; the dura mater being perforated and inflamed at the corresponding spot. A fragment of the inner table, about the size of a sixpence, was here found, not projecting angularly into the brain, but lying flat between the dura mater and arachnoid. The surface of the arachnoid on the right hemisphere was inflamed and covered with pus; on the left, it was extensively congested, with clots over the parietal lobe. On slicing away the hemispheres, the bullet was found to have entered the brain opposite the fracture, and to have taken a direction downwards, inwards, and slightly backwards, through the genu of the corpus callosum, to lodge in the anterior part of the extra-ventricular portion of the left corpus striatum. At this spot, a truncated

fragment of the bullet, weighing 36½ grains, was found marked by grooves from the sharp edges of the bone. In the track of the bullet, about one inch from the spot where it entered the brain, two small fragments of the inner table were found. The course of the bullet itself was marked by a tract of broken down brain-tissue, of a greater diameter than that of the discovered fragment; but there were no other evident changes in the brain-tissue in the immediate neighbourhood of the track.

Two points may be noticed respecting this case. Firstly, the apparently altered direction taken by the bullet external and internal to the skull; this may be attributed to the sharp edge of the bone having diverted one fragment of the bullet after dividing it. Secondly, the almost phenomenal history of the case: the patient's walk from the station, his complete consciousness for sixty hours after the injury, and, until the last twenty-four hours, the slight symptoms, while yet such severe brain-lesion existed. Even at the last, the gravest symptoms appeared to be attributable to the changes progressing on the surface of the brain, rather than to those in the interior.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, APRIL 5TH, 1881.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

Adenoma of Breast, with adjacent Patch of Carcinoma.—The specimen and microscopical sections were shown by Mr. RUSHTON PARKER. When first seen, the growth had existed for about three years, and the lymphatic glands were unaffected; it occurred in the breast of a woman aged 42. The diagnosis was difficult; and a preparatory incision was made, which demonstrated the probably malignant nature of one part of the growth. He believed this combination of adenoma with carcinoma was extremely rare and interesting, and he would be glad to have the opinion of the Morbid Growths Committee upon it.

Hyaline Adeno-myxoma of Breast.—Mr. PARKER also showed microscopical sections of this tumour. The patient was a married woman, aged 44. A lump had existed in the breast for many years (seven to ten at least); and, when first seen by Mr. Parker, the tumour was about the size of an orange, and freely movable; it was excised without removing the whole breast, about two years ago, and there had been no return. When a section was made in the fresh state, long strings of mucoid fluid could be drawn out; and the tumour had in places a myxomatous structure under the microscope. He believed the condition to be very unusual.—Mr. BUTLIN agreed with Mr. Parker in thinking that the first case showed distinct evidence of carcinoma, and that the second was an extremely rare form.

Cranium and Brain of Hydrocephalic Adult.—The specimen was shown by Dr. W. A. BRAILEY, who stated that the patient was a female, who died at the age of fifty-three from acute pneumonia. She had been hydrocephalic since infancy, living in public institutions most of her life, and spending the last nine years in a lunatic asylum. For several years, she vomited daily; but, during the last few years of her life, this had been less frequent. Three years before death, she had an epileptiform seizure, and afterwards had three or four similar but less severe attacks. The bones of the extremities and of the thorax were small and imperfectly developed, and there was lateral curvature of the spine; the legs were unable to support the body, and could not be flexed; towards the close of life, the right leg gradually became flexed on the thigh. As regards her mental capacity, she could converse, sing hymns, and repeat matter learnt in childhood. She had a violent temper, and was easily irritated. She could use her hands a little, and was able to sew. The horizontal circumference of the cranium was twenty-seven inches. The cranial bones were completely ossified, and there were many Wormian bones. When fresh, the brain nearly filled the cranial cavity. The third and the lateral ventricles were largely dilated, and the commissure crossing the third ventricle was greatly elongated. The aqueduct of Sylvius was not occluded, but its anterior part was funnel-shaped, and it tapered backwards to the posterior portion, which was of normal size. On the posterior part of the right side of the cranial cavity, and beneath the cerebellum, was a closed sac, with thin fibrous walls, capable of containing about two ounces of fluid. It extended about one inch across the middle line, behind the foramen magnum, making a very distinct depression in the cranial floor, and in this situation the bones were much thinned. It was attached to the dura mater, but apparently developed independently of it. Dr. Brailey remarked that there were several points of interest in the case: the size and complete ossification of the cranium, the patency of the aqueduct of Sylvius, the presence of the cyst under the cerebellum, the longevity of the patient, and the amount of intelligence she exhibited. The specimen was prepared by Dr. Bushell Anningson.—Dr. HUMPHRY said, that, in hydrocephalus, the distended lateral ventricles dilated all parts of the cranial cavity except the base, which preserved its usual size. The corpus collosum was carried upwards, the septum lucidum stretched, and the falciform process of the dura mater was lengthened, enlarged, and carried upwards. This caused a drag upon the tentorium upwards, which might be so great as to show, in a vertical section, the tentorium ascending vertically from the torcular Herophili to the point of entrance of the vena Galeni. This was the condition in a specimen lately added to the pathological collection of the University of Cambridge. The middle part of the cerebellum was also raised above its proper level, and the hinder cerebral lobes, enclosing the dilated cornua of the lateral ventricles, extended behind the cerebellum and the tentorium, between the latter and the occipital bone. The third ventricle was dilated, and the aqueduct of Sylvius passed upwards and slightly forwards to it from the fourth ventricle, which was of natural shape and size. The cerebellum being of the ordinary dimensions, and being in the middle raised with the tentorium, a vacant space was left beneath and behind it, and beneath the lateral sinuses. This space, in the specimen quoted by Dr. Humphry, was occupied by loose connective tissue, found in an interval between the dura mater and the cranial layer of the arachnoid, which was thereby separated from the dura mater. In the specimen now shown, a similar change had, he thought, taken place. The dragging of the falx, upwards and backwards, had drawn the tentorium upward and increased the space in the cerebellar fossa, causing there a surplusage of space, which had been occupied in this instance, not by connective tissue, but by a cavity, not improbably a lymph-cyst, developed in and taking the place of such connective tissue. Such seemed to him to be the most probable explanation of the remarkable cavity beneath the tentorium.—Dr. BACON, who had seen the patient during life, said that she was very irritable and deficient in self-control, but capable of joking and carrying on a conversation; so that, he thought, she ought to be described as a lunatic, and not as an imbecile.—The PRESIDENT observed that it was a very remarkable case, but that modifications of the condition were not very uncommon. He held that it might come on in rickety children from inanition; he believed that, in most of these cases of large head, there was within the cranium, not an unusual quantity of brain, but an ordinary brain with a large quantity of fluid. In a collection of photographs he possessed of persons confined as criminals, it was remarkable to notice how many had large heads and overhanging foreheads—an enlargement which we would hardly like to believe to be due to increased development of brain. A child, in whom this enlargement occurred during an access of rickets and ill-health, might eventually entirely recover from the deformity, just as it might recover from rickety deformity of the limbs.

Dermoid Tumour of Soft Palate.—Dr. HALE WHITE showed a tumour, removed by Mr. Morrant Baker from the palatal region of a child aged three years; it grew from behind the uvula, was about two inches long, and probably sprang from the posterior part of the soft palate. The microscopic examination showed a structure resembling that of skin, and provided with hair and glands, containing some fat and a piece of cartilage. Dr. White had been able to find but few similar cases recorded. He thought that the tumour had probably taken origin in connection with the Eustachian tube, the cutaneous type of its structure being due to its occurring in front of the point of junction of the hypoblast and epiblast. In the rabbit, there occurred in this situation four tufts of hair, and this tumour might be regarded as an instance of "reversion".—Mr. RUSHTON PARKER had seen a section from a tumour of this class, which had recently been removed by Mr. Bickersteth from the pharynx of a child.

Extensive Lupus.—Mr. MALCOLM MORRIS showed a woman affected, over a very extensive surface, with a superficial form of lupus. About twenty years ago, the patient had an attack of dropsy; and, a little after that, an ulcer appeared on the right leg. This was followed by the appearance of raised patches of a red colour on various parts of the leg: next, a small red patch appeared on the scalp, and spread in all directions, but chiefly forward over the face. At the present time, there were a few ulcers about the right ankle; and in that neighbourhood, and extending upwards to the thigh, were great tracts of scar-tissue; the upper edge was red and raised. On the left leg, two patches of red scaly raised tissue had recently appeared; there were also some patches on the arms. The whole of the vertex of the skull was bare, and occupied by scar-tissue; the forehead, nose, and cheeks were all involved. He considered the disease affecting the head and face to be lupus erythematosus; but invited the opinion of the Society as to the nature of the disease in the legs. The ulceration had been the primary

lesion. Was it from the first lupoid?—Mr. HUTCHINSON did not think that it ought to be classed as erythematous lupus; he thought it was mainly a very superficial form of common lupus. He was familiar with a form of lupus which involved in a superficial manner so wide an extent of skin, and was so inclined to weep, that it was commonly mistaken for eczema; this case had something of that character.—Dr. THIN did not think the case was one of common lupus. He wished to draw a distinction between erythematous lupus and lupus erythematosus, founded upon differences in microscopical structure.—Mr. HENRY MORRIS had, under his care, a woman who had lupus of the face and neck, and upper part of the trunk, which had resulted in destruction of face, nose, both eyes, and one ear; much of it was healed. It resembled Mr. Malcolm Morris's case in involving the scalp, but had led to deeper destruction of tissue.

Squamous Epithelioma of Upper Jaw.—Mr. BUTLIN exhibited a specimen, and microscopic sections, of this rare form of disease. It was taken from a man, aged 67, under the care of Mr. Willett. Attention was first directed to a foul discharge from a sinus in the upper jaw; this was found to communicate with the antrum, which was lined with a soft fungous material. Mr. Butlin removed the whole of the upper jaw, and found that the disease had extended widely. The microscope showed a great number of cell-nests, and a well-marked epitheliomatous structure. The insidious nature of the disease, which has been described as epithelioma terebrans, rendered the subject one of great interest. The cases were nearly always mistaken at first for carious disease of the antrum, and always ran a rapid course. He thought the fact of the growth taking the squamous type was best to be explained by supposing it to have arisen from a tooth alveolus.—Mr. PARKER had seen two such cases in Liverpool.

Specimens shown by Card.—The following specimens were shown by Mr. RUSHTON PARKER.

Adenoma of Breast, occurring as a protrusion into a single simple Cyst.—The tumour had existed for about nine years, and was supposed to have been caused by a blow; it was excised without removing the breast, and the woman (who at the time of the operation was aged 49) was in good health at the end of last year.

Acinous Adenoma of Breast.—The specimen was obtained from a tumour, removed along with the whole breast, from a woman aged 62. The previous duration of the tumour was two years. There had been no recurrence, and the patient was still alive.

Adenoma of Tongue.—This tumour had been situated on the posterior part of the dorsal surface of the tongue; it was removed about eighteen months after it had been first noticed. There is now (five years later) no recurrence.

Adenoma of Nose.—The disease affected the tip of the organ, and had been growing for three years. It occurred in a man aged 67. Before excision, it looked like a lipoma, but had the structure of an adenoma.

Odontoma.—The growth was in connection with the second molar tooth. Though about the size of a filbert, it had caused no deformity. It was extruded spontaneously.

Unreduced outward Dislocation of Patella.—Mr. C. J. SYMONDS showed the dissection of a knee in which this displacement existed.

SURGICAL SOCIETY OF IRELAND.

FRIDAY, MARCH 4TH, 1881.

H. GRAY CROLY, L.K.Q.C.P., in the Chair.

Recent Specimens.—Dr. QUINLAN exhibited the heart and lungs of a gentleman aged seventy years, who had died of aneurysm of the arch of the aorta, which, although of large size, did not cause much inconvenience.

Dr. KILGARRIFF showed a penis, which he had amputated for encephaloid disease—a form of cancer which he considered rare as occurring in the penis.

Mr. CROLY showed the upper portion of a humerus, which he had removed in the City of Dublin Hospital. There was a sinus communicating with the shoulder-joint, and the biceps tendon had been destroyed.

Mr. WHEELER showed a portion of the temporal bone of a man aged fifty-six years, which he had removed the previous day by means of the trephine. The specimen he considered of interest, on account of the comparative infrequency of the operation for the disease, and also on account of the appearances of the specimen. The history given was, that, for a very long time, the patient had had a discharge from his right ear, accompanied by pain and occasional throbbing. More than two months ago, he had typhus fever; and, after he recovered, a swelling came in the soft structures behind the ear. The pain increased, and the amount of discharge from his external auditory meatus decreased. On cutting into the soft tissues, about an ounce of pus escaped, and the temporal bone was found to be denuded of periosteum and roughened. The precarious condition in which he considered the man to be, determined Mr. Wheeler to trephine the mastoid, and thus give free vent to the pus. The crown of the trephine was placed a little above the level of the external ear, and soon reached the large spaces (antrum mastoideum) which lie close above and behind the tympanum. The pus did not flow directly on removal of the bone; but, since then, there had been a free discharge, and the running from the external auditory meatus had entirely ceased. On close inspection of the piece of bone removed, it could be seen that its inferior surface opened the cells, and that on its internal and inferior surface the bone was worm-eaten and carious. Since the operation, the patient had done well; his pulse that morning being 80, and his temperature 99°, and pus continued to flow through the opening made by the trephine.

The Treatment of Aneurysm by the Elastic Bandage.—Mr. WHEELER communicated two cases of popliteal aneurysm cured by the elastic bandage. The first case was that of a man aged thirty-seven years; the tumour being as large as a small orange. In that case the blood was "locked" in the aneurysmal sac, the limb being bandaged from the foot up to the inferior margin of the aneurysm; and a second bandage was applied, commencing at the superior margin of the tumour. The compression which was made with the elastic bandage was borne for sixty-five minutes; a tourniquet was then applied over the femoral artery, and the bandage gradually loosened. Pulsation returned in the sac, but not so forcibly as before, and the tumour felt more solid. In the evening, the bandage was reapplied in a similar manner, and in a little more than half-an-hour the compressing band was removed with the same precautions. The pulsation had then ceased; but compression, by means of a tourniquet, was exerted over the femoral artery for some hours after, to moderate the flow of blood. The second case was that of a young gentleman aged twenty-three years. The tumour was in the right popliteal space, and seemed about the size of a walnut. The only history as to its causation was over-exertion when playing cricket. He was of a nervous and excitable temperament. A somewhat similar mode of treatment was adopted in that case. The limb was elevated for a few minutes before applying the bandage, which was done continuously from the foot upwards, but very lightly over the aneurysm. On removal of the bandage in forty-five minutes, all pulsation had ceased. The tumour was solid, and in five weeks after had almost completely absorbed.—Mr. TUFNELL said that he had had an opportunity of examining the first case mentioned by Mr. Wheeler, and that the result was most satisfactory. A question arose as to whether it would be safe to adopt that line of treatment in the country, where the surgeon might not have the patient under his immediate observation.—Drs. BENNETT, CORLEY, O'GRADY, and NIXON also took part in the discussion; and, in reply, Mr. WHEELER said that he had been particular to state that, in both cases, he had applied compression to the femoral artery before removing the elastic band, which was, moreover, done very gradually. Lest the sudden return of the blood might damage the recently formed coagulum in the sac, he was of opinion that it would be advisable to compress the main artery, either by digital or instrumental means, before applying the bandage, for the cure of aneurysm in persons advanced in years, in order that the collateral circulation might be somewhat established.

OBSTETRICAL SOCIETY OF DUBLIN.

SATURDAY, MARCH 5TH, 1881.

JOHN A. BYRNE, M.B., President, in the Chair.

Uterine Cast.—The SECRETARY read the notes of a case, and exhibited the specimen, sent by Dr. RINGROSE ATKINS of Waterford. The specimen was one of complete uterine cast. Catherine H., aged 33, married, was admitted into the Union Hospital in Waterford, under Dr. Atkins. She stated that she had had one child eighteen months before; that she had always enjoyed good health until lately, when she had suffered from dysenteric diarrhœa, for which she sought admission. She had not had dysmenorrhœa, nor did she believe that she was pregnant. Two days after her admission, she was apparently in labour, with bearing-down pains, etc., and soon expelled the specimen exhibited. It was a perfectly closed sac, the walls of which were soft and tough, and its interior filled with a clear reddish-brown fluid, but no solid matter. The sac was lined by a very delicately fine membrane. The exact nature of the specimen was left for the Society to determine.—The PRESIDENT considered the specimen to be an ovum which had remained some time *in utero*, the fluid representing the amnion.—Dr. MACAN considered that the history of the case was a typical one of mole. At first, she thought she must be pregnant;

then she thought she was not, as she had some sign of the menstrual flow; when presently the pains came, and expelled the specimen.

Instrument for replacing the Funis.—Dr. KIDD showed a gum-elastic instrument invented by Dr. Leeper, for the purpose of replacing the funis. It was forked at one end, and was about eighteen inches long, and more than half an inch in diameter, and very soft. Dr. Kidd thought the instrument too long and too thick for the purpose.—Dr. ATTHILL said its greatest fault was its thickness; in his opinion, a gum-elastic instrument could never be made strong enough and also thin enough. He suggested vulcanite as a preferable material.

Uterine Polypi.—The PRESIDENT read a paper on this subject, and recounted the history and treatment of two cases which he had lately had under his care. The first was that of a married woman, aged 30. She had been five years married. Two years after marriage, she got uterine bearing-down pains. The uterus, on examination, was found to be large and anteverted. The pains had not produced any dilatation of the os uteri. It was determined to dilate the os with sea-tangle tents; and the polypus, having been fixed with a vulsellum, was removed by means of the *écraseur*, and the stump treated with nitric acid. The woman had since then given birth to a child. The second case was that of a woman aged 35. She had been married for five years, but had never been pregnant. She was very blanched-looking, and an anæmic murmur was audible. A tumour was found growing from the fundus uteri, and the os was dilated to about the size of a fourpenny-piece, through which the tumour was protruding. In this case also, sea-tangle tents were introduced; and in forty-eight hours, the os and cervix having been sufficiently dilated, the tumour was removed in a similar manner, and nitric acid applied to the stump. He was unable to state whether this woman had since become pregnant. He considered sea-tangle the most valuable agent for effecting dilatation of the os and cervix in such cases.—Dr. KENNEDY asked if any of the members present had seen unpleasant results follow the use of sea-tangle.—Dr. ATTHILL said that, where ill results followed the use of sea-tangle, there were always the factors present, viz., on was dealing with a case of profuse hæmorrhage, or was exploring the interior of the uterus with instruments, or applying acids to its interior, etc. He did not consider dilating with sea-tangle as *per se* more dangerous than dilating by any other means, and believed it more safe and efficacious than sponge-tents. Prolonged dilatation was always dangerous; and, when the os was small and rigid, he preferred dividing it rather than attempt dilatation.—Dr. KIDD considered dilating the os with sea-tangle one of the safest operations that could be performed on the uterus, and it possessed a great advantage over sponge-tents, viz., the whole cervix could be dilated at one sitting.—The PRESIDENT, in reply, mentioned the particulars of two cases in his practice, in which untoward results followed the use of sea-tangle; one of which proved fatal.

Inversion of the Uterus.—Dr. ATTHILL read a paper on this subject, in which he treated of its causes, symptoms, and treatment. There were no affections of the uterus in which errors of diagnosis were more frequently made. In four out of five cases which had come under his observation, the existence of inversion was not at first suspected; and in three of them, an attempt was made to remove the tumour, which was supposed to be a polypus, the operation being in each case stopped on account of the pain which the action of the *écraseur* caused. He doubted the correctness of the statement made by Dr. Barnes, that a large majority of cases of inversion followed immediately on delivery. Of the five cases which he took as the test of his communication, only two occurred after delivery; in the other three, it was due to the presence of a fibrous tumour attached to the fundus of the uterus; moreover, the tumour was in each case sessile, and attached very nearly at the centre of the fundus uteri. He had never seen inversion caused by a pedunculated tumour, or by one attached elsewhere than at the centre of the fundus. So also he had found that, in those cases in which inversion occurred immediately after the conclusion of the second stage of labour, and in which the placenta remained adherent till after the accident had occurred, it was invariably attached to the very fundus. He, therefore, concluded that, "in all cases of inversion of the uterus, whether induced by the presence of a tumour, or occurring as a sequence of labour, the condition was the same in both to this extent, a body, which to all intents was a foreign body, was attached to that part of the uterus which lay between the opening of the Fallopian tubes". He dissented from the views of those writers who held that the inversion occurring immediately after delivery was due to the weakened condition of the uterine wall at the site of the placental attachment, so long as the placenta remained adherent; and, from the record of cases in which the placenta was found to be adherent after inversion had taken place, it was evident that the inversion frequently—and, in his opinion, probably always—must at least have commenced before the placenta was separated from its attachment. The same remarks applied to tumours of the uterus; nor could he believe that their weight had any real effect in dragging down the fundus. In the case of fibroids, therefore, a further cause, viz., the occurrence of expulsive uterine contractions, was requisite to induce inversion. The fundus was that portion of the uterus most susceptible of irritation, and any foreign body brought into contact with the fundus speedily excited contraction. The presence, therefore, of a tumour attached to the fundus centrally, or of the placenta similarly located, might fairly be presumed to have a tendency to induce expulsive uterine action, which, failing to detach and expel the tumour or placenta, ends in depression and inversion of the fundus; but, for this to occur, he deemed it necessary that the tumour should spring from the fundus, or, if it occurred after parturition, the placenta should be attached nearly centrally to the same portion of the intra-uterine surface. In reply to the objection which might be raised to this theory of the cause of inversion, viz., that, if the attachment of the placenta to the fundus were a cause prone to induce inversion, it should be of more frequent occurrence as a sequence of parturition than it was, he stated his belief that Dr. Barnes was mistaken when he asserted that the most natural position for the attachment of the placenta was the fundal one. In his opinion, on the contrary, as the cervical zone was a dangerous placental site, from the tendency to the occurrence of hæmorrhage before delivery, so the fundal zone was also an abnormal placental site; and, if the attachment there were central, it became dangerous, as tending to the possible occurrence of inversion from (1) weakening of the part which it was of importance should be firm, and (2) from the risk of the placenta, if not rapidly detached, acting as a stimulus and exciting uterine contractions, which, as in the case of the sessile fibroids, ended in depression of the weak part, and finally in inversion of the fundus. The term "active spontaneous inversion" used by Dr. Duncan, might, he thought, be fairly applied to cases produced in the manner described; only, instead of paralysis of the placental site, he, Dr. Atthill, considered abnormal activity of the muscular fibre of the part to be the distinctive feature of the case. Dr. Atthill then read the notes of an interesting case of inversion of the uterus, which had been mistaken for polypus on first examination. It occurred in an unmarried woman aged 47. After removal of a sessile fibroid from the fundus, as the uterus resisted all his efforts to repose it, made with Aveling's and White's instruments, he determined to amputate it, to prevent the danger of subsequent attacks of hæmorrhage. Although he believed that reposition of an inverted uterus was, in almost all cases, possible, and was usually advisable, he considered that the conditions of the case he had read rendered amputation of the uterus more advantageous to the woman, and less dangerous than the protracted manipulation which would have been necessary to effect its permanent restoration to the normal position. She was unmarried, and had passed the age of probable child-bearing; and the tumour was so vascular, that even digital examination produced profuse hæmorrhage.

Owing to the lateness of the hour, the discussion was, on the motion of Dr. KIDD, adjourned.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

CONICAL PLUG STETHOSCOPE.

THIS conveniently designed stethoscope has been suggested by Mr. T. D. Cook, M.B., St. Thomas's Hospital. It is portable and simple, can easily be taken to pieces and put together, and the pieces can be easily carried. The screw, by wear, becomes useless, getting fixed or loose, and creaks, or the thread breaks; but the cone, the more it is used, more accurately fits, and is thus more durable than the screw; and if the cones are properly made, it cannot creak. Messrs. Arnold and Sons are the makers.

DEATH OF A CENTENARIAN.—The death of a woman at Worthing named Mrs. Francis Bailey, who had reached the age of 103 years and eight months, is reported. She was born at Ferring, a village about four miles from Worthing, and her birth is recorded in the register at the parish church there.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, APRIL 16TH, 1881.

THE NEW NAVAL MEDICAL WARRANT.

THE new medical warrant, long promised and deferred, is now issued, and has been, during the week, in the hands of our naval readers. We abstain from reproducing it, as they will already have perused and mastered its contents. Nor do we propose to fully discuss it until we hear the comments of our associates in the naval service, and learn the general feeling of the department.

The warrant is, in a large measure, the issue of our own efforts for the good of the service, and is based upon the memorandum of claims drawn up by Mr. Ernest Hart, and submitted by him, at official request, to the First Lord of the Admiralty, by whom it was referred to a departmental committee. This warrant is the result of their deliberations, and of the earnest submissions in the same direction of many eminent officers, prominent among whom may, we believe, properly be named the present popular Director-General, Dr. Watt Reid.

In many substantial respects, this warrant represents a great gain, and establishes a considerable advance, especially in the way of improvement of pay, which is now slightly superior to that of the Army Medical Service. This improvement is manifested in respect alike to full pay, half-pay, and retired pay. There are other obvious advantages conceded by this warrant, in correspondence with the claims urged in Mr. Hart's draft scheme for the improvement of the remuneration and relative rank of medical officers of the navy. On the other hand, it appears to us that the new warrant is sadly wanting in providing men to fall into the higher grades of pay. Moreover, it does away with competitive examination for entry; and its clauses are so complicated, and retain so much "at our discretion", that we should not be surprised if its results should be only to cause much discontent on retirement. There is not to be any grade analogous to that of brigade-surgeons: this is a serious error.

LORD BEACONSFIELD'S ILLNESS.

THE official bulletins published in the daily papers will have enabled our readers, who have been fully informed of the exact nature of the Earl of Beaconsfield's illness, to follow the progress of his case during the week. The bronchial catarrh and its attendant complications have been considerably mitigated, although the distressing spasms still occur occasionally, and give rise to great prostration. The greatest difficulty connected with the treatment of his lordship's case now consists in the administration and digestion of that amount of nourishing food which is necessary to sustain the sorely taxed vital powers. It is unnecessary to say that every variety of strong and digestible nourishment that can be suggested is at the command of his medical attendants; and it is a fact of the greatest interest and curiosity that from all parts of Europe, as well as of this country, different forms of food, wine, and other stimulants continue to be sent. The digestive powers are, however, very weak. The gouty symptoms in the joints have virtually disappeared. It is now in a great measure, therefore, a question of sustaining the illustrious patient through the remaining part of the morbid process. The mildness of the weather may, we trust, contribute its influence in a favourable direction. As we now write (Wednesday), the reports of the noble Earl's condition are somewhat more favourable than they were last evening, or in the night; and with the marvellous strength of constitution and of pulse which he possesses, we can still do more than hope of a favourable termination.

At the Comitia Majora held at the College of Physicians on the 11th instant, we have reason to know that Dr. Quain, in reply to a question as to the circumstances under which he was in consultation with a homœopathic practitioner, made a statement to the College, of which the following is the substance.

Having repudiated the idea that there could exist any relation between the principles of rational medicine and the imaginary notions to which the name of "Homœopathy" had been given, Dr. Quain said that he felt, on those grounds alone, that it was impossible for a practitioner of scientific medicine to meet a person professing homœopathy. He wished, therefore, briefly to narrate the circumstances of the important case in which he might recently have appeared to act in a manner inconsistent with this opinion. The circumstances were as follows.

On Tuesday, the 29th ultimo, Lord Barrington called on Dr. Quain, and said that he had come to request his professional aid in the case of Lord Beaconsfield, who was most dangerously ill. He said that he had reason to believe that it was the Queen's wish that Lord Beaconsfield should have further advice in addition to that of Dr. Kidd, who was in attendance; and that Lord Beaconsfield had intimated his special desire to see Dr. Quain. Dr. Quain replied to Lord Barrington, expressing the extreme gratification it would afford him to render aid in such an important case; but that he did not see how his services could be useful, inasmuch as Dr. Kidd, who was Lord Beaconsfield's professional attendant, was a homœopathic practitioner. Lord Barrington then informed Dr. Quain that, as far as he knew, Lord Beaconsfield was being treated in the ordinary way, and by ordinary remedies; and he expressed his opinion that it would be a most grievous thing if, under such circumstances, Lord Beaconsfield could not have the professional assistance which he desired. Dr. Quain thus felt himself placed in a position of extreme difficulty; and he requested Lord Barrington to allow him, before deciding, to take the opinion of some of his professional friends, on whose judgment he could rely. Dr. Quain immediately went to Sir George Burrows, on whose wisdom and profound sense of what was due to the honour of the profession he could rely, and from whom he had always experienced great and uniform kindness; and submitted to him the circumstances of the case. On reference to the *Medical Directory*, they found that Dr. Kidd was a qualified medical practitioner; and Sir George Burrows then expressed his opinion to Dr. Quain that, if Dr. Kidd, being thus qualified, were not treating Lord Beaconsfield otherwise than on rational principles, and would make a statement in writing to that effect, Dr. Quain would not be justified in persisting in his refusal. Dr. Quain, therefore, felt it to be his duty to ascertain the facts from Dr. Kidd; and he immediately communicated with him. He stated to Dr. Kidd his grounds for declining to meet him: namely, that he was a reputed homœopath; and that, if so, it would be useless to meet in consultation. Dr. Kidd, in reply, said that he was in the habit of treating his patients, as other practitioners did, with pharmacopœial medicines, in ordinary pharmacopœial doses, on the principles of scientific medicine, although he did not feel precluded from using in his practice certain so-called "homœopathic" remedies, which, in his experience, he had found to be useful in the treatment of disease. Dr. Kidd further assured Dr. Quain that he was treating Lord Beaconsfield with ordinary remedies. Dr. Quain having requested Dr. Kidd to put this statement in writing, Dr. Kidd assented, and sent him a letter, of which the following is a copy.

"15, George Street, Hanover Square, London, W.,
"March 29th, 1881.

"Dear Sir,—I have to thank you for your communication. In reply, I beg to say that I am not treating Lord Beaconsfield homœopathically. I beg, further, to assure you that every direction and prescription of yours will be faithfully carried out by me.—Believe me, yours very truly, J. KIDD.—Dr. Quain."

After receiving this communication from Dr. Kidd, and before meeting him, Dr. Quain called on the President of the College, whose prudence, experience, and calm judgment would be universally recognised as of the highest value and authority in such a matter; and Sir Risdon Bennett gave him his opinion, which accorded with that given by Sir George Burrows.

Dr. Quain thereupon met Dr. Kidd in consultation. He found Lord Beaconsfield most gravely ill; suitable remedies had been given in sufficient doses, according to the recognised principles of medicine. He further stated that the patient was in a condition of such serious illness and great debility, as to make it impossible that he could have given any continuous account of his present or past illnesses, and that there was no other person available who could furnish this information but Dr. Kidd, of whose services he accordingly found it desirable to avail himself. Dr. Quain considered it right to add that he had since been told, on the authority of Lord Beaconsfield's most intimate friend, that his lordship had much confidence in Dr. Kidd, and personally attached the greatest importance to his continued presence. He was assured that the proposal to require Dr. Kidd to retire, if made, would have led to the most disastrous result.

Dr. Quain desired to add to this statement that, immediately after seeing Lord Beaconsfield, he had submitted the circumstances of the case to Sir Thomas Watson and to Sir James Paget, of the value of whose opinions it would be needless and unbecoming in him to speak. They both concurred in the opinion that Dr. Quain could have adopted no other course than that which he was pursuing in the peculiar circumstances of the case. Thus, placed in a position of great difficulty, he had been called upon to perform a duty in which he felt that his decision might be of vital interest to the patient, must be of considerable importance to the profession, and would be open to the judgment of the public; but he had acted according to his clear sense of duty, and from no other motive.

This statement, which was favourably received by the College, admitted of no discussion; for the president had previously ruled that this personal statement (which was made in reply to a question) could not, without notice of motion, be debated. Sir William Jenner desired, as a matter personal to himself, to state that he had been previously requested by Dr. Kidd to meet him in this case, and had declined to do so; and, if Dr. Quain were right, he must be wrong.

It will be seen, from a letter which Dr. Kidd has addressed to us, and which we publish in another column, that his statement exactly confirms that of Dr. Quain. It adds, however, the further evidence, that Sir William Jenner declined the consultation on the expressed ground that, "holding different views as to practical treatment, Lord Beaconsfield's interests could not in any way be served by our meeting in consultation; on the contrary, it could not be without risk to him". It is now apparent that, whatever other grounds there might be for Sir William Jenner to refuse to meet Dr. Kidd, this at least did not exist, since Dr. Kidd was, and had been throughout, pursuing a practical treatment in accordance with the doctrines of scientific medicine, using pharmacopœial remedies in pharmacopœial doses, on ordinary scientific principles; and that, in this case, Sir William Jenner's advice would have been of the highest value, and could not have involved any risk to the patient. That Sir William Jenner was actuated in this, as in every act of his career, by the highest and purest motives, and upon impulses of the most worthy kind, is transparently clear; on the other hand, the reason which he assigns in the circumstances is not valid for the purpose, and not pertinent to the case. That his conduct in the matter called for censure, no one could admit. Nor does there seem room to doubt that the course of inquiry and action adopted by Dr. Quain, which met with the approval of Sir George Burrows, of the President of the College of Physicians, and subsequently of Sir Thomas Watson and Sir James Paget, was alike accordant with professional ethics and public duty. Throughout his professional career, Dr. Quain has been notable for his zealous pursuit of the highest interests of the profession; and we, at least, are not prepared to say that, in this instance, he has done anything else than public duty required, and professional honour fully justified.

THE INDIAN MEDICAL SERVICE.

One of the evil effects of the recent changes in the constitution of the Indian Medical Service, has already been to cause serious delay in the promotion of the seniors to the rank of deputy-surgeon-general. This grievance has not yet been sufficiently represented to the profession in any of the medical journals of the day. We now propose to make a few observations on the subject, for the information of our readers, and the guidance of those who may be desirous of selecting as a career the medical service of the Queen in India.

Prior to the late so-called reorganisation, a medical officer, who had done nothing to render himself ineligible, could fairly calculate on obtaining the rank of deputy-surgeon-general after from twenty-six to twenty-seven years' service. But the immediate result of the new state of affairs, involving a large reduction of the purely military medical appointments in this grade of administration, is that, in the absence of death-vacancies, the senior next on the list for promotion cannot be promoted until he has completed twenty-eight and a half years' service; whilst the two gentlemen just below him will each have to wait until they have put in twenty-nine years' service. If this be so now, owing to a reduction of the military deputy surgeon-generalships, it is plain that this retardation of preferment to a coveted rank, carrying with it augmented pay during the quinquennium of service, and a special increment of pension, amounting to £250 *per annum* at its termination, not to mention the advantages incident to the chances of service in the field, must become more and more aggravated year by year. Indeed, unless something is done to relieve the stagnation and congestion of the senior grades, the time is not far distant when, owing to a combination of the reduction of the deputy surgeon-generalships and the operation of the fifty-five years' rule for the executive grades, it will be utterly impossible for more than a mere moiety of officers ever to reach the position of deputy surgeon-general. The heartburning and hardship that will thus be inflicted upon many officers who may have borne a distinguished part in cantonments and in the field will, we are sure, be readily understood and appreciated. Just when they had every reasonable expectation of having obtained sight, by Act of Parliament, of the promised reward for faithful, valuable, and approved service, the late Government of India, by a stroke of the pen, altered the conditions of their covenant or contract with their medical officers, rode roughshod through Henley's parliamentary guarantee, threw their previous promises to the wind, and postponed its acquisition to the serious detriment of those highest in the list of surgeons-major, and practically deprived an excessive proportion of those lower down of the chance of ever acquiring their promotion.

We do not find that any scheme of compensation has been contemplated, either here or in India, for the benefit of the medical officers so injuriously affected. But we feel that, unless fair and equitable amends are made to those whose chances of promotion are materially lessened or virtually nullified by the new order of things, the popularity of the department will be grievously impaired. When a British medical officer's prospects are damaged by innovations in the terms of his contract with the Government, he is recompensed according to scale. Is it too much to expect that Lord Hartington may be pleased to imitate such an excellent example? We hope not; and we trust that his lordship will see fit to do full justice to the claims of the senior surgeons-major so far as that can now be done, by granting them liberal compensation for the loss each has sustained by the violent modification of the conditions of their covenant with Government.

It is very necessary that this should be done, inasmuch as the popularisation of the service in the medical schools of this country will scarcely be possible until this grievance is generously redressed. So long as it continues unamended, professors and their pupils will, on

reflection, naturally consider that, if the fine old Indian Medical Service, with its *prestige* and glorious traditions, can be trampled upon and ill-treated as it has been by the late Government and Lord Lytton, what is more likely than that the new-fangled faggot department may ere long be still further mutilated and vivisected, weakened and disjointed as it avowedly is by being split up into about eight or nine parts, one of which parts is tacked on, without any clear definition, to each of the eight or nine Governments in India? If, as they may continue to argue, the seniors of the old service can, in large numbers, be summarily and most unfairly deprived of their well earned promotion, without any redress whatever; if the terms of their covenant can be infringed by one of the parties to it only, in spite of their rank, pay, pension, promotion, and privileges having been guaranteed (in the Henley clause) by a solemn Act of Parliament; if the provisions of Her Majesty's Warrants based thereon can be altered or revoked with impunity on the mere *ipse dixit* of a Secretary of State or a Viceroy, what possible security can be held out to the juniors of the new service that, when they rise to the position of seniors, they will be better treated than their predecessors? If the present injustice is to be perpetrated without recompense to those who are materially injured—it may be, in some instances, ruined—it may be employed as a precedent for future encroachments of a similar kind, to the detriment of those who are now venturing to enter the medical service of the Indian Government. If, on the other hand, ample redress is at once given to those who are obviously suffering from the chaos of the late reorganisation, the spirit of equity and even-handed justice thus displayed will go some way in rehabilitating the service in the high position which it once held in the medical schools of Great Britain; and constitute, as far as it goes, some guarantee that its vested rights and privileges will not again be so lightly ignored.

MIDDLE-CLASS HOSPITALS FOR THE INSANE.

THE annual report of the Barnwood Hospital for the Insane, near Gloucester, for the year 1880, which has just been published, affords much valuable matter for reflection to those who are interested in lunacy law reform, and reveals the quiet and inoffensive operation of certain social forces, which, if left to themselves, might perhaps obviate the necessity of drastic measures. This middle-class asylum has, since it came into separate existence in 1860, enjoyed a career of steady and ever-growing usefulness and prosperity. At the end of that year, it contained just ten patients; at the end of 1880, it contained one hundred and eleven, and might have contained a much larger number had its resources been equal to the demands made upon them; for the applications for admission to it have increased in a geometrical ratio year by year—a fact which surely indicates a spreading appreciation of the advantages which public asylums offer to patients of small means, and a decay of that prejudice which used to regard insanity as a disease disgraceful and unclean, to be hidden away in the strictest privacy that could be secured. The aversion to public asylums for lunatics of the middle classes, which was frequently displayed at the time when they were first established, and which was founded on the notion that, being presided over by a committee, and inhabited by a large and ever-shifting population, they would entail the publication of domestic sorrows, is fast dying out. Years may, perhaps, elapse before such institutions are as firmly established in popular favour and confidence in England as they are in Scotland, where private asylums can scarcely be said to exist; but in the meantime, as the experience of Barnwood House and kindred establishments attests, they are constantly gaining ground, and are being more and more generally recognised as retreats in which the mentally afflicted are comfortably accommodated and skilfully treated at a marvellously cheap rate. They are encroaching on the ground previously occupied by private asylums of the poorer sort, and must lead to the extinction of such of these as have fallen into disrepute, or have been commercially least successful. At the same time, they are competing to some extent with private asylums of the highest class, and are imposing on them the necessity of keeping well abreast of all modern improvement in the accommodation and treatment of the insane.

One great advantage possessed by middle-class lunatic hospitals, is the exemption they enjoy from those cloudy suspicions and shadowy doubts which still hover over private asylums. No doubt, many of these are conducted on the most honourable principles, and with singleness of purpose; but the belief that their proprietors have a personal and pecuniary interest in protracting treatment and postponing recovery taints their fair fame, and leads to the ascription, often most unjustly, of sordid motives to those who are concerned in their management. To lunatic hospitals, however, no such suspicions can attach. Their officers, being paid by fixed salary, and having no share in any profits that may be realised, are led to identify their own gain with rapid recoveries and prompt discharges; and hence the well-founded conviction, that no one is ever unjustly or unduly detained in them.

Another advantage which they possess is akin to that offered by mutual insurance companies, and consists in the distribution, amongst those who are their inmates, of whatever profits may be derived from their management, as bonuses, in the shape of increased comforts or diminished rates of board. In private asylums, large sums are unquestionably withdrawn annually by the proprietors, who are often a numerous body of both sexes representing several generations which have been interested in the concern; and whatever the pecuniary success of the establishment may be, no proportionate benefits are conferred on the patients. And it is, of course, right and reasonable that this should be so, for capital invested in private asylums must yield interest as well as capital invested in other enterprises, and those who engage in this work are entitled to remuneration in some degree proportionate to its risks and drawbacks. But in lunatic hospitals it is otherwise. In them, whatever surplus funds remain at the end of the year after the payment of their current expenditure, which is invariably on a liberal scale, are devoted to the carrying out of improvements, to the provision of additional comforts and indulgencies, to the reduction of the rates of board charged, or to the extension of their charitable department. No one has to make a profit out of them; no interest on capital has to be paid, as they have been built out of the bequests of the benevolent, and enlarged either from the same source or out of the excess of income over expenditure, and the salaries of their officers are modest enough; and thus it is that they are enabled to afford very superior accommodation at very moderate charges, and to introduce every modern improvement in construction and administration. In Barnwood House, the average rate of payment per patient was, last year, only £2 3s. per week, and yet a profit of £4,482 was realised. This large saving, like all balances previously realised, will be at once employed in augmenting the comforts of the inmates, or in enlarging the building, so that a fuller scope may be given to its charitable operations, which have never been lost sight of. Out of one hundred and thirty-two patients who were under care and treatment during last year, fifty-three were maintained at a reduced weekly payment; one was received gratuitously, three at payments of ten shillings a week, and many at sums considerably below the actual cost of their maintenance. Twelve patients were supplied with clothing and all extras at the charge of the institution. Accumulated profits amounting to £13,000 are now being expended in providing a new and spacious entertainment-room, with a permanent raised stage at one end, a large billiard-room, blocks for sitting-rooms and bed-rooms, closets, and lavatories, both on the male and female sides, and a conservatory, bath-room, and store-room.

The Commissioners in Lunacy speak in highly laudatory terms of the objects and aims of Barnwood House, and of the manner in which it is conducted. It is carried on, they say, in a truly charitable spirit, and hence they rejoice that it is to be enlarged so as to afford increased accommodation for the class of insane whose friends are unable to meet large demands of a pecuniary nature. Sixty-eight patients, they announce, participated in its charitable bequests in 1879. The general feeling of the gentlemen and ladies who spoke to the Commissioners on their rounds was clearly contentment with the domestic arrangements;

while several volunteered expressions of gratitude for much kindness shown to them personally by Dr. and Mrs. Needham. The means of amusing the patients are, they remark, carefully studied, and the entertainments are frequent and varied. A few gentlemen are induced to interest themselves in gardening; more pianos have been obtained for the ladies; and a lathe and tools for fret work have been added to the resources of the establishment. The dress of the patients is excellent, and their demeanour quiet and orderly. The day-rooms are well furnished, and success has completely crowned the exertions of the medical superintendent in introducing decorations into the rooms of the more violent and destructive patients. Mirrors, pictures, and objects of art, are as much respected and as little harmed by this class as by the more tractable cases.

Altogether, Barnwood House seems to be an excellent example of what a middle-class asylum ought to be. The creation of two or three similar institutions in convenient situations would do much to remedy the most crying evils of our lunacy system.

Drs. A. Monti and Winternitz have been appointed Extraordinary Professors in the University of Vienna.

Dr. von Nussbaum of Munich has performed his three hundredth ovariotomy.

The Library of the Royal Medical and Chirurgical Society is closed from the evening of Thursday the 14th, to the morning of Tuesday the 19th instant.

Dr. Murrell has been elected Lecturer on Materia Medica and Therapeutics at the Westminster Hospital, in the place of Dr. C. D. F. Phillips, who has resigned.

Dr. Leslie Ogilvie has been elected Lecturer on Zoology and Comparative Anatomy at the Westminster Hospital, in the place of Dr. Carter Blake, who has resigned.

Sir William Jenner, K.C.B., F.R.S., was on Monday last elected President of the Royal College of Physicians, in the room of Sir J. Risdon Bennett, M.D., F.R.S.

In token of their obligation to Dr. Bell for the part he has taken in the investigation of the malady known as "woolsorters' disease", the woolsorters of the Bradford district are about to present to that gentleman an illuminated address and a handsome gold watch.

The general orders for the regulation of the Volunteer Review at Brighton on Easter Monday state that field-hospitals will be established at Newmarket Farm and at the Windmill above the Cemetery, and will be placed under the medical charge of Surgeon W. S. Burrows, 1st Sussex Artillery Volunteers, and Surgeon J. G. Westmacott, M.D., 7th (London Scottish) Rifle Volunteers; also that an ambulance wagon will be attached to each division of the force.

The Committee of the International Medical and Sanitary Exhibition, to be held at South Kensington, on the occasion of the International Medical Congress, have passed the following resolution: "That, in order to meet the convenience of intending exhibitors in Great Britain and Ireland and the Continent of Europe, the time for sending in applications for space be extended to Saturday, April 16th, 1881—the last day for receiving applications from the Colonies and America."

Dr. Ferdinand Coletti, Professor of Therapeutics in the University of Padua, has lately died. Dr. Coletti was the first of the most zealous apostles of cremation in Italy; and he desired, in his will, that his corpse should be transported to Milan to be cremated there. His wish was carried out, and the body was burned in the presence of a large assemblage of citizens and of his colleagues, and of political and scientific authorities. Many orations were pronounced in his honour. The ashes were enclosed in a beautiful glass urn, presented to his family at the expense of the Italian Cremation Society.

In view of the proposed review of the Volunteer force by the Queen at Windsor, the Army Medical Department of the War Office has authorised the formation of a bearer-company, to be formed of certificated men selected from Volunteer corps in London, the number to be sent from each corps varying according to the number of men efficient. The medical details connected with the ambulances are to be conducted by the volunteers themselves, and not, as hitherto, by the Army Medical Department. It is further announced from the War Office, that, in the revised edition of the Volunteer Regulations, shortly to be issued, authority will be given for the wearing of the Geneva badge by members of the Volunteer force qualified to act in the ambulance department.

A RETREAT FOR INEBRIATES.

We publish in another column an interesting paper by Mr. S. S. Alford, whose indefatigable efforts on behalf of the class of dipsomaniacs will, we trust, be crowned with success. It will be seen that a strenuous endeavour is being made to start, on a satisfactory basis, the Dalrymple Retreat for Inebriates. A meeting is to be held at the Mansion House, on May 17th, at 3 P.M., for appointing a Committee of Management. The need of such an institution is undoubted, and medical support should not be wanting.

PROPOSED HOSPITAL FOR KINGSTON.

At a meeting of the Thames Valley Branch of the British Medical Association, held at the Griffin Hotel, Kingston-on-Thames, on Thursday, the 7th instant, Dr. F. P. Atkinson in the chair, the following resolutions were adopted in reference to a printed letter that was being circulated in the neighbourhood, suggesting the desirability of founding a general hospital for Kingston and the neighbouring districts, viz.: 1. That a hospital for the treatment of infectious cases, available for all classes, is an urgent necessity for this and all neighbourhoods so near London or other large centres of contagion. 2. That a general hospital, though very desirable, is not so urgently needed at the present time. 3. That the hospital for infectious cases should provide for paying and non-paying patients, the cost of the treatment of the latter being defrayed out of the rates of the district from whence they may come. 4. That the medical staff attending in rota be paid by the paying patients, or, in the case of the non-paying patients, out of the rates. 5. That the domestic and financial management of such hospital be under the superintendence of a lay committee; but that the nursing arrangements and all matters relating to the treatment of the patients be exclusively under the control of the medical committee. 6. That the site be as far removed as it conveniently can be from the populated centres, and upon land now used for merely agricultural purposes.

THE HEADS OF THE PEOPLE.

A paper was recently read before the Bristol Naturalists' Society, entitled "Evidence as to the Gradual Diminution of the Dimensions of the Human Head in this Country", in the absence of the author, Mr. F. F. Tuckett, by Dr. Beddoe, F.R.S., who followed it up by another paper on the same subject by himself. Mr. Tuckett's attention had first been directed to the subject of his communication by a remark made to him some time ago by Mr. Castle, hatter, of Bristol, to the effect that, during the last twenty-five years, the sizes of hats, as regards the dimensions of the head, had been gradually diminishing, the difference of the circumferential measurement during that period amounting to as much as half an inch. Other hatters, both in Bristol and in different parts of England, were requested to communicate whatever information they might possess on the subject, and it appeared that their experience was similar to that of Mr. Castle. Messrs. Lincoln and Bennett, the well known London hatters, kindly supplied a tabulated form, showing the progressive rate of diminution

since 1855, from which it appears that the average size of hats sold by them had fallen from No. 7 1-25 in 1855 to 6 19-21 in 1880; the average shrinking in size being 1-7th inch, or rather more than one size, which is represented by ⅛ inch. One hat manufacturer wrote: "Fifteen years ago, the usual sizes of hats in England were from 6¾ to 7⅜, and even 7½ was not uncommon; but now, if a 7⅜ hat were wanted, we should have to make a block purposely. The diminution in size has been attributed by some to the prevailing fashion of wearing the hair short; but, as heads certainly average two sizes less than they did, and as the difference between long and short hair cannot amount to a quarter of an inch in the length and the same in the width of a head, this explanation is inadmissible." While in Scotland last summer, Dr. Beddoe inquired of the principal hatter what his experience was, and he, also, fully corroborated what has been stated; so that the change appears not to be confined to the southern portion of the island. Several theories have been proposed to account for it, but none are satisfactory; and Dr. Beddoe was inclined to attribute it to a gradual decrease in development. In support of this, Mr. C. Garlick, hatter, of Bristol, has also the following statistics: Sizes of one hundred hats sold in 1862: 1, 6⅜; 0, 6½; 1, 6⅝; 13, 6¾; 14, 6⅞; 31, 7; 29, 7⅛; 7, 7¼; 4, 7⅜. Second hundred sold same year: 3, 6⅝; 14, 6¾; 22, 6⅞; 25, 7; 25, 7⅛; 6, 7¼; 3, 7⅜; 2, 7½. In 1880: 1, 6½; 9, 6⅝; 17, 6¾; 24, 6⅞; 27, 7; 18, 7⅛; 3, 7¼; 1, 7⅜. Second hundred: 1, 6½; 6, 6⅝; 23, 6¾; 29, 6⅞; 18, 7; 13, 7⅛; 8, 7¼; 2, 7⅜. These hats were sold in succession, and to men above the age of twenty. It is stated, in the *Hatter's Gazette*, that hatters have for some time been aware of this fact.

THE ROYAL COMMISSION ON THE MEDICAL ACTS.

As we mentioned some time since, the intentions of the Government in regard to appointing a Royal Commission on the Medical Acts have been wavering, from a fixed determination not to appoint any medical members of such a Commission—a decision curiously out of harmony with precedent, custom, and common sense—through the various phases of sharp decision and absolute indecision. The last phase has been the announced intention to appoint a Commission of such men as Lord Rosebery, Sir George Jessel, and Mr. Huxley, to represent State legislative educational influences; and to add four medical men—two for England, and one each for Scotland and Ireland. The question has then arisen, where to find "eminent" medical men who have not expressed a decided opinion on one side or other of the question? The answer is, that it would be more than hard to find them; and that the easiest is the usual way, of balancing parties, who, being thus fairly represented, would be the more disposed to accept the ultimate decision.

SCARLATINA SPREAD BY MILK.

As some exaggerated rumours have been current as to the outbreak of scarlatina at Ilkley, it may be well to give publicity to the actual facts of the case, as reported to the local board by their health-officer, Dr. Thomas Scott. Ilkley being a favourable health-resort for large numbers of visitors, the circumstances of the recent occurrences of scarlatina there possess a more than local interest. It appears from Dr. Scott's narrative that a few cases (probably not more than nine in all) occurred in the place during the first eleven months of last year; and these were mostly traced to importation from infected districts. But, at the end of November and beginning of December, a sudden outbreak of scarlatina occurred in ten persons. Inquiry into its origin elicited the fact that all the houses were supplied with milk by one purveyor, and suspicion thus naturally fell upon the milk-supply. It was ascertained that this was derived from two or three different farmers: but no case could be discovered to have existed in their families, or those of their neighbours, or at the milkman's, except at a period which put them beyond question. In Ilkley, nothing was known on the subject at the time; and thus a link was wanting to complete the chain of evidence. Further scrutiny, however, revealed the circumstance that one family had been affected, though in so mild a form that no medical man was called in. The sources whence the milkman obtained his supply having been recognised as unimpeachable, and the fact that all the cases appeared simultaneously, being followed by no others in direct succession, proved that the origin of the infection was of a casual character. What this was evidently depends, in Dr. Scott's opinion, on a habit which milkmen in Ilkley have of carrying their supplies in bulk into the houses of their customers. In this instance, the same purveyor who furnished the milk to the ten houses in which the fever so suddenly developed itself, also provided the family of the person in whose house alone there had been a recent case of scarlatina. As the outbreak occurred in the end of November, and the children of this person were seized a month previously, they would then be convalescent and in the stage of desquamation; so that the milkman, following the usual custom of taking his milk-can into the house with him, most probably, on some occasion, had it polluted from this source, and thus propagated the disease in other quarters. The second outbreak, in February, admits of a similar explanation, since, of the nine houses attacked, all but one were provided with milk by two individuals (one the same as before), who customarily interchanged and supplemented each other's supplies. Due precautionary measures seem to have been taken by the local authority; so that, on the 9th instant, Dr. Scott was able to inform us that there was then only one house in Ilkley in which a case of scarlet fever existed; though, as a health-resort, and in close proximity to many towns in which that disease is more or less prevalent, occasional cases of it must be expected. The outbreak which Dr. Scott records presents several points of interest, not the least of which are the consequences which have resulted from the dangerous local habit of milkmen taking their stock supply into the houses of customers. It is to be hoped that the outbreaks, if they have done nothing else, will have taught a lesson of caution in this particular.

POISONING BY CHLOROFORM.

THE recently issued number of the *Nordiskt Medicinisk Arkiv* contains a report, by Dr. Johannes Mygge of Copenhagen, of a fatal case of poisoning by chloroform. The patient was a man of intemperate habits, who had, six days before his admission into hospital, drunk nearly forty grammes (more than ten drachms) of pure chloroform. He appears to have rapidly fallen into a state of narcotism, from which he revived four hours later, without the use of remedies. Immediately after this, he several times vomited matter having a strong odour of chloroform; after this, he had watery and slimy stools, mixed with much blood; and, from the night after the catastrophe, he expectorated large quantities of viscous, frothy, and sanguineous matter. On his admission, hepatisation of the lower lobe of the right lung was found; there was copious expectoration of sanguineous and frothy matter; the mouth exhaled a very fœtid odour; he had frequent vomitings of bilious matter; his evacuations were fluid and viscous, but not mixed with blood; and he had pain in the epigastrium; sleep was disturbed. He gradually sank, and, after having had slight convulsions, died two days after admission to hospital. The necropsy showed grey hepatisation of the lower lobe, and congestion of the other parts of the right lung, and recent fibrinous adhesions over the whole surface. The mucous membrane of the stomach, over a surface as large as a child's hand, close to the large *cul-de-sac*, was reduced to fibres, and partially detached; and a more limited portion of the anterior wall of the organ was destroyed, with the exception of the serous and subserous membranes. The upper part of the jejunum, for the space of one and a half mètres (nearly five feet), presented numerous ulcers, varying in size from a pea to a bean; they were irregular, greyish, partially arranged in transverse lines, and tinged here and there with bile. Nothing of importance was found elsewhere. Dr. Mygge gives a table of sixteen other cases of poisoning by the drinking of chloroform, which have been reported in medical journals, and refers to others. His statistics, however, are incomplete, as the table is only brought down to 1872. He remarks that congestion of the lung has been found in almost every case in which a necropsy has been made; and that in one of the fatal cases there was an expectoration of sanguineous viscous matter

similar to that which occurred in this case. As regards the digestive canal, the symptoms observed have been similar in nearly all the cases hitherto described, but less intense than in the present case; and in one case only besides that of Dr. Mygge was any destruction of tissue found.

SMALL-POX AT BOULOGNE.

THE small-pox statistics at Boulogne-sur-Mer during the months of January, February, and March are as follows. In the town and at the hospital, there were 157 deaths, 94 of which were in children. The disease has been of a virulent form, but the numbers have decreased during the last month. Over 1,600 people have been vaccinated from the calf, four having been placed at the disposal of the medical men of the town; and, at a meeting of the Medical Society on Tuesday, it was decided to continue the vaccination, each medical man taking his turn at the work. On the morning of the 11th, there were only eight cases at the hospital, all going on well.

THE GERMAN SURGICAL CONGRESS.

THE tenth congress of the Association of German Surgeons commenced on April 5th. The first meeting was attended by a large number of surgeons, among whom were Herren von Langenbeck, Bardeleben, von Lauer, Gurlt, Huhn, Langenbuch, of Berlin; Thiersch, W. Busch, König, Kölliker senior and junior, Lücke, Uhde, Hueter, Credé senior and junior, Maass, Richter, P. Bruns, etc. Among the papers on the list for reading were the following: Dr. Grawitz (Berlin), on the Theory of Prophylactic Inoculation; Dr. Maass (Freiburg), on the Influence of Rapid Withdrawal of Water from the Organism, with special reference to Heat-stroke and to Operations on the Abdomen; Dr. Mikulicz (Vienna), on Iodoform as a Dressing in Tuberculosis of the Bones and Joints; Dr. Sonnenburg (Berlin), on the Significance of Tubercles in (fungous) Inflammations of the Bones and Joints; Dr. Kölliker (Halle), on the Anatomy of Cleft Palate; Dr. Martin (Berlin), on Extirpation of the Uterus through the Vagina; Dr. P. Bruns (Tübingen), on Transplantation of Bone-marrow; Dr. Fenwick (London), on the Subcutaneous Veins of the Abdomen in Man in their Surgical Relations.

CEDRINE AND VALDIVINE.

MM. DUJARDIN-BEAUMETZ and A. Restrepo have studied the physiological and therapeutic action of cedrine and valdivine on man and animals (*Revue Scientifique*, April 2). Valdivine possesses toxic properties to the highest degree. The characteristic of its action is the slowness with which the effects are produced. In dogs, valdivine brings on violent, almost continuous vomiting. Rabbits do not vomit; but, three or four hours after injection, they fall into a state of profound torpor, which lasts until death ensues. Cedrine is much less toxic than valdivine; one centigramme (0.15 grain) is necessary to kill a small rabbit. Neither valdivine nor cedrine has any action over snake-bite. Cedrine, however, possesses incontestable febrifugal properties, although its action is slower and less certain than that of sulphate of quinine.

SCOTLAND.

DRUG ADULTERATION.

AT a meeting of the North British Branch of the Pharmaceutical Society, held in Edinburgh, a paper on Drug Adulteration was read by the City Analyst, Dr. J. Falconer King, who entered into the subject fully, and gave examples. The discussion which followed showed that many of the members did not agree with Dr. King's conclusions, but considered drug adulteration as uncommon in Scotland.

THE TERCENTENARY OF EDINBURGH UNIVERSITY.

THE authorities of Edinburgh University are already bestirring themselves with the view of rendering the tercentenary of the University of Edinburgh worthy of its history. On Monday, Sir Alexander Grant, Principal of the University, applied to the Town Council for permission of access to the Town Council records of the University; and it may be well to quote some of his letter of application, as showing how intimately the two corporations were formerly related. "On the 1st of October, 1583, the University of Edinburgh was opened by an inaugural address from Rollock, who had been appointed by the Town Council to be the first Principal. In October 1883, our University will be entitled to celebrate its three-hundredth birthday; and the Senatus Academicus have it in view to invite the representatives of other universities to Edinburgh, in order to rejoice with us at our tercentenary. The occasion will be one of which the Town Council may well be proud. The University was originally their creation, and by their judicious management it grew like a grain of mustard-seed and took deep root, so that, beginning as a small college of some thirty students, it now ranks among the most numerously attended universities in the world, and has over three thousand students. It has occurred to us that it would be appropriate to the celebration of the tercentenary, if we were to bring out a history of the University during its first three hundred years, not only completing the histories of Bower and Dalziell, in bringing them up to date, but also producing something more interesting to strangers, and at the same time more correct than those works. For this purpose, it would be necessary to have access to the Town Council records relating to the University; and my object in writing is to ask if your lordship and the Council will kindly grant me permission to examine and make extracts from those records," etc.

CORONERS' INQUESTS AND SCOTLAND.

RECENTLY, the Lord Advocate for Scotland was memorialised by a miners' association, asking him to introduce a measure into Parliament for the purpose of establishing coroners' inquests in Scotland. He has replied unfavourably to the secretary of the miners' association, and says: "I am afraid I cannot go along with you in the matter of coroners' inquests, because my partial knowledge of the Scotch system, compared with all I have read and heard as to coroners' inquests in England, convinces me that our system of inquiry is both more thorough and more conducive to the detection of guilt than the English. The percentage of acquittals in England is enormously greater than ours, owing to the inferiority of the means of inquiry."

ABERDEEN DISPENSARY.

AT the annual meeting of the supporters of the Aberdeen Dispensary, held last week, it was stated that, during the year, 8,227 patients had been treated, of whom 7,498 had recovered, and 130 had died. The treasurer's accounts showed a balance of £57 in favour of the institution.

HEALTH OF GLASGOW.

FROM the report of the medical officer of health, for the week ending April 2nd, it appears there were 529 deaths registered, as compared with 571 in the fortnight preceding, being a decrease of 42, representing a death-rate of 23, in place of 25, per 1,000. The number of deaths of persons aged below one year was 133, and of persons aged sixty years and upwards, 77. The number of deaths from pulmonary diseases was 200; from fever, 4—viz., 3 from enteric, and 1 from typhus; and from infectious diseases of children, 32—viz., 23 from whooping-cough, 7 from measles, and 2 from scarlet fever. It would seem, therefore, that the mortality returns of the past fortnight show a remarkable immunity from fatal infectious diseases, and also a lowered pulmonary mortality. During the fortnight, there was registered the first case of genuine small-pox seen in Glasgow for seven months. The patient was a seaman, who had sailed between Calcutta and London in a ship in which small-pox had appeared during the voyage. He left the vessel at London, and came down to his home in Glasgow. Feeling ill on his arrival, a doctor was at once summoned, the disease detected, one of the blank forms issued by the sanitary authorities filled up and posted, and the patient was removed to the hospital before he had been twenty-four hours in the city. The number of cases of fever

registered in the fortnight was 31—viz., 25 of enteric fever, 4 of typhus, and 2 undefined. There are at present in the hospital at Belvidere 71 cases of scarlet fever, 58 of enteric fever, 30 of measles, 20 of typhus, and 12 of whooping-cough, 1 of small-pox, and 1 of chicken-pox; in all, 193, as compared with 192 this day fortnight, and 176 at the corresponding date of last year.

THE EVIDENCE OF A LUNATIC ADMITTED IN A COURT OF LAW.

A TRIAL took place at the Sheriff Criminal Court in Inverary last week, in which the presiding sheriff not only admitted the evidence of a lunatic person, but also convicted and punished on the strength of it. This patient was, on the evidence of Dr. Cameron, Superintendent of the Argyllshire Asylum, found to have had a rib broken, but, beyond the assertion of the patient, there was no evidence to show how it had been done. In his cross-examination, Dr. Cameron stated that the patient was subject to delusions, and this was confirmed by one of the male attendants. Although the counsel for the accused, who was a warder, objected to the Procurator-Fiscal producing the patient as a witness, and, in support of his protest, quoted authorities and precedents, to show that such evidence was inadmissible, and contrary to the practice of the courts, more especially when the medical evidence showed him to be fatuous and inept, the sheriff repelled the objection, and administered the oath to the witness, who appeared somewhat bewildered. Through a medical man interpreting for him, the witness deposed that the accused had assaulted him, and pushed him violently against a tree in the grounds. As the result of the trial, the sheriff found the accused guilty, and sentenced him to a fine of forty shillings, or forty days imprisonment.

THE HELENSBURGH SEWAGE QUESTION.

OF late, a good deal of discussion has arisen as to whether the health of Helensburgh, and other places on the Clyde, is affected by the sewage brought down by the river from Glasgow and other towns in its vicinity. Some have held very strongly that it is; and the presence of a very fatal and prevalent form of influenza in some of these watering-places is ascribed to the existence of sewage in the mud on the shores. With a view of obtaining further information on the subject, samples of mud from the shore at Helensburgh and elsewhere have been submitted to Dr. Wallace, Glasgow, and Dr. Stevenson Macadam, Edinburgh, for examination. The analyses are to be embodied in a statement from the local authority, which will shortly be made public. Meanwhile, it has transpired that the analyses are such as to exceed the expectations of those who maintained throughout the entire absence of sewage from the shore; and, when compared with other towns, to place Helensburgh in a very favourable health-position.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General, for the week ending April 2nd, it appears that the death-rate in the eight principal towns, during the week, was 20.7 per 1,000. This rate is 3.5 below that for the corresponding week of last year, and 2.8 below that for the previous week of the present year. The lowest mortality was recorded in Paisley—viz., 16.9 per 1,000; and the highest in Perth—viz., 33.1 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 2.7 per 1,000, or 0.3 less than that for last week. There was a marked diminution in the number of deaths from whooping-cough in Glasgow. One case of "septicæmia" was certified as having occurred in a female child seven months old from "foul vaccination". Acute diseases of the chest caused 146 deaths, or 8 more than last week. The mean temperature was 35.6°, being 0.6° above that for the week immediately preceding, and 3.8° below that for the corresponding week of last year.

RANSOME'S DISINFECTING APPARATUS.

THE burgh of Hillhead, near Glasgow, has just had fitted up, for the use of the ratepayers, one of Ransome's new disinfecting stoves; and on the afternoon of the 9th instant, the public were invited to inspect the apparatus, and see its method of working. At the same time, Dr. Christie, the officer of health for the burgh, read a paper, describing the stove, stating the reasons which led the Commissioners to resolve on its introduction, and dealing generally with the subject of disinfection. We believe that, with the exception of one at Greenock, it is the only apparatus of the kind in use in Scotland; and the authorities are to be congratulated on the introduction of this important aid in the means of eradicating and preventing the spread of zymotic disease.

COMBE PHYSIOLOGY LECTURES IN GLASGOW.

ON the evening of the 11th inst., Dr. Andrew Wilson, F.R.S.E., Combe Lecturer, began a course of fifteen lectures, in Glasgow, on the "General Physiology of the Human Body in its Relations to Health". After giving a sketch of the life of George Combe, the founder of the lectures, and after pointing out how many of Combe's views, once regarded as unorthodox, were now the accepted facts of to-day, the lecturer proceeded to describe the place of man in the animal series, and showed that the human body agreed in its general structure with that of every other vertebrate animal. The lecture, which was fully illustrated by diagrams, was well received by a large attendance of students and the general public. The lectures, which are free, are to be continued on Mondays and Thursdays, at six o'clock, until completed.

IRELAND.

A GRAND fancy dress ball, in aid of the funds of the North and South Charitable Infirmaries, Cork, will be held on Friday evening, the 22nd instant. A most influential committee has been appointed; and there is no doubt that a large amount will be obtained for the two institutions.

TRICHINOSIS.

AT a meeting of the Dundalk Board of Guardians, last week, a report was adopted in reference to the recent circular of the Local Government Board about trichinosis. The resolution was to the effect, that the officers of health in the union be requested to attend henceforward to the provisions of the Public Health Act, sections 132, 133, and 134, with the view of prohibiting the sale of unsound meat, especially foreign bacon and pork, in their respective districts.

THE REGISTRATION OF INFECTIOUS DISEASE.

AT a meeting of the North of Ireland Branch, held in the Belfast Royal Hospital, on March 4th—Dr. J. W. T. Smith, President of the Branch, in the chair—it was unanimously resolved: "That, in view of legislation on the subject, the North of Ireland Branch of the British Medical Association desire to record their opinion, that the onus of reporting cases of infectious disease should not devolve upon the medical attendant."

PETERBOROUGH RURAL DISTRICT.—Though scarlatina did not in 1880, assume the dimensions of an epidemic as in the year preceding, there were still numerous cases of it in various parts of the district, as many as 68 attacks coming under the observation of Dr. Thomson. There was, moreover, an outbreak of typhoid fever in a dirty village, chiefly spread by infected privies. The general death-rate was 15.2 per thousand, which is lower than the average. The total number of deaths from zymotic diseases was 50, or 6 per cent. of the total deaths. Dr. Thomson's remarks as to the faulty method of excrement disposal in the district, deserve the particular attention of the local authority.

WHITWICK.—During 1880, seventy-four deaths were registered in this district, or 14.8 per 1,000 of the inhabitants, and 149 births, or 29.8 per 1,000. In the early part of December, the parish was threatened with an outbreak of scarlatina; but the prompt closing of the schools and the energetic action of the inspector soon stamped out the outbreak, and those attacked made a favourable and speedy recovery. The sanitary wants of the district seem moreover to have been met in a variety of directions.

ACTION FOR LIBEL AGAINST THE "BRITISH MEDICAL JOURNAL".

CORK SPRING ASSIZES: CITY RECORD COURT.

(Before Mr. Justice BARRY.)

CRAWFORD *v.* THE BRITISH MEDICAL JOURNAL AND CORK CONSTITUTION.

Tuesday, April 5th.

THIS was an action for libel arising out of the late Fever Hospital Inquiry, damages being laid at £1,000 against each of the defendants. The plaintiff in the case was Mr. John Bredin Crawford, head-master of the St. Luke's School; and the defendants were the proprietors of the BRITISH MEDICAL JOURNAL and *Cork Constitution* Company, Limited, Great interest was evinced in the case, the court being crowded.

Counsel for the plaintiff were: Messrs. James Murphy, Q.C., John Atkinson, Q.C., and Stephen Ronan, instructed by Mr. H. B. Julian. Counsel for the BRITISH MEDICAL JOURNAL and Ernest Hart, editor: Messrs. A. M. Porter, Q.C. (special), William O'Brien, Q.C., and J. J. Lane, instructed by Messrs. W. V. and R. Gregg. For the *Cork Constitution:* Serjeant Heron; Messrs. Peter O'Brien, Q.C., and George Wright, instructed by Messrs. Babington and Babington.

Mr. Ronan, in opening the pleadings, said that, in this action, Mr. John Bredin Crawford was plaintiff, and the British Medical Association and Mr. Ernest Hart, the editor of the BRITISH MEDICAL JOURNAL, and the *Cork Constitution* Company, Limited, were defendants. The action was brought for two publications of the same article—a libel on Mr. Crawford—one publication being in the BRITISH MEDICAL JOURNAL, and the other publication being in the *Cork Constitution*. The libel was that the plaintiff prosecuted the late inquiry into the Cork Fever Hospital from improper motives, and with malicious intention and with malignity towards Dr. Jones. The plaintiff had, in his statement of claim, set out with certain *bona fides*, and he also stated that he proceeded in the matter with perfect *bona fides*, and from no improper motive. The defendants admitted the publication of the libel, and allowed that throughout Mr. Crawford had acted with perfect *bona fides*, and from no improper motive; but they said that the libel did not refer to him at all; that it did not bear the inuendos put upon it; and that it was a fair and impartial criticism and commentary on a matter of public interest as was the recent investigation, inquiry, and decision of the Fever Hospital Committee.

Mr. Murphy, Q.C., in opening the case for the plaintiff, said that the jury had heard from his friend (Mr. Ronan) the names of the plaintiff and the defendants in this action. The plaintiff, Mr. Crawford, had been for a great many years a resident in the city of Cork, occupying the position of head-master of the St. Luke's Schools. He had established his competency for that position to the satisfaction of the gentlemen who form the committee of the schools; and he had given great proof of that competency by the very great success of his pupils at examinations, chiefly at those called the Intermediate Educational Examinations. Mr. Crawford had wrought hard through life for the support and advancement of his family. Early in the month of February last year, his house was visited by a terrible disease—scarlatina. One of his children was removed, on a Sunday in that month, to the Cork Fever Hospital, and that child died there on the Monday evening following at about eight o'clock. Mr. Crawford thought that child did not meet with fair treatment and care in the hospital; and it was out of the inquiry that arose in respect of what occurred in the hospital as to the treatment of that child, from the time of its admission to the time of its death, that this action had arisen. It would be necessary for him to bring before them in some detail, but still as shortly as he could, the undisputed facts, as well as some that were disputed, connected with the treatment the child received. Mr. Crawford complained that because he had sought for, eagerly sought for, and succeeded in obtaining an inquiry into, all those circumstances, and that he did it in the *bonâ fide* belief that his child did not receive fair treatment, and that he honestly pursued that inquiry, he had been vilified and slandered unwarrantably by the defendants in that action. Now, he would beg of the jury to bear in mind that what the plaintiff insisted on as his case there was that, because he sought for and obtained an investigation into a matter in which he was vitally interested, he had been vilified and slandered, and for no other reason whatsoever. The defendants there, during the course of the investigation that would take place, might succeed in some degree in diverting the attention of the jury from the real question that was at issue. Their defence would be maintained by an array of eminent counsel. They had before them gentlemen with whom they were well acquainted on that circuit; and the defendants had also before them an able and distinguished advocate, his friend Mr. Porter, whose presence there was heartily welcomed by every man on this circuit of his profession. They well knew the powers and the abilities of the other leaders of the case—he need not refer to them; and before the trial was over they would know the powers of his learned friend Mr. Porter. He knew well how, with almost faltering accents and persuasive modesty, Mr. Porter would first secure from the jury an attentive hearing for his client's case, and seek to enlist their sympathy for any person for whom he might be engaged; and if he only saw in the plaintiff's case a weak point exposed to his assaults, he (Mr. Murphy) well knew the force and energy he would put forth. On the intelligence of the jury, then, the plaintiff relied to keep before their minds, during the investigation, the real cause of complaint; and whether to that real cause of complaint a substantial and honest defence could be made—namely, whether Mr. Crawford, in doing what he did, under circumstances that the jury would hear established beyond all dispute, deserved to be hunted down by slander and abuse in the way in which they would find he was. In February, as he told them, Mr. Crawford's house was visited by a terrible scourge—scarlatina. One of his children was attacked, and the attack was of such a serious character, that the family physician, Dr. Johnson, asked to have a second physician called in. Mr. Crawford, having sought for two others, and not finding them at home, he went to the house of an eminent physician of the city, Dr. Jones, and Dr. Jones attended in consultation with Dr. Johnson. The disease was of a very bad type, indeed; and the child died. A second child was attacked, and Dr. William Townsend was called in. Most unaccountable prejudices, he knew, were often taken by people in respect of physicians. People would think that there was something in their manner, something in their mode of treatment—some, perhaps totally groundless cause of alarm or suspicion; and often the most contrary opinions were expressed about the most eminent physicians. In this case, Mr. Crawford did not contemplate calling in Dr. Jones when his second child got ill. He was a little fellow about eight or nine years of age; and, not being all right going to bed on the Saturday evening, Dr. Johnson was asked to look at him. When he called next morning, "Very little appears to be the matter with him", said Dr. Johnson; "but, knowing this terrible scourge to be in the house, I fear it must be scarlatina, and it may be better to have him removed to the Fever Hospital". Mr. Crawford adopted the suggestion, and the child was admitted to the paying ward of the hospital, where plaintiff's sister-in-law was at that time a patient. Whether foolishly or absurdly, he would not now stop to inquire, but Mr. Crawford requested that his child should not be placed under the care of Dr. Jones—saying that he was an experimentalist, or something of that kind; and the house-surgeon, Dr. Adderley, promised that he would be attended by the same physician that was attending Mr. Crawford's sister-in-law. Whether Mr. Crawford was right or wrong in making that suggestion, it was not conveyed, undoubtedly, to Dr. Jones; and, of course, under these circumstances, Dr. Jones, in taking the child under his care in the ordinary way, was simply doing his duty. Now, taking Dr. Jones's account of the matter, what occurred? Dr. Jones, having seen the child between 9 and 10 o'clock on Monday morning, pronounced it to be an extremely bad case, and directed Dr. Adderley to have injected under some part of the child's skin a solution of a drug which he called pilocarpine. Now, that might have been the very best thing that could possibly have been done—it might have been the very best remedy within the resources of medical science; but he would submit that that was not the question on which the jury had to decide: the question on which they would have to decide was, whether or not Mr. Crawford had been rightly slandered and vilified in the way in which he had been. Dr. Jones ordered this drug to be injected. Now, it was an admitted fact that Dr. Jones himself had never injected this drug; that no physician in Cork had done so; that it had not been used in any case, except by Dr. Jones, as an oculist, in some diseases of the ear and eye. Now, let them take it for granted that Dr. Jones read a good deal about the drug; that he was perfectly competent to perform this operation or carry out this process—he then must have been well acquainted with the symptoms which it would exhibit; and he would be able to tell when, to use a vulgar phrase, it would take a wrong turn, and be able to administer the proper antidote for it. But what occurred? There was only one place in the city (Selkirk's) where the drug could be obtained; and Dr. Jones told Dr. Adderley to get it there, at a strength of ten per cent. All this was beyond doubt. Adderley had not so much as ever heard of the drug, and knew no more of its effects than any member of the jury. He was not even asked by Dr. Jones whether he did or not; and he had no more notion of its result as a remedy than, as he said

before, any member of the jury had. All he (counsel) could suggest there was that, if this case was a terribly malignant one, if it was a case of life or death, which necessitated the resort to an extreme remedy, and when a physician undertook to introduce such a remedy into a fever hospital as an advancement of science, the least that might have been expected from him was that he would have himself then and there performed the operation in such an extreme case, where every hour and every minute was of such importance. He ought, in such a case, to have seen that the proper medicine was procured; that it was properly injected; and he should then have waited for its effects, and seen whether it required an antidote to counteract any evil effects that might not have been foreseen. Instead of doing this, Dr. Jones left the hospital, giving Dr. Adderley directions what to do. The quantity he directed to have injected was one-third of a grain, at a strength of ten per cent. Let them take for granted that, beyond all doubt, Dr. Jones clearly and distinctly instructed Dr. Adderley that that was to be the quantity injected—he had already told them what ought to have been expected in a case of this kind, where there was used such a potent medicine, and, if they liked, such a potent remedy, but still dangerous just in proportion to its potency, perhaps—but, taking that for granted, they could not help, under such circumstances, recognising the importance of having the remedy tried by the doctor who recommended it. They would see the advisability of adopting that course, even admitting that Dr. Adderley took and carried out to the letter his instructions; but when he (counsel) told them that Adderley said he knew nothing whatever of the drug or of its properties, and that he furthermore stated that the quantity he was directed o inject was one grain, and to repeat it a second time within hree hours, they would see how absolutely necessary it became or Dr. Jones to administer this drug himself. Dr. Jones stated that it was one-third of a grain he told Adderley to inject; and, had Adderley administered one grain to the child, beyond all doubt it would have resulted in immediate and certain death; and, at the investigation before the committee, Dr. Jones himself admitted that, had a whole grain been administered, "it would have killed the child, or rather I should say it might have killed the child". Barring a miracle, counsel supposed it would. This drug was not in the hospital, fortunately for all the parties concerned, because it was only owing to the difficulty experienced by Dr. Adderley in procuring the drug which prevented him from administering it, and causing the immediate death of the child. It was not Dr. Jones's fault that Dr. Adderley was ignorant, but when he provided a novel and extreme remedy, he should have provided also for seeing whether good or bad results would arise from it. Dr. Adderley forgot where he was told to get the drug; but, later n the day, after trying several places, he remembered that it was at Selkirk's, and then he could not get it at the required strength even here. Now, they should remember that Dr. Jones stated that the child was in a much better condition to receive this drug at ten in the morning than at five in the evening, when it was administered, and that every moment was of importance. Dr. Adderley could not get what was wanted, and, about one o'clock in the day, Dr. Jones told him that he had himself some, which he used for the eyes with some of his patients; and he said also that he would go to the hospital in the afternoon, and perform the operation himself. On that same Monday morning, Crawford had followed to the grave the remains of his second child. On his way back, he called at the hospital, and saw Dr. Adderley, who told him it was a very bad case, and that Dr. Jones had ordered pilocarpine to be injected. Crawford thought, at the time, that probably that was the very best remedy that could be applied, but, the moment he heard that the case was so serious, he went to see Dr. Jones, in order to entreat that Dr. William Townsend might be admitted into consultation. This request was refused by Dr. Jones; and it might, at least, under the circumstances, have been expected that the senior physician of the hospital (Dr. Beamish) should have been called into consultation, and give the child a chance for his young life. Dr. Jones attended at the hospital at five o'clock in the evening, and injected this drug, and, having waited for a short time, he directed that the child should be packed; and, according to his own account, that he should get some brandy and milk; and he admitted before the committee that he might have said, when going away, that there was no use in sending for him again that night. Dr. Adderley dry-packed the child, which, it appears, was not what Dr. Jones meant, and gave claret and milk; following out, as he believed, the instructions of Dr. Jones. As Dr. Jones was leaving the hospital, Crawford met him at the gate, and the doctor shook his head and said it was a very bad case, and that he feared the result. Crawford, on going upstairs, immediately saw the child, as he considered, an appalling spectacle, and not able to recognise him nor anyone else, and he believed blind. The father was, of course, plunged into despair, he sent for Dr. Adderley, who, on making his appearance, said, "Oh, this is the effect of the drug." Soon afterwards the child died, but Dr. Jones did not know of it until he paid his usual visit to the hospital next morning; and, upon his making his appearance, Dr. Adderley said to him, "I am sorry you used that drug; the effects were terrible"; and Dr. Jones replied, "What, sir! don't you think I know the effect of that drug? I intend to use it in future on my scarlet fever patients, and you will have to keep a supply of it in the hospital". Well, he (counsel) hardly thought that he had used any of it since. The committee of the Fever Hospital, who investigated all the circumstances of the case, was a very representative one, and they brought considerable intelligence to bear on the matter; after which they arrived at the following conclusion, in the form of answers to questions put to them by Mr. Crawford's solicitor. 1. That, having received a distinct promise that his child should not be placed under the care of Dr. Jones, he was subsequently so placed? We are of opinion that Mr. Crawford had good reason to believe that such promise was given; but Dr. Jones is in no way involved in the matter, as he knew nothing about the case until he saw it on his ordinary visit. 2. That Dr. Jones, having refused to allow Mr. Crawford's private physician to be taken into consultation as to the proposed operation on his child, he subsequently performed that operation—a new and dangerous one—without consulting his own colleagues in the hospital? Dr. Jones did refuse Mr. Crawford to call in his (Mr. Crawford's) private physician in consultation; he was quite justified in so doing, according to the usage and practice of the hospital. He did perform the operation by himself. We are of opinion that the operation or application of the drug was new in the city of Cork; but the medical evidence shows that it is not in medical practice unknown in the United Kingdom or the Continent of Europe. When skilfully administered, we do not believe the term "dangerous" applicable to the operation or use of the drug. We regret that, following the usage of the hospital, Dr. Jones did not consult his colleagues; and we are of opinion that, using pilocarpine for the first time in a case of scarlatina, he ought to have shared the responsibility with them. But, on the other hand, the medical evidence states that, with Dr. Jones's special knowledge of the drug, he was warranted in dispensing with the consultation." It was further stated that there was no use in consulting with men who knew nothing about the drug themselves; they never saw it, and they never contemplated administering it. 3. That he performed that operation without any proper intimation to Mr. Crawford, and without getting his sanction? We do not think it necessary that he should have given any intimation to Mr. Crawford, or that his consent should have been obtained. 4. Exhibiting want of care as to the time of performing the operation, and great carelessness and neglect subsequently, considering that it was a dangerous and novel operation? There was want of care as to the time of performing the operation. Sufficient pains were not taken to procure the drug in due time, and lamentable delay occurred in its application. The committee then added that they could not close their unanimous report without stating that the facts disclosed in the course of the inquiry necessitate a searching investigation into the general administration of the hospital, which they had determined to make forthwith. The committee were appalled when they heard the state of things in the hospital; when they heard of the drunkenness of nurses, the tying of patients in their beds in order to keep them there, and the taking back of nurses who had been discharged for such conduct; no brandy in the hospital for a long period of time; this contradiction between Drs. Jones and Adderley. No consultations were held in the hospital except casually. A lasting benefit would result to the hospital from that public investigation which Mr. Crawford had so much difficulty in procuring. That report was published on the 18th of September, while the case was still in progress. Great indignation was expressed by medical men, and medical journals, which were aroused to observance of the case in different parts of the kingdom, that the Committee of the Fever Hospital should enter into such an investigation at all. No doubt, on medical questions, laymen were not able to pronounce an opinion as well as physicians; but as to whether medicine which, if given at all, should be given at ten o'clock in the morning, ought to be delayed until five o'clock in the evening, they were as competent to pronounce an opinion as any number of medical men. What had Mr. Crawford done, according to the report of the committee, to call for this abuse and slander? Was it, indeed, because he dared question the treatment his child had received in the hospital? Mr. Crawford, on inquiries about this drug, found, from the authorities in many leading hospitals, that it never had been used there. He learned that a most distinguished medical man, the senior physician of Cork, Dr. O'Connor, had never heard of it. Letters and articles on this question appeared in the *Constitution*. Poor Crawford wanted to reply to them; but he would not be allowed to reply to them in the *Constitution*. Everything sent on behalf of Dr. Jones, letters

from medical men, and articles from medical journals, were readily inserted in the *Constitution;* but never a word on the other side. On September 18th, before the committee had reported, the BRITISH MEDICAL JOURNAL published an article on the subject, which was copied into the *Constitution* of September 20th. On the same date, there appeared an article taken from the *Medical Press and Circular*, and a letter from Dr. Cremen, abusing Mr. Julian "uphill and downhill" because he had said that Dr. Cremen had endeavoured to stifle the inquiry at the beginning. These were published as antidotes to the report of the Hospital Committee, which appeared on the same date—the report of an audacious set of laymen, who, in their ignorance, had presumed to enter into an inquiry as to the administration of the hospital under their charge. It was said that those articles were not written by the *Constitution* at all. But that was part of the complaint. They were copied into the *Constitution*, because they would be a glorification of Dr. Jones and a vilification of Mr. Crawford. It made itself a vehicle of slander. The learned counsel then read the article from the *Medical Press*, which, generally speaking, was laudatory of Dr. Jones, and condemned the persecution to which he had been subjected. Continuing, he said that experiments should, no doubt, be carried on, but they should be always accompanied by the greatest precautions. Many young men in the medical profession were much given to this kind of practice. He had heard of two Dublin physicians who belonged to the new school of their time—Dr. Sheridan and Dr. Charley—and who looked down very much on a physician of the old school. The latter, however, brought back a good deal of his practice by some couplets he made with regard to the two other doctors. With regard to the first, he wrote:

"Look out for the grave you would wish to be buried in,
Before you take physic from sweet Doctor Sheridan."

And, with regard to the second, he wrote:

"The sexton's glory, the undertaker's pride—
The coffin market fell when Charley died."

Now, when this child was admitted into the hospital, the remedy which one doctor prescribed, the other did not perform; and, between them both, Mr. Crawford might well say, "My child is dead, and that is the result of my experience of the introduction of this novel drug into the city of Cork". It seemed, from the article copied from the *Medical Press*, that Mr. Crawford should have been very thankful for the treatment his child had received. It reminded counsel of a conversation that occurred between a doctor and the person who was nursing his patient: "How is the patient this morning?" said the doctor. "Dead", was the reply. "Did you give him the medicine I ordered last night?" "I did." "Well, dead or alive, he is the better for that." Counsel then read the article complained of, which first appeared in the BRITISH MEDICAL JOURNAL. After quoting the resolutions adopted by the local Branch of the British Medical Association, it continued: "We receive with great satisfaction a copy of the resolutions, and we believe that their publication will serve a very useful public purpose. So far as Dr. Macnaughton Jones is concerned, the result of the inquiry has entirely exonerated him from any charge which could have been made. But, in the eyes of every person qualified to judge, who read the case, it must have been, and was, palpable, that he had brought—as, in fact, it was well known to the profession he always does bring—to the treatment of the case, not only adequate medical skill, but a very rare and extensive acquaintance with the whole range of medical knowledge, a very remarkable aptitude for assimilating and applying the most difficult of medical studies, and an energy and devotion to his art, which are quite exceptional. In this case, he had to deal with one of the most insidious and rapidly fatal of maladies—suppressed scarlatinal poison—of which the elimination is slow or suppressed. In employing the alkali of jaborandi in such a case, in order to bring about free action of the skin and secretory glands, he was giving the poor child the advantage of all that the great skill and most accomplished knowledge could devise for its benefit. The attack made upon him under these circumstances was ignorant, violent, unscrupulous, and malignant. Unfortunately, it proved, in the course of the trial, that even a medical witness could be found, if not to countenance the attack, at least to give such reluctant or such strange opinions on some of the elementary facts, as might have been supposed, but for the cross-examination, to give countenance to *primâ facie* doubts, by the distortion of which a charge might be framed. Moreover, the evidence of the house-surgeon was such as to show that Dr. Macnaughton Jones laboured under serious disadvantages—having in this instance a subordinate on whom he could not rely to carry out his instructions faithfully, or to support him, and to give the full and loyal adhesion and obedience which a subordinate is bound to give to his professional superiors under whose orders he is acting. Under these circumstances, the unanimous vote of the South of Ireland Branch, which includes all Dr. Jones's competitors and rivals in practice, must be most satisfactory to him. It shows him, indeed, what the profession at large could not doubt, but what the public at Cork might possibly have doubted, that there is no room in any mind capable of forming a just opinion, for doubt that Dr. Jones' conduct in the matter was beyond reproach, and deserving of all praise; and thus this charge brought against him has turned to the confusion of those who instigated it. The resolutions have, however, a more important meaning for the public. It would be a matter of the most serious public injury if it could be thought possible that such charges could be renewed, or could ever be brought, except under a sense of the most serious responsibility, and with the result of severe condemnation, when, as in this case, they turn out to be frivolous, unfounded, and unjust." Now, it was more than likely, that, when the resolutions of the South of Ireland Branch of the Medical Association were sent over to the BRITISH MEDICAL JOURNAL, this article was also sent; for it seemed to have been published in the BRITISH MEDICAL JOURNAL on October 9th, and to be copied into the *Constitution* on October 11th. If the writer of the article had been content with indicating Dr. Jones, there would have been no legal proceedings. But why should Crawford be hunted down for having an inquiry into the circumstances of the case? Very likely, Crawford, working for the support of his family, teaching the boys of St. Luke's, had some regard for his character, just as Dr. Jones, very properly, had for his; and it was to defend that character that the present action was brought. He had no medical journals in which he could publish letters; but still he was anxious to vindicate himself, though he was only a poor schoolmaster at St. Luke's. Counsel then commented on other portions of the alleged libel; and said, that, when the plaintiff's solicitor wrote to the editor of the BRITISH MEDICAL JOURNAL, asking him to name his solicitor, the latter wrote back, advising that the action should not be proceeded with, and acknowledging Mr. Crawford's *bona fides* in the matter. The plaintiff was now before them, bringing his action on public grounds, as well as for the sake of his own character. They would, by their verdict, mark their sense of his conduct; and let persons connected with such public institutions as the Fever Hospital know, that, if the child of a poor man be sent there, he shall receive the same care and attention as if he were in his own house; and that, if experiments with novel drugs be tried on them, they should be surrounded with the greatest precautions; and that, when such precautions were not taken, the unfortunate father, who called for inquiry and investigation, was not to be hunted to death by slanderous epithets, called forth by malignity, because, indeed, he dared to question the infallibility of the treatment pursued in the Cork Fever Hospital.

Mr. John Bredin Crawford, examined by Mr. Atkinson, Q.C., deposed: I have been six years master of St. Luke's School, Cork. Early in January, one of my children was attacked with scarlatina; Dr. Johnson was the medical attendant, and I felt it necessary to have a medical consultation, and Dr. Jones called to see the child twice; the child died on January 19th; it was aged six and a half years. My wife was attacked by the disease, and recovered; then a second of my children was attacked, and died four or five days after it was taken ill; Dr. William Townsend and Dr. Johnson attended my wife and second child. On the day this child died, I saw symptoms of illness on a third child, aged eight years. In consequence of the advice of Dr. Johnson, I went on Sunday morning, about eleven o'clock, to make arrangements to put my child in the pay-ward of the Fever Hospital; I met Dr. Adderley, and made arrangements to place the child in the hospital, as I rather liked the situation of it. I arranged with Dr. Adderley that Dr. Jones should not attend the child; he said he had all kinds of confidence in Dr. Jones, but I told him distinctly the child should not be placed under him. I came with the child to the hospital at three or four o'clock in the afternoon of Sunday; the child had its senses, and talked and chatted with me on the way; nothing seemed wrong with it; I failed to meet Dr. Adderley at the hospital as appointed, but I placed the child in charge of the nurse; I returned on Monday morning, after the interment of my second child; I got to the hospital about ten o'clock; I saw Dr. Adderley, and he told me, in an apologetic way, that he had given the child into the charge of Dr. Jones; I saw the child, and observed he was in high fever, much worse than he was the previous evening; Dr. Adderley told me all that Dr. Jones had prescribed, and I asked for a consultation; he told me the child was to be packed, and to get an injection of pilocarpine in both arms; I did not know what pilocarpine was, and I asked Dr. Adderley if the operation were painful, and he said not; I was partly satisfied then; Dr. Adderley told me nothing else about the drug; I asked, was it usual to have a consultation in serious cases? and he said there was no necessity, for if it were the son of the Prince of Wales he could not be better cared for; I told him I would go to Dr. Jones to ask his permission to call in Dr. William Townsend; I afterwards met Dr. Jones, and he said

the child was very ill; I told him I would feel obliged if he allowed me to bring in Dr. William Townsend to see the child; he got very angry then, and said it was not necessary, that such a thing was never heard of; I tried to prevail upon him to allow Dr. Townsend to see the child, but he pooh-poohed the thing, and said that even if a consultation were required, Dr. Townsend was not the man; he said that he had fourteen times as many scarlatina cases as Dr. Townsend; he was rather angry, and I, in fact, apologised for mentioning the matter at all; I told him the little fellow had travelled with me through all Ireland, and he was my constant friend, and if he died it would break my heart; he told me if I liked he would transfer the care of the child to Dr. Beamish; I told him I did not want that; I wanted a consultation; I went to the hospital at five o'clock that evening, and Dr. Jones told me he was after inspecting the pilocarpine, and if he could get the child into a profuse sweat, it was the only chance he had; he also said he had given directions to have it injected every three hours, and that I should not remain long in hospital, as it would interfere with the arrangements of Dr. Adderley; the child was then much worse than in the morning, and had not its senses; I asked the child who I was, and he said I was Dr. Jones; I sent for Dr. Adderley, and told him to look at the state the child was in; he examined the child, and said, "Oh, he is dying"; he seemed quite astonished; I said, "Had you not better give him some stimulant?" and he said it was not good for him; he produced some claret, and gave it to the child; milk was administered immediately before it, and the child got sick; I remarked to him about the child's wheezing, and he told me that was the effect of the drug; I went home about six o'clock, and I was sent for at seven o'clock, and I found the child much worse; I mentioned to Dr. Adderley that it was better to give him a little brandy, that it would do him no harm; I proposed to send for brandy, and he went in search of it; he returned with a medicine-bottle, and administered some of its contents, and the child got better; I afterwards found the liquor in the bottle was whiskey, not brandy; the child died at twenty minutes after ten, and before I left that evening; on Sunday morning, there was mention made of chicken-broth, and Dr. Adderley told me he had sent the man to town to look for the fowl.

To his lordship: The Fever Hospital is in the town, about five minutes' walk from Patrick's Bridge.

Examination continued: From what I saw, I honestly came to the conclusion that the child was not properly treated; I made a complaint to the committee of the hospital, and an investigation was held. In consequence of this inquiry not being satisfactory, I instructed Mr. Julian to appear before the corporation to oppose the grant to the hospital unless the inquiry were held; this was on September 6th, and in the *Constitution* of September 7th I read a letter from Professor H. Macnaughton Jones respecting the treatment of the child. I wrote a letter to be published in reply to this letter to the *Constitution;* it was not published at all in the *Constitution*, but it was published in the *Herald*. I asked Mr. Sandford, editor of the *Constitution*, why he did not publish it; he refused to do so in this instance, and three times afterwards refused to have my replying letters inserted in the *Constitution*. I heard Dr. Adderley examined at the inquiry, and he stated that he was ordered by Dr. Jones to administer a grain of pilocarpine at ten in the morning. I have seen the libels in the paper; they refer to me. No other person had made a complaint in reference to this child. I was the only person who had made any attack on the treatment the child received; and it was Dr. Johnson who appeared on my behalf at the inquiry. I had no animus against Dr. Jones, and heard my solicitor say that no one could question that he was a man of ability, and laborious in his profession. I had no ill-will against Dr. Jones. I believed then, and I believe now, the child was not properly treated in this public hospital; this is the reason I called for the investigation. This is my own action, brought solely by myself for the vindication of my own character.

Cross-examined by Mr. Porter, Q.C.: I first complained to Mr. Robert Scott, who, I heard, was treasurer of the hospital. He said he would make inquiries at the hospital, and that I could call back to him the next day. I did so, and he then told me that what I said to him appeared to be quite true, and that he would have an investigation held. The investigation was held, and I was examined before it, and made my statement. Dr. Jones also made his statement. The Rev. Precentor Sheehan was in the chair, and the other persons present were, Rev. Father Sheehan, Mr. Sugrue, the Archdeacon, Mr. Unkles, and Mr. Scott. Dr. Jones wanted to make it appear that I was bringing a charge of malpractice against him, and I distinctly stated I was not trying to do so. I did not hear Mr. Julian on the occasion state anything to the effect that Dr. Jones ought to be in the dock.—Did you hear Mr. Julian state that Dr. Jones was guilty of making an experiment behind the backs of the other members of the medical staff of the hospital? Yes, I think he stated that.—Did you hear him state that Dr. Jones had made an experiment by injecting poison into the veins of your child? Yes.—Do you know that there was nothing injected into the veins of the child? Yes; I did not at all agree with Mr. Julian there.—Did you hear Mr. Julian say that this poison was another substitute for calomel? Heard something about calomel.—Did you hear him state that this eminent physician had asked the house-surgeon, Dr. Adderley, to administer the drug, and that he refused? Yes.—And did you hear Dr. Johnson state that, before the child went to hospital, he was in high fever, delirious, and with sore throat? Yes.—As a matter of fact, was the child in that state on Sunday morning? Yes, but he was right enough before he went to hospital.—So far as you know, until Monday morning Dr. Jones had no means of knowing that your child was in the hospital at all? I had no communication with Dr. Jones.—When Dr. Adderley mentioned that Dr. Jones was to take charge of the child, did you make any objection to this to Dr. Jones himself? I did not.—Then you never gave him reason to see that you were dissatisfied with him? Nothing more than asking him to bring in Dr. Townsend; and he said such a thing was never heard of.—You said, before the committee, that you believed Dr. Jones was an experimentalist? I did not, I said that it was commonly reported that he was an experimentalist; and I believe now, so far as this case is concerned, that he was an experimentalist.—Was that the reason you objected to him? I objected to him because of the general appearance of his attendance on my first child.—Did you hear Dr. Adderley state that the first time Dr. Jones saw the case he gave it as his opinion that it would be fatal? Yes.—Were you told that any stimulant had been ordered? I was not; I saw whiskey administered, and I was not made aware that brandy had been ordered; I thought, from the action of Dr. Adderley, that there was no brandy in the hospital, and I offered to send my son to get some.—Did you hear Dr. Jones examined about the statement that he was not to be sent for that night? I heard him say that he made no such statement; that what he said was that he could be of no further use.—Did you hear Dr. Atkins say that he was present at the time, and that Dr. Jones made no such statement? I did.—Did you hear Mr. Julian ask of Dr. Adderley, "Did you get, what I cannot help calling, these inhuman directions from Dr. Jones?" Yes; he referred to Dr. Jones giving directions not to be asked to return to the hospital that night. I consider that would be something very like inhumanity on the part of Dr. Jones.—Did you hear Dr. Atkins state that he was present, and that Dr. Jones only ordered one-third of a grain of pilocarpine? Yes.—Did you hear Mr. Julian ask any question of Dr. Jones as to whether he had previously destroyed the eye of a child by using the same drug? Yes.—Was it you instructed Mr. Julian in all this? Yes, I mentioned those matters to Mr. Julian.—Then, Mr. Julian was acting for you, and under your instructions, and you approved and adopted everything he said? I did not approve or adopt everything he said.—Do you now approve of the language towards Dr. Jones that he should be convicted of a criminal charge? All I know is, that my child lost his life through neglect; and also, I believe through the administration of that drug.—Did you hear Dr. O'Connor state that he believed the symptoms, after the administration of the drug, were not inconsistent with the progress of the fever? I am not aware that I did.—Do you remember publishing any placards through the streets of Cork about this case? I placarded a letter, in reply to Dr. Jones's letter in the *Constitution*, which the *Constitution* refused to publish.—Was that the letter from Dr. Jones that appeared in the *Herald?* No, the letter in the *Herald* was the first letter; this was in reply to a second.

Cross-examined by Serjeant Heron: Did you make a complaint against Dr. Jones personally at the first inquiry? I did not make any complaint against Dr. Jones; I knew there was something wrong in the treatment of my child, and I wanted to get it out.—Did you instruct Mr. Julian to oppose the corporation grant to the hospital on the ground of criminal misconduct of the persons connected with the institution? I never used either the word "criminal" or "misconduct"; I simply instructed him to oppose the grant.—Did you hear Mr. Julian state that this experiment was tried behind the backs of the other physicians? Yes; I heard him say so.—Do you look upon Dr. Jones as solely responsible for the administration of the drug? I did; Dr. Jones said himself that he had administered it without the knowledge of the others.—Did you say that this poisonous matter was injected into the veins of your child? I did not; I said it got into the veins. I did not mean to say that Dr. Jones experimented on the child by an experiment never tried in this country before, and that he opened the veins and injected poisonous matter.—Was your complaint that Dr. Jones on purpose injected this poisonous matter into the veins of the child? No; Dr. Jones used the expression to me that he injected the drug into the muscle of the left arm, and I inferred immediately that it must have got

into the veins.—Did you instruct Mr. Julian to say that Dr. Jones's conduct was inhuman? I never said a word about inhuman.—Whom do you consider most to blame for the death of the child? I consider they are all to blame, Dr. Jones, Dr. Adderley, and the nurse. I did not instruct Mr. Julian to prefer a charge against anybody.—What did you placard on the walls of the city? I published a letter of mine in reply to a letter of Dr. Jones, published in the *Constitution* some three weeks before, and enclosed with another from Dr. Ball, of Paris, referring to the use of pilocarpine. (The placards referred to were then handed in by plaintiff's solicitor. One was headed, "Hospital Experimental Torture", and the other "Cork Fever Hospital Inquiry". After Mr. Crawford's letter in the latter were the words, "The *Constitution* refused to insert the above letter. Why? The *Constitution* will freely insert anything from the other side. Why?")

Cross-examination continued: Had you those placards posted about Cork? Yes.—There was nothing very offensive to you in Dr. Ball's letter? No; I wrote to Dr. Ball, asking him could he make reference to pilocarpine in a case of suppressed scarlatina, and as he did not answer me, I inferred that he could not answer. I wrote that letter to the *Constitution* in reply to Dr. Jones, and they refused to put it in, even as an advertisement.—Did you write the heading, "Hospital Experimental Torture"? No, I did not; I went into a shop in Cork, and a gentleman there showed me a pamphlet similar to the placard by Miss Clarke, Rochester Villa, Reigate; I wrote for some more copies to Miss Clarke, and I got the placards issued.—Who was the gentleman that gave you the pamphlet? I don't wish to introduce a third party into the case.—Did he tell you it would destroy Dr. Jones? He did not.—Was it in an apothecary's shop in the city that you got the copy of the placard? It was.—Do you know Miss Clarke of Reigate? Not personally; a gentleman in Cork showed me a copy of the letter; he was not a medical gentleman; I do not wish to mention his name if it be not necessary; it occurred in a shop in Cork.—Was it an apothecary's shop? It was.—Whoever showed it to you, did he not say it would destroy Dr. Jones? No, indeed, he showed it to me simply in reference to the drug.—How many of those placards were printed? 150 I believe; I ordered one hundred, but they printed the larger number by mistake; I did not mean to refer to Dr. Jones in the publication of this placard; but the committee of the Fever Hospital had met a second time to know whether they would allow those drugs to be used without consultation; the doctors protested against this, and after seeing the protest, I was afraid that the committee would allow the drugs to be used, and I thought the issue of this letter would have a good effect, and influence the committee against the use of the drug; that was my object.

Re-examined by Mr. Atkinson: It was because the *Constitution* had refused to publish the letter that I published it as a placard; I made inquiries in the London hospitals myself as to the nature of this drug, and I had inquiries made in other parts of the world; I ascertained its effect and the nature of it; I gave instructions to Mr. Julian to oppose before the Corporation the presentment which was being applied for by the Hospital Trustees, and I did so *bonâ fide*, believing that my child had not been properly treated in the hospital; Mr. Julian stated again and again to the Corporation that all that I wanted was a full inquiry, and that was solely my object; the inquiry was granted, and the opposition was withdrawn.—Did you give any instructions to make any particular charge against any person? I told Mr. Julian honestly all the facts that I knew. I told him of the supposed case of a child having lost the eye.

Dr. Atkins, Resident Physician at the Fever Hospital, was next called, but was not sworn. He produced a book kept at the hospital. —Mr. Murphy: We want the report and the minutes of the committee. Witness: I have not got them. I was not summoned to produce the minutes.—Mr. Murphy: Were you not summoned to produce all documents in connection with this case? Witness: Here is the subpœna, and I was not asked to produce the minutes.—Mr. Julian: You were asked to produce all books and documents connected with the case, including the decision of the committee. Witness: I have not got that at all. It is in the hands of the late Mayor, Mr. Kennedy.—His lordship: I must ask you to produce all documents. It is only trifling with people.—Mr. Murphy: I want him to produce the report of the committee. Mr. Julian: This is the young gentleman that asked me yesterday for his expenses. He stopped me in the street and asked me for his expenses, and this is the resident surgeon of the hospital.—Mr. Porter: I presume there will be no difficulty in producing any documents that may be required.—Mr. Murphy: I am sure there will not; but what I complain of is, that this gentleman by a little trick endeavoured to evade bringing these papers. The witness was then directed to bring the necessary documents.

Dr. Thomas Gelston Atkins was the next witness. He produced the minute book of the meeting held by the Cork Branch of the British Medical Association on the 2nd October, at which resolutions were passed in reference to the pilocarpine case. There were present at meeting Dr. O'Flynn, President, in the chair; Dr. Ringrose Atkins, Waterford; Drs. Golding, Harvey, Reilly, Bull, Burke, Barry, Mallow; Dr. Adderley, and himself. Letters of apology were received from Dr. D. C. O'Connor, senior; Dr. Lawton, of Middleton; Dr. Curtis, of Cork, and others.—Mr. Murphy: How many members of the Association are there in Cork? Witness: About fifty or sixty members of the South of Ireland Branch.—Who drafted the resolutions? They were drafted, as well as I recollect, by the president and myself, the day before the meeting.—Was anybody else present when you adopted them? I think not. It was done in my study, and I think I invited Dr. O'Flynn up. With whom did they originate? Well, I think the meeting originated with some members of the Branch, and as secretary I was asked to summon the members. I don't know that I was asked to draft the resolutions, but Dr. O'Flynn and I drafted them. Dr. William Townsend is a member of the association, and so is Dr. O'Connor. Dr. Beamish is not. Dr. Hobart is, and he is the president for this year. Professor O'Keeffe is also a member of the Association, and circulars were sent to all these.—What intimation did you get first in reference to summoning the meeting? After the inquiry terminated, there was an idea amongst the profession in Cork that an expression of opinion should be given in reference to that inquiry, and it was suggested by some of the medical men that it would be well to have a meeting of the Branch.—Were they the gentlemen whose names appear as being present? Some of them. —Did any others speak at the meeting? One other did; I think it was Dr. Donovan. The resolutions were sent to the BRITISH MEDICAL JOURNAL in a day or two after the meeting. The meeting was held on Saturday, and the resolutions were, I think, sent on Monday. I received no communication from the BRITISH MEDICAL JOURNAL acknowledging the receipt of the resolutions, and knew nothing more about them until they appeared in that paper, which was received here on Sunday. On the following day, Monday, they were published in the *Constitution*. I do not know how they came to the *Constitution*.—To Mr. Porter: The BRITISH MEDICAL JOURNAL is published by the British Medical Association, of which we have a Branch in Cork. I sent the resolutions forward in the ordinary course.

His lordship read the resolution passed at the meeting referred to by Dr. Atkins, "expressing condemnation for the alleged mismanagement of a case in the Fever Hospital, whereas the only thing chargeable against Dr. Jones, was in having utilised the most recent medical knowledge for the recovery of a hopeless case". To the Witness: The only thing chargeable was the utilisation of this recent discovery. —Were you aware at that time that one of the charges was that "there was exhibited a want of care and discretion as to the time of performing the operation, and great neglect in the subsequent treatment, considering the dangerous nature and character of the operation", and that that charge was confirmed by the committee? Witness: Yes.—His lordship: Did that resolution fairly represent the decision of the committee? Witness: That was what the meeting thought.—His lordship: Very well. This closed the case for the plaintiff, and the court adjourned.

Wednesday, April 6th.

The plaintiff was recalled, and further examined by Mr. Porter: Do you recollect being in communication with the coroner in reference to an inquest on your child? I do.—Did he offer to hold an inquest, and did you refuse? I did not refuse; I employed him to represent me at the private inquiry as solicitor; he subsequently refused to attend, as it might interfere with his position as coroner.—Did you, as a matter of fact, decline having an inquest when Mr. Blake expressed his willingness to hold one? I did not decline.—Did he offer to hold an inquest? I asked him afterwards, and he refused point blank; I did not refuse in the first instance.

Mr. Murphy then proposed putting in evidence the report of the committee of the 16th February, and the protest of the physicians as to the rules adopted by the committee. Mr. Porter and Serjeant Heron objected, as they were matters long subsequent to the alleged libel. His lordship said they would not do any of the defendants the slightest harm, nor would they do the plaintiff the least good, because the jury would take no notice of them.

Mr. Porter then opened the case for the defence. He said that he appeared there before the jury on behalf of two of the defendants impleaded before them, the BRITISH MEDICAL JOURNAL and Mr. Ernest Hart, the responsible editor of that journal. Counsel was personally a stranger to the jury. He had been introduced to them by his friend

Mr. Murphy with a cordiality and a kindness which would have seriously embarrassed him, if it were not his firm determination in this case to be and to remain as an advocate absolutely impersonal. He was there simply as counsel for two defendants. He appeared before them through accident, but although not acquainted with any of them personally, he had the advantage of knowing the reputation of Cork special jurors for intelligence and fairness, and with that acquaintance he would proceed by endeavouring to appeal to both those qualities. He should ask their verdict on what he hoped would be calm, rational discussion of the matter which they had to try, and he felt satisfied that if the facts he would be able to lay before them led them to the conclusion that his clients were in the right, their sense of fairness would enable them to give the verdict which the case required. In many of the topics which were addressed to them by his learned friend, Mr. Murphy, he cordially concurred, and one observation of his, he hoped would not be forgotten, when he expressed his anxiety that the real question to be tried by the jury should not be lost sight of. He cordially re-echoed those words, because the only risk his clients could run would be from a misconception on the part of the jury as to the nature of the case which they had to try. This was not an action between Mr. Crawford and Dr. Jones. Proceedings between them had been had, and had been threatened. But in this action, except indirectly, they had nothing to do with Dr. Jones. They were simply to inquire whether a publication in a public medical journal, written by a gentleman of reputation, of high professional attainments, and of perfect impartiality, was such as deserved to be punished by a verdict mulcting the defendants in damages. Mr. Murphy, in his powerful and eloquent speech, sought to elicit, and did doubtless elicit feelings of regret for the bereavement which Mr. Crawford had sustained, and lament for the young life that passed away in February 1880. That was a legitimate topic, and he ventured to say that his learned friend stood not alone in that feeling of sympathy, and he (counsel) for his own part could say that he felt as much sympathy for Mr. Crawford as one could feel, in such circumstances, for a person who was a perfect stranger to him. But sympathy with a bereaved parent's grief, and regret for the loss of a young life, while they might elicit compassion must not be permitted to warp the judgment or bias the understanding. They should not be turned aside from the investigation of the facts presented to them by feeling, which, however amiable, would now be unmanly and unworthy of the occasion. The real question they would have to try was, whether a publication appearing in the BRITISH MEDICAL JOURNAL in the month of October, reflecting upon the inquiry which had been held in Cork, was one which was libellous of Mr. Crawford, or one which at all transcended fair, legitimate limits of public discussion. The matters were deliberately brought before the public at the express desire of Mr. Crawford. It would be necessary to consider the position of the defendants. Mr. Hart was a gentleman who had attained in the scientific world a justly-earned reputation as a man of ability, attainments, and intelligence. Mr. Hart would come forward and tell them the circumstances under which he and he alone had written and published the article which was the subject of the present litigation. They had been told in Mr. Murphy's statement that it was almost certain to transpire in the course of the inquiry that the article was written in the City of Cork and a copy sent for publication to the BRITISH MEDICAL JOURNAL at the same time that another, for simultaneous publication was sent to the *Cork Constitution*. That was, no doubt, the belief which Mr. Crawford entertained, and the theory which his adviser had put before his counsel. But it was absolutely devoid of foundation. Mr. Hart would tell them that this article, whether right or wrong, whether a fair comment or not, whether libellous of Mr. Crawford, or only a legitimate discussion of a subject of much public and professional interest, had been every word written and published by him. Now, as to what he meant by fair comment he would briefly explain it. Many questions might be discussed in the public press in a way reflecting upon character, conduct, and motive, which were allowed if the publication was not malicious, not published for any indirect object, or transcending the fair public grounds of honest discussion. It is for the benefit of the public that matters of general interest and public importance may be freely canvassed in the public prints. The privilege is the privilege of the public. Now, this is a case, which he believed, came most strongly within that definition, because they had it already in evidence that the subject matter of this inquiry was one to which publicity was given at the express desire of Mr. Crawford, and his adviser, Mr. Julian. The man who came before the public making charges in such a way must take his chance of strong, vigorous criticism, and he could not complain if the words used towards him were such as a very thinskinned person might not under these circumstances wish to have applied to him. They could thus see that it was not necessary in this case for the defendant to justify in strict logic the precise use of every word employed in the article complained of. Life could not go on, business would be interrupted, people would not converse or write to one another, if, when language was used in good faith and sincerity, they were to be bound to justify the absolute accuracy of every word used. Counsel then referred to the details of the case, and, firstly, to the disease from which the child had been suffering. The worst form of scarlatina was that known as "suppressed", and if the skin eruption which appeared in ordinary cases did not appear at least on the second day after the patient had been attacked, the worst consequences might usually be apprehended, more particularly if head-symptoms appeared. Now, when first seen by Dr. Jones, this child had been thirty-six hours suffering from the disease. The eruption had not appeared. Delirium and high fever had set in twenty-four hours before; and, when he examined him, he found it was a case of an almost hopeless character. It would appear that Mr. Crawford had some objection to Dr. Jones attending his child. Counsel could not understand why. It was stated that he objected because Dr. Jones was an experimentalist; but that explanation did not hold water; because, with that knowledge and belief he had selected Dr. Jones for the treatment of another of his children shortly before. Again, he gave other unsatisfactory reasons; but in any case, he never hinted to Dr. Jones one word of doubt or of suspicion; and Dr. Jones was not treated with that candour and fairness he had a right to expect from the father of the child in such a serious case as this. Dr. Jones, when he saw the child, saw that almost as sure as the sun was shining in the heavens the child would be carried off. It was said that Dr. Jones was an experimentalist. The fact was, he had not shut his eyes to what was going on in the great world around him; not content with following in the humdrum beat of medical routine, he read what medical skill and chemical science were doing, and he knew what was going on in other countries where medical science was at least as advanced as in Ireland. He was aware that every year there were medical discoveries being made elsewhere. When he saw the child at nine o'clock on Monday morning, the usual hour when he visited the hospital, Dr. Jones prescribed a subcutaneous injection of pilocarpine. As to the virtue of this drug, Mr. Julian, at the investigation, was quite eloquent over it, and when a small bottle was produced he dramatically shrank from it, as if he feared it would explode near him. As a matter of fact, he would tell them what the testimony of eminent medical men on the subject would be. It would be shown that this preparation was not alone most useful, and now employed by almost all physicians, and in almost all hospitals, but it was at the same time one of the least dangerous. Its object and action being to produce perspiration and action of the salivary glands. No other agent could be used as a sudorific which was at once so safe, so speedy, and so certain in its action. It was said that this poison, as it is called, was used by being thrust into a muscle; but it was never so used, and it never would be used by any practitioner in such a way. Mr. Julian asserted that it had been injected by Dr. Jones into the veins of Mr. Crawford's child; but this was nonsense, and what was really done was to raise the skin by the finger and thumb and then inject the drug beneath the skin into the cellular tissue though the hollow needle of the little instrument used for the purpose. Dr. Quinlan of Dublin, Professor in the Catholic University and Visiting Physician at St. Vincent's Hospital, and other physicians of eminence, would swear that they had been daily in the habit of using this remedy as it had been used by Dr. Jones, and never knew any evil results to follow from it. It was a medicine whose effects were most easily controlled, whose action was very certainly known, and only the most unscrupulous malignity, or the greatest want of knowedge could say that this was a poisonous drug. Its use could not be called an experiment at all. It was said it was a mode of treatment not used before in Cork, and that a consultation should have been had before it was administered. If Dr. Jones were present his answer to that charge would probably be, "I have made this medical agent a study; I have read a lecture upon it before the British Medical Association; I have been in the habit of using it in diseases of the eye by infusion: I know its properties; yet, forsooth, before I direct its use, I am to call into consultation gentlemen whom I am first to teach what the drug is, and whom I am then to ask to teach me whether I am to use it or not." Counsel was now with pain obliged to speak with pain of the conduct of Dr. Adderley in this case. Dr. Adderley was not before them: but it was necessary for the defence of his clients to show the circumstances which Mr. Hart had before his mind at the time he wrote the article complained of. Dr. Adderley, he was obliged to say, seemed to have on this occasion misconceived, blundered, and disobeyed, the instructions he received from Dr. Jones. How could the latter, who had various occupations, who had to visit his private patients, to visit the ophthalmic hospital, and

spend some time there, to spend an hour in consulting at his own house; how could he be held responsible for the errors committed in his absence by Dr. Adderley? When, in the afternoon, Dr. Jones having learned that the treatment which he had directed that morning had not yet been applied, he went to the hospital to administer it, though he still was of opinion that the disease would prove fatal, yet he believed that the best chance the child could have was through the exhibition of this medicine. He then administered it with extreme care, and everything was done to afford the patient a last chance. He gave other instructions which, unhappily, were neglected by Dr. Adderley. He ordered the child's head to be shaved. As a matter of fact, that was not done. Dr. Jones ordered a blister to be applied to the child's head, but that was not done. He ordered the child to be "packed", and Dr. Adderley afterwards said he did not know what "packing" was, and understood it was dry packing. Had Dr. Jones meant that more blankets should be placed upon the child, he would probably have said so. Then, again, it was charged that Dr. Jones, having administered a dangerous drug, went away without waiting to see how it operated. It was, however, a well-established fact that, if this drug operated at all, it would do so within about ten minutes after being administered. Dr. Jones remained there for a quarter of an hour, and then, seeing that the case was a hopeless one, went away. As a matter of fact the pilocarpine was not absorbed, and never acted. In reference to his conduct in thus going away at five o'clock, a strong and determined attack had been made on him, and Mr. Julian went the length of allowing himself to describe the conduct of Dr. Jones as "inhuman". Now, for a moment, let them suppose that Dr. Jones, believing the case hopeless, gave the directions which he was represented as having given—namely, "not to be sent for again that night"—he did not know that that would justify a reasonable man in saying that such conduct was "inhuman". But in truth Dr. Jones had given no such direction. Mr. Hart had the evidence before him, and knowing Dr. Jones to be an eminent physician—knowing that he was a man who had made his mark in his profession having—having a personal acquaintance with him through having met him at the meeting of the British Medical Association in Cork, was he to assume that Dr. Jones and Dr. Atkins gave a wrong account of that transaction, and that Dr. Adderley alone told the truth about it? As for him (counsel) he could only explain Dr. Adderley's evidence as blundering or forgetfulness. The charge that Dr. Jones had injected the drug as a dangerous experiment having broken down, Mr. Julian then turned round and said, "If it was not an experiment, if it was not a poisonous agent, then you are to blame for not having given it sooner than you did; you are guilty of manslaughter because you did not administer that which I said just now was a deadly poison". Counsel did not wish to say anything severe of Mr. Crawford; but at the same time he could not help remarking that throughout this inquiry it would appear to him that he was actuated by feelings the reverse of amiable towards Dr. Jones, and feelings of a very strong character. Such was the feeling he exhibited when he took the very extreme step of publicly opposing, through Mr. Julian, as his solicitor, the grant to the hospital at the meeting of the Corporation; his object was to get at Dr. Jones. There Mr. Julian said that Dr. Jones had left himself open to a criminal charge, namely, that of the felony of manslaughter, in having tried a dangerous experiment behind the backs of his professional brethren. Not merely "without consulting them", but "behind their backs". A more shocking charge, a more terrible attack on the character and position of Dr. Jones, it would be impossible to conceive. Counsel then proceeded to discuss at length the manner in which the discussion before the Corporation, and the Fever Hospital inquiry, was conducted on behalf of Mr. Crawford, remarking, with reference to Dr. Johnson's evidence, in stating that it usually takes three or four days before the scarlatinal eruption makes its appearance, that it was attributable to two things: one, which he would be slow to attribute to Dr. Johnson, was, that he started it from a desire to prejudice Dr. Jones before the committee; and the second, that it was an honest blunder of a kind indicating crass ignorance. That was the sort of evidence on which the charge was pressed; and was the journalist to blame, after reading such statements, for denouncing the attack on Dr. Jones as being malignant, ignorant, and unscrupulous. Where was the scruple when Dr. Jones was arraigned before this public board, and an organised attack made upon him, such as he fitly described when he said he was on trial for his life? Dearer than life was reputation to the medical man. Mr. Murphy had spoken of the way in which Mr. Crawford toiled for his family—of that toil that sweetened life for every one; but was there no mercy, was there no justice for the medical man? He presumed that a medical man was as much concerned for the interest of his family, and for that fair fame which was the best legacy he could leave behind him; and was not he, too, entitled to the sympathy of the community when charges were made against him, monstrous in their effects, shocking in their language, extravagant in their insinuations; and would the jury weigh too nicely in the scales the critical accuracy of the language which dealt with such conduct? He was not separating the degree of blame; let those who conducted the inquiry adjust it amongst themselves. He was not suggesting that Mr. Julian transcended his instructions: he was not suggesting what part of the charge might have been made by Johnson, what part by Adderley, what part by Crawford, and what part by Julian. At the inquiry Mr. Crawford instructed Mr. Julian to make the case that, prior to the experimenting with this deadly poison upon this child, Dr. Jones had had experience of it before, having, by means of it, deprived a patient of one of his eyes. Dr. Jones said that such a statement was unjust and unfair; that no such thing had ever occurred. The whole of the proceedings at the inquiry showed that the accusations publicly brought forward against Dr. Jones were dictated by animus, and were not honestly advanced from a desire for the discovery of truth. At the conclusion of the inquiry, when Dr. Jones had made some statement which drew forth the applause of those present, Mr. Julian accused him of bringing medical partisans to applaud his case, so that the animus against him appeared to have been kept up to the end. Mr. Julian, in the course of his reply, at the end of the investigation, said he could at any moment get half-a-dozen doctors to swear that a man was on the brink of the grave, while he could get the same number precisely to swear that at that same moment the same man was never better in his life. And further, he said that it would be a clever advocate and a lenient jury that would allow Dr. Jones to escape if he were tried before them on a criminal charge. But, after all this inquiry, the committee found that Dr. Jones was not open to blame; that if blame were to be cast upon any one it was not on him. Counsel then read the alleged libel, and said that on the previous day counsel at the other side had read an article five times stronger from the *Medical Press and Circular*, and he suggested that the reason why the action was brought against the BRITISH MEDICAL JOURNAL was because it was the journal of which Mr. Hart was the recognised editor. Mr. Hart was a friend of Dr. Jones; and it was hoped that it would be proved that the article was written by Dr. Jones, and sent over by him to Mr. Hart for publication. That was not the fact, however; it was an article written by a medical man for medical men, and dealing with the responsibilities of medical men. The charge against Dr. Jones was that he had acted in an inhuman manner, that he should stand in the dock, and take his trial for felony. Was there anything in the article alleged to be libellous that was not perfectly fair, becoming comment, upon an attack characterised, in its prosecution, by the absence of that due moderation and care which alone would free it from the charge of being at once malignant, unfounded, and unscrupulous? That was the entire case as far as his clients were concerned. With what had occurred in the city of Cork subsequently, they had nothing to do. The question the jury had to decide, was, whether this was a libel on Mr. Crawford? Was it a libel upon him to say in this case that he had taken part in bringing forward charges which were ignorant, which had been unscrupulously preferred, and which showed considerable malignancy and determination on the part of those who advanced them? Let him adjust, as well as he could, the precise degrees of responsibility with Dr. Johnson, with Dr. Adderley, and with Mr. Julian; but the responsibility was there. The charges against Dr. Jones had been completely refuted, and counsel believed that Crawford did not care so much for the strength of the language used against himself as for the praise bestowed on Dr. Jones. If his prognostications had been fulfilled, and if it had been proved that Dr. Jones had written the libel, then, indeed, he would have "fed fat the ancient grudge he bore him". The liberty of the Press was a trite and common-place topic, but was so because it was one of the most precious liberties we had; and while the Press should not be encouraged to degenerate into license, they should be careful not to circumscribe the limits of free discussion. When questions have become public, it was best that they should still be publicly discussed. Private character should not be whispered away behind the backs of people while there was an honest Press to defend him. One liberty, at least, was in their own hands, and that was the protection of free discussion. Would they curtail that liberty, would they say that Crawford should get damages when he had himself been doing all he could to create public discussion and call for public inquiry? Another matter arose in this case, and that was the conduct of medical men and their responsibilities, and that was a subject that concerned not medical men alone. If medical men had to approach the bed-side or the operating table with the fear in their minds, that despite of their best exertions they were liable to be afterwards dragged before the public on a charge of manslaughter, the patients and the public would in the end be the chief sufferers. Was there to be a verdict against Dr.

Jones because the defendant had been the first to practice in the city of his adoption a treatment well known elsewhere? If that were so, instead of having among them members of one of the most fearless and most honourable of professions, they would have a parcel of crouching slaves, men unable to serve others for fear of injuring themselves. Such men would shrink in terror from using those remedial agents, which their skill and knowledge led them to think the best to be applied, for they would fear the threat of consequences leading to the dock, or at least exposure to calumny almost worse than death. There was no profession more noble than that of the medical man, and it was yet to be seen whether in the city of Cork a jury would affirm that there should be no vindication of the character of such a man as Dr. Jones when assailed, as in this case, in a wanton, malignant, and presistent manner. He did not ask the jury to find a verdict in the case which would have the effect of injuring Mr. Crawford in person or in character. Very likely he felt strongly and deeply on this matter, and that could be easily understood; but he had pressed forward those charges against Dr. Jones. The effect upon him of a verdict for the defendants could be only this, that while he had made serious charges against a professional man he had failed to prove them, and had brought upon himself the indignant rebuke he had received. At the conclusion of the case, he respectfully asked the jury to find for the defendants.

Sergeant Heron addressed the jury on behalf of the *Cork Constitution*.

Mr. Ernest Hart was then sworn, and stated in reply to Mr. William O'Brien, Q.C., that he had several years' experience as a surgeon, and served in several institutions; he had been for the past twelve years editor of the BRITISH MEDICAL JOURNAL. The manuscript of the article which was the cause of action was in the writing of three different hands; the heading and some instructions to the printers were written in his own; the resolutions were in the handwriting of an officer of the South of Ireland Branch of the British Medical Association; and the remainder was in the handwriting of his (witness's) shorthand secretary. He himself was the author of the article which he dictated to his secretary.—When you wrote or dictated that article, what material had you? I had the resolutions of the Medical Society, and a series of copies of Cork papers, containing the reports of the proceedings at the investigation; I saw the report of the opposition to the grant to the Fever Hospital before the Corporation, and I also saw the articles in the *Lancet* and *Medical Press* previously to writing that article. About 600 copies of the JOURNAL are circulated in Ireland, and the total circulation is 10,250 copies.—Did you write that article for the purpose suggested in the heading: "Professional responsibility and public interests"?—Mr. Murphy objected, and his lordship allowed the objection.—In answer to further questions, the witness said: I wrote the article to discuss the interests of the medical profession in such cases as this.—Had you any malice towards the plaintiff? I had not.—And to whom did you wish it to refer?—Mr. Murphy objected, and the objection was allowed.—Mr. W. O'Brien: Did you intend it to apply to any particular person?—Mr. Murphy objected, but the objection was not allowed.—Mr. O'Brien: Did you intend that to apply to Mr. Crawford? I did not. I do not think that pilocarpine is a dangerous application.—As editor of the BRITISH MEDICAL JOURNAL, he was aware that it was in common use among practitioners—it was most largely used in every European country—in England, France, Germany, and even in Russia. Pilocarpine was used in all diseases where the physician wanted to produce an action of the skin. It had been used to make the hair grow; it was always administered under the skin, and it was the most convenient way. The rash in scarlatina appeared within twelve or twenty-four hours, and if it did not appear for two days, it was suppressed scarlatina. Having regard to all the circumstances of this case—the high fever, delirium, and sore throat were apparent—he was of opinion that the child must have died from suppressed scarlatina. It did not appear that pilocarpine had anything to do with this case at all, for it had not taken effect.—To his lordship: Pilocarpine is very rapid in its action in producing perspiration, and there are discharges from the mouth. I don't think any symptom of its effect appeared in this case at all.—To Mr. O'Brien: It was not absorbed in the system, and if it had been, it would have produced the symptoms described. The dose is from one-third to half a grain, and it acts less on a child than on an older person. I had known Dr. Jones since the visit of the British Medical Association; and I am personally acquainted with him, as I am with two or three thousand other physicians over the three kingdoms.

Cross-examined by Mr. Murphy: I have not myself practised in hospitals for eight years, and have not seen pilocarpine injected. He read the evidence at the inquiry, but did not know who sent the papers. I had no correspondence with Dr. Jones on the subject. I had the reports before me when I wrote the article. I did not know that Dr. O'Connor called the injection an operation at the investigation.—From the words he was reported to have used, they were an embodiment of question and answer, and the words of the question were put in his mouth. He (witness) read a great deal of medical literature, but brought no books on the subject with him to read. Young people were more susceptible to pilocarpine than old persons. The dose was from one-third to half a grain, and, if at first it was found not to have the proper effect, it would be desirable to repeat it, but a few hours should be allowed to pass; it would depend on the nature of the way it was taken to repeat it without doing harm. In order to assure an increase of the prolongation of the effect, it would be desirable to repeat it, but it was altogether a case for the discretion of the medical attendant. Judging from the evidence, so far as his judgment went, the dose had no effect on the child at all, and he could not tell whether it would have been desirable to repeat the dose unless he had seen the child. If in course of his practice he injected pilocarpine, he would not like to wait a couple of hours to see the effect, and to know whether it should be repeated; he would not return to see after it when he had given the house-surgeon the necessary directions. The house-surgeon would be qualified to act on these instructions, if he possessed ordinary medical knowledge; his knowledge of the effect of the drug ought to entitle him to be entrusted with these directions, and he would depend upon him, when he had the ordinary medical knowledge, to follow out the directions he had received. He (witness) would assume that the house-surgeon had a knowledge of whatever was necessary to carry out his instructions, and if he had not, he should ask for such instructions; he would not ask him if he had the necessary knowledge, even though pilocarpine had never previously been injected into a patient in the hospital. It would depend upon how he believed the house-surgeon understood his duty in the matter, whether he would think it necessary to explain to him the symptoms that he would have expected to manifest themselves. It did appear that Dr. Adderley did not know anything about pilocarpine; but, since he had the ordinary medical training, he would be able to follow out the instructions that he received. He would not think it necessary to explain to him the nature of the effects that would ensue; he would assume that every medical man knew that pilocarpine was a sudorific, and that the patient would fall into a considerable sweat. He did not believe that an antidote had ever been required; of all the cases he had read of, he had not seen anywhere an antidote was administered. He did not know that there was a proved antidote to pilocarpine, for it was only in an overdose that what was called an antidote was used. In all the cases he had seen recorded, it was never necessary to administer the antidote; an antidote had been tried in experiments upon animals, and that was atropine—that was a substance which would antagonise pilocarpine. He read, in the course of the investigation, that Dr. Adderley said he knew nothing of the effects of it. If he had been there, he would not have tried to ascertain whether or not he knew of this drug; for, if he had no knowledge of it, he should have asked for information. He read that Dr. Adderley said to Dr. Jones that he was sorry that the drug had been administered, for its effects were terrible, and he believed that it was in consequence of his professional knowledge he said that. It would appear from the way he said it, that he had really a knowledge of the effects of pilocarpine, but he was entirely wrong in his opinion. It was not his (witness's) opinion that Dr. Adderley pretended that he had a knowledge of the drug; but he thought that Dr. Jones reasonably believed that Dr. Adderley had some knowledge of the drug, for every medical man was supposed to know its properties; it was not from its terrible properties that it was called atropine or deadly nightshade; that was the antidote for pilocarpine.—His lordship: Did you hear what Serjeant Heron said—that it was on the toilet-table of every lady? Witness: Yes, my lord, that is so. Examination continued—Dr. Berkart said that it might produce cardiac depression, but he believed that he referred to aged and asthmatic persons. He thought if half a grain were given it would cause no harm. He did not agree with Dr. Jones, that a slight increase beyond the proper quantity would cause great danger; neither did he agree with him that, if a smaller dose were administered, it would produce an opposite effect to that desired. He never heard of a grain being administered, but it would not cause danger to life. Cross-examination continued—Dr. Adderley exhibited great ignorance as to the packing of the patient. He remembered the evidence of Professor O'Keeffe, of which passages were now read to him. He considered these passages an attack; he did not mean a malicious attack. He believed he gave honest evidence, according to his own information.—Mr. William O'Brien directed attention to the fact that Professor O'Keeffe said he would himself use pilocarpine on his own responsibility. He would not consider any salivation necessary.—Mr. Hart: That modifies my opinion of the evidence. I took the evidence as read to me by Mr. Murphy.

The court adjourned.

Thursday, April 7th.

Mr. Ernest Hart was recalled, and questioned by the foreman. First of all, how was your attention drawn to this investigation—whether by the papers you got, or had you any communication whatsoever from any person in Cork with regard to it? My attention was drawn to it solely from the papers I received.—And you had no communication from any person in Cork? No. I think I should say that at the end of September Dr. Jones was in London, I believe, in charge of a patient, his father-in-law, and he called at my house and lunched. They referred to the inquiry, and I said I had not made up my mind on the subject. He asked me if an article would appear in the JOURNAL on it, and I said it would depend altogether on the opinion I formed after going through the papers, and hearing an expression of opinion on the matter by local medical men. This was after the inquiry, and a good deal before I wrote the article.—Had you seen the report of the Commission of Inquiry at the time? Yes, but I had not gone before into the matter, and I declined to go into it with Dr. Jones.—Was Dr. Jones' conversation with you simply a general one—whether the JOURNAL would notice it or not? It was not a conversation at all. He referred to it at luncheon time, and I was not very polite—I left the table. It is not my habit to discuss such matters with those personally concerned. I said I would go through the papers, and all would depend on the opinion I formed.—Did he say anything about being persecuted? I don't think he did.—To Mr. Atkinson: This was at the close of September. I think it was after I had received the report of the committee.—Did you tell Dr. Jones you would not express any opinion upon the matter until you had got an expression of local medical opinion? I think I told him I would not touch the subject until I saw what his colleagues said.—By Mr. Porter: Did that conversation influence you in any way in writing the article? Certainly not.

Dr. Francis Quinlan, examined by Mr. Lane, Q.C., deposed he was M.D. of the University of Dublin, Dean of the Faculty of Medicine in the Catholic University, and Professor of Materia Medica, also Senior Physician to St. Vincent's Hospital. Had been twenty-five years in practice in Dublin. Knew of pilocarpine about four years. Had used it in hospital and with private patients. Was one of the first physicians in this country that investigated the properties of pilocarpine. Witness then explained the properties of pilocarpine, which he described as the active principle of jaborandi—a plant brought from South America. This plant is infused in boiling water, and administered to produce perspiration; but the infusion varies in its action from the plants differing in strength, and sometimes causes vomiting. He preferred the alkaloid pilocarpine, which was extracted by a chemical process—(witness detailed the process)—used hypodermically.—His lordship: Is jaborandi a nasty thing?—Witness: Well, my lord, most medicines are nasty.—Examination continued: The way of using pilocarpine was by injecting it under the skin through a very fine needle. He first tried it on himself, as he always did with new medicines. He had formed a very favourable opinion of it. It was a most exact and uniform medicine in its action when injected hypodermically.—To a juror: There is no difficulty about variation in the action of pilocarpine; it is much more uniform in its action than Epsom salts.—Examination continued: The witness handed a small bottle full of the crystals to his lordship, and said his lordship need not be afraid of it. Two grains of nitrate of pilocarpine in sixty minims of laurel water was the solution which he generally employed; his usual dose was from one-fourth to one-third of a grain. Pilocarpine acted in about five minutes, throwing the patient into a profuse perspiration. Hypodermic injection was becoming every day a more favourite method of medication. Morphia was much more dangerous as an injection than pilocarpine was. There was no difficulty whatever about the operation. The injection of pilocarpine could not properly be called an experiment; it was now a matter of ordinary practice. Was aware that it was used by several medical men of eminence in Dublin. As to pilocarpine being an active poison, he had most serious doubts about it. It was absurd to describe the injection of pilocarpine as an operation at all. It was reckless ignorance to state that pilocarpine was injected into the veins; such a thing was never done. He had used pilocarpine in various diseases: malignant measles, scarlatina, and above all in Bright's disease, in scarlatinal dropsy, and in acute nephritis; it did not act on the kidneys. Its use was become a matter of ordinary routine.—His lordship: What was the diaphoretic generally used before this? Witness: Well, there was citrate of potash, acetate of ammonia, and many others. But the difference between them and pilocarpine was, that while the latter acted only on the skin, the others acted on the whole system. That was proved by an experiment on a cat of a very technical character. He constantly allowed house-surgeons, and even intelligent nurses, to administer morphia, which was much more dangerous than pilocarpine. Having heard the evidence as to the condition of the child, he believed it was moribund when the pilocarpine was administered, and that the system was incapable of absorbing it. (The witness here detailed at great length the physiological action of pilocarpine; and added that, on the occasion referred to, these symptoms were absent.) He read the alleged libel in the BRITISH MEDICAL JOURNAL; and he thought that the words "malignant, ignorant, violent, and unscrupulous", applied principally to Dr. Adderley and Dr. Johnson, and subsequently Mr. Crawford and Mr. Julian, who conducted his case, no doubt with a great deal of ability, but with a great deal of vehemence. He never knew a case of ordinary scarlatina in which the eruptions were delayed for four days; two days were the outside limit according to his experience. Dr. Johnson made a great mistake in saying what he did; but when a man was on cross-examination on the table, very likely he would be rather nervous. Witness concluded by expressing his firm conviction that the child of Mr. Crawford, with whom he deeply sympathised, died of malignant scarlatina; and that the pilocarpine had nothing to do with its death.—Cross-examined by Mr. Atkinson, Q.C.: I have read the work of Dr. Tanner; I do not agree with him that the rash is sometimes delayed three or four days; I do not know whether it is stated in Copland's *Dictionary* that the rash does not appear for three or four days, but that is a very old-fashioned work; pilocarpine has a special effect on the sight; I felt it myself when I used it; I I could not read, and it affects for a time the power of accommodation of the eye—in other words, it bothers the sight for a couple of hours, but it is purely temporary and leaves no ill effects behind; I was not unable to see; I could see you, for instance, but I was unable to read; pilocarpine is a very effective and a very safe remedy; I would not say it was wrong to administer a dose of pilocarpine in three hours after the first dose had been given, but I think it would be unnecessary. I I do not think wet packing is necessary in such cases, but different doctors have different modes of treatment. It certainly was not right to delay the administration of this drug until five o'clock in the evening, but it was delayed by Dr. Adderley.—How much of this would kill? Well, I don't know that it is an active poison at all. Professor Fronmüller, of Fürth, says, in last month's number of the *Specialist*, that pilocarpine is at once powerful and innocent; of course, if you administer, say, half a grain, you would sweat a patient severely; and in a short time again, if you administer another half-grain, you would sweat him again very severely; so that you might go on in this way until you sweated him to death, especially if he was fool enough to allow it. My usual dose is a quarter of a grain, and if I find that does not do, I increase the dose; but you might sweat a man to death just as you might drink him to death with whiskey punch.—Mr. Atkinson: Oh! well, that is a very slow poison in this country.—Dr. Quinlan: I don't find it so in my practice, but a rapid one.—Cross-examination by Mr. Atkinson resumed: Is the knowledge of a man derived from books alone a safe and practical knowledge? Indeed, it is not.—Then so long as knowledge is only derived from reading, and not from experience, it is unsafe as a guide? Most unsafe and most unreliable.—Would it be right to repeat this operation? I think it would be presumptious for me to give an opinion on a case I have not seen.—But notwithstanding that you did not see it, you took upon yourself to express an opinion that the child died of suppressed scarlatina? Well, I was obliged to answer the question put to me.—Was it wrong, in this particular case, to direct the operation to be repeated every three hours? I don't think it was. I think the directions included the words "if necessary".—Was it right or wrong to direct the operation to be repeated every three hours, or "in three hours"? I don't say it was wrong.—Was it right? I really cannot answer it. I think it would be unnecessary.—Is it an effective and efficient sudorific? It is, and exact and certain in its effects. As to packing, I don't think it is necessary; I think the pilocarpine will do the work itself.—If this were a desperate case, the only chance was to administer the drug at nine o'clock in the morning, and not at five in the evening? Yes, but it was delayed by Dr. Adderley.—You thought it right, you say, to experiment upon yourself when you got pilocarpine first? Yes, but I would like to explain. That was four years ago, and the medicine was a new one. I had no exact information as to what it would do, and tried it upon myself. I did the same with hydrate of chloral. Last year pilocarpine was in every text-book; every student knew all about it, and what it would do; so that Dr. Jones need not have tried it upon himself. He is a gentleman immensely thought of in the Dublin profession.—Had you read of the drug before you experimented on yourself? I heard or read of it.—Is vomiting one of the results of the subcutaneous injection of pilocarpine? I have not seen it produce vomiting, but I have seen it produce nausea—a tendency to

vomit.—Is vomiting one of the results of it? Not in my experience. —Did you see Dr. Adderley's evidence to the effect that ten minutes after the administration of the drug, the condition of the patient changed altogether, and vomiting commenced? I saw that; and I may mention that vomiting is a constant accompaniment of the closing scene in malignant scarlatina.—The propriety of readministration would depend on the symptoms displayed? Certainly.—And therefore the man who mistook the symptoms would not be the proper person to administer it? Surely no one could mistake the symptom of vomiting.—Did you read in Dr. Adderley's evidence that he told Mr. Crawford that vomiting was the result of the drug? I did, but I don't agree with him.—Well, but does not propriety of repeating the operation depend on a proper diagnosis of the symptoms displayed? Unquestionably.—Might I ask how much of this drug would kill? I have no facts to enable me to answer that question.—You do not trust to your knowledge gained from reading without correcting it by your own observations? Certainly not. I always begin with one-fourth of a grain; and if that does not do, I give one-third of a grain. I have not found it necessary to go beyond that. I always make it a rule to give patients as little medicine as I possibly can.—You know the condition that this child was in? Yes, I have often seen that condition, and I sympathise deeply with Mr. Crawford.—Suppose Dr. Adderley had administered a grain to the child at nine o'clock and another at twelve o'clock, what would be the consequences? Tremendous perspiration.—Is it your opinion that it would have killed the child? I don't think it would. There has been an opinion among the profession, and I had it myself, that pilocarpine was an active poison, and it was quite right. The medical profession is Conservative. There is always a class of men, what you may call Radical or advanced party of the profession—I belong to that advanced party—but the check of the Conservative party is very useful. There was an opinion at first that pilocarpine should not be used at all; the same thing took place before about the use of hydrate of chloral. I have heard sermons from the pulpit preached against the use of chloroform in cases of confinement.—His Lordship: You say that there was a Conservative party and a Radical party in the profession—tell me, is there a moderate Whig party?—Witness: There is, and a most respectable party, my lord. There is one of the most respectable types of the moderate Whig party sitting in the gallery there, Dr. D. O'Connor, senior. —Mr. Atkinson: He is a moderate Whig? I should say that he is so.—Have you read the evidence that up to this occasion in September 1880, the most distinguished medical men here have never used this drug? I have, and I am not at all surprised. The state of medicine in various parts of Ireland would astonish you still more.—And you describe injecting this drug hypodermically as an ordinary practice? As my ordinary routine practice.—You don't consider it as a malignity to call it poison? No, I don't; but to describe it as a dangerous experiment is quite another thing. If anyone said that I had made a dangerous experiment by injecting pilocarpine, I would either demand an apology or place the matter in the hand of my solicitor.—Even though the person who said so was an unprofessional man? So much the worse for him, for meddling in what he does not understand.—You think, therefore, that a man who makes an unjust charge ought to pay for it? No doubt about it, and you think the same thing. It is Mr. Hart's duty when any member of the Association is unjustly attacked to defend him, and if he had said less than he did, I would not be satisfied. When people talk about putting men in the dock, and things of that kind, they must not be too thin-skinned. The attack made on Dr. Jones was ignorant, violent, unscrupulous, and malignant.—You say you thought these observations referred to Drs. Johnson and Adderley as the persons making the attack? No; but I thought the compliments were distributed amongst the whole troupe. There was a run made on Dr. Jones to destroy him, and Dr. Johnson joined in the hunt.—But the article does not think so, for it says, alluding to Dr. Johnson, that unfortunately a medical witness could be found in the course of the inquiry to countenance the attack—does not the article clearly draw a distinction? Well, I believe that if a man countenances an attack he joins in it. I think the man who countenances a thing, when he could do anything to prevent it, joins in it.—His lordship said that Dr. Quinlan had given most interesting evidence.

Dr. G. F. Duffey, of Dublin, was then called.

The Foreman said that the jury were unanimously of opinion that further medical evidence in the case was not needed. Mr. Porter, Q.C., said the other medical evidence they had to give was of the same nature as that of Mr. Hart and Dr. Quinlan, and the intimation from the jury would materially shorten the case. Foreman: We are unanimous, my lord. Mr. Porter—Then I close.

The defence on behalf of the *Cork Constitution* was then gone into. Mr. J. B. Sandford, the editor, deposed that he found the article in the British Medical Journal, and cut it out and inserted it in the ordinary course. He had no communication with Dr. Jones in reference to it.

Mr. Lane addressed the jury on the part of the British Medical Journal and Mr. Hart. The action was one for libel, and the foundation, the gist, of it was that damages were claimed from two journals by the plaintiff for some injury that had been done to his reputation. The jury were asked to found their verdict on four adjectives which were used in an article in the British Medical Journal, and afterwards copied into the *Constitution*. The fact was that a more severe article than the one which formed the subject of the action was copied into the *Constitution* from the *Medical Press* before this article was published. It spoke of "crazy, ignorant, and prejudiced people," and that a charge was made "without even the shadow of a cause, and pursued with vindictiveness." Now, in that article Mr. Crawford was mentioned by name three times, whereas in the article said to be libellous he was not even once referred to by name. The article from the *Medical Press* was published and circulated amongst the inhabitants of the city of Mr. Crawford's adoption, but still no action for libel was brought for the publication of the article, and hence it was clear that there must have been some indirect, some unfair, motive for bringing an action on account of the milder article of the two. Counsel then proceeded to refer to the alleged libellous words that the attack on Dr. Jones was "ignorant, unscrupulous, violent, and malignant," and said that there never was an attack more ignorantly made than that of Mr. Crawford, who knew nothing at all of pilocarpine, or its effects; and could anything be more unscrupulous than the way the charges were persisted in by Mr. Crawford. The conduct of the plaintiff was most unfair, and he showed all through the proceedings more than a desire to elicit the truth. The charge at first was that the child had been killed by giving pilocarpine to him, it being a poisonous drug; but on the fourth day of the inquiry Mr. Julian shifted his ground entirely when he found that the evidence was too strong against him; and they then alleged that, though it had been proved the drug was not dangerous or poisonous, it should have been administered sooner. Mr. Julian charged Dr. Jones with manslaughter, and when a man made a charge of that kind he should not feel annoyed if he was called violent or malignant. As to the attack being "unscrupulous", wasn't it unscrupulous for Mr. Julian to speak of Dr. Jones's conscience being seared by operations? He also spoke of there being "unnecessary torture", while there was no evidence of torture at all, and from the evidence given there could be no torture. All those things, he would ask the jury to say, were not unreasonably borne in mind by the writer of this article, and they justified him in characterising the attack made on Dr. Jones as "ignorant, unscrupulous, violent, malignant, and frivolous." He asked them for a verdict for the defendants in the interests of the medical profession, and of the public generally. The plaintiff had in many ways appealed to the public, and had made use of strong language; and he (counsel) asked the jury by their verdict to say that if he had taken upon himself to deal harshly or inconsiderately with others, he had no right to complain if he were so treated himself; that if he drew the sword himself he could not blame others if he were pierced by it.

Mr. Peter O'Brien, Q.C., addressed the jury on behalf of the *Cork Constitution*. The Court then adjourned.

Friday, April 8th.

Mr. Atkinson, Q.C., addressed the jury on behalf of the plaintiff, whom he designated a much abused and much calumniated man. Since the Court rose on the previous evening, he had endeavoured, as best he could, to condense, in the shortest possible manner, the observations he felt called upon to address to them. Even after that labour, he felt he should be obliged to trespass on their attention more than he felt inclined to do, knowing how their patience had been tried already. But if there were many topics to be referred to, that was no fault of his. It was the fault of his learned friends, who, for seven hours and a half, had proceeded to address them on topics that could have no possible bearing on that action, but were introduced, and must only have been introduced, to warp their judgment or mislead them by sympathies, because Mr. Murphy told them at the beginning that the question they had to try was not whether Dr. Jones was right or Dr. Jones was wrong in prescribing pilocarpine. His learned friends admitted that for the purposes of this case it might be assumed that he had rightly prescribed in the first instance. The question they had there to try was whether these charges that were made against him—the written charges—were true or false. Counsel reviewed the evidence, and asked why had not Dr. Jones been produced, to prove that he had used this drug since. If it was such a wonderful remedy, why was there

a delay when minutes meant death; and why, he asked, did this daring scientist entrust the operation to a besotten ignoramus, so far as pilocarpine was concerned? He (Mr. Atkinson) argued at length that there could be no doubt but that the four adjectives applied to his client, and he asked for a verdict on his behalf. He (Mr. Atkinson) did not wish to assail the liberty of the press, but he wished to keep the press pure. They could only make it pure by one means—that was, to make slander expensive. His client had done nothing to disentitle him to damages in the case. There should be something in his client's case to have entitled him to consideration. Death had visited his house, and they should not have been too hard on him. They should have made allowance for a little irritation, and they should have had compassion on his agony. If they gave a verdict for the plaintiff, they would protect the liberty of the press, and protect a citizen who had done his duty fairly and honestly in regard to mismanagement in an institution—a noble institution which benevolence and charity had raised—and, in addition, they would be restoring confidence in the institution.

Mr. JUSTICE BARRY, in charging the jury, said he had heard a great deal of very powerful and eloquent speaking, but a variety of topics he thought, had been unnecessarily introduced. The action, as they knew, was one of libel, brought by Mr. Crawford against jointly the BRITISH MEDICAL JOURNAL and the *Cork Constitution*. The libel to which reference had been made consisted of an article written and published by Mr. Hart in the BRITISH MEDICAL JOURNAL, and copied afterwards into the *Cork Constitution*. Of the merits of the BRITISH MEDICAL JOURNAL he knew nothing, but he was sure everybody witnessed the evident ability and literary knowledge of its editor Mr. Hart. Of the *Cork Constitution* they knew more than he did, but he was perfectly justified in saying it was a journal conducted with great propriety. The article in question may be stated to be libellous almost altogether by reason of one passage. Speaking of the investigation into the affairs of the Cork Fever Hospital, of which they had heard so much, the article said—"the attack made upon Dr. Jones under these circumstances was ignorant, violent, unscrupulous, and malignant." There were other words of a somewhat similar character, but he thought the libel might be fairly referred to these words. In answer to the plaintiff's complaint, three defences had been entered. The first was that the publication was not a libel at all, and although he (his lordship) could give them, and was perhaps bound to give them a legal definition of what constituted a libel, whether or not it was a libel was a question of law and fact, and was the only case in law in which the jury were the judges of the law and facts of the case. A libel he might tell them was a publication calculated to bring an individual into hatred, ridicule, or contempt, and if it was attributed to Mr. Crawford that he had made an attack on Dr. Jones, and that it was "ignorant, violent, unscrupulous, and malignant," he had no hesitation in saying it was a libellous publication. The second defence was that it did not apply to Mr. Crawford; and the third defence was that the publication was a fair comment upon proceedings that took place in the Cork Fever Hospital, during the inquiry, and these proceedings were published in the public newspapers. The question they would have to inquire into did not, as a matter of fact, affect what took place between the doctors, but whether or not this comment upon the report was a fair comment. Of course reference had been made again and again to the most eminent physicians. Dr. Jones was, of course, largely the subject of discussion throughout this case, the inquiry having arisen out of a charge made against him, and he might venture to say, whatever the result of the case might be, whether they found it a libel on the plaintiff or not, it would leave no stain upon the learning, ability, and devotion to his duty of Dr. Jones. He (his lordship) had referred to Dr. Jones, and, so far, it would occur to him that the attack was in some degree ignorant. Any person who heard the evidence of Dr. Quinlan, no one who heard the literary evidence of Mr. Hart, could feel a doubt that this was a known experiment tried by Dr. Jones, and undoubtedly the original charge brought against Dr. Jones, and, he might say from the beginning to the end the charge persevered in, was, that Dr. Jones had tried an unknown experiment without due consideration. After going over the circumstances connected with Mr. Crawford's child's illness, and the treatment it received in the hospital, his lordship said he was satisfied that the medicine, instead of killing the child, was simply inoperative, and that the symptoms shown by the child were those of malignant suppressed scarlatina, which it was known had frequently carried off life in twelve hours. It had absolutely no effect, because the child's power of absorption was destroyed at the time the drug was administered. It was clear that the committee did not exonerate Dr. Jones from blame in connection with the administration of the drug, for had they intended to do so, they would certainly have done so. He (his lordship) did not pronounce any opinion on the subject because it was a matter of simple fact, and therefore entirely within the province of the jury. Further, he remarked that he considered Mr. Sandford's reasons for refusing to insert the letter were entirely satisfactory, because Dr. Jones's letter referring to the proceedings before the Corporation did not attack anyone; and Mr. Crawford, in rejoinder to that, wished to put into the *Constitution* a letter which certainly was of a very sneering and disparaging character against Dr. Jones. Of course everyone knew that Mr. Sandford favoured Dr. Jones, and while he told Mr. Crawford that he did not want to discuss the matter while it was *sub judice*, he did, as a matter of fact, publish an article from the *Irish Times* which commented on the question, and he was afraid that he was a friend of Dr. Jones. The child was dead and gone, and that was all about it; and the question was what was to become of Dr. Jones's wife and family? His lordship then informed them that the resolutions passed by the South of Ireland Branch of the British Medical Association being copied into Mr. Hart's article were part of the libel, and the jury should consider whether or not they were a fair comment. It would be found that they were, in fact, repeated in his article, which was written upon the decision arrived at by the Branch. The words "ignorant, unscrupulous, violent, and malignant" were, in his mind, a defamatory libel, but whether they were justified or not was a question for them. The next question was to whom did these word refer. If the plain meaning was that they intended to apply to Mr. Crawford, then the newspapers that published it would be liable, and Mr. Hart admitted that it included Mr. Crawford *primâ facie*. The man who made a charge was the man who brought it forward. Mr. Julian only appeared as the advocate, and while Mr. Crawford must be held responsible for Mr. Julian's language with reference to the charge, and on which his lordship would not express any opinion whatever, he thought it would appear a strange thing that when an article referred in general terms to an attack made, the promoter should be left out entirely. If such a thing was intended one would expect that some reference to the fact would be made by the person who wrote the article. As a matter of fact, however, the article appeared to make some distinction between the attack made upon Dr. Jones and the conduct of the medical men who were concerned in it. Great latitude ought to be allowed to a public journal in discussing a matter which was everywhere admitted to be a proper subject for public discussion. It was stated that Dr. Jones was in some way the author of this article. So far as he (his lordship) was concerned, he felt bound to say that there was no evidence upon which to found such a proposition as that. There was no doubt it did appear that, being in London, Dr. Jones went to lunch with Mr. Hart, and naturally referred to a subject that was of so much interest to himself; but his lordship was convinced that there was no reason whatever for coming to the conclusion that Dr. Jones was in any way associated with the writing of the article in question. In conclusion his lordship said that Mr. Sandford's own article was able, temperate, and fair.

While his lordship was delivering the charge, there was suppressed applause in court at the part in which he took a favourable view of Dr. Jones's conduct.

The jury, after two hours' deliberation, were unable to agree, and were discharged.

The only comment which has been forwarded to us is one in the *Irish Times* of April 9th, which runs as follows:—

"The Cork medical libel case has ended in a disagreement of the jury, and it is to be hoped that the public has heard the last of it. A more profitless feud than that which has divided the people of Cork into two factions for the last few months has seldom come under our observation. When the plaintiff first moved in the matter of the treatment to which his child had been subjected, there is every reason to believe that he was simply actuated by a desire to ascertain the facts and see justice done, and that he was without any special animus against the medical practitioner, to whose practice he had been induced to ascribe the fatal result of the child's illness. After a time, however, the guilt of Dr. Jones seems to have become a fixed idea with him, irremovable by any process of reasoning or any weight of evidence. Some allowance must be made for a man so sorely tried as Mr. Crawford had been, but it is impossible also to be without sympathy for a practising physician, who found himself the object of persistent attacks calculated to injure him materially, and unjustified by any serious argument. We think we express the views of most intelligent persons who have followed the whole story, when we say that it is probable Mr. Crawford's child would have died in any case; and that there were reasons for supposing that the drug administered might have a good effect. This being admitted, the systematic set made on Dr. Jones was utterly inexcusable. If we make an exception in favour of the bereaved father, we can make none in the case of those who joined with him and encouraged him. The comments made on the affair in the

BRITISH MEDICAL JOURNAL, were exactly such as might have been expected from an organ of the medical profession. The annoyance to which Dr. Jones was subjected was denounced in very severe and trenchant terms, which certainly, however, only expressed in plain language the views which such a paper was in a measure bound to advocate in the interest of the class of professional men among whom it circulates. It is far from being clear that Mr. Hart's uncomplimentary references were aimed specially at the plaintiff in the trial under notice. We rather think they were intended principally for others. But even if the strong language of the BRITISH MEDICAL JOURNAL was meant to apply exclusively to Mr. Crawford, it would be a very dangerous precedent to make it the basis of a conviction for libel. To the paper the subject was one of the very highest importance, which it could not afford to pass over, and on which it was bound to express a strong opinion. On the other hand, the injury inflicted on the plaintiff by an unfavourable article appearing in a professional journal published in London could be only infinitesimal. If we were to take the facts of the story merely from the very clear charge of Mr. Justice Barry, and without reference to our previous knowledge of the affair, we should be inclined to blame the jury for not bringing in an almost immediate verdict of acquittal. And even with our belief in the sincerity with which Mr. Crawford took up the matter, and with our conviction that there was at least no "malignity" on his part, we do not see how a sensible jury could have found against a journalist for having used a word a shade too strong in denouncing what he sincerely believed to be the most unjustifiable persecution of a member of the profession of whose rights he was the champion.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN extraordinary meeting of the College was held on Monday, April 11th. Before the main business was proceeded with, Dr. Bucknill asked for information as to the circumstances in which Dr. Quain had consulted with Dr. Kidd, on the occasion of Lord Beaconsfield's illness. The President, after intimating that there could be no discussion on the matter, requested Dr. Quain to reply to Dr. Bucknill's question.

Dr. Quain, after prefacing his remarks with the statement that homœopathy was a creature of the imagination, with which science and rational medicine could have no connection, said that he had been asked by Lord Barrington, at the desire of the Queen, to see Lord Beaconsfield. He replied that he could not meet a homœopath in any circumstances; but, on Lord Barrington's asking whether Lord Beaconsfield was to die without assistance; and further, finding on inquiry that Dr. Kidd was not treating his patient homœopathically, he sought the advice of Sir George Burrows, who, after recommending him to obtain Dr. Kidd's written statement that he was not acting homœopathically, expressed his opinion that it would be a failure in duty for Dr. Quain to refuse to do as he was asked. The same opinion was elicited from Sir Thomas Watson, Sir James Paget, and the President of the College of Physicians. The written statement required from Dr. Kidd was obtained, and Dr. Quain asked what else he could have done, or how acted otherwise than he did; especially as he had been told that, had he refused to see Lord Beaconsfield unless Dr. Kidd's services were dispensed with, he might, in the event of a fatal result, be looked upon as contributing to his lordship's death.

Sir William Jenner then rose to make a personal explanation, assuring the President, who ruled that the matter could not be further debated, that he was not about to discuss Dr. Quain's action, but merely wished to inform the College that he had himself been asked, previously to Dr. Quain, to see Lord Beaconsfield in consultation, and that he had distinctly refused to do so; adding that, if Dr. Quain's conduct met with the approval of the College, his own deserved its censure.

A proposal by the President that a grant of fifty guineas should be made towards the expenses of the International Medical Congress, was carried unanimously.

A short address was then given by the President, reviewing the past year's work of the College, and drawing special attention to the useful part it had taken in the opposition to the Vaccination Acts Amendment Bill. Among other remarks, stress was laid on the great importance of keeping up the social and professional status of the Fellowship with the utmost strictness; and, speaking highly of its standard at the present time, the President said that he had no fear for the future of the College of Physicians.

Sir William Jenner proposed, and it was carried unanimously, that the President should be thanked for his address, and requested to print it, and send it to the medical journals.

The Fellows then proceeded to ballot for the President for the ensuing year. Out of 108 Fellows present, 87 voted for Sir William Jenner, 7 for Sir J. Risdon Bennett, 5 for Sir William Gull, 2 for Dr. Wilks, 2 for Dr. Pitman, and 1 each for Drs. Radcliffe, Acland, and Quain. According to the rule that he who obtains two-thirds of the votes given is thereby elected, Sir William Jenner was declared President; and Sir Thomas Watson, as the senior Fellow present, delivered to the new President the insignia of office.

Sir William Jenner, in a short but impressive speech, thanked the Fellows for the great honour they had bestowed on him; saying that, though the powerful support he had had that day was doubtless largely owing to the accident of his position, yet he felt that he would not have been placed where he now was by the Fellows, had he ever been known by his actions to have done the slightest dishonour to the profession to which they all belonged.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A QUARTERLY meeting of the Council of the College was held on Wednesday, the 13th inst. The minutes of the ordinary monthly Council, held on the 10th ult., were confirmed. Reports were received from the several annual committees, the Committee on Further Examinations, and on the Erasmus Wilson Fund Committee. The Committee on Further Examinations recommended—1st, that it is not at present desirable that examinations in chemistry, materia medica, medical botany, and pharmacy be instituted at the College; 2nd, that the extended examination in medicine, as proposed in the second report of the committee, and approved by the Council on the 13th January last, do come into force from and after the 1st of January 1881; 3rd, that the four examiners in medicine be chosen from the Fellows of the College of Physicians, and be elected at the Quarterly Council in July; 4th, that the two examiners in midwifery be chosen either from the Fellows of the College or from Fellows of the Royal College of Physicians, and be elected at the Quarterly Council in July; 5th, that the examiners in medicine and midwifery be elected by the Council after nomination by a committee; 6th, that the examiners in medicine and in midwifery be paid for their services by a capitation fee, and that the amount of such fee be hereafter determined by the Council; 7th, that it be referred to this committee to confer with the examiners in medicine and midwifery, and, after discussion with them, to determine the nature and extent of the examinations in medicine and midwifery respectively; 8th, that it be at the same time referred to this committee, after such conference with the examiners, to advise the Council as to the amount of the capitation fee to be paid to the examiners in medicine and midwifery respectively. The committee also recommended to the Council the adoption of the following resolution:—"That the committee of seven members of the Council, to be called the Nomination Committee, be appointed to nominate candidates for the several examinerships of the College, except candidates for the Court of Examiners, and for the Court of Examiners' section of the Dental Board, subject to such rules and regulations as the Council may hereafter enact." The committee of the Erasmus Wilson Trust reported that they have considered the amount of remuneration which should be given to Professor Henry Trentham Butlin for his two lectures, "On the Relations of Sarcoma to Carcinoma," and to Professor Frederick Treves for his one lecture, "On the Pathology of Scrofulous Affections of Lymphatic Glands," recently delivered by them in the theatre of the College, and recommend to the Council that the sum of sixty guineas be awarded to Professor Butlin, and the sum of thirty guineas be awarded to Professor Treves, such sums to include the honorarium of five guineas for each lecture and the expenses incurred by them in the preparation of the lectures.

The several reports were adopted. The Jacksonian Prize was awarded to Mr. Watson Cheyne, M.B.Edin., F.R.C.S., for his essay on Antiseptic Surgery.

NOTIFICATION OF INFECTIOUS DISEASES.

THE following petition against the notification of Infectious Diseases Bill has been forwarded to Parliament by the Council of the Irish Medical Association.

"To the honourable the knights, burgesses, and commons in Parliament assembled. The petition of the President and Council of the Irish Medical Association humbly showeth,—

"That your petitioners are the executive of an association devoted to representing the opinions and interests of the medical profession in Ireland, and includes amongst its members a large proportion of the legally qualified medical men in practice in Ireland. That your petitioners have fully considered the Notification of Infectious Diseases (Ireland) Bill, now standing for a second reading in your honourable House, and have obtained the opinion of a large majority of the medi-

cal practitioners of the city of Dublin upon the chief proposals contained in the said Bill, which opinion has been expressed by a large majority of nearly two to one against any proposal which would require the medical attendant to notify in writing the occurrence of infective disease, either to the sanitary authority or to the house occupier.

"Your petitioners confirm the opinion thus expressed, and consider that the provisions of said Bill are not calculated to effect with certainty the discovery of infective disease, in those instances in which concealment is most probable; while they will, if passed into law, impose upon the medical profession new functions, inconsistent with the efficient performance of their duty towards their patients, and seriously prejudicial to their interests as practitioners.

"That your petitioners apprehend that if, as would occur under the operation of said Bill, the visit of the physicians be followed by the immediate enforcement of sanitary precautions, a great inducement will be created, in all instances in which it is desired by the house occupier to avoid the application of the sanitary law, to omit sending for a medical attendant, or to defer doing so until the disease had reached a stage in which its treatment would be difficult and ineffective. Your petitioners, therefore, anticipate that the number of undetected cases of infective disease might rather increase than diminish under the operation of the proposed law, while in many instances, the chances of restoration of the patient to health would be greatly prejudiced.

"Your petitioners humbly submit that the professional and monetary relations existing in Ireland between the physician and his patient are altogether different from those which exist in other divisions of the kingdom; and, furthermore, that the methods of application of sanitary law in Ireland are not fairly comparable with those which exist elsewhere; and your petitioners, therefore, submit that a system of notification of infective disease, applicable to England and Scotland, may prove altogether unsuitable to Ireland; and they are of opinion that any enactment which requires the medical attendant in Ireland to give a written certificate of the disease from which his patient is suffering, will be inoperative in many instances, and will tend to increase the evil which it purports to remedy.

"Your petitioners are, furthermore, strongly of opinion that, in respect of the fee proposed to be paid for such notification, the penalty imposed for omission to notify, and in other details, the said Bill is altogether objectionable.

"Your petitioners, therefore, humbly pray that your honourable House will not pass said Bill.

"Signed { J. CHAPMAN, President.
{ R. BROWNE, Hon. Sec. of Council.'

THE SELECT COMMITTEE ON THE CONTAGIOUS DISEASES ACTS.

SURGEON-GENERAL LAWSON was called before the Committee on March 21st; and his examination lasted through the whole of that, and two subsequent sittings, on March 28th and April 4th.

Dr. Lawson, it may be remembered, was examined before the Committee which sat in 1879, mainly on the statistical returns of the Army Medical Department. These returns, with the conclusions drawn from them, were seriously called in question by Dr. Birkbeck Nevins, who was examined in 1880, and who brought forward a variety of statistical tables and calculations to controvert them. It was in answer to these latter, and in defence of the official returns, that Dr. Lawson has been again summoned. He has evidently made himself thoroughly master of the statistical part of the question in all its intricate details; and, we think, has completely succeeded in demonstrating the correctness of the departmental returns in all essential points; while he has also contributed much additional and valuable information. He points out a variety of fallacies attending Dr. Nevins' method of dealing with figures, which, in some of his tables, show results entirely the reverse of what the facts really warrant. One of Dr. Nevins' methods, which was exposed by Colonel Alexander last year, is, to arrive at the average ratio for a series of years by taking the total of the ratios, and dividing by the number of years, without considering the numbers from which such yearly rates was derived. The table in which this is done is shown by Dr. Lawson, not only to be wrong in principle, but to be wrongly calculated in nearly every one of its figures. Other errors in Dr. Nevins' figures and calculations were also pointed out.

Dr. Lawson justifies the classification of all primary sores under one head, which has been so much condemned as unscientific, pointing out, that, as the returns are made weekly, it is the only possible mode by which errors can be avoided. It would be impossible, to says, to separate sores into infecting and non-infecting, without waiting for months; so many other than the recognised indurated sore being found to be followed by secondary results. Dr. Lawson has, at the wish of the former Committee, compiled a fresh series of tables, in which the fourteen protected stations are compared with the whole of the rest of the home army, instead of with fourteen selected stations, as before. The stations not under the Acts are more than one hundred in number, every small outlying place with half-a-dozen men in it constituting a station, in many of which there is little, if any, opportunity of contracting disease. The comparison, therefore, appears somewhat less favourable to the Acts, but still shows a diminution of primary sores at the protected, as compared with the unprotected stations, of nearly two to one. Dr. Lawson does not admit that the original comparison of fourteen stations of each class was in any way unfair, except as against the Acts, inasmuch as the fourteen protected had originally a considerably higher ratio than the others, and would doubtless return to the same high ratio if the Acts were repealed. The comparisons have been made for three periods of six years each: the first for the years 1860 to 1866, when there were no Acts; the second, from 1867 (when compulsory examination of women commenced) to 1872; and the third, from 1873 to 1878, when the Acts were in full working order. This last period, however, is disturbed by the operation of an order issued by Lord Cardwell in 1873, stopping the pay of men in hospital for primary sores and gonorrhœa. This led to great concealment of disease, and consequently to an apparently great diminution at both sets of stations. There is still, however, the same proportionate excess of reduction at the stations under the Acts. Dr. Lawson insists that there is no other way of accounting for this difference than by the operation of the Acts, the improved sanitary influences about which so much has been said having been in force equally at both.

He also shows, by calculations made in the same manner for six-yearly periods, that there has been a material diminution in gonorrhœa, which has been frequently denied; and that the decrease has also been in considerable excess at the protected stations, compared with the rest of the army. The diminution of gonorrhœa, however, has not been nearly equal in amount to that of primary venereal sores.

Dr. Lawson's evidence with respect to secondary disease is especially interesting, particularly with reference to the statements recently made by Mr. Lee and Dr. Drysdale that the infecting sore has become much more frequent of late years, and is now met with in even greater numbers than the non-Infecting form. He takes the number of primary sores and of secondary disease in the whole army for the twelve years 1861-72, and, dividing the twelve years into four triennial periods, he finds that the proportion of primary to secondary is in each, with trifling variations, as 3 to 1; that is to say, there is one case of secondary disease to every three primary sores. The same proportion does not hold for the years since 1872, on account of Lord Cardwell's order in 1873 for stoppage of pay to men in hospital for primary sores, which led them to conceal their disease. This order did not apply to secondary disease; consequently, there was no motive for its concealment. The proportion of primary to secondary has therefore been diminished from three to two to one, and the apparent ratio of the latter has been proportionately increased. These facts seem to show pretty clearly that the idea that there has been a very large increase of late in the proportion of infecting to non-infecting sores is without adequate foundation, for it is obvious that the best, if not the only way of testing such a question, is by reference to returns furnished by a large number of men similarly circumstanced and under continuous observation, as in the army. The apparent increase of secondary in the army since 1872, is clearly owing to the concealment of primary sores.

With reference to the effect of the Acts on secondary syphilis, Dr. Lawson put forward some additional evidence, which seems effectually to dispose of the statement, that the Acts have had little or no influence on this form of disease. He takes the three six-yearly periods as above mentioned, and shows that while the unsubjected portion of the army has remained stationary as regards admissions for secondary disease, the subjected stations show a striking difference in favour of the Acts, in fact, the reduction in the third period as compared with the first, amounts to about 40 per cent. There is no way of showing whether the disease was contracted in one district or the other, as a mutual transfer must necessarily be always going on, but this transfer must tell against the Acts, as troops coming from districts where primary sores are more frequent, must bring more disease to be developed in their new quarters than will be carried away when men are transferred in the opposite direction.

Another point of great general interest has been worked out by Dr. Lawson, as regards the prevalence of syphilis in the civil population, so far as it can be ascertained from the Registrar-General's returns of the deaths from that disease in the different parts of England and Wales. He takes three quinquennial periods, from 1865 to 1879; and he finds that in the counties south of the Thames and the Bristol Channel, in which are situated all the districts under the Acts except Col-

chester, there has been a decline in the number of deaths from syphilis, from 69 to 59 per million, or about 14 per cent. This is comparing the first with the third quinquennial period. In the counties immediately north of the Thames, there has been, on the other hand, an advance from 67 to 78, or 16 per cent. In the midlaand counties, which, however, started at the lower level of 43 per million, there has been an increase to 59, or 37 per cent. The northern counties, which seem to have a much higher rate of disease, started with 85, and increased to 98, or 15 per cent. The only district north of the Thames which shows a decrease is London, where the rate is very high, but has fallen from 144 to 131, or 9 per cent. There has been a general rise, therefore, throughout the kingdom, except in the south, where the Acts have been in force, and in this part there has been a marked diminution. It should be remembered that three-fourths of the recorded deaths from syphilis are in children under one year of age, and these must have been mainly caused by active disease in the parents not more than two years previously. All this may possibly not be more than a coincidence; but the fact is very significant, and deserves to be thoroughly looked into. It certainly points strongly to the beneficial influence of restrictive measures against prostitution on the health of the general population. Dr. Lawson's evidence is characterised throughout by the greatest clearness and precision; and the labour he has bestowed in his investigation of the multitudinous figures and tables must have been immense. On the third day, he was cross-examined at great length; but, with the exception of some trifling inaccuracies in the departmental figures, which he at once admitted, his testimony was unshaken in any material particular.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

NORTH OF ENGLAND BRANCH.—The spring meeting of this Branch will be held at the Grand Hotel, Tynemouth, on Thursday, April 28th, at 2 P.M.: G. B. Morgan, Esq., President, in the chair. Members wishing to read papers, and those intending to be present at the dinner (at 5 P.M.), are requested to communicate at once with T. W. BARRON, M.B., Honorary Secretary, 10, Old Elvet, Durham.

YORKSHIRE BRANCH.—A meeting of the Branch will be held at Ripon on Wednesday, April 27th, at 3:15 P.M. Members intending to make communications are requested to write at once to the Secretary.—A meeting of the Branch and the profession will also be held at the Philosophical Hall, Leeds, at 5 P.M., on Wednesday, April 6th, to consider the report on Medical Education; P. E. Miall, Esq. (President), in the chair.—ARTHUR JACKSON, Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next meeting will be held at the Cawdor Arms Hotel, Llandilo, on Thursday, April 28th. Gentlemen intending to be present, and desirous of reading papers, etc., are requested to communicate with ALFRED SHEEN, M.D., Honorary Secretary, Cardiff.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting of this District will be held at the Bow and Bromley Institute (adjoining Bow Station), on Thursday, April 21st, 1881, at 4.30 P.M. Dundas Grant, M.D., will read a paper entitled Aural Notes. A. T. Gibbings, M.D.: A Case of Perforating Ulcer of the Stomach.—FREDERICK WALLACE, Honorary Secretary, 96, Cazenove Road, Upper Clapton, E.

ALLEGED MANSLAUGHTER BY AN UNQUALIFIED PRACTITIONER.—On Tuesday last, Mr. G. H. Hull, the coroner for West Surrey, concluded an inquiry respecting the death of Caroline Murrell, aged 23, residing at 26, Simpson Street, Battersea. The evidence went to show that Mr. Samuel William Scott, describing himself as a medical student, and not a fully qualified practitioner, had attended the deceased in her confinement, and there was reason to believe that had proper assistance been at hand her life would have been saved. After a long deliberation in private, the jury brought in a verdict of manslaughter against Mr. Scott, and he was at once arrested on the coroner's warrant by Inspector Jones, and committed for trial at the Central Criminal Court. Bail was subsequently accepted, himself in £100, and two sureties in £50 each.

DOCTORS' FEES FOR POST MORTEM EXAMINATIONS.—The Kent General Sessions having adopted an order reducing the fees payable to medical men for *post mortem* examination to a guinea and a half, instead of two guineas as formerly, where no inquest follows, the medical practitioners of the Greenwich district have refused to send in reports of the results of the *post mortem* examination, thereby rendering an inquest necessary in each case. This has considerably increased the number of inquests; and, at the Kent General Session yesterday, attention was drawn to twelve cases where inquests might have been avoided, had a report been sent in; and a sum of 10s. 6d. was ordered to be deducted from the coroner's bill in each case, that being the amount of the extra fee paid to the doctor in each case.

CORRESPONDENCE.

THE CONSULTATION IN THE CASE OF LORD BEACONSFIELD.

SIR,—In one of your contemporaries, I noticed some remarks elicited by the consultation between Dr. Quain and myself upon the illness of Lord Beaconsfield, in which the professional morality of the proceeding was questioned, and a justification challenged. Speaking for myself alone, may I tender the following reply?

1. Although, to quote the words used, a "reputed homœopath", I desire once for all to disclaim any such party designation. Four years ago, I resigned all connection with the homœopathic hospital and society. In a very extensive practice, extending over thirty-four years, I have always adopted that course of treatment which my own study and experience has taught me to be most effectual to my patients. Herein I claim to have acted as any man does who is not bound by the trammels of a merely mechanical routine. Like other practitioners, I use the drugs of the British Pharmacopœia; but in many cases I have learnt from experience that what are called "homœopathic" remedies may be usefully prescribed. Such remedies I freely use in suitable cases, and according to my own judgment. I do not prescribe infinitesimal doses, nor according to the caprice of my patients.

2. With regard to the co-operation of Dr. Quain with myself, the facts are as follows. A valuable life was at stake—one precious to Her Most Gracious Majesty the Queen, and to many millions of her subjects. I had been enabled for nearly four years to afford prompt and effectual relief to that illustrious man in many severe illnesses. From the first moment of the present attack I recognised its gravity and danger. For ten nights and days I bore the strain of incessant attention; then Her Majesty wished that the responsibility of so momentous an illness should be shared by a consultant. I was asked to make arrangements accordingly. Knowing the satisfaction it would give Her Majesty to have Sir William Jenner's co-operation and opinion, I at once wrote to him. He replied to the following effect:—"Holding, as you and I do, different views as to practical treatment, I do not think Lord Beaconsfield's interest could in any way be served by our meeting in consultation; on the contrary, it could not be without risk to him." Thus, without inquiring as to the manner in which I was treating the patient, Sir William declined to meet me. Before receiving his reply, however, Lord Beaconsfield had selected Dr. Quain, who communicated with me as to how I was treating the case, and upon receiving my assurance that it was on the ordinary principles of medicine, and not homœopathically, he visited the patient; thus fulfilling the spirit of that "boast of the medical profession, that in the hour of sickness it recognises only humanity in need of succour". In this way, Dr. Quain and I did not work together without being agreed, nor did either sacrifice his convictions to effect the co-operation; on the contrary, Dr. Quain's great skill was thus made useful to our illustrious patient, and my intimate knowledge of his constitution and of the disease was as helpful to Dr. Quain.

3. As to the rules of professional etiquette which have been alleged herein to have been violated, it is impossible within the limits of this letter to discuss the entire question; but of this at least I am convinced, that, if the boast of the medical profession above set forth is henceforth to remain a living principle of conduct, we must be guided, not by the misleading flicker of prejudice and jealousy, but rather by the clear and convincing light of humanity and common sense.—Yours obediently,

J. KIDD, M.D.

ON THE RELATIONS OF SARCOMA TO CARCINOMA.

SIR,—You will oblige me very much if you will permit me to correct a statement in your otherwise excellent abstract of a lecture I had the honour to deliver, at the College of Surgeons, on March 21st.

On page 504, I am reported to have said: "In cases where it is stated that the disease has recurred in the cicatrix after operation, and no recurrence has followed the removal of the diseased cicatrix, it is logical to believe that the cicatrix really became the seat of a new and primary disease; for epithelioma very frequently attacks scar-tissue."

What I really said was, that, in one particular instance (Case 33), in which a scar was attacked *six years* after the first operation by a second epithelioma, it was very improbable that this was a recurrence due to incomplete removal of the primary disease; but that it was much more logical to regard it as a second and separate outbreak of disease in a person predisposed to its occurrence. The affection of scar-tissue was but another example of the tendency of epithelioma to attack scar-tissue.—I remain, sir, yours obediently,

HENRY T. BUTLIN.

Queen Anne Street, April 12th, 1881.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, April 7th.

Lunatics in Ireland.—Mr. LITTON moved the second reading of the Lunacy Law Assimilation (Ireland) Bill. He explained that there was in Ireland a large class of lunatics at large, who were either totally or very inadequately provided for. The latest reports showed that at the end of 1879 there were upwards of 9,000 lunatics in Ireland, of which number the existing asylums could not accommodate more than 3,000. For this helpless and unfortunate class there was not only insufficient accommodation, but remedial treatment in the case of those who might be curable was out of the question. His object was to give facilities for the enlargement of the asylums, to adopt the English system with respect to pauper lunatics, and the Scotch boarding-out system, which was working so well in that country; and, what was most important for all, to provide for efficient inspection. The Bill, with the exception of one clause, was introduced last year by Lord O'Hagan in the House of Lords, and had received a considerable amount of support from those who were best qualified to form an opinion upon the subject.—Mr. BLAKE, from what he had seen in Belgium, had no doubt that lunatics in the custody of private persons had a better chance of recovery than those who were kept in asylums.—Mr. GIBSON said the Bill was thoroughly well meant, and entitled to be treated with much respect, but it did not propose to take a single step towards classification; on the contrary, it would render the absence of classification even more glaring than it was at present. While not opposed to boarding-out *per se*, any movement in that direction would require the greatest caution; but, with respect to the granting of parochial relief to those who, by reason of mental infirmity, were unable to work, he agreed that the Poor-law might very legitimately exercise generosity in such cases.—The SOLICITOR-GENERAL for IRELAND, while not intending to express approval of the principle of the Bill, did not on the part of the Government offer any opposition to the second reading. The measure would require very considerable amendment in committee to make it workable. Amendment of the lunacy law should proceed upon the principle of classification, but this Bill dealt only with a number of minor matters of detail. The Bill was then read a second time, and the committee was fixed for the 1st of June.

Friday, April 8th.

Small-pox in the Metropolis.—In answer to Sir S. WATERLOW, Mr. DODSON said,—My attention has for some time past been anxiously directed to the prevalence of small-pox in the metropolis. The Government itself has no power to take charge of persons suffering from this disease; but the Local Government Board has not failed to impress upon the several authorities who are either required or enabled to provide hospital accommodation for small-pox patients, whether of the pauper or non-pauper class, the necessity of making every arrangement in their power to meet the emergency. I am glad to say that arrangements are being made by some of the authorities to supplement the hospital accommodation at the disposal of the managers of the Metropolitan Asylums District.

OBITUARY.

JOHN MERRIMAN, M.R.C.S., L.S.A.,

APOTHECARY-EXTRAORDINARY TO HER MAJESTY THE QUEEN.

THIS venerable member of the profession died of a sudden attack of hemiplegia on March 24th, at Putney. He had reached the age of eighty, having been born on December 27th, 1800, at 13, Young Street, Kensington Square, the house in which, many years later, Thackeray wrote *Vanity Fair*. The father and grandfather of two gentlemen, who bear both his names, and have succeeded to his practice in Kensington, Mr. Merriman came of a very old medical stock. The first bearing this surname was Samuel Merriman, who began practice in London in 1757, and, after an enormous experience in midwifery, died in 1818, aged 86. His kinsman, John Merriman, was born in 1774, at the same town, Marlborough; and, in 1794, began the practice in Kensington which is still carried on by his descendants. He was the father of the late John Merriman, the subject of this notice, who, on retiring from practice, left in the hands of his son an interesting sketch of his professional career. From this sketch we learn that, from 1815 to 1818, he "spent three wretched years" as apprentice to a practitioner at St. Alban's, and, in 1819, attended his first anatomical course, under Wilson and Charles Bell; he subsequently studied in Edinburgh and Paris, and at St. George's Hospital. He took the diploma of M. & L.S.A. in 1822, and passed the membership examination at the College of Surgeons, London, in 1823. In 1827, he was, in conjunction with his father, appointed apothecary to the Duchess of Kent and the Princess Victoria: on Her Majesty's accession, he was awarded the appointment of apothecary-extraordinary to the Queen, also in conjunction with his father; his uncle, as well, sharing the honours of the same office. In consequence of these appointments, Mr. Merriman attended personages of distinction; in 1835, he was called in to attend the late, but then the future, Prince Consort; and, in 1839, he was present at the death of the ill-fated Lady Flora Hastings. Mr. Merriman visited her for some time at Buckingham Palace; and, on the last three nights of her life, he slept there by command of Her Majesty. He was also the regular medical attendant to the Princess Sophia, who died, in his presence, on May 27th, 1848. For these services, Mr. Merriman received constant tokens of favour from royalty; and, after the death of the Duchess of Kent, the Queen presented him with a vase formerly belonging to the duchess. Mr. Merriman was one of the originators of the Kensington Dispensary, in 1840, and was connected with it more or less officially till his death. As a practitioner in Kensington, he was an universal favourite, and particularly successful in conquering the fears of his juvenile patients, by his kindly manner and palatable medicines; in which matters he differed from the severe and puritanical bearing of many family doctors of his day, who thought it good that children should be heavily dosed with rhubarb and black draught in spring and autumn, just as the pedagogue of that period saw a vast moral influence in the free use of cane and birch. So strong, however, is prejudice, that, at first, old-fashioned people occasionally complained that Mr. Merriman actually laughed and smiled when he talked to a juvenile patient, which then seemed to be fearful levity in the case of a sick infant, and an unpardonable want of severity when there was a surfeited schoolboy to be dealt with. Mr. Merriman finally retired from practice in 1863—a practice which has now been maintained for nearly a century, and is now in the hands of his son, Mr. John Jones Merriman, and his grandson, Mr. John Conyers Merriman, the third and fourth who bear the honoured name. After his retirement, he constantly visited Marlborough, where he held landed property, and was known there as an enthusiastic fisherman, entering heartily into that sport even last summer, when in his eightieth year.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology, at a meeting of the Board of Examiners, on the 7th instant, and when eligible will be admitted to the pass examination.

Messrs. David L. Williams, Percy W. McD. Howse, Frederick H. Taylor, and William A. Nutt, students of the London Hospital; Charles K. Bond, Bernard Relton, and Isaac R. Cory, of St. Thomas's Hospital; Sydney S. Merrifield, Arthur H. Gordon, and Gerald G. Hodgson, of King's College; V. Langford Oliver, and G. Douglas Hunter, of St. George's Hospital; Thomas F. Gardner, and Frank Hinds, of University College; William A. Russell, and Walter Spencer, of Charing Cross Hospital; Albert Greswell, and Edward J. Cave, of St. Bartholomew's Hospital; G. M. Panton Braine, and W. Wycliffe Linney, of the Middlesex Hospital; Edgar E. Masters, of Guy's Hospital; and Alfred T. Masters, of St. Mary's Hospital.

Two candidates were rejected.

The following gentlemen passed on the 8th instant.

Messrs. Walter, H. Haw, J. Hedley Crocker, John Marriott, and Arthur E. Huntable, of the Charing Cross Hospital; Francis Cresswell, Thomas E. Lovegrove, Thomas W. Shore, and Arnold Lyndon, of St. Bartholomew's Hospital; Arthur J. Drew, A. Jefferis Turner, and Evan Williams, of University College; H. Creighton McDonall, and A. Mason Vann, of King's College; Charles H. Hale, and Edmund P. Cockey, of St. Mary's Hospital; Alfred T. Schofield, and Walter Blaxland, of the London Hospital; Herbert E. Counsell, of Guy's Hospital; A. T. Irvine Lilley, of St. George's Hospital; Frederick F. Caiger, of St. Thomas's Hospital; and Herbert Larder, of the Westminster Hospital.

Three candidates were rejected.

The following gentlemen passed on the 11th instant.

Messrs. H. Betham Robinson, Yasuzumi Saneyoshi, W. G. Beauchamp Tyrrell, and George D. Johnston, of St. Thomas's Hospital; Percy W. Smith, William H. Crago, and Albert E. Rook, of the Middlesex Hospital; David Thomas, John Bostock, and Victor N. Bindley, of the London Hospital; Howard Davies, and Alfred J. Turner, of the Charing Cross Hospital; Cecil D. Greenwood, and Thomas W. S. Morgan, of King's College; William A. Gostling, and Arthur F. Blagg, of University College; John F. Steedman, of St. Bartholomew's Hospital; George A. Johnson, of Guy's Hospital; Herbert W. Allingham, of St. George's Hospital; and Paul Jackson, of the Westminster Hospital.

Four candidates were rejected.

The following gentlemen passed on the 12th instant.

Messrs. William Bradbrook, O. Clayton Jones, and James D. Llewellyn, of the

London Hospital; Edmund C. Pettifer, John R. Nunn, and Edward C. Sharpin, of St. Bartholomew's Hospital; Henry H. Wigg, Herbert R. Spencer, and George H. Phillips, of University College; Benjamin W. Thomas, and Ernest Atkins, of the Charing Cross Hospital; Albert Martin and George H. Rodman, of Guy's Hospital; Charles Childe, and Charles T. Dornford, of King's College; Richard Andrews, and John P. Glover, of St. Thomas's Hospital; Harry J. Thornton, and H. W. Martindale Kendall, of the Middlesex Hospital; H. Henderson Pinching, of St. George's Hospital; and Frederick A. Rogers, of St. Mary's Hospital.

Three candidates were rejected.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 7th, 1881.

Anderson, Daniel Elie, Harrington Square, W.
Dashwood, Edmund Samuel, Merrick Square, Borough.
Hodges, James, Henley-on-Thames.
Sibbles, William, Wayford Street, Battersea, S.W.

The following gentlemen also on the same day passed their Primary Professional Examination.

Berry, John Bourne, Guy's Hospital.
Smith, Ebenezer Thomas, London Hospital.
Stables, William Skilbeck, Guy's Hospital.

MEDICAL VACANCIES.

THE following vacancies are announced :—

BRAINTREE UNION — Medical Officer and Public Vaccinator. Salary, £100 per annum. Applications to be sent on or before Friday, the 15th inst.

CARLISLE DISPENSARY—Assistant House-Surgeon. Salary, £90 per annum. Applications to the Honorary Secretary.

CARRICKMACROSS UNION—Medical Officer for Raferagh Dispensary District. Salary, £100 per annum, with £15 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 22nd instant.

CHELTENHAM GENERAL HOSPITAL AND DISPENSARY — Junior House-Surgeon and Dispenser. Salary, £80 per annum. Applications by the 19th April.

GENERAL INFIRMARY, Hertford—House-Surgeon and Secretary. Salary, £100 per annum. Applications on or before April 22nd.

HEREFORD GENERAL INFIRMARY—Resident House-Surgeon and Secretary—Salary, £100 per annum. Applications by April 21st.

HOLLOWAY AND NORTH ISLINGTON INFIRMARY — Two Medical Officers. Particulars from the Resident Medical Officer.

HULL AND SCULCOATES DISPENSARY House-Surgeon. Salary, £150 per annum. Applications by April 19th.

KENT COUNTY ASYLUM, Barming Heath, near Maidstone—Junior Assistant Medical Officer. Salary, £130 a year. Applications to be sent in by the 28th April.

LANCASTER UNION—Medical Officer. Salary, £45 per annum. Applications by April 15th.

LIVERPOOL ROYAL INFIRMARY—Resident Medical Officer. Salary, £100 per annum. Applications by April 20th.

MIDDLESEX HOSPITAL, W.—Ophthalmic Surgeon. Applications by April 30ht

MIDLETON UNION—Medical Officer for Cloyne Dispensary District. Salary, £100 per annum, with £25 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 26th inst.

NEW ABBEY PAROCHIAL BOARD, Dumfries—Medical Officer. Salary, £40 per annum. Applications by April 10th.

PARISHES OF TINGWALL, WHITENESS, AND WEISDALE—Estimated income, £300 a year. Applications to be sent to Mr. C. C. Beatton, Inspector of Poor, Tingwall, Shetland, before April 25th.

SUNDERLAND INFIRMARY—Two House-Surgeons. Applications by May 4th.

THE HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Junior Resident Medical Officer. Salary, £50 per annum. Applications by the 27th April.

THE LEEDS AMALGAMATED FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION—Assistant Medical Officer. Salary, £140 per annum. Applications by April 18th.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY—Senior House-Surgeon and Provident Medical Officer. Salary, £100 per annum. Applications to be sent in by Monday, May 30th.

TOTTENHAM TRAINING HOSPITAL — House-Surgeon (single). Salary £150 per annum. Applications by April 30th.

UNIVERSITY COLLEGE, London—Professorship of Ophthalmic Medicine and Surgery. Applications by May 10th.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY AND FEVER HOSPITAL—House-Surgeon. Salary, £150 per annum. Applications before May 1st.

MEDICAL APPOINTMENTS.

CURETON, Edward, L.R.C.P.Ed., appointed Physician to the Salop Infirmary, *vice* H. N. Edwards, L.R.C.P.Ed., resigned.

O'CONNOR, M. R., M.D., appointed Visiting Physician to Barrington's Hospital, Limerick.

MALONE, M. J., M.D., appointed Consulting Physician to Barrington's Hospital, Limerick.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

MARRIAGE.

INKSTER—CLARKE.—On the 7th instant, at St. Stephen's, Hampstead, by the Rev. Joshua Kirkman, Vicar, assisted by the Rev. Thomas Turner, S. Macaulay Inkster, Esq., M.D., Sheffield, to Amy, eldest daughter of Henry Clarke, Esq., of Belsize Avenue, Hampstead.

DEATHS.

STOKES, Gabriel, M.D., Visiting Physician to District Lunatic Asylum, and to Wilson's Hospital, Mullingar, Westmeath, aged 73, on April 8th.

WATCHORN.—On the 13th instant, at Sandfield House, Nottingham, Isaac Watchorn, M.D., aged 48.

THE MEDICAL OFFICER OF HEALTH FOR BINGHAM.—We regret to learn that our prognostications of the possible defeat of Mr. Poyntz Wright, at the election of medical officer of health for the Bingham rural sanitary district, have unhappily proved correct (see p. 535). On the 7th instant, Mr. Wright was defeated by a majority of three, the successful candidate being the former officer of health, who resigned under the circumstances stated in our former notice. It remains now to be seen whether the Local Government Board will sanction the reappointment of the new officer. It is gratifying to observe, as evidence of the *esprit de corps* prevailing in the district, that, with the exception of one outsider and new-comer, who was unaware of the real state of the case, and would not have applied for the appointment had he been so, Mr. Wright was unopposed save by the present successful candidate.

BARONSTOWN DISPENSARY.—The election of a medical officer for this district, in the room of Dr. Pollock (resigned), took place last week. There were two candidates: Messrs. Wilson and McFarland; and the former gentleman was elected by a majority of one.

HEALTH OF FOREIGN CITIES.—The following facts, bearing upon the recent health and sanitary condition of various foreign cities, are derived from a table in the Registrar-General's last weekly return. In the three largest Indian cities, the death-rate averaged 36.1 per 1,000, and was equal to 31.5 in Bombay, 31.2 in Calcutta, and 48.5 in Madras; fevers showed marked fatality in Bombay and Calcutta, and small-pox caused 52 deaths in Madras, exhibiting a further increase upon recent weekly numbers. The usual return from Alexandria does not appear to have come to hand. According to the most recent weekly returns, the average annual death-rate in twenty European cities was equal to 31.8 per 1,000, showing a marked excess upon 22.4, which was the average rate in the twenty large English towns last week. In St. Petersburg, the rate was equal to 62.7; and the fatal cases of typhus and typhoid fever were 103, against 102 and 82 in the two previous weeks. In three other northern cities—Stockholm, Copenhagen, and Christiania—the death-rate did not average more than 25.1; the highest rate was 31.6 in Stockholm, showing an increase upon the rates in recent weeks. The Paris rate was equal to 31.4; and the recorded deaths included 37 from small-pox, 34 from typhoid fever, and 53 from diphtheria and croup. The rate in Brussels was 26.5; while in Geneva it did not exceed 17.5. In Amsterdam, Rotterdam, and the Hague, the rates were, respectively, 30.3, 30.0, and 31,3, but no epidemic fatality was noted. The Registrar-General's list includes seven German and Austrian towns, in which the death-rate averaged 28.9, and ranged from 22.0 and 23.1 in Hamburg and Berlin, to 36.1 and 36.9 in Breslau and Munich; small-pox caused 24 deaths in Vienna and 8 in Buda-Pesth; while diphtheria showed fatal prevalence in Berlin and Dresden. In three Italian cities, the average rate was 27.7, showing a decline from the rates in recent weeks: the rate was 27.0 in Rome, 30.6 in Turin, and 24.3 in Venice. The 139 deaths in Turin included 9 fatal cases of diphtheria. In four of the largest American cities, the recorded death-rate did not average more than 24.3; it was equal to 29.1 in New York, while it did not exceed 19.9 in Baltimore. The rate in Baltimore, however, is calculated upon an estimate of population, exceeding the number enumerated at the census in 1880 by more than 60,000 persons. Small-pox caused 12 deaths in New York and 37 in Philadelphia; the latter number showed a further decline from those returned in recent weeks.

EAST LONDON HOSPITAL FOR CHILDREN.—In the April number of *Little Folks Magazine* the editor announces that the amount (£1,755 10s. 4d.) subscribed by his readers, in response to the appeal made by him on behalf of the East London Hospital for Children at Shadwell, has been sufficient to permanently endow two cots, now open, in that institution. From time to time it is intended to give in the magazine accounts of the various occupants of these two cots under the title of "Stories of the *Little Folks*' Cots;" and thus it is hoped that the interest already taken in these little patients will be maintained.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th. 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Pathological Society of London, 8.30 P.M. Mr. Butlin: Cylindroma of the Popliteal Space. Mr. Harrison Cripps: Specimens of Rectal Cancer. Mr. F. Treves: Villous Polypi of the Bladder. Sir J. Fayrer: Liver-Abscess following Dysentery. Mr. S. Osborn: Cirrhosis of Liver in a Child with Congenital Hydrocele. Mr. Carrington: Fractured Cervical Spine. Dr. Turner: Two Cases of Intestinal Obstruction. Dr. R. W. Burnet: Heart with Calcareous Plates. Dr. W. H. Day: Sarcoma of Kidney from a Child. Mr. Royes Bell: Gangrene of Lung following Amputation of Tongue (card). Mr. Boyce Barrow: Heart with Stenosis of Tricuspid Valve. Mr. Parker: Multiple Sarcomata of Skull.

WEDNESDAY.—Association of Surgeons practising Dental Surgery, 7.45 P.M., Council. 8.30 P.M., Casual Communications.

THURSDAY.—Harveian Society of London, 8.30 P.M. Mr. Henry Morris: Some Cases of Fibrous Polypi of the Nose, and the Operative Treatment of them. Mr. Teevan: Difficult Micturition from Prostatic Disease.

FRIDAY.—Clinical Society of London, 8.30 P.M. Dr. W. J. Tyson: A Case of Cross-Legged Progression. Dr. W. Stokes (Dublin): Cases of Excision of the Tongue. Dr. Whipham: Aortic Aneurysm demonstrated by the Laryngoscope. Dr. T. Stretch Dowse: A Case of Anorexia Nervosa.—Quekett Microscopical Club, 8 P.M. Mr. T. Charters White (President): On the Histology of the Gustatory Organs of the Rabbit's Tongue.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

GENERAL PRACTITIONERS AND PREVENTIVE MEDICINE.

SIR,—In pursuance of the suggestions contained in my previous letters on this subject (BRITISH MEDICAL JOURNAL, November 13th and December 4th, 1880), a circular has been drawn up for the purpose of enlisting the necessary co-operation of the public in establishing the scheme. Any medical man in general practice who wishes to adopt the system will find that, by distributing these circulars among his patients, the way will be opened up before him.

Will you allow me, also, to take this opportunity to reinforce the arguments I formerly advanced, by stating as briefly as possible some additional reasons for my suggestions, for the benefit of those who may not have taken the trouble to think the matter out in all its bearings.

My reasons for making the distinction between ordinary and extraordinary work are these: (*a*) The ordinary work may be largely composed of preventive practice; the extraordinary work is beyond the province of prevention. (*b*) The ordinary work is almost entirely medical; the extraordinary is surgical, obstetrical, and special. The distinction, therefore, is founded on a real difference. (*c*) The distinction is already recognised and acted on to a great extent in general practice, and especially in clubs. The proposal to leave the amount of payment for extra work to the goodwill of the patients was made advisedly; and whoever may be inclined to regard this as a surrender of what is justly due to us, and a source of serious loss, will find, on further consideration, that experience of analogous cases is entirely opposed to such a view. Debts of honour are better than debts of trade; and, if we persist in making a trade of our profession, we have no right to complain of the consequences, as we often do.

There is every reason to believe that the change proposed in this respect would be a gain to the profession, not only in the time and energy saved from the drudgery of bookkeeping and bills, and in the freedom thereby secured for study and the investigation of disease, but also as regards the pecuniary returns of much of our labour that is now inadequately rewarded.

Another reason for asking the public to pay us in this way is to be found in the fact that it would allow us to escape from the absurdity and frequent injustice of putting a value on that which is invaluable, and charging arbitrarily a fixed or definite sum for every item of services which, from their very nature, are incapable of estimation by any commercial rule or trading standard.

I trust it will be observed, however, that, although this mode of payment is desirable to render the scheme complete, the other proposals are not essentially bound up with this; and the rest of the scheme may, therefore, be adopted without this by those who are inclined to be content with the fragment of a boon until the example of others has made it customary to accept the whole.

A little reflection will show that other reforms proposed from time to time, and generally admitted to be desirable (*e.g.*, the relegation of dispensing to the druggists), are really secondary and subordinate to this. The proposal which has so often been made that the doctor should simply write a prescription, has hitherto been promptly and cogently met by the objection that such a plan would generally fail to secure for us a sufficient remuneration for our services; and that the public would pass on the prescription to their friends, and so deprive the profession of part of its dues. The force of the objection cannot be denied; but, when it is considered that the only alternative hitherto adopted in this country is to supplement the payment by dealing in drugs, the supreme advantages of the system I am advocating must surely become manifest.

And while it will be easier for us, under this arrangement, to free ourselves from the temptation and the suspicion of over-drugging our patients, it is also worth observing that we shall be able to avoid the charge of paying unnecessary visits. We shall make our rounds with the certainty of being really welcome in every house; and we shall no longer be pained by the withdrawal of a patient who, though improving under treatment, declares himself unable to pay the bill that is accumulating against him.

No Act of Parliament is needed to effect the change; no vested interests will be attacked but those of quacks; no revolution will be called for. It is nothing, in short, but a transition depending on the will of individuals, a transition in which none but those who are quite enslaved by custom will be able to find any difficulty. A basis for the annual payments will generally be obtained by taking three or more years' receipts from any patient or family under the old *régime*, exclusive, of course, of extras. Other cases can be settled by comparison, and a consideration of contingencies; and these modes of estimation may finally be checked by seeing whether the fees accruing will amount in the aggregate to such a sum as the character and extent of the practice in question would afford according to the present method. In any case, the difficulty of fixing the fees would not be greater than at present; and the sums agreed on could, moreover, be made subject to annual, biennial, or triennial revision. In explanation and defence of the range of variation in the annual payments, the doctor may, if need be, point out to his clients that the lower fees are not remunerative, but they are, nevertheless, accepted in justice to those who cannot afford to pay more.

I shall be happy to send any number of these circulars for the trifling sum of cost and postage (sixpence per dozen post free) to anyone who wishes to have them for distribution.—I am, etc.,

W. F. PHILLIPS.

St. Mary Bourne, Andover, Hants.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

A REPUDIATION.

SIR,—Hearing from some of my London friends that it has been reported to them that I profess and practise homœopathy, I beg you will allow me to disclaim most emphatically any such profession or practice, or any connection with homœopathic societies, directories, or chemists.—I am, sir, yours, etc.,

CHANNING NEILL, M.D., late Physician to the Children's Hospital,
Montpellier House, Ryde, I. W., April 11th, 1881. Pendlebury.

CARRIAGES FOR MEDICAL MEN.

SIR,—After twelve years' practice in a hilly country, and with all kinds of roads, I am induced to sum up my experience on the above subject thus. 1. No two-wheel is restful enough for constant day and night work; a gig is always exercise, a four-wheeler may be rest. 2. The ideal carriage is a well-built four-wheel, with wheels close together, fairly high; dash-front sloping forwards rather; a hood that is a hood, and goes well forward (a good hood should cost £14, if movable; £12 if a fixture); brake with India-rubber blocks, worked from the centre of the carriage. This is workable, if built well, by any cob 14 hands 3 inches to 15 hands 1 inch. 3. It is a mistake to try to keep the weight under four hundredweight; you sacrifice thus much comfort. 4. If the hood be ordered so as to be put up from the inside, which can be easily done by having one straight lever; it can be raised and lowered without stopping.

I shall be happy to give any information as to the hood, which I have taken great pains in perfecting for my own use, and which, if properly adjusted, and liberally leathered, can defy all wind and rain; but I except such snow as we had on January 18th, nor do I know any hood that could be proof against it.

The difficulty is to get coach-builders to give you leather enough, and to put the inside levers; but this difficulty once overcome, the trouble is repaid—to the user.—Your obedient servant, GEORGE H. R. DABBS.

Shanklin, Isle of Wight, March 21st, 1881.

SIR,—"Rus" continues the carriage discussion in your number of March 19th, and throws out many valuable hints. Having had, also, more than twenty years' practice of horses and carriages, I feel that some further comment is necessary, and the points which both he and "Lamda" broach need further elucidation.

The three axioms of "Rus" may be admitted to be universally and indisputably true; only in the mode of carrying out and detail can there be any difference of opinion.

The two-wheel hooded carriage, with the hood made to open and shut, and, when necessary, to be removed altogether from the vehicle, has been held out by me to be the type of vehicle for the medical man who needs shelter in an ever variable climate. "Rus" says: "This is a veritable trap for the wind, rain, and snow, in an inclement season." I have had one in constant use for the last seven years, and have not found it so. Possibly "Rus" has had an imperfect one, with the hood not sufficiently arched over in front, or possibly without the storm-apron, which should fall from the top and front of the hood, hook on to the splash-board, and thus shut out slanting rain, which otherwise is apt to come in from the front. I have often been out for three, four, and five hours, in heavy pouring rain, and never got wet. No amount of wind that I have ever experienced has injured the hood, shaken it, or disturbed its balance. My horse has frequently kicked; and, upon one occasion, fell upon his side, yet I got out in a moment without injury. I prefer being without an attendant; but, if I have one, he is under cover as well as myself during the heaviest rains, and he is in close contact with me, and can be more readily and easily controlled than if he were outside upon a box.

Four-wheeled carriages are also built upon the same principle where gentlemen prefer them. In some cases, as, for instance, in a four-wheeled dog-cart, the hood has been placed over the back seat behind, the occupant sits with his back to the horse and the driver, entrance and exit are most easy, and, if the horse should run away, the doctor can get out in an instant from behind, as illustrated in the cut sent herewith.

Mr. W. Beddoes Moore, of Oldswinford, Stourbridge, has most intelligently worked out these ideas in a practical form, and he will still further modify his building to meet the special requirements of any customer in a most yielding and satisfactory way. It is of his carriages specially that I testify.

I can assure "Lamda" that a carriage of this description is anything but a failure: it is a complete success. I am quite sure that, with my work and exposure to weather, it has saved me illnesses the effects and loss of which I would not have had for many hundreds of pounds. The carriage of 2¼ cwt. is strongly built, and not too light for hard work and strong roads. He can, of course, have a still heavier and stronger one if he specially desires it. Mr. Moore assures me that he will be answerable for any damage that rough and windy weather may effect upon the carriages purchased from him for twelve months, by making it good. He contemplates, too, having a glass window to open and shut in front, instead of the storm-apron, by which any possibility of rain or snow entering the carriage will be obviated.—I am, sir, your obedient servant, Ωμεγα.

HYDROPHOBIA.

SIR,—I should feel greatly obliged if you could tell me whether you know of any recorded case of hydrophobia, or of any that has been reported to the Hydrophobia Committee, in which death took place from spasm of the glottis, brought on by the attempt to swallow a liquid, very early in the disease, and before almost any other manifestations of symptoms of the ordinary and characteristic nature.—Believe me, yours truly, T. SCATTERGOOD.

*** Such cases are very rare, and altogether exceptional; the rule being for the spasmodic laryngeal symptoms to become gradually developed and intensified.

AN UNPREMEDITATED ARGUMENT FOR COMPULSORY VACCINATION.

IN the Report on Compulsory Vaccination and Revaccination just presented to the Académie de Médecine, M. BLOT relates that, in 1877, a woman brought to him a child eleven months old to be vaccinated. He asked why she had put off the operation so long: to which she replied, "Because my little boy, who was three years and a half old, and had not been vaccinated, has just died of small-pox".

THE SALMON-DISEASE.

A CORRESPONDENT of the *Glasgow Herald* reports that the fungus-disease is very rife in both the Teviot and the Tweed rivers, some hundreds of dead or diseased fish having been taken out of both by the water-bailiffs, and buried. It is stated to be no uncommon sight to see in one pool as many as half a dozen large-sized salmon together nearly covered with this loathsome disease.

SALICIN AND SALICYLIC ACID.

SIR,—In the last few numbers of the BRITISH MEDICAL JOURNAL, there has been a good deal of correspondence about the relative merits and demerits of salicylate of soda, and salicylic acid, but none of your correspondents, as far as I have seen, say a word about salicin; and as, in my hands, the latter has been decidedly superior to either of the two former, in the treatment of acute rheumatism, I shall be glad if you will allow me the opportunity of making a few remarks, and eliciting some from others, as to the virtues of this drug.

My chief reasons for thinking salicin superior are these. 1. Its power of reducing temperature and relieving pain is quite equal to that of salicylic acid, and, I think, superior to that of the soda salt. 2. Smaller doses than are required of the hydrogen and soda salts are sufficient, *e.g.*, three grains in many cases, every two or three hours. 3. It does not cause the sore mouth, gastric or intestinal irritation, so often brought on by the acid. 4. Its composition is more constant, being extracted, as it is, from willow-bark, and not manufactured, as is the acid, from carbolic acid.

I will briefly allude to one case at present under my care. The patient, a girl aged 21, was suffering from multo-articular rheumatism following scarlatina. As I was away at the beginning of the rheumatic attack, my locum tenens prescribed for her salicylate of soda, with the effect of lowering the temperature a little, but not diminishing the pain. On my return, I found her with a morning temperature of 103.5°, and pulse 120; pain evidently very severe in the wrists and shoulders. I gave her five grains of salicin every three hours, and she said she felt the pain decrease after the second powder. Next morning, the temperature was 102°, and she had the powders three times a day for four days, the pain keeping in abeyance during the days, but coming on a little at night. The temperature during this time averaged about 100° during the day, and 101° at night. She now began to complain of flushing of the face and chest after taking a powder, but this at once disappeared on the addition of two grains of sulphate of quinine to each five grains of salicin. The patient continued to take the salicin powders for a few days once daily, in the evening (the dose being now reduced to three grains), until the pain left altogether, and the temperature was normal.

Several other cases have occurred in my practice during the last few months, all confirmatory of my good opinion of salicin as a remedy of the first value in acute articular rheumatism.

I have not found salicin of any use in relieving rheumatic pains when unaccompanied by pyrexia, as in chronic articular rheumatism, where salicylate of soda will often give relief, nor in the various forms of muscular or fascial rheumatism.

If any of your readers can, and will, supply me with notes of cases treated with salicin, I shall be exceedingly obliged.—I am, sir, yours faithfully,

Sedbergh, R.S.O., April 8th, 1881. T. BEAUFOY GREEN.

HYPODERMIC SYRINGES.

SIR,—In answer to Mr. Jones's question in this week's JOURNAL, I would recommend him—1. To use a syringe in a silver or platinum case, instead of the ordinary leather one, as it is more easily carried in the pocket, and there is absolutely no danger of injuring the point of the needle, provided the case is of sufficient length and fits well. 2. To use a bottle longer than the needle, and with the neck small enough to allow only the needle to enter; by this means, the point cannot possibly touch the bottom of the bottle, and any sediment there may be is not drawn into the syringe. The points may be sharpened, with care, on an ordinary whetstone; but prevention is better than cure.—Yours truly, T. LAMBERT HALL, M.R.C.S.

Bridgenorth, April 9th, 1881.

L.S.A. should consult the authorities of his own Society, who are armed with considerable powers in such matters.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. T. W. Barron, Durham; Dr. John Browne, Dundalk; L.R.C.S.I.; Mr. Thomas Gick, Dublin; Dr. Richard Caton, Liverpool; Mr. C. H. Hough, Derby; Mr. G. A. Gibson, Edinburgh; Mr. T. B. Green, Sedbergh; Mr. T. P. Wright, East Bridgford; Mr. T. Holmes, London; Mr. J. Hamilton Craigie, London; Dr. W. A. Brailey, London; Mr. J. E. Garner, Preston; Dr. C. Renner, London; Mr. John Muir, Selkirk; Mr. G. Dunn, Witney; Mr. R. M. Mann, Manchester; Mr. G. A. Cardew, Cheltenham; Miss Walker, Eastbourne; Mr. Edwin Luckock, London; Mr. R. Clement Lucas, London; Mr. F. Jordan, Birmingham; Dr. Quinlan, Dublin; Dr. T. Scott, Ilkley; Dr. B. Bramwell, Edinburgh; Mr. Joseph Allen, Norwich; Mr. James Eaton, Grantham; Mr. W. J. Land, Tunbridge; Dr. W. R. Gowers, London; Mr. T. D. Cook, London; L.S.A.; Mr. H. Page, London; Mr. G. Eastes, London; Pendlebury; Mr. T. Lambert Hall, Bridgeworth; Mr. Sydney Chater, Boulogne; Dr. R. Huntley, Jarrow; Dr. James Murphy, Sunderland; Mr. J. E. Ingpen, London; Dr. G. A. Elumer, Utica, New York; Mr. R. W. Millican, Kineton; Dr. Archibald Reith, Aberdeen; Dr. J. W. Moore, Dublin; Mr. F. Wallace, London; Dr. John Moore, Belfast; Mr. John Horsfall, Leeds; A Member; Mr. F. J. Reilly, London; Dr. Markham Skerritt, Clifton; Dr. E. W. Symes, Halifax; Our Edinburgh Correspondent; etc.

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THE LUMLEIAN LECTURES
ON
BRIGHT'S DISEASE.

Delivered before the College of Physicians.

By REGINALD SOUTHEY, M.D.Oxon., F.R.C.P.,
Physician and Lecturer on Clinical and Forensic Medicine at St. Bartholomew's Hospital.

LECTURE II.—PART II.

IN 1879, a most important memoir was published in Volkmann's *Klin. Vorträge*. Nos. 162, 163, p. 1411, by Carl Weigert. The writer seeks to settle the vexed question of the varieties of Bright's disease, its unity or multiformity, as a pathological change, once more, upon anatomical grounds. The method employed by him in making his investigations, his large use of fresh sections in his inquiries into fatty degeneration of the tissues, render his views upon minute histological changes in the kidney very valuable. At page 1414, he writes: "Among the kidneys I examined which had furnished distinct amounts of albumen during life, I distinguish one class in which, to the naked eye, there are no notable pathological changes whatsoever to be remarked upon. I separate a second class of kidneys, which show blood-congestions distinctly abnormally distributed through them, although presenting no particular glandular or interstitial changes (*Stauungsniere*). Thirdly, I met with kidneys presenting marked cloudiness; and fatty changes in their renal epithelium, but without interstitial thickenings; kidneys of an acute disease-process, which justified the conception and confirm the existence of parenchymatous nephritis." We infer, however, from what he advances, that it is rare rather than common for persons to die in this stage of disease, and for kidneys to be found with changes wholly confined to the epithelium lining their tubes. The fact which he brings into prominence, and the one which our experience entirely confirms, is the impossibility of making a hard and fast distinction between parenchymatous and interstitial nephritis; for the pathological facts are all against it. Even in acute nephritis, interstitial accumulations of nuclei in the intertubular substance, in parts or patches, more or less in quantity, are invariably encountered; and, as Klebs says, these are the only renal changes which really deserve the name of nephritis. The slighter the kidney-affection, the fewer and smaller these interstitial alterations are; whereas, the severer the original inflammatory action, and the more frequently it is repeated, the more these nuclear interstitial growths increase and extend into each other, the Malpighian bodies generally presenting thickened capsules, becoming contracted into tiny round fibroid cases, their glomeruli or tufts being found in every stage of degeneration, while the blood-vessels of the organ present thickened walls and intima. (Observe, not the cause, but the consequence of chronic inflammation, is his opinion.)

Now this change, he continues, is not confined to the small red granular kidney, as has been asserted; it is found in common in the largest white and in the smallest red kidney. Hence the difference between the two is one of degree, not of essence; it is the acuteness, the extent, the amount, of the change, rather than its actual histology, which leads to the difference of aspect in the kidneys, and in the resulting phenomena. These he next proceeds to point out.

The amount of interstitial thickening and number of the glomeruli affected, the localisation or generalisation of the mischief, the rapidity or gradual nature of the change, involve secondarily the nutrition of large or small tracts of the renal epithelium, which undergo either sudden necrosis, or molecular fatty crumbling, or gradual simple atrophy. With the first two changes most observers are well acquainted, but upon the last-mentioned, simple atrophy, less has been said. In this simple atrophy, the cells are not swept away; their nuclei remain distinct, but the protoplasm of the cells wastes and disappears.

In the parts where the mischief is proceeding, the secreting structures shrink and atrophy, but islets of healthy unaffected structure intervene between them, the healthy parts are raised and of natural colour, the affected parts are pale and sunken. One remarkable feature on which he insists, is the variety of change he noticed even in prolongations of the same tubule; at one part, shrinking and atrophy of its cells; at another, dilatation and varicosity, with flattening of the cell linings; at another, entire denudation, the bare walls only of the tubule remaining; while yet in another the tube is wholly distended with conglomerate plasma, and its lumen blocked with casts of various kinds, containing detritus and white and red blood-cells. In some forms much more than in others (a class of cases he subsequently offers reasons for separating), various-sized ecchymoses are met with, both between the tubes and inside the Malpighian bodies, and are continued down the tubuli; while in other forms there is much more œdema into the intertubular spaces.

For the most part, then, he views the changes in the epithelium in chronic Bright's disease not as primary, but as secondary to interstitial changes, which have modified the circulation through the glomerules, or interfered with the normal nutritional interchanges by formation of barriers between the capillaries and the tubes with their epithelial linings; and, far more frequently, the changes in the epithelium are those of atrophy rather than of active proliferation, although nuclear growths are found in parts extending into the interiors of the tubes. Tubules filled with fatty contents, he writes (page 1,434), belong to the most exceptional appearances; even in his mottled kidney, either he found the entire diameter of a tortuous tube in the cortical portion reduced to the breadth of one or two cells only, or the tubule dilated and filled with clear fluid, its epithelium not swept away, but flattened out or levelled lower; or, thirdly, the individual cell-territories in the tubuli were broken up and indistinguishable, and small round white cells or free nuclei, some fatty, some finely granular, were substituted for them.

That a close relation must exist between the changes in the tubes and the separation of these from their capillary blood-supplies, and that the nutrition of the renal epithelium must be impaired by whatever interferes with the blood-supply to the organ, whether occurring, as in eclampsia, sometimes by spasm of the afferent arteries, or by swelling and thickening of the epithelium in the glomerules, or dropsical effusion, or interstitial nuclear new growth between tubules and capillaries, who shall dare gainsay? But as to the primary feature of the change, and the secondary consequences, and why, in one and the same kidney, we should encounter tubules, some shrunken, some dilated, some fatty, some with their cells merely atrophied, we are left a good deal in doubt by Weigert; and each one of us, perhaps, could fill up the picture after his own special bent, theory, or imagination. Weigert inclines manifestly to the belief, although he does not urge it as an article of cardinal faith, that the interstitial change is due always to some primary irritation (*reiz*); and that the tubal changes are always secondary, although the small red granular kidney was not, as Dr. Johnson believed, produced by the collapsing of the walls of the tubes, denuded by desquamation of their linings.

He does not think that the renal cells die strangled because compressed by the interstitial growth, but because they are starved; and he finally arrives at what we may accept as a general pathological axiom, which certainly holds true for the kidney: that, given insufficient blood-supply for the requirements of the organ or gland, the glandular epithelium suffers much in its nutrition, atrophies, or perhaps necroses long before the connective tissue suffers at all.

If you would see how much there is in common to the pathological processes which formed the large white contracting and the small red granular kidney, you must compare chronic, *i.e.*, long-standing, cases together, not chronic changes with those which are evidently of quite recent date. The truth is that, in renal disease, if we exclude what are obviously quite acute changes, there is no such histological or pathological difference as justifies the separation of the small red granular kidney from the large mottled, and in parts contracting, organ; and the advocates for strict dualism overlook the midway forms, the large red kidneys and the small granular white ones.

Weigert discusses the reasons of the difference in colour between the red and the white kidney. The whiteness of the kidney is due to its anæmia, its yellowness and opacity in parts to fatty degeneration. Interstitial œdema or the effusion of fluid, all of which is not inflammatory, and part of which in a dropsical person may be reasonably thought dropsical, is, he thinks, the real cause of the anæmia and swelling of the cortex in the large white kidney.

In health, no doubt the capsule of the kidney plays no unimportant part in furthering the flow of urine by resisting the blood-pressure; if the capsule be tight and unyielding, and blood be flushed through the tufts, its circulation through the organ will be quickened by the resistance of the capsule; conversely, if the organ be dropsical, its tissue macerated by effusion of blood-plasma (and the intertubular spaces in the cortical portion especially admit of such anasarca), the fibrous capsule will offer less resistance to the expanding force of the blood pumped into the kidney, and exhibit less elastic resiliency. Now, the cortical portion of the kidney is that part always which presents most

œdema; first, because by original construction the trabecular network of the gland is least developed in this situation, and because some lacunar interspaces exist here between capillaries and the tubes. Inflammatory changes of the capillaries lead to the transudation of blood-plasma in this situation most readily; and, in point of fact, in recent acute nephritis, a wide separation of the tubules from the capillaries is most apparent. The capillaries are further remarkably empty. This cannot be, however, as Dr. Johnson taught, because the tubes were swollen and compressed them; since, in that case, we ought to find the epithelium lining them in a state of active proliferation, which is certainly for the most part not so.

Interstitial œdema then precedes anæmia, and it also aids in its determination, both by rendering the capsule more lax, and by separating the blood-cells further from the renal epithelium; and just as it makes the skin white, so will it make the kidney, by relatively increasing its bulk, and separating its capillary meshworks more widely than normal.

The most sudden cases of arrested circulation, or blood-stasis, such as occur in cholera, septic poisoning, poisoning by phosphorus and chromate of potash, act by stopping the passage of the red blood-cells, cutting off the supply of oxygen which is essential for the nutrition of the renal cells, and lead thus very rapidly to their fatty degeneration. Here there need be little œdema, and yet sometimes there is much pallor of the cortex from anæmia and accumulation of fat in the tubes. A kidney may be very fatty, it is true, and yet not look anæmic when its venous radicles are highly blood-charged, as in the kidney secondary to heart-disease, which presents a purple or grey-slate colour.

The greatest amount of œdema of the organ is found in the white mottled kidney of about three or four months' duration, when time enough has elapsed for the establishment of some hypertrophy of the heart and the kidney is both very anæmic and fattily degenerated in its cortical portion, and the circulation is by œdema and interstitial hyperplasia most of all impeded. When the hypertrophy of the heart compensates the circulatory obstacle more, the circulation through the least diseased parts becomes easier, and a great contrast is presented between the red and the white parts, which gives the organ its mottled aspect.

The more insidious in its commencement the interstitial disease is, and the more gradual it is in its course, the more time is afforded for cardiac hypertrophy to take place, which compensates for the blood-defect, and overcomes the anæmia, and explains the greater redness of the small granular atrophic forms; further, in these slowly forming atrophic forms, we encounter usually least fatty changes in the renal cells, because the nutrition of these is gradually, not suddenly, interfered with. Still, every now and then, we find that these small red granular kidneys have become extremy fatty, perhaps rapidly so, when the heart's force has suddenly failed through overwork, secondary degeneration, or myocarditis. Local conditions, arterial territories specially blocked, must be held to explain why some parts become far more fatty than others.

While recognising that there is much pathologically in common to the large white and the small red kidney, Weigert admits (page 1452) that it is hardly likely that the one ever becomes the other. The large white kidney certainly suffers contraction, if life be maintained long enough; but the excessive anæmia and fattiness of the white and mottled kidneys are grave difficulties to set against such a re-establishment of the circulation as is obvious in the extreme red atrophy.

Weigert's subgrouping of Bright's disease is as follows.

First Group, Acute Nephritis.—*Anatomical features:* Small cellular interstitial growths; some small scattered hæmorrhages. *Clinical phenomena:* Scanty urine, with abundant albumen and white and red blood-cells in it; casts, generally œdema; no hypertrophy of the heart.

Second Group, Subchronic or Chronic Hæmorrhagic Nephritis.—*Anatomical features:* Much interstitial increase of connective tissue thickened, and contracted Malpighian capsules; endarteritis obliterans; no contraction of the entire kidney.

Third Group, More Chronic Nephritis.—Noticeable naked-eye granular contraction of portions of the organ, besides other larger portions of the kidney in which healthy parenchyma is preserved. *Clinical phenomena:* Hypertrophy of the heart; varying amounts of anasarca and of albumen in the urine, according to the amount of urinary water excreted.

Fourth Group, Most Chronic Nephritis: Granular Atrophy.—*Anatomical features:* Kidney much contracted; very little parenchyma maintained in integrity; the granular interstitial growths have extended into each other. *Clinical features:* Abundant urine; scanty albumen; no anasarca; considerable hypertrophy of the heart.

The first three groups comprehend mixed red and white mottled kidneys, of which the first is chiefly large and red-grey; and the third, subnormal in size, and rather grey-red in colour. The fourth group presents much atrophied kidneys of non-uniform colour, red or grey. Amyloid complications chiefly affect groups two and three.

Weigert has perhaps insisted more strongly than any writer on Bright's disease in the last twenty years, upon the points common to the various forms of chronic renal degeneration; and, while admitting, what all must, the gross distinctions between interstitial and glandular, intertubal and intratubal increase of material, and difference in the renal aspect and in the clinical symptoms thus brought about, he compels us to revert somewhat to the original views of Bright, Reinhardt, and Frerichs, and accept the fact that interstitial new growth—now more rapidly, now more gradually progressing—is the fundamental pathological principle of the whole disease; and this is essentially inflammatory in nature.

He proves to demonstration that the old conception of Bright's disease was not wrong, which explained it as one uniform inflammatory change, prolonged through various stages, complicated by secondary compensative hypertrophies, both in the sounder parts of the organ itself and in the heart, and produced by nature in her effort to repair the damage done.

He does not say that the one form becomes the other, but that there are midway forms between the large white and the red atrophied kidney, with anatomical features in common to both; mid-forms not, perhaps, presenting quite so much fatty necrosis of the epithelium in the tubes as marks some types of the large white kidney; but presenting much more acute inflammatory changes in the tubes than those which attend the most typical forms of the small red kidney; and the inference which he draws is quite justified by the facts, that the distinction between them is one of degree, not of kind, and that, when you come to draw a definite line, it becomes impossible to say where to fix it.

Cohnheim's views (*Vorlesungen über Allgemeine Pathol.*, 2 Abtheil. Harn-Apparat, page 273, 1880), are essentially those of Weigert; but he makes its first beginnings and the points of departure between the varieties easier of apprehension.

He says: Glomerulo-nephritis, or disease which first shows itself in alterations of the Malpighian bodies, is acute Bright's disease; whether the alteration that takes place in the tufts and capsules, and their endothelium, be sudden and extensive, or gradual and circumscribed, makes the whole difference of the ultimate pathological changes and of the issue. The more acute cases either die or recover; those which commence more gradually progress insidiously, step by step, to more or less extensive interstitial new growth of connective tissue, and pass on towards greater or less contraction of the secretory structures. There is no need to assume that kidneys ever were once swollen, and large and white, before they became contracted, for it is not requisite that they should pass through this ordeal. Only, when you find a large kidney, you are quite justified in saying, here is a mischief of moderately recent date; whereas, when presented with a small contracted red one, it is, in our present experience, impossible to say when the disease first began—only that it must date back some long period.

He tells us what the changes are which he has observed, confirming Klebs's observations of the swelling up of the epithelial layers over the tuft in the glomeruli, and the filling up of the free space between the tuft and the capsular walls with nuclear growths, perhaps of multiplying connective-tissue cells. A healthy condition of the epithelium prevents the transudation of albumen through the capillary walls of the tuft; an unhealthy swollen or thinned condition of the epithelium and the walls of the capillaries leads to transudation of blood-plasma in this situation, and to albuminuria. Further: such changes in the tuft lead to embarrassment of circulation through the organ, slackening of the blood-current, and diminution of the blood-pressure through it.

Experiments on animals by tying renal arteries, experiments by disease on man, as in cholera, epilepsy, eclampsia parturientium, tetanus, when spasm of small arteries may lead to complete ischæmia in these organs and total temporary arrest of circulation through the kidneys, illustrate the processes of disease, and make it comprehensible.

Diminution in the supply of oxygenated blood leads to stasis in the intertubular capillaries, to migration of white and red cells into the intertubular spaces.

The more on one side the *vis* or source of irritation affects the glomerular tuft, the more general and extensive is the retardation of the circulation through the organ; and starvation-changes in the blood, degeneration of the tubes and of the renal cells, œdema and anæmia of the kidney, mark the process; whereas, the less the glomeruli are affected, or the greater the number of them that offer no obstacle to the blood-passage, the more general hyperæmia will prevail.

For acute changes—scarlatinal nephritis, nephritis after diphtheria, septicæmic nephritis—we can accept his explanation as all-sufficient; these cases fall into the hands of the pathologists, and the facts have been repeat-

edly confirmed. It has remained for Cohnheim and Weigert to extend the picture, to plead the probabilities in favour of the nephritis of insidious origin still commencing in much the same way. Some irritant in the blood circulating through the tufts stirs up the strife; as we can notice its acting suddenly and acutely, so we can imagine its non-continuous or intermittent action, according as particular irritants accumulate in the blood; or, although only slightly at any one time, persistently and progressively increasing as the blood deteriorates in quality. We find illustrations of the persistent blood-irritants damaging and inflaming capillaries, in gout, syphilis, malaria, in poisons which act remittingly, in lead, alcohol, and in the effects of burns and local inflammation of the skin; products of tissue-metamorphosis, suddenly thrown into the circulation, either blocking the glomerular tufts or inflaming them.

Stagnation of the blood-current, and impurity or special impropriety of the blood, induce the epithelial and interstitial changes which progress, unequally certainly in different forms of disease, but *pari passu*, and together constitute Bright's disease. As the contents of the tubes waste, so these atrophy and contract, and their room is filled up and even overfilled by interstitial increase or growth. Then the elevated parts of the kidney become imperfectly vascular, anæmic, and grey, and represent the parts in which interstitial tissue-growth has overwhelmed secretory structures and capillaries; while the sunken parts are red, and represent capillary net-works permeating atrophied and shrunken tubes.

That the walls of the arteries generally throughout the organ should be thickened in this granular contracted kidney, is not singular; it is not the cause of the change, but the consequence of it; and this Cohnheim infers from its invariability in every other organ which is the seat of chronic inflammation—in the liver in chronic hepatitis, and in chronic pneumonia.

This question, however, of the changes undergone by the arteries, and the hypertrophy of the heart, it is my intention to reserve to my last lecture.

Let me now sum up my case. It has been my endeavour to put before you a critical review of the opinions that have been brought forward of late years upon the subject of Bright's disease. What is it? What constitutes it pathologically? What are its symptoms? What separate varieties are there of it? Were ever questions more vexed? Bright, it is well known, recognised three typical forms of diseased kidney; and at the last thought that they might all be successive stages of one and the same process of disease. How near his views were to those which are now obtaining general assent is at least extremely interesting.

My friend Dr. Quain called my attention recently to an episode which I deem well worth making public. It was at an early meeting of the Pathological Society that he brought into the room these two pictures of a large white and a small granular kidney, and submitted them to Dr. Bright's inspection. "Now, Dr. Bright", said he, "which of these kidneys do you say belongs to your disease?" Bright answered: "I should claim them both."

It is now pretty generally allowed that the hyperæmic kidney, the large red grey kidney of acute parenchymatous nephritis, becomes the large white anæmic and fatty organ; and further, that this swollen, and at first smooth-surfaced, kidney does become mottled on section, uneven and coarsely granular upon its surface, and that it toughens, in part contracts, and in part atrophies and becomes smaller (although there is little agreement of authorities upon its ever coming in any way to resemble the atrophic finely granular small red kidney). Further, the tissue-changes by which this form of white granular kidney is brought about are confessedly inflammatory from first to last. This small red granular kidney, however, is by a large majority of trustworthy guides —Dr. Johnson, Traube, G. Stewart, Gull and Sutton, Kelsch, Bartels, Charcot, Rendu—held to be a distinct form of disease. Why? Mainly because the tissue-changes by which it is surmised to have been brought about are presumed to have been non-inflammatory. The cause of the change is pleaded to have been, from first to last, an interstitial or matrix tissue overgrowth, strangling the Malpighian bodies and blood-vessels, starving the renal cells, and inducing an atrophy of the secreting tubules.

The whole conception of cirrhosis, interstitial overgrowth, is founded upon the hobnail liver; and that notion of strangling of secreting structures and blood-vessels is a fundamental error. It is an allegory, a figure of speech, by which some of the facts of pathology are rendered more easy of comprehension to minds that are wholly untutored. But it is well nigh time that it should be swept away.

Carl Weigert, Cohnheim, Rosenstein, Bamberger, Greenfield (*Pathological Transactions*, 1880, vol. xxxi, p. 157), Saundby (*ibid.*, p. 148), are of opinion "that the small red and large white kidney, and all the intermediate varieties, are the result of an inflammatory process, affecting all the tissues of the organ (not one to the exclusionof all the rest), but varying very greatly in its intensity".

The parenchyma, or the glandular secreting structure, as the most organised tissue, suffers most in proportion to the acuteness of the inflammation. So far from the large pale kidney in its contracting, *i.e.*, more chronic, form, being separable from the red atrophic kidney, because the inflammatory changes are limited to the renal cells and to the tubules, the fact is absolutely untenable; so obviously untrue is it. This large white kidney is the form in which, as Dr. Greenfield has shown, the tubular changes are attended by the most self-evident interstitial nuclear overgrowth, and in it the most obvious change is circumtubular, or intertubular, or circumglomerular; whereas, in the small red atrophic kidney, except close to the capsule, which is thickened, there is no such considerable interstitial overgrowth. The capillary walls, the arterial walls, the walls of the tubules, are thickened; but the tubules are collapsed, chiefly by atrophy of their renal cells. Thus a distinction between the two forms, if we admit the commencement of both by changes in the glomeruli mainly interfering with the circulation through these organs, cannot be maintained upon strict pathological grounds, although it is readily conceded that one form is more distinctly inflammatory, the other more subinflammatory; that in the one, multiplication of degenerate cells or degradation of the tissues takes place both in and outside the tubules; while, in the other, the changes are mainly atrophic so far as the tubules and their lining cells are concerned. Finally, we must admit that the indefinite number of intermediate forms (asked for by Dr. Wilks in former times) between the two typical varieties are now admitted to exist in great number, and become an ever stronger argument in favour of the doctrine of one Bright's disease.

As to the beginning of both forms, the pathologists trace the commencement of the large white kidney up to the glomeruli, saying that the epithelioid lining swells up, its nuclei multiply, squeeze up the capillary tufts, and stop the blood-supplies; and tell us that the small red granular kidney begins by an interstitial new growth both inside and outside the Malpighian bodies, gradually interfering with the blood-current through the tufts, and only obviated from starving the organ altogether by the time given for the establishment of short circuits by collateral channels.

The issue in each individual case, then, appears to turn upon the following things 1. Upon whether the circulation through the organ is suddenly checked, or very gradually altered in its direction. 2. Upon whether the matrix tissue and the intertubular spaces are or are not soddened by dropsical effusion. 3. Upon whether the capsule of the organ is gradually thickened by subinflammatory fibrous growth, and resists the blood-pressure or yields to it—a factor of no small importance towards the quickening or slackening of the blood-current through the organ. 4. Upon the amount of blood-circulation still feasible through the glomeruli: enough to maintain the renal cells at a low rate of function; enough to secure parenchymatous or glandulous swelling; enough to provide for some inflammatory exudation or the development between the tubes and capillaries of a low embryonal form of nuclear tissue. 5. Upon the maintenance or failure of the blood-pressure, upon the transudation or not of urinary water, and so upon the blocking up or maintained patency of the lower excretory system of urine tubes. 6. Upon the establishment or not of a collateral blood-circuit, the vasa afferentia passing directly into vasa efferentia without going through a first capillarisation; the lowest tiers of Malpighian tufts becoming, or not, greatly hypertrophied; the sluices of the vasa recta by direct arterial conduits becoming employed. 7. Upon the general health of the individual, and the capacity of his heart to become hypertrophied.

In my next lecture, I propose to discuss matters which have been the subject of much controversy: the alterations of the arteries, and the hypertrophy of the heart; and to submit to my hearers some facts about Bright's disease of my own compilation, the outcome of my hospital experience.

CINCHONA IN JAMAICA.—From a memorandum of Mr. D. Morris, Director of public Gardens and Plantations in Jamica (dated January 31st, 1881), it appears that, in the hurricane of August 18th last, many thousands of cinchona trees were blown down and uprooted. In consequence, it was necessary to resume barking operations in spite of the unfavourableness of the season. The bark was cured with such success that the whole consignment, consisting of 180 bales, and weighing in the aggregate 14,397 lbs., was ready for shipment within a few weeks of the occurrence of the hurricane. The total results of the cinchona sales during the last fifteen months now show a gross return of 41,696 pounds of dried bark as having been shipped, yielding a total value of £8,167 10s. 8d.

THE CROONIAN LECTURES

ON THE

INFLUENCE OF THE CIRCULATION UPON THE NERVOUS SYSTEM.

Delivered before the Royal College of Physicians.

By WALTER MOXON, M.D., F.R.C.P.,
Physician to Guy's Hospital.

LECTURE III.—PART I.

In my last lecture, I endeavoured to show that certain special diseases, described in our text-books as congestion of the brain, must be referred to other causes, and, indeed, chiefly to conditions the very reverse of a state of congestion; and I gave my reasons for believing that there is not any such disease as congestion of the brain, in the sense of determination of blood to the head—or, in other words, congestion as a cause or onset of attacks of diseases such as described in some of our leading works under several distinct forms, does not exist. Neither pathological examination of persons dying under such conditions, nor the clinical symptoms described, afford any proof that a congested state of the brain even attends such illness, let alone its giving rise to it. The supposition that the blood causes such symptoms arose from views regarding the cerebral circulation, which views are obsolete.

Meantime, whilst such obsolete views of the cerebral circulation have entailed upon us the confusing doctrine of congestion of the brain, modern views of the vascular mechanism have in their turn given rise to speculative explanations of nervous disorders, which greatly and increasingly influence present teaching upon diseases of the nervous system. I refer in particular to the widely spread assumption that epilepsy and other convulsive disorders are caused, or initiated, by spasm of the arteries of the brain. I will, with your permission, now examine the grounds of such an opinion, and afterwards consider the relations of angina pectoris to high tension in the arteries.

Any explanation is so much better than none, that the explaining power of a new view is apt to purchase condonement of its unreality. Only let us, with Kussmaul, assume that he produced epilepsy in animals by ligaturing all the cervical vessels, and then—if, indeed, we can further justly persuade ourselves with him that the arteries of the brain are able to contract universally through an impulse sent to them along the vaso-motor nerves, so that the brain is rendered entirely anæmic, as if the cervical arteries were all ligatured—this would undoubtedly make epilepsy a very comprehensible thing: reducing the whole highly complex set of actions to dependence upon a single impulse from the vaso-motor centres. Even if we do not accept the theory of entire anæmia, but take the same idea as modified by Schrœder, and now taught as the fashionable theory of epilepsy—namely, that the vaso-motor nerve carries forth a contractile influence to the arteries of the brain, which blanches it enough to produce unconsciousness, we make a step which invades the mystery of epileptic convulsions, and which would put at least a part of it into continuity with the paleness and motion, and other familiar things of the kind.

If we go further, and suppose with some writers who have devoted special attention to nervous diseases, that in an epileptic convulsion the tonic stage is caused by tonic spasm of the arteries, and that each jerk of clonic spasm in the subsequent convulsion is due to a corresponding short spasm of the arteries of the brain, we can head off the epileptic paroxysm in hydraulic changes; and this appears to afford a certain satisfaction, which may be taken for an explanation of the subject. Indeed, in the supposed power of rapid and entire closure of all the cerebral arteries, or the supposed power of rapid closure of any of them under the influence of the sympathetic, we have a handy method of unlocking almost any difficulties as to nerve-action; and, if you will only imagine that the arteries close or open to the play of sympathetic influence, like mysterious doors in enchanted forests, to the utterance of "open sesame," many otherwise impenetrable obscurities seem made free to the entry of light.

Now, there is no doubt that the arteries, and especially the smaller arteries, are provided with muscular fibres in their walls, and that these muscular fibres contract and cause the arteries to narrow their channels. But what we have to do with, is the degree in which this power of contraction is under the influence of the vaso-motor nerves. If it were really the case that the muscular activity of the arteries is entirely dependent upon the action of the vaso-motor nerves, the powers of these nerves would stand in a much clearer light. But the contraction of the arteries serves purposes with which the nerves have nothing to do, and over which the nerves have no power; for it has been shown that the contractions of the arteries will proceed just the same when the vaso-motor nerves are destroyed. Thus the remarkable rhythmical contractions and dilations of the arteries in the rabbit's ear are independent of the vaso-motor nerves, for they continue when the cervical sympathetic is divided; and even, according to Dr. Michael Foster, when the cervical ganglion is extirpated. Again, Kussmaul relates that after section of the cervical sympathetic nerve he has seen the arteries of the rabbit's ear contract, and drive their contents into the veins. Yet no ganglionic mechanism has been found in the rabbit's ear to account for these effects by nervous action. From such facts it follows that the muscles of the arteries possess and exercise their powers in a way independent of the vaso-motor centres, and that their contractions are not organised only to answer to those centres, but that the muscularity of the arteries fulfils functions independently of the play of the vaso-motor nerves upon them. This would lead us to anticipate limits to the power of the vaso-motor nerves over the arteries.

And, indeed, if we study the results of the various experiments which have revealed the intricacy of the vascular mechanism, we find some points appearing which are important for our question. The first point is that, when arteries are subjected to irritation so as to cause them to contract, the contraction is not instantaneously rapid, but measurably slow. On this point there is a very general agreement among observers. Reid, in his *Physiological and Anatomical Researches*, p. 6, says:—"The contractility of the arteries manifests itself by slow contraction, followed by equally slow dilatation". Carpenter (p. 330, edition 1876), quoting Weber, says:—"The electric stimulus is most effectual when applied by the magneto-galvanic apparatus; when the minute arteries of the mesentery of frogs, between one-seventh and one-seventeenth of a Paris line in diameter, are thus stimulated, they do not immediately respond to the irritation, but begin to contract after a few seconds, so that their diameter in from five to ten seconds is diminished by a third, and their sectional area consequently reduced to about half; by a continued application of the stimulus, the calibre is so much reduced that only a single row of corpuscles can pass, and at last the vessels become completely closed, and the current of blood arrested, the original conditions being restored on the cessation of the electric current". Paget (*Surgical Pathology*, p. 225), says:—"If, as one is watching the movements of blood in a companion artery and vein, the point of a fine needle be drawn across them three or four times without apparently injuring them, or the membrane over them, they will both presently gradually contract and close.....their contraction, which follow at some interval after the application of the stimulus, and is slowly accomplished, it shows that their power of contraction is like that of parts with smooth or organic muscular fibres". Michael Foster says:—"By galvanic, and still better by mechanical stimulation, this muscular coat may, in the living artery, be made to contract. During this contraction, which has the slow character belonging to the contraction of all plain muscle, the calibre of the vessel is diminished". I have made many observations upon the contraction of arteries as caused by direct stimulation, in watching the development of the inflammatory process, and have observed them to contract slowly. I never saw complete contraction in less than six seconds; but I have never witnessed the effects of stimulation of the vaso-motor nerves. It is antecedently improbable that if the contractions of arteries are slow, when caused by direct stimulus, they would be rapid under indirect. Dr. Burdon Sanderson, in the *Handbook for the Physiological Laboratory*, p. 237, when speaking of the direct excitation of the spinal cord by galvanism in the frog, says:—"On opening the key for a moment, so as to allow the induced current to pass through the needles, it is seen that all the arteries of the web at once contract, the contraction increasing for four or five seconds, and then gradually subsiding. If the excitation is continued for several seconds, the circulation stops." I have here a copy of a diagram from Dr. Michael Foster's work, which is, perhaps, more to our purpose, as it shows an instance of the rate of arterial contraction in a mammal. It is a manometer-trace of the fall of blood-pressure caused by galvanising the depressor nerve in the rabbit; but it is said in the text that galvanising the excitor nerve will produce, sometimes, the exact reverse of this trace. The slow progress of the contraction is evident when we see it take thirteen seconds to complete the action, and that this action is nowhere sudden, but is gradual throughout. This corresponds with the usual characters of contractions of plain muscular fibre. My first proposition, then, is that the contraction of arteries is slow, requiring from four or five to thirteen seconds for its completion.

I will next inquire what is the degree of completeness of the contraction of arteries as caused through the vaso-motor nerves. We have seen that an entire closure of the arteries may be caused in the web of the frog's foot by stimulation of the spinal cord; but it must be observed that in cold-blooded vertebrates the several parts of the vascular system stand in somewhat different relations to those they bear in warm-blooded animals. In fishes, the veins have pulsatile sacs upon them. The veins, as well as the arteries, of the frog's foot will close on application of a direct stimulus. Frogs have lymphatic hearts. In short, there is less differentiation of the vascular mechanism in such animals: the heart does less, and the vessels more, in the work of circulation. If, instead of such remote creatures, we take examples from amongst warm-blooded vertebrates, the development of whose vascular mechanism is more like that which belongs to the human organism, we find that the powers of the vaso-motor nerves are moderate.

There appears evidently, in the description of the results of the stimulation of the vaso-motor nerves, a much less extent of the contraction produced, than there is of certain and large dilatation of the vessel on section of the nerve. Section of the vaso-motor nerves dilates the arterioles very decidedly; and when the vessels are thus dilated, if an interrupted current is sent through the distal segment of nerve, such a current as would tetanise a muscular nerve, the result, according to Dr. Michael Foster, is to cause the arteries to contract "to or beyond" their normal calibre. This would lead to the inference that stimulation of the vaso-motor nerves in the most violent way will do little more than counterpoise the effect of total paralysis of the nerve. In one of Ludwig and Cyon's experiments, cited by Dr. Burdon Sanderson, the normal arterial pressure was 90 millimètres; after division of the splanchnic nerve, the fall was to 41 millimètres; during excitation of the peripheral end of the nerve, 115 millimètres: thus the rise on stimulation did not exceed the normal by half the extent of the fall on division of the nerve. In the case of the rabbit's ear, after the vessels have been made very visible by the dilatation of them consequent upon division of the cervical sympathetic, the same authority says: "If now the peripheral end of the divided nerve is placed between the copper points, and the key opened, the artery contracts, and the congestion disappears". Dr. M. Foster says a galvanisation of the peripheral end of the nerve will cause the rabbit's ear to "become pale, much paler than normal; if the current be strong, the vessels diminish in size, so that the smaller ones disappear, and the temperature falls". But then it must be remembered that the visibility of the smaller vessels and the rise of temperature are due to total paralysis of the vessels by section of the nerve, and that the galvanism has to close up the vessels dilated by paralysis, and to cause a fall of abnormal temperature; also, the vessels have to be seen through the skin of the ear, and none of them are large, so that the continued visibility of these small vessels covered by skin and hair, when under tetanising stimulation of the nerve, shows how limited is the power of the vaso-motor nerves over the arteries. Now, these are but moderate results as compared with ligature of the cervical arteries; and if stimulating the arteries by tetanising the vaso-motor nerves only causes them to contract "to or beyond" their normal calibre, and if the muscular powers of the arteries are shown to act independently of the vaso-motor nerves, it is fair to ask what justification there is in this for supposing that any action of vaso-motor centres will equal Kussmaul and Tenner's proceedings, so that the arteries of the brain may be virtually ligatured by the cervical sympathetic. When the physiologist proceeds from his point of view to apply any conclusions from his experiments to practical medicine, he is very moderate: he has seen the extent of contraction and dilatation obtainable by cutting and galvanising the sympathetic, and he does not suppose that the sympathetic can ligature the cervical arteries. What he says is as follows: "The numerous pathological phenomena classed under sympathetic action, such as the affection of one eye by disease of the other, are probably at the bottom the results of reflex motor action"; and again: "The afferent impulses may arise anywhere, as, for instance, in the brain. Thus, an emotion originating in the cerebrum may either inhibit or exalt that portion of the vaso-motor centre which governs the vascular area of the head and neck, and thus call forth"—what? "either blushing or pallor". This is very moderate—it corresponds with the degree of change in the calibre of the arteries observed in experiment. But it gives no adequate grounds for any supposition of an action of the vaso-motor centres that would equal Kussmaul and Tenner's ligatures in depriving the brain of blood, so as to cause fits of epilepsy, or even fits of unconsciousness. Attempts to produce such fits by galvanising the cervical sympathetic ended in failure. The physiologist only claims for the action of the vaso-motor nerves such effects as blushing and pallor, and these would rather go with fits of laughter or crying. Even in the matter of blushing and pallor, we are not entitled to suppose that the change of blood stream is altogether due to the vaso-motor nerves. It is true, of course, that bad news will make the face pale; but we must not forget that such causes influence the heart's beat, and thus a person suffering a mental shock has his circulation altered at its centre, and feels this effect universally, so that perhaps his stomach seems to turn, and he may have to go and eat his supper with what appetite he has. In fact, the only changes in the vessels of the face that can be certainly referred to the vaso-motor nerves are such changes as are more properly called flushing, as in the hectic of phthisis, or in the redness of the eye in neuralgia.

There is, of course, not the slightest doubt about the arteries possessing and using the power of contraction; but, in estimating the effects of their contractile actions, we have to note carefully the rapidity and the degree of their contraction, and the extent to which it is under control of the vaso-motor centres and nerves. It must, I think, be admitted that, so far as any evidence of sudden and entire closure of arteries, the arteries, if they possess such a power, are curiously sparing in the use of it. Indeed, I do not know a single instance in which the arteries put forth a power of sudden and total closure in parts exposed to view. The arteries appear to reserve all these quick and strong acts for exhibition, if I may so speak, in dark *séance* in such deep parts as are hidden within the cranium. But, if the arteries be capable of inducing sudden blanching by total contraction, why should the brain be the only part subject to such play? Why should not the arm, or leg, or ear, or nose, now and then show sudden paleness and redness from central vaso-motor play?

The kinds of instance which show the effect of contraction of the arteries are well known: thus the wax-like paleness of one or more fingers to which some people are subject; the drying of the mouth through depressing emotion, and its moistening through appetite; the flow of tears; the reddening of one ear "when people are talking of you at a distance". In all these cases, we have effects which are doubtless due to the power of the nerves over the arteries, and some which come on tolerably speedily. But, in all these and such instances, there is moderation in rate of accession, and also moderation in degree of the arterial change.

Let us now proceed to consider the onset of the epileptic convulsion, which it is customary to attribute to spasm of the cerebral arteries. I have already traced this theory through Schroeder van der Kolk to the experiments of Kussmaul and Tenner, who produced epileptiform convulsions by ligature of the cervical vessels in rabbits, and who thereupon started a theory that spasm of the cerebral vessels would have the same effect. Schroeder adopted a part only of this theory, supposing that spasms of the cerebral arteries produce the unconsciousness but not the convulsions of epilepsy; and this theory is adopted by our own authorities upon the subject. But, if we now refer to the published accounts of Kussmaul's experiments, we shall, I think, see reason in these to conclude that spasm of the arteries will not explain the onset of epilepsy. If we turn to Kussmaul's work, we find as follows. "General convulsions usually followed in from eight to eighteen seconds after complete withdrawal of arterial blood.....We found, in every instance, that the closing of all the four arteries was necessary to produce rapid convulsions. If but one carotid or one subclavian has remained pervious, we have never seen convulsions take place, even when the ligature has remained on the other three for several hours. The animals, however, have generally appeared enfeebled, and more or less paralysed."

It appears, then, that, when the arteries were closed absolutely as to three-quarters of their supply, no phenomena of epilepsy occurred, but only feebleness. We do not know what proportion of the remaining quarter of the arterial supply would have been sufficient to keep off the epileptic attack, since it was necessary to take this quarter away at one stroke by ligaturing the one remaining artery; but there were instances in which the fits did not occur, even when all the cervical arteries were ligatured, instances which Kussmaul explained by supposing some small artery to have reached the brain from an unusual source. Hence a very small remainder of arterial blood-supply prevents the onset of epileptic phenomena. But I think I have shown, from our best accredited works on physiology, that the most forcible stimulation of the vaso-motor nerves in mammals is far from causing complete closure of the corresponding vessels; and, although there are no numerical proportions given, yet I submit that the descriptions which I have quoted justify me in saying that it is at least very doubtful whether the arteries can be made to contract down to one-quarter of their natural calibre by any known mode of action of the vaso-motor nerves; whereas it requires a contraction beyond this degree to produce any part of an epileptic attack.

Again, it is not only on account of its insufficient degree that arterial spasm will not explain any epileptiform phenomena, but there is the

further lack of quickness in the act of arterial contraction. Let us take into consideration the slow rate of action of the arteries. When we realise the fact that even the partial closure which a vaso-motor nerve can cause in an artery requires from five to thirteen seconds for its production, we shall perceive that arterial contraction is too slow an affair to be credited with the production of the epileptic onset; for consider the frightful suddenness of the epileptic fit, and compare it with thirteen, or even with five, seconds. Let anyone count five seconds on his watch, and he will find it a considerable time. If a person, when taken with an epileptic attack, had thirteen seconds' warning, by changes in his brain through gradual loss of blood-supply, he would have time to do a great deal to protect himself. He could almost come in from the garden into the house, or at any rate cross his room to lie on a couch. Even if he had only five seconds, he could safely lie down upon the floor. But, instead of this, he falls downstairs, or into the water, or into the fire; a stroke of lightning is not more absolutely sudden. Surely it is not to be supposed that no feeling at all would arise in the brain during a gradual blanching of it, up to the degree which Kussmaul and Tenner showed to be required before the epileptic onset will appear.

Meantime, however, it remains true that, when a person is seized with epilepsy, the face becomes very pale, and so some interference with blood-supply evidently does occur. And, although I think it is our duty, in forming opinions on these grave subjects, to test the foundations and the reasonableness of our conclusions, yet I should not have spent so much time in showing the groundlessness of the theory of spasm of the cerebral vessels, if I could not offer facts of a kind to explain the paleness of the face, and perhaps the unconsciousness of the epileptic seizure.

But I will now relate some observations, which have convinced me that the cause of paleness of the face in the epileptic attack is stoppage of the heart's action. The first of these observations was as follows. Seven years ago, I was standing by a patient who was in bed with cardiac dropsy, in Philip Ward at Guy's Hospital, and I was feeling his pulse carefully; the beats were regular, and of moderate strength. I was looking towards the middle of the bed, and my attention was given to the pulse. I missed one, then another beat, and then found the pulse to have stopped so entirely, that it made me look up suddenly at the man to see what was the matter. His face had become very pale; his head was turned towards his left shoulder; and the lip and cheek were twitching; the spasms then affected his arms, and he passed into a severe epileptic convulsion. At the time when I first noticed the pulse to disappear, the man's arm was quite still. I tried to feel the pulse during the convulsion, but there was so much muscular movement, that I could not distinguish it.

I had never before chanced to have my fingers on the pulse at the moment of onset of an epileptic convulsion, nor have I ever done so since, until January 13th of the present year, when I was at No. 1 bed, Philip Ward, in which bed was a man who had come in with uræmic vomiting, and had been seized with convulsions. At the time of my visit, he had come out of the insensibility which followed each convulsive attack, and was in an excited state, staring about rather wildly, and endeavouring to raise himself in the bed, and calling loudly the word "Beer!". He was not a temperate person. He then lay quite still, and looked quietly about him, his arms lying outside the bedclothes. I took his wrist and felt his pulse; it was forcible and regular. I was feeling it, when it quite disappeared from under my finger, many beats being missed. I looked at him; he had become very pale in the face; twitching set in, and he at once went into a very severe epileptiform convulsion. Mr. Lane, my house-physician, then told me that he had chanced to be feeling the pulse at the moment of onset of convulsions in the man during the morning of that day, and that the same thing had happened on two occasions in which he had his fingers on the pulse at the moment of the commencement of the attack.

Since then, Mr. Lane has made a similar observation upon a girl with eclamptic convulsions in Mary Ward.

So far, however, it might be said that the failure of the pulse was due to spasm of the arteries of the arms. Now, such a sudden universal arterial spasm would be an otherwise unprecedented thing, and my next observation shows that the supposition of it is not wanted. Three years ago, I was examining the heart of a young gentleman, who was asking my advice on account of attacks of epilepsy. He was standing, and I had my stethoscope over his heart, and was attending to the quality of the sounds. These sounds stopped suddenly and so completely, that, in great surprise, I moved to look at him, and saw him with exceedingly pale face evidently quite unconscious, his balance just lost, and he falling forwards. He went forthwith into severe epileptiform convulsions.

Dr. Hughlings Jackson has kindly informed me that he has observed on several occasions the pulse to disappear during the paleness of the face in the onset of attacks of *petit mal*, and Dr. Hilton Fagge was good enough to send me the following notes of a case.

"John W., aged 23, consulted me for epistaxis. While I was listening to his heart, it suddenly stopped beating. His face turned very pale. He said, 'I am going to faint', and sat down in the chair, from which he had risen that I might examine him. There was, of course, no pulse at the wrist. Then his face flushed, and his pulse started again. I suppose the attack lasted half a minute. There was distinct twitching of the muscles of one or both hands. I could not observe very well, having to get water, and being alarmed at his condition. On recovering, he said that he often had 'fainting fits'; explaining this by adding, when he cut himself badly, more than ten years previously, he had had epileptic fits."*

A medical friend, whose observation I can well trust, and who has a daughter subject to epileptic seizures, with frequent attacks of "petit mal", writes to me that "her heart appears to stop in every attack".

Now, in inquiries amongst my colleagues and friends, these are all the cases with which I have been able to meet, in which the state of the circulation has been observed at the first moment of the epileptic onset. There are, of course, very numerous observations upon the state of the pulse when the patient has already fallen; the heart's beat has, however, recommenced, as I suppose to be necessary if life is to continue. I do not know how many beats can be entirely omitted without death resulting, but the number must be limited, because the circulation depends on tension in the arteries, and the whole arterial tension must be due to but few heartfuls of blood, so that the loss of few beats would take the tension quite away. I would, however, ask your notice of the fact that most observers who have felt the pulse just after a person has fallen in an epileptic fit, agree in describing the pulse as small, sometimes imperceptible. It is said, in descriptions of the first stage of the fit, to be sometimes unaltered; but I think this must refer to the later part of the first stage, during which the pulse recovers itself, but the insensibility continues. I have found the pulse present again when the clonic spasms have just commenced.

The observations which I have adduced, showing failure of the pulse in the first onset of epileptic attacks, tend to take away the significance of a very wonderful case which is quoted by Kussmaul from Pereira, as some evidence of spasmodic closure of the cerebral vessels. In this case, the pulse at one wrist was observed to disappear in the onset of an epileptic attack, and *post mortem* examination showed that the radial artery received its supply through the vertebral from the circle of Willis, a very remarkable anomaly indeed. It is inferred by Kusmaul that, in this person, the arteries of the brain went into spasm, and the spasm shut off also the blood from the arm which had the misfortune to derive its supply from so irritable a source. But I think it is reasonable to conclude that, in this very wonderful case, what really happened was a failure of the heart's action, as in my cases.

Thus, so far as I have been able to learn, the unconsciousness in an epileptic fit is of just the same nature as the unconsciousness in a fainting fit. It has happened to me—as, I presume, to most physicians—to be able to notice the first onset of a fainting fit. Time will not allow me to describe the several occurrences; but in one young candidate for service at a bank, who fainted under examination, the heart's beat ceased as I was listening, and the lad fainted. He was pale throughout the attack; and he retched as he was recovering, and told me that nothing of the kind had ever happened to him before. In the case of a young lady subject to "fainting fits", I observed that the heart stopped beating. She used to fall very suddenly, and slight twitching of the face appeared. Nothing more like epilepsy ever occurred. But such attacks are very like epilepsy; and I think that sudden faintings are always to be regarded with suspicion when they take place without sufficient cause of the nature of violent emotion or shock from some horrifying occurrence. Practically, the presence of adequate cause of this kind is the readiest distinguishing character of what one might call normal faintness, as contrasted with epileptiform fainting. Other distinctions lie in the more sudden onset, and the earlier return of colour in epileptiform fainting. These sudden fits of unconsciousness, occurring without shock to explain them, appear to bear the same relation to the *petit mal* of epilepsy as eclamptic convulsions bear to the *haut mal*. I mean that, in either of the two parallels, the character of the attacks is the same; and the difference is due to the cause of the attack, which in fainting, as in eclampsia, is temporary, but in *petit mal*, as in epilepsy, tends to produce a recurrence of the attack.

I do not know how the cessation of the heart's action is caused; but

* At the conclusion of the lecture, Dr. Southey informed me that, in the only instance in which he had his finger on the pulse at the beginning of an epileptic convulsion, he observed the pulse to disappear during the onset of the attack.

I suppose it is through the pneumogastric nerve. It is quite certain that this nerve is capable of inhibiting, as it is called, the heart's action so as to stop it for many beats; so that the power of the pneumogastric to cause the change is beyond question; whereas I have shown that there is great reason to doubt that spasm of arteries will stop the circulation in the brain so as to produce insensibility. Another fact, that points to the pneumogastric as the probable cause of the change, is, that the gastric branches of this nerve are evidently involved in minor degrees of the condition of fainting; as in the former experience of many of us, when the witnessing of sanguinary operations, before we were accustomed to such scenes, caused nausea and sinking sensations more or less embarrassing.

Again, Mr. Thomas Bird, whose experience in the administration of anæsthetics is very large, and whose care as an observer is well known, tells me that, during chloroform-exhibition, sudden pallor is accompanied by retardation of the pulse, and followed by sickness or retching.

Such lesser degrees of faintness evidently refer to a change of action in the pneumogastric system of nerves. Now it is well known that one of the most common of the immediate causes of sudden fainting fits is the sight of blood, or rather of bleeding; and this sudden fainting, which in those who fall at the sight of a cut finger is abnormal, is an extreme example of a depressing action of the pneumogastric nerve, which is, in a lesser degree, so far natural that a large proportion of young men suffer a feeling like sea-sickness when first they witness a protracted sanguinary cutting operation. Hence the blanching and insensibility of the epileptic onset may be reasonably regarded as an effect of pneumogastric inhibition, the initial step being thus an act of the nervous ganglia.

And, indeed, it must be clearly seen that any explanation of the epileptic seizure thus comes ultimately back, not to the hydraulic mechanism of the circulation, but to the seats of origin of the nervous power, in whose endowments lie the mechanisms of epileptic convulsions, and in whose action the first impulse must originate when the fit is brought about. But, in the cases I have described, the next step following this incomprehensible impulse is a very comprehensible stoppage of the heart, with the result of a very comprehensible paleness and insensibility. It is said that paleness does not always occur in the onset of epilepsy. I have observed a livid appearance in the onset of the fit in a very red-faced person. The natural red appearance is, I believe, never retained. There is now under my care an epileptic girl who also has an extreme degree of inveterate psoriasis, through which her face is reddened intensely with inflammation; yet in the onset of her fits this girl's face becomes very pale.

Starting, then, with a pneumogastric impulse of unknown origin, we can, through the cessation of the heart's beat, abundantly satisfy any desire for a hydraulic explanation of unconsciousness; but we must note that the entirely unknown source of the pneumogastric impulse stands behind our explanation, throwing on it the doubt whether the same unknown impulse which discharges the pneumogastric may not play among the centres where consciousness is seated, and itself involve a loss of consciousness. But, admitting this necessary doubt, we are able to say that the stoppage of the heart's action is itself sufficient to produce the unconsciousness and pallor; so that it is not necessary for us to seek any other explanation of them. And even in the minor degrees of epilepsy, in which there is only a momentary hesitation, and as if a blank were suddenly introduced in the continuity of the person's course of action, the stoppage of the heart's action will explain it, especially as a sense of giddiness accompanies the smallest degrees of such attacks, as in epileptic vertigo; for giddiness is, when certainly referable to any change of circulation in the brain, always referable to a diminution of force of the circulation. It very commonly occurs on sudden removal of stress or tension from the venous circulation in the brain, as instanced in the giddiness which is felt on going out of chambers of compressed air, or on rising suddenly from a stooping posture. Very violent giddiness has other and different causes. The extreme giddiness one sometimes meets with, as when a gentleman came to me and begged relief from a giddy attack so violent that, when seized, he had to call to his daughters to hold him on the floor, as he seemed to be falling upon the ceiling. This man's attacks ceased on the occurrence of a paroxysm of gout. Menière's disease offers a frequently applicable explanation of severe giddiness. But there is ample evidence to show that slight giddiness occurs through slight blanching of the brain; so that when, in an epileptic subject, the face grows suddenly pale, and at the same moment a sense of giddiness is felt, it is reasonable to ascribe all this to failure of the heart, if we have reason to know that the heart fails; and I have endeavoured to show reason to think so.

But a fully developed epileptic attack offers us at least three quite distinct occurrences. The first is the initial loss of consciousness; the second, the outbreak of convulsions; and the third, the state of stupor which succeeds to these. It is a natural and fair question to ask, Will the hydraulic explanation, which suffices for the loss of consciousness, go further, and explain the other two terms of the series of events that compose an epileptic fit? Now, either of the three portions of the complete attack may occur almost alone, or perhaps quite alone. In the so-called *petit mal*, a partial faint and momentary loss of consciousness is all that happens. In some cases of convulsions, a partial degree of epileptiform muscular jactitation is similarly present; and Dr. Hughlings Jackson's name will be always honourably identified with our best thought and knowledge upon this most interesting phase of epilepsy.

In other cases, the stage of stupor may come on with little evidence of faint or of convulsions; and I think Trousseau has claim to be honourably held in recollection, on account of the clearness with which he showed the truly epileptic nature of attacks of this kind, which were —and, indeed, by some still are—obscured under the designation of apoplectiform cerebral congestion.

This separate occurrence of the three distinct parts of the epileptic attacks proves that there is no direct dependence the one upon the other; and yet, they are so constantly found united, in serial order, in the complete epileptic fit, that it is natural to look for some causative connection between them; and to find some way of showing how, upon the profound fainting attack, convulsions would ensue; and how, upon convulsions, stupor would follow. If this were positively desirable, it would not be difficult to bring in Kussmaul's convulsions from anæmia, to explain the onset of the spasmodic movements: for if, indeed, it be a law of the vertebrate organism, that a discharge in convulsion occurs when bloodlessness is on the point of becoming fatal to the life of the brain, then a prolonged stoppage of the heart would fall under such law, and convulsion be the result. Nay, we may further here observe, that, in a certain degree, there is in such a law that kind of adaptation to purpose, which it is so great a satisfaction to perceive, seeing that, when the heart's-beat stops, the arteries empty themselves, and then tension is done away; and it requires at least six or seven heart-fulls of blood to restore arterial tension. Meantime, with the removal of arterial tension, the *vis à tergo* on the whole circulation is lost, and the blood is no longer pushed round in a continuous stream, so that it would therefore tend to stop in the veins, and in the abdominal veins alone there is room for the whole of the blood. Therefore, with all the blood in the veins, and with no *vis à tergo* to act on them, where should the heart get its six or seven charges of blood to start arterial tension once more? But the veins of the limbs have valves that prevent reflux of the blood; and convulsions compress the veins, and drive to the heart the necessary amount to keep the arteries full.

And, indeed, it is quite probable that this is the purpose or use of the convulsions. Neither does it gainsay such a use that the convulsions become extreme, and pass beyond the service for which they are adapted. For, take the parallel case of the plainly conservative spasm of a cough, whose object is beyond doubt to expel undesirable contents from the windpipe, do we not find cough sometimes so vigorously acting in excess of its duties that we are at our wits' end to find some means of keeping this otherwise beneficent contrivance within due bounds.

Likewise, also, if we ask why stupor should succeed to convulsions, we may think this also a natural consequence of the convulsions; and we may also perceive that it favours recovery. For convulsion is no mere exertion, as in healthy exercise; but it is the exertion of otherwise dying nervous centres, called out, not by the wholesome influence of sufficient or redundant supply, but brought to pass by desperate starvation; and, therefore, in the matter of exhaustion, not to be put on a par with normal fatigue. Then, what more likely than extreme exhaustion? and what better than a short deep sleep, in which the senses are, if I may so speak, closed for repairs? An insensibility which is thus negative, and whose service is plainly to allow time for the centres to recover themselves, is not of itself to be dreaded nor thought of as a terrible thing. It need not to be set down to any overpowering positive cause, on the baseless old-fashioned theory of congestion of the brain. But here, too, in a more dangerous way, we may find ourselves troubled with an excess of what is designed for good; and as cough may need checking, and convulsions prove extreme, so stupor, negative of power as it is, may be protracted; and the sleep, which was intended to refresh, may not restore excitability, but become longer and deeper until the person dies in a state of coma. And the normal stupor of the epileptic attack becomes thus extreme and fatal under conditions that sufficiently explain the occurrence. For such fatal coma never happens in the epilepsy of young or vigorous subjects, when the brain is well nourished and capable of quick recovery. It is in old age that it occurs, or at the close of a long course of cerebral exhaustion, especially when an impure state of the blood adds another cause of

further lack of quickness in the act of arterial contraction. Let us take into consideration the slow rate of action of the arteries. When we realise the fact that even the partial closure which a vaso-motor nerve can cause in an artery requires from five to thirteen seconds for its production, we shall perceive that arterial contraction is too slow an affair to be credited with the production of the epileptic onset; for consider the frightful suddenness of the epileptic fit, and compare it with thirteen, or even with five, seconds. Let anyone count five seconds on his watch, and he will find it a considerable time. If a person, when taken with an epileptic attack, had thirteen seconds' warning, by changes in his brain through gradual loss of blood-supply, he would have time to do a great deal to protect himself. He could almost come in from the garden into the house, or at any rate cross his room to lie on a couch. Even if he had only five seconds, he could safely lie down upon the floor. But, instead of this, he falls downstairs, or into the water, or into the fire; a stroke of lightning is not more absolutely sudden. Surely it is not to be supposed that no feeling at all would arise in the brain during a gradual blanching of it, up to the degree which Kussmaul and Tenner showed to be required before the epileptic onset will appear.

Meantime, however, it remains true that, when a person is seized with epilepsy, the face becomes very pale, and so some interference with blood-supply evidently does occur. And, although I think it is our duty, in forming opinions on these grave subjects, to test the foundations and the reasonableness of our conclusions, yet I should not have spent so much time in showing the groundlessness of the theory of spasm of the cerebral vessels, if I could not offer facts of a kind to explain the paleness of the face, and perhaps the unconsciousness of the epileptic seizure.

But I will now relate some observations, which have convinced me that the cause of paleness of the face in the epileptic attack is stoppage of the heart's action. The first of these observations was as follows. Seven years ago, I was standing by a patient who was in bed with cardiac dropsy, in Philip Ward at Guy's Hospital, and I was feeling his pulse carefully; the beats were regular, and of moderate strength. I was looking towards the middle of the bed, and my attention was given to the pulse. I missed one, then another beat, and then found the pulse to have stopped so entirely, that it made me look up suddenly at the man to see what was the matter. His face had become very pale; his head was turned towards his left shoulder; and the lip and cheek were twitching; the spasms then affected his arms, and he passed into a severe epileptic convulsion. At the time when I first noticed the pulse to disappear, the man's arm was quite still. I tried to feel the pulse during the convulsion, but there was so much muscular movement, that I could not distinguish it.

I had never before chanced to have my fingers on the pulse at the moment of onset of an epileptic convulsion, nor have I ever done so since, until January 13th of the present year, when I was at No. 1 bed, Philip Ward, in which bed was a man who had come in with uræmic vomiting, and had been seized with convulsions. At the time of my visit, he had come out of the insensibility which followed each convulsive attack, and was in an excited state, staring about rather wildly, and endeavouring to raise himself in the bed, and calling loudly the word "Beer!". He was not a temperate person. He then lay quite still, and looked quietly about him, his arms lying outside the bedclothes. I took his wrist and felt his pulse; it was forcible and regular. I was feeling it, when it quite disappeared from under my finger, many beats being missed. I looked at him; he had become very pale in the face; twitching set in, and he at once went into a very severe epileptiform convulsion. Mr. Lane, my house-physician, then told me that he had chanced to be feeling the pulse at the moment of onset of convulsions in the man during the morning of that day, and that the same thing had happened on two occasions in which he had his fingers on the pulse at the moment of the commencement of the attack.

Since then, Mr. Lane has made a similar observation upon a girl with eclamptic convulsions in Mary Ward.

So far, however, it might be said that the failure of the pulse was due to spasm of the arteries of the arms. Now, such a sudden universal arterial spasm would be an otherwise unprecedented thing, and my next observation shows that the supposition of it is not wanted. Three years ago, I was examining the heart of a young gentleman, who was asking my advice on account of attacks of epilepsy. He was standing, and I had my stethoscope over his heart, and was attending to the quality of the sounds. These sounds stopped suddenly and so completely, that, in great surprise, I moved to look at him, and saw him with exceedingly pale face evidently quite unconscious, his balance just lost, and he falling forwards. He went forthwith into severe epileptiform convulsions.

Dr. Hughlings Jackson has kindly informed me that he has observed on several occasions the pulse to disappear during the paleness of the face in the onset of attacks of *petit mal*, and Dr. Hilton Fagge was good enough to send me the following notes of a case.

"John W., aged 23, consulted me for epistaxis. While I was listening to his heart, it suddenly stopped beating. His face turned very pale. He said, 'I am going to faint', and sat down in the chair, from which he had risen that I might examine him. There was, of course, no pulse at the wrist. Then his face flushed, and his pulse started again. I suppose the attack lasted half a minute. There was distinct twitching of the muscles of one or both hands. I could not observe very well, having to get water, and being alarmed at his condition. On recovering, he said that he often had 'fainting fits'; explaining this by adding, when he cut himself badly, more than ten years previously, he had had epileptic fits."*

A medical friend, whose observation I can well trust, and who has a daughter subject to epileptic seizures, with frequent attacks of "petit mal", writes to me that "her heart appears to stop in every attack".

Now, in inquiries amongst my colleagues and friends, these are all the cases with which I have been able to meet, in which the state of the circulation has been observed at the first moment of the epileptic onset. There are, of course, very numerous observations upon the state of the pulse when the patient has already fallen; the heart's beat has, however, recommenced, as I suppose to be necessary if life is to continue. I do not know how many beats can be entirely omitted without death resulting, but the number must be limited, because the circulation depends on tension in the arteries, and the whole arterial tension must be due to but few heartfuls of blood, so that the loss of few beats would take the tension quite away. I would, however, ask your notice of the fact that most observers who have felt the pulse just after a person has fallen in an epileptic fit, agree in describing the pulse as small, sometimes imperceptible. It is said, in descriptions of the first stage of the fit, to be sometimes unaltered; but I think this must refer to the later part of the first stage, during which the pulse recovers itself, but the insensibility continues. I have found the pulse present again when the clonic spasms have just commenced.

The observations which I have adduced, showing failure of the pulse in the first onset of epileptic attacks, tend to take away the significance of a very wonderful case which is quoted by Kussmaul from Pereira, as some evidence of spasmodic closure of the cerebral vessels. In this case, the pulse at one wrist was observed to disappear in the onset of an epileptic attack, and *post mortem* examination showed that the radial artery received its supply through the vertebral from the circle of Willis, a very remarkable anomaly indeed. It is inferred by Kussmaul that, in this person, the arteries of the brain went into spasm, and the spasm shut off also the blood from the arm which had the misfortune to derive its supply from so irritable a source. But I think it is reasonable to conclude that, in this very wonderful case, what really happened was a failure of the heart's action, as in my cases.

Thus, so far as I have been able to learn, the unconsciousness in an epileptic fit is of just the same nature as the unconsciousness in a fainting fit. It has happened to me—as, I presume, to most physicians—to be able to notice the first onset of a fainting fit. Time will not allow me to describe the several occurrences; but in one young candidate for service at a bank, who fainted under examination, the heart's beat ceased as I was listening, and the lad fainted. He was pale throughout the attack; and he retched as he was recovering, and told me that nothing of the kind had ever happened to him before. In the case of a young lady subject to "fainting fits", I observed that the heart stopped beating. She used to fall very suddenly, and slight twitching of the face appeared. Nothing more like epilepsy ever occurred. But such attacks are very like epilepsy; and I think that sudden faintings are always to be regarded with suspicion when they take place without sufficient cause of the nature of violent emotion or shock from some horrifying occurrence. Practically, the presence of adequate cause of this kind is the readiest distinguishing character of what one might call normal faintness, as contrasted with epileptiform fainting. Other distinctions lie in the more sudden onset, and the earlier return of colour in epileptiform fainting. These sudden fits of unconsciousness, occurring without shock to explain them, appear to bear the same relation to the *petit mal* of epilepsy as eclamptic convulsions bear to the *haut mal*. I mean that, in either of the two parallels, the character of the attacks is the same; and the difference is due to the cause of the attack, which in fainting, as in eclampsia, is temporary, but in *petit mal*, as in epilepsy, tends to produce a recurrence of the attack.

I do not know how the cessation of the heart's action is caused; but

* At the conclusion of the lecture, Dr. Southey informed me that, in the only instance in which he had his finger on the pulse at the beginning of an epileptic convulsion, he observed the pulse to disappear during the onset of the attack.

I suppose it is through the pneumogastric nerve. It is quite certain that this nerve is capable of inhibiting, as it is called, the heart's action so as to stop it for many beats; so that the power of the pneumogastric to cause the change is beyond question; whereas I have shown that there is great reason to doubt that spasm of arteries will stop the circulation in the brain so as to produce insensibility. Another fact, that points to the pneumogastric as the probable cause of the change, is, that the gastric branches of this nerve are evidently involved in minor degrees of the condition of fainting; as in the former experience of many of us, when the witnessing of sanguinary operations, before we were accustomed to such scenes, caused nausea and sinking sensations more or less embarrassing.

Again, Mr. Thomas Bird, whose experience in the administration of anæsthetics is very large, and whose care as an observer is well known, tells me that, during chloroform-exhibition, sudden pallor is accompanied by retardation of the pulse, and followed by sickness or retching.

Such lesser degrees of faintness evidently refer to a change of action in the pneumogastric system of nerves. Now it is well known that one of the most common of the immediate causes of sudden fainting fits is the sight of blood, or rather of bleeding; and this sudden fainting, which in those who fall at the sight of a cut finger is abnormal, is an extreme example of a depressing action of the pneumogastric nerve, which is, in a lesser degree, so far natural that a large proportion of young men suffer a feeling like sea-sickness when first they witness a protracted sanguinary cutting operation. Hence the blanching and insensibility of the epileptic onset may be reasonably regarded as an effect of pneumogastric inhibition, the initial step being thus an act of the nervous ganglia.

And, indeed, it must be clearly seen that any explanation of the epileptic seizure thus comes ultimately back, not to the hydraulic mechanism of the circulation, but to the seats of origin of the nervous power, in whose endowments lie the mechanisms of epileptic convulsions, and in whose action the first impulse must originate when the fit is brought about. But, in the cases I have described, the next step following this incomprehensible impulse is a very comprehensible stoppage of the heart, with the result of a very comprehensible paleness and insensibility. It is said that paleness does not always occur in the onset of epilepsy. I have observed a livid appearance in the onset of the fit in a very red-faced person. The natural red appearance is, I believe, never retained. There is now under my care an epileptic girl who also has an extreme degree of inveterate psoriasis, through which her face is reddened intensely with inflammation; yet in the onset of her fits this girl's face becomes very pale.

Starting, then, with a pneumogastric impulse of unknown origin, we can, through the cessation of the heart's beat, abundantly satisfy any desire for a hydraulic explanation of unconsciousness; but we must note that the entirely unknown source of the pneumogastric impulse stands behind our explanation, throwing on it the doubt whether the same unknown impulse which discharges the pneumogastric may not play among the centres where consciousness is seated, and itself involve a loss of consciousness. But, admitting this necessary doubt, we are able to say that the stoppage of the heart's action is itself sufficient to produce the unconsciousness and pallor; so that it is not necessary for us to seek any other explanation of them. And even in the minor degrees of epilepsy, in which there is only a momentary hesitation, and as if a blank were suddenly introduced in the continuity of the person's course of action, the stoppage of the heart's action will explain it, especially as a sense of giddiness accompanies the smallest degrees of such attacks, as in epileptic vertigo; for giddiness is, when certainly referable to any change of circulation in the brain, always referable to a diminution of force of the circulation. It very commonly occurs on sudden removal of stress or tension from the venous circulation in the brain, as instanced in the giddiness which is felt on going out of chambers of compressed air, or on rising suddenly from a stooping posture. Very violent giddiness has other and different causes. The extreme giddiness one sometimes meets with, as when a gentleman came to me and begged relief from a giddy attack so violent that, when seized, he had to call to his daughters to hold him on the floor, as he seemed to be falling upon the ceiling. This man's attacks ceased on the occurrence of a paroxysm of gout. Menière's disease offers a frequently applicable explanation of severe giddiness. But there is ample evidence to show that slight giddiness occurs through slight blanching of the brain; so that when, in an epileptic subject, the face grows suddenly pale, and at the same moment a sense of giddiness is felt, it is reasonable to ascribe all this to failure of the heart, if we have reason to know that the heart fails; and I have endeavoured to show reason to think so.

But a fully developed epileptic attack offers us at least three quite distinct occurrences. The first is the initial loss of consciousness; the second, the outbreak of convulsions; and the third, the state of stupor which succeeds to these. It is a natural and fair question to ask, Will the hydraulic explanation, which suffices for the loss of consciousness, go further, and explain the other two terms of the series of events that compose an epileptic fit? Now, either of the three portions of the complete attack may occur almost alone, or perhaps quite alone. In the so-called *petit mal*, a partial faint and momentary loss of consciousness is all that happens. In some cases of convulsions, a partial degree of epileptiform muscular jactitation is similarly present; and Dr. Hughlings Jackson's name will be always honourably identified with our best thought and knowledge upon this most interesting phase of epilepsy.

In other cases, the stage of stupor may come on with little evidence of faint or of convulsions; and I think Trousseau has claim to be honourably held in recollection, on account of the clearness with which he showed the truly epileptic nature of attacks of this kind, which were —and, indeed, by some still are—obscured under the designation of apoplectiform cerebral congestion.

This separate occurrence of the three distinct parts of the epileptic attacks proves that there is no direct dependence the one upon the other; and yet, they are so constantly found united, in serial order, in the complete epileptic fit, that it is natural to look for some causative connection between them; and to find some way of showing how, upon the profound fainting attack, convulsions would ensue; and how, upon convulsions, stupor would follow. If this were positively desirable, it would not be difficult to bring in Kussmaul's convulsions from anæmia, to explain the onset of the spasmodic movements: for if, indeed, it be a law of the vertebrate organism, that a discharge in convulsion occurs when bloodlessness is on the point of becoming fatal to the life of the brain, then a prolonged stoppage of the heart would fall under such law, and convulsion be the result. Nay, we may further here observe, that, in a certain degree, there is in such a law that kind of adaptation to purpose, which it is so great a satisfaction to perceive, seeing that, when the heart's-beat stops, the arteries empty themselves, and then tension is done away; and it requires at least six or seven heart-fulls of blood to restore arterial tension. Meantime, with the removal of arterial tension, the *vis à tergo* on the whole circulation is lost, and the blood is no longer pushed round in a continuous stream, so that it would therefore tend to stop in the veins, and in the abdominal veins alone there is room for the whole of the blood. Therefore, with all the blood in the veins, and with no *vis à tergo* to act on them, where should the heart get its six or seven charges of blood to start arterial tension once more? But the veins of the limbs have valves that prevent reflux of the blood; and convulsions compress the veins, and drive to the heart the necessary amount to keep the arteries full.

And, indeed, it is quite probable that this is the purpose or use of the convulsions. Neither does it gainsay such a use that the convulsions become extreme, and pass beyond the service for which they are adapted. For, take the parallel case of the plainly conservative spasm of a cough, whose object is beyond doubt to expel undesirable contents from the windpipe, do we not find cough sometimes so vigorously acting in excess of its duties that we are at our wits' end to find some means of keeping this otherwise beneficent contrivance within due bounds.

Likewise, also, if we ask why stupor should succeed to convulsions, we may think this also a natural consequence of the convulsions; and we may also perceive that it favours recovery. For convulsion is no mere exertion, as in healthy exercise; but it is the exertion of otherwise dying nervous centres, called out, not by the wholesome influence of sufficient or redundant supply, but brought to pass by desperate starvation; and, therefore, in the matter of exhaustion, not to be put on a par with normal fatigue. Then, what more likely than extreme exhaustion? and what better than a short deep sleep, in which the senses are, if I may so speak, closed for repairs? An insensibility which is thus negative, and whose service is plainly to allow time for the centres to recover themselves, is not of itself to be dreaded nor thought of as a terrible thing. It need not to be set down to any overpowering positive cause, on the baseless old-fashioned theory of congestion of the brain. But here, too, in a more dangerous way, we may find ourselves troubled with an excess of what is designed for good; and as cough may need checking, and convulsions prove extreme, so stupor, negative of power as it is, may be protracted; and the sleep, which was intended to refresh, may not restore excitability, but become longer and deeper until the person dies in a state of coma. And the normal stupor of the epileptic attack becomes thus extreme and fatal under conditions that sufficiently explain the occurrence. For such fatal coma never happens in the epilepsy of young or vigorous subjects, when the brain is well nourished and capable of quick recovery. It is in old age that it occurs, or at the close of a long course of cerebral exhaustion, especially when an impure state of the blood adds another cause of

not at the periphery, as in the ordinary fatty infiltration-process. Some of the most advanced cases of visceral fatty degeneration which I have seen have occurred in cancerous subjects, especially uterine cancer, which more or less rapidly progresses in ulceration, impoverishing the blood more and more as it advances. Such instances of course differ from cases of phthisis, where there is pyrexia and direct respiratory disorder to aid in the production of the fatty change.

I am not, however, now concerned with the subject of fatty degeneration as a whole, but only in relation to anæmia. We have, I think, ample evidence that there is a link between the blood-condition and the tissue-change; and everything points to the latter being the result of the former. At the same time, we must not lose sight of the other alternative to which I have above alluded, for I do not think it is absolutely capable of disproof, at any rate in every case. I refer to the view that the anæmic condition is itself dependent upon what may be called an "inertia" on the part of the tissues, whereby they do not perform what is required of them, and, failing to go through their normal metamorphosis, pass into the fatty regressive state. In such a case, there would be less demand for oxygen, and this would react upon the supply, and fewer corpuscles and hæmoglobin would be formed. Such an hypothesis requires, however, far more than the former, which has also received support from experimentation, a continued loss of blood being found to produce fatty metamorphosis.

The treatment of anæmia, apart from the removal of its cause, when this can be ascertained, may be summed up under the head of hygienic, dietetic, and medicinal measures. On the first and second of these, I need hardly dwell; their importance is self-evident. The necessity for rest, alternated with moderate exercise, graduated according to the severity of the anæmia, is important. Even slight exercise is irksome and harmful until the blood is sufficiently reinforced to permit of it; and absolute rest is called for at first. The influence of air and light is of as much value in aiding restoration from the anæmic condition as their deprivation is powerful in inducing this state; and such hygienic measures as bathing act by promoting tissue-metabolism. A valuable contribution to the treatment of anæmia by these means has lately been made by Drs. M. P. Jacobi and White (*Archives of Medicine*, August and October, 1880), in what is a scientific exposition of the effects produced by those who practise hydrotherapy. These writers relate cases, accompanied by analyses of the urine, where wet packs and *massage* were employed, in addition to ferruginous medication. The effect of such treatment was to cause increased elimination of urea, to improve appetite, and to procure sleep; and the explanation afforded is, that the treatment, acting through the nervous system and the circulation, promoted tissue-change, and increased the capacity of the tissues and the blood for oxygen, the passive exercise of the muscles aiding also, by quickening the circulation, in the removal of the products of nitrogenous waste.

In diet, the indication is to allow meat in considerable quantity as soon as the digestive organs are capable of the work imposed on them; but where, as so often happens, the digestive power is at a minimum, then recourse may be had to meat-essences, peptonised foods, and (as an extreme measure) nutrient enemata. There is frequently a great distaste for nitrogenous food among these subjects, many of whom owe their anæmia in large measure to their preference for a diet of non-nitrogenous materials; and it follows, therefore, that chief attention should be paid to this point, especially as the organs of digestion are more or less deranged by the anæmic state. As I have before pointed out, digestive derangements both induce and are induced by anæmia; and, by dealing with them, we often strike at the root of the condition, which, however, requires also measures directed specially to it. These measures comprise the administration of certain drugs, which are comprised under the term "hæmatinic". Of these I pass now to speak briefly.

Of all remedies, iron maintains, as it always has maintained, a pre-eminence in the treatment of anæmia. It seems to act directly upon the blood-forming viscera, and probably also upon the digestive organs —*i. e.*, on the gastro-intestinal tract. No wholly satisfactory explanation has, I believe, been given of the mode of action of the iron in either of these directions, or of the reason why the best results in the most marked cases of chlorosis are obtained by the administration of heroic doses far in excess of what is actually required in blood-formation, and much more also than is actually absorbed. Trousseau called iron as much a specific in chlorosis as mercury was in syphilis; and there was truth in the remark, although we may not know in what its specific action precisely consists. The application of methods of blood-measurement enable us to estimate the rapidity with which iron hastens recovery from the anæmic condition. Sometimes it appears to act, at any rate in the first instance, by causing an increase in the number of corpuscles without a corresponding increase in the amount of hæmoglobin (Gowers, Baxter, and Willcocks); but the reverse has also been noted (Hayem); and, in a series of cases published by Moriez, from M. Hayem's *clinique*, the increase in hæmoglobin was marked from the first, and, of course, greater than the increase in the number of corpuscles, which was high at the commencement. Moriez gives several tables illustrative of the effects of this and other modes of treatment, using the symbols N, R, and G to represent respectively the number of the red corpuscles per cubic millimètre—their richness, *i. e.*, the number of corpuscles in healthy blood to which they are equivalent, and their functional value or quality, G being equal to $\frac{R}{N}$. For the normal standard to be reached, not only should the figures R and N be equal, and of the full amount (*i. e.*, 5,000,000 per cubic millimètre), but they would then contain the same amount of hæmoglobin, when G of course $= 1$. The mean results of twelve cases thus tabulated gave before treatment (by iron), N – 4,031,745, R – 1,991,318, and G – 0.49; after treatment, N – 4,747,675, R – 3,940,000, and G – 0.83. I give the results of similar estimations in a few cases lately in the Middlesex Hospital (see Table), the most remarkable being No. 4, where the percentage of hæmoglobin was doubled within ten days. This case was treated with sulphate of iron and bicarbonate of potash; and it will be seen that, although the number of corpuscles was but slightly affected, their functional value rose above the normal. Unfortunately, no numeration was made on December 24th, when the actual amount of hæmoglobin was much higher still; so I cannot say whether in point of number the corpuscles in this case still remained so much below the normal.

Cases of Anæmia treated by Iron and Arsenic.

No.	Date.	Number of Corpuscles.	Hæmoglobin.	Quality of Corpuscle.	Treatment.
1	Jan. 6th	2,090,000	——	—	Ferri sulphas
	,, 14th	2,750,000	32 per cent.	0.57	,,
	,, 27th	3,170,000	42 ,,	0.66	,,
	Feb. 2nd	3,600,000	——	—	,,
2	Jan. 12th	4,050,000	45 per cent.	0.55	,,
	,, 26th	4,430,000	52 ,,	0.58	,,
3	June 16th	2,400,000	----	—	Ferri arsenias
	July 8th	3,300,000	----	.	Quin. cum ferro
4	Dec. 1st	3,700,000	40 per cent.	0.54	Ferri sulphas
	,, 11th	3,800,000	80 ,,	1.05	,,
	,, 24th	——	104 ,,		,,
5	Dec. 3rd	3,800,000	52 per cent.	0.68	Liq. arsenicalis
	,, 28th	4,060,000	80 ,,	0.93	,,
6	Feb. 2nd	2,430,000	20 ,,	0.56	,,
	,, 8th	2,800,000	39 ,,	0.70	Ferrum dialysatum
	,, 21st	3,700,000	39 ,,	0.52	on & after Feb. 10th

Under the use of iron the corpuscles, according to Hayem, also increase in size, and the large number of hæmatoblasts which he finds in the blood of chlorotics appreciably diminish during the treatment. These methods of blood-measurement might be applied to discriminate between the efficacy of the different salts of iron, and the different modes in which it is administered—from the waters of a chalybeate spring to the concentrated doses in which we often give it medicinally. Indeed, as to the form and mode of the administration of iron, I can quite confirm the opinion of those who regard the sulphate as the most rapid in its effect, and who urge its administration in large doses. It is remarkable how well it can be borne, and for my own part I am content to prescribe it in almost every case of pure chlorotic anæmia. At the same time, we possess so many different preparations of different degrees of astringency, that there are scarcely any cases in which some form of this metal is not tolerated.

Next to iron, and in some forms of anæmia to be preferred to it, is *arsenic*. This metal is a powerful hæmatinic. It acts on the tissues as well as on the blood and blood-forming organs; and its effect upon the cutaneous epithelium has been actually demonstrated. It is almost the only drug which has been successful in the treatment of severe idiopathic anæmia, which more often resists all medication. The patient under Dr. Cayley's care, where the anæmia was most profound and the corpuscles had fallen to a little less than one-half the normal, notably improved under arseniate of iron. A case was recently recorded from St. Mary's Hospital, under the care of Dr. Broadbent (BRITISH MEDICAL JOURNAL, September 25th, 1880, p. 508), which is a good illustration of the efficacy of arsenic. A woman, aged 42, who had

* Calculated by dividing the corpuscular richness by the actual number of corpuscles, the amount of hæmoglobin being the indication of the former.

been progressively anæmic for about four months, and was in an extreme condition when admitted (estimated number of corpuscles two days later being 560,000 per cubic millimètre, or 11.2 per cent.), was placed upon liquor arsenicalis with digitalis. The dose of the liquor was increased from two to four minims, and was administered six times daily. In two months' time the number of corpuscles had increased to 64 per cent. In the remarks appended to the report of the case, it is held "that there can be little doubt that it was of essential or pernicious anæmia; the patient had the appearance characteristic of this disease, and the subfebrile temperature; while the red corpuscles of the blood were not only reduced in number to an unusual degree, but deformed. Whether this diagnosis be accepted or not, the failure of iron to do good, and the rapid improvement during the administration of arsenic, are remarkable. In little more than two months the patient passed from extreme anæmia to apparently perfect health, with wonderfully good colour of the cheeks and mucous membranes, and she continued well and strong for some months after leaving the hospital, up to the time when she ceased to present herself for examination". Such cases as this speak strongly in favour of the value of arsenic. I have sometimes prescribed it in simple anæmia (see Table, Nos. 5 and 6) with good result, but as a rule one prefers the use of iron, which acts more promptly and fully. Phosphorus has been sometimes administered with success in essential anæmia; as, for example, by Dr. Broadbent in a case where iron had failed; but it has, on the whole, but few, if any, advantages over arsenic, and its long-continued administration is to be deprecated.

It was at one time thought that manganese could replace iron as a hæmatinic, when that metal had failed to influence anæmia; but it never gained much favour, and has fallen into disrepute. Indeed, from some recent observations of M. Hayem, referred to by Moriez, manganese would appear to have no influence in increasing either the red corpuscles or the hæmoglobin, at any rate in the right direction. Its administration appeared to diminish the effect of iron, which was given subsequently. Another treatment that has been sometimes prescribed is that of inhalations of oxygen. The same observers have studied the effects of this treatment also, and declare that although it

CASES OF PERNICIOUS ANÆMIA TREATED BY TRANSFUSION.

No. of Case.	Sex.	Age.	Duration of Symptoms.	Leading Symptoms other than Anæmia.	Method of Transfusion.	Effects of Transfusion.		Result.	Reference.
						Immediate.	Remote.		
1	F.	34	6 months	Great debility; anasarca; slight ascites; diarrhœa; albuminuria; retinal hæmorrhages	—	—	Splenic and renal infarction	Death	Quincke; Volkmann's *Sammlung*, No. 100, Case 1.
2	M.	35	18 months	Apathy; anorexia; vomiting; constipation; dyspnœa; retinal hæmorrhages	Lamb's blood	Appearance of numerous small corpuscles in blood	Albuminuria; petechiæ; embolism of Sylvian artery	Death 3 days after transfusion	Ditto, Case 3.
3	F.	34	6 years ailing, 1 year worse	Vomiting; constipation; moderate pyrexia; retinal and cutaneous hæmorrhages; epistaxis	Defibrinated human blood into radial artery	—	—	Death 6 hours after	Ditto, Case 9.
4	F.	56	4 months	Great debility; delirium; vomiting; diarrhœa; albuminuria (slight); retinal hæmorrhages	Ditto (patient moribund)	—	—	Death ¼ hour after	Ditto, Case 10.
5	F.	33	5 months	Amenorrhœa 4 years; great debility; dyspepsia; constipation; albuminuria (slight); retinal hæmorrhages	Ditto 85 cubic centimètres into left radial artery	Collapse, and sense of cold for 3 hours; abdominal pain and diarrhœa	Pyrexia (see Chart No. 2); hæmoglobinuria	Recovery	Ditto, *Deutsches Arch. f. Klin. Med.*, xx, Case 11.
6	M.	43	2 months	Dyspnœa; palpitation; tinnitus; petechiæ; epistaxis; retinal hæmorrhages; occasional diarrhœa	Ditto 50 cubic centimètres	Pain and diarrhœa for short time; temperature 102.5°, 2 hours after	—	Recovery	Ditto, Case 12.
7	F.	47	15 months	Great wasting; general œdema; no hæmorrhages; diarrhœa	Ditto 80 to 100 cubic centimètres	Temporary rally	—	Death 12 hours after	Ditto, Case 13.
8	F.	16	1 year	Occasional vomiting; diarrhœa; general œdema; amenorrhœa; retinal hæmorrhages; stomatitis; temporary albuminuria	Ditto 105 cub. centimètres	No marked disturbance	—	Recovery, but subsequent relapse, and death from nephritis	Ditto, Case 15.
9	F.	34	4 months	Emaciation; slight œdema; anorexia; diarrhœa; no hæmorrhages	Ditto 100 cub. centimètres	Rigor; involuntary defæcation	Temp. 102.2°, two hours after; pulse 160 (from 84)	Recovery	Ditto, Case 16.
10	F.	21	6 months	Great œdema following parturition; diarrhœa; occasional vomiting; retinal hæmorrhages	Ditto 25 cubic centimètres	None	—	Death 10 weeks after	Ditto, Vol. xxv, Case 22.
11	F.	39	?	Wasting; profuse diarrhœa following abortion (sixth month), four days before transfusion	60 grammes into brachial vein	?	—	Death 2 days after	Ditto, Case 24.
12	F.	30	Some months	No notes	80 cubic centimètres —arterial	—	Great weakness, and loss of appetite	Recovery	Ditto, Case 25.
13	F.	36	3 months	Weakness; vertigo; palpitation; diarrhœa; retinal hæmorrhages	Ditto 60 cubic centimètres	Retardation of pulse & respirations during and after vomiting; pain and involuntary stools	Rigor, with rise of temp. to 104.9°; hæmoglobinuria	Recovery	Ditto, Case 26.
14	M.	21	2 months	Weakness; vomiting; epistaxis	"Transfusion to 7 ounces"	—	Peri- and endocardial ecchymosis	Death	Taylor, *Guy's Hosp. Rep.*, 1878, Case 21.
15	M.	50	4 months	Weakness; irregular pyrexia	On two occasions with 6 days' interval; venous—5½ ounces	Retardation of pulse, followed by chills; rise in temp. to 104.5°; vomiting. 2nd time, vomiting, involuntary defæcation	Delirium came	Death 15 hours after second transfusion	Pepper, *Amer. Jour. Med. Sci.*, 1875, Case 3.
16	F.	29	8 months	Eight months pregnant; dyspnœa; thirst	180 grammes of human blood	—	Abortion day after, with loss of 330 grammes of blood	Death 2 days after	Gusserow, cited by Lêjine, *Rev. Mens.*, 1877, Case 22.
17	F.	24	5 months	Eight months pregnant; vomiting	Small amount only transfused	—	—	Death	Ditto, Case 23.
18	F.	28	?	Seven months pregnant; vomiting; diarrhœa; abortion at eighth month; irregular pyrexia	Performed *in extremis*	—	—	Death	Ferrand, *Méd. Soc. des. Hôp.*
19	M.	29	Rheumatism 8 years before; worse 3 weeks	Œdema; diarrhœa; purpura; retinal hæmorrhages; vomiting	11 ounces of defibrinated human blood into cephalic vein	Pulse-rate fell from 124 to 102	—	Death 7 days after	Unpublished, under care of Dr. Wilks, Guy's Hospital.
20	M.	40	1 year	Weakness; pains in limbs; giddiness; no hæmorrhages; improved in two months under arsenic; returned five months later, with vomiting, dyspnœa; anasarca towards close	On second occasion was twice transfused	—	—	Death	Unpublished, under care of Dr. Pye-Smith, Guy's Hospital.

increases the appetite and the power of assimilation, it has no influence in increasing the richness of the blood in hæmoglobin (Moriez). Lastly, quinine and strychnine, although not hæmatinics in the strict sense of the word, are very valuable as adjuvants; and the same may be said of the mineral acids and bitters.

The subject of *transfusion* of blood is one which demands the most thorough examination in reference to the treatment of anæmia. In some forms of symptomatic anæmia, especially when the cause is a sudden loss of blood, there can be no question either as to the propriety of transfusion or its efficacy in saving life. It is another matter, however, when we have to deal with the insidious and progressive anæmia, which has been denoted by the term "pernicious". Transfusion has not yet been employed to a very large extent in such cases, and it has often failed of success. I find that it was performed in 20 out of 110 cases, to which I referred in my last lecture, and that the six recoveries (one of which was not permanent) all occurred in Quincke's practice.

I think his success in these cases may be attributed to his having resorted to transfusion at a less advanced stage of the disease than is usually the case. His first cases were invariably fatal, and in his commentary upon them he pointed out the inutility of deferring transfusion until the heart is already advanced in degeneration, and restoration is well nigh hopeless. In one of his papers, where he summarises the results of five such transfusions, he says that defibrinated human blood was used, and from 80 to 100 cubic centimètres injected into the radial artery. (Professor Schäfer, in his valuable report to the Obstetrical Society of last year, advocates immediate injection from artery to artery as far preferable to intravenous injection, whether mediate or immediate. It will be seen that Quincke performs an operation the same as regards the recipient of the blood; but he uses defibrinated blood, and does not practice the immediate transference.) Usually, during the transfusion, the face becomes flushed, the pulse slow, and sometimes very weak, almost a state of collapse occurring. In three cases a rigor, followed by fever, occurred a short time after the operation. On two occasions the transfusion was followed by hæmatinuria and casts in the urine, but not by the escape of actual blood-corpuscles. In one of these cases the amount of hæmoglobin passing off by the urine was estimated at one-sixteenth of that injected; and Quincke points out that similar effects follow, according to Ponfick, the transfusion of an animal with blood from another of different species. In some cases petechial and other hæmorrhages follow transfusion. Quincke seems to be firmly of the opinion that by transfusion the blood is reinforced with functionally active elements, and the results of his cases apparently bear out that opinion. Transfusion, then, is a correct and rational procedure, and one which we are bound to adopt in these cases of progressive idiopathic anæmia, if no ordinary treatment makes any impression on them. But its results can never be expected to be crowned with such success as in cases of acute anæmia following hæmorrhage, for the simple reason that we are dealing with a disease the origin of which lies deep in the organism, and the effects of which are already manifest in grave degenerative changes in the heart. Perhaps the less heroic measure of administering enemata of defibrinated ox blood, which was advocated by the Therapeutical Society of New York as of great value in conditions of exhaustion and anæmia, may be found of service. At any rate, it deserves the careful trial which Dr. Sansom in this country has claimed for it.

It only remains for me to thank you for the kind attention you have given me during this imperfect attempt to illustrate the leading features of anæmia. I have consciously left many points untouched, whilst many of which I have spoken are capable of much fuller analysis than I have attempted. For all the shortcomings of what has been little more than an abstract of the present state of knowledge on this subject, I ask your indulgence.

VASELINE AND ARTIFICIAL EYES.—Dr. Chas. S. Turnbull recommends pure vaseline to all wearers and fitters of artificial eyes. It is infinitely superior to pure water, oils, or unguents, as a lubricant, not only for daily use, but also for facilitating the tedious and irritating process of fitting and matching. It lessens wear and tear. It allays the burning sensation often experienced toward night. It is of particular value in preventing the drying of mucus upon the surface of the eye, an occurrence most annoying to wearers, as well as to their surgeons; and last, but not least, it serves as a convenient and desirable vehicle for the application of anodyne or astringent remedies. It should be applied once or twice daily, according to the employment of the wearer; and by mechanics, mill hands, persons working out of doors, or in dusty or dry atmospheres, has been found of more than ordinary value.

ON PARALYTIC CHOREA.*

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My object in this paper is to direct attention to a variety of chorea which sometimes presents a difficulty in diagnosis.

In an ordinary well-marked case of common chorea, we may usually recognise three symptoms: spontaneous movement, inco-ordination of voluntary movement, and muscular weakness. These three symptoms are not always proportioned in degree; any one of them may so predominate as to give a special aspect to the case. The form which I am about to describe is one in which the last element—muscular weakness—predominates, and in which the other elements—muscular spasm and inco-ordination—are so slight, as to be apparently absent; so that the muscular weakness appears to be the only symptom.

I will first describe briefly the characters of a few examples of this form of affection.

CASE I.—John F., aged 14, applied for treatment in July 1879, because he had "lost the use of his left hand". The boy presented the characteristic signs of inherited syphilis: scarred mouth, one notched incisor, cicatrices of old ulceration on the uvula, iritic adhesions in the left eye, and evidence of previous choroiditis in both eyes. The left arm hung by his side. He could move it by an effort, but it was considerably weaker than the right, and this also was weaker than normal. The weakness was said to have come on gradually about a fortnight previously. There was no paralysis of face or leg. On first examination, no twitching or choreic movement could be observed. Voluntary movements were perfectly steady. On subsequent close watching, however, an occasional slight movement of the thumb, or of pronation, was observable in the right hand, but none in the left. When he held both arms straight forward for a time, a slight occasional twitch was noted in each hand. He was given iodide of potassium and strychnia. A week later, the left arm was stronger, and could be used better. It did not prevent a greater degree of twitching. The spontaneous movements in the right arm had increased considerably, and now presented a distinct chorea-like character. He did not, however, present himself again.

CASE II.—Jane P., a girl aged 13, was brought on June 9th, 1879, having, it was said, "lost the use of her left arm" for three months; the onset of the weakness had been gradual. The arm was considerably weaker than the other, the grasp being less than half the strength of the right. Close examination did not reveal the slightest spontaneous movement. It was, however, ascertained that, earlier in the affection, she would occasionally drop things out of the hand, although no history of distinct choreic movements could be elicited. She was said to have had rheumatic fever at four years of age. The heart was healthy. She gradually, but slowly, regained considerable power of using the arm; but with the power, slight spontaneous movements appeared, and then gradually subsided. The symptoms had only disappeared four months after the commencement of treatment, so it may be doubted whether this exercised much influence. First strychnia, and afterwards arsenic, were given.

CASE III.—Emma D., aged 9, was brought on May 1879, on account of weakness of the left arm, which hung useless by her side. She never attempted to use it, although by an effort she could grasp with slight force. The weakness had come on gradually, four months previously. Not the least spontaneous movement could be observed in it. Co-ordination of movement was perfect. Nevertheless, when she grasped the hand, it could be felt that the movement of the fingers was not quite equal. In the legs, especially the left, there was slight twitching. Inquiry elicited that, during the first few weeks of the affection, there had been more spontaneous movement, and that this had lessened as the weakness came on. There was a loud mitral murmur. Strychnia was given, and in a month she was practically well, although the power of the arm was not quite so good as that of the other.

CASE IV.—Ellen B., aged 14, brought on March 15th, 1880, on account of "loss of the use of her left arm", of a few weeks' duration, and gradual onset. The arm hung by her side, and she made no attempt to use it. She could by an effort raise it, but with very little power; and the hand was so feeble, that no sensible pressure could be exerted in the grasp. The leg was strong. The face presented no weakness; the tongue no deviation. At first, no movements

* A paper read before the Section of Medicine at the meeting of the British Medical Association at Cambridge, August 1880.

were observed in the arm, but, on watching closely for a little time, an occasional slight twitch was observed. Occasional sighing was also noted. There was no cardiac murmur. She improved very little as an out-patient during two months' treatment, and there gradually developed distinct choreic movements in the right arm, without much weakness. She was then admitted into the county branch of the Hospital, and rapidly improved; the movements in the right arm ceased, and the left arm became much stronger, without preventing distinct choreiform spasm; the power of grasp increasing in three weeks from 0 to 17 kilogrammes.

CASE V.—L. W., aged 7, was brought to the Queen Square Hospital in February 1879, with the statement that he had, during the previous two months, gradually lost the use of the right hand. The hand was found to be distinctly weaker than the left. There was no inco-ordination of movement; and, at first sight, no choreiform movements. Close observation, especially when he was holding an object with the right hand, detected a slight occasional twitch. Strychnia was given, and he gradually improved; power increasing, and the spontaneous movements ceasing to be observed. In two months' time, he was well.

These cases speak for themselves, and it is hardly necessary for me to point out their chief characteristics. The age at which the affection may occur is that at which chorea is the most common, seven to fifteen years. As a rule, gradual loss of the use of one arm alone attracts the attention of the friends. In some cases, the sudden dropping of objects, so characteristic of the imperfect muscular control of chorea, is noted early. In rare cases, slight clonic spasm occurs in the affected arm at first, and passes off subsequently. The loss of power may be very great and real, or it may be much less than the loss of use of the limb would suggest. In these cases, there is rather inaction than paralysis. The affection is usually confined to one arm; there is no hemiplegic weakness; no paralysis of face, tongue, and leg. Both arms may be affected, but one is always weaker than the other. Close and continued observation will generally detect an occasional slight choreic twitch, even in the arm which is weak; but often more conspicuous in the other arm, which is the less weak, or even strong. Sometimes, slight clonic contractions may be noted in the legs. The affection may pass off without choreiform movements being more conspicuous. Frequently, however, these subsequently came on; and they may even be more marked as the power in the arm becomes greater.

Whenever a child of this age suffers from gradual loss of power in the arm, and presents no weakness in face, tongue, or leg, the disease, as far as I have seen, is always chorea. If the nature of the case be suspected, confirmatory evidence—slight occasional spasm—if looked for, will commonly be at some time detected, either in the weak arm or in the other.

The course of these cases is often tedious; and, as the choreoid movements may increase as the weakness passes off, the patients often seem, to the friends, to be getting worse when really getting better. I have never seen this form pass on into severe general chorea.

ON FRACTURE OF THE NECK OF THE HUMERUS, AS A COMPLICATION OF DISLOCATION OF THE SHOULDER.*

BY EDWARD H. BENNETT, M.D.,
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THE examples of fracture of the neck of the humerus, occurring as a complication of dislocation of the head of the bone, which I present to the meeting, are of interest for their rarity, and, more particularly, for the light which they throw on the mode of production of this accident.

The difficulties of diagnosis and of treatment, which attend this complicated injury, render it desirable that every opportunity should be availed of that may extend our knowledge of its pathology; I need not, therefore, offer any apology for occupying the attention of the meeting for a few minutes, while I point out the leading features of five examples which our Dublin collections contain. The first question which arises in the study of the injury has reference to the order of the occurrence of the fracture and dislocation. Which takes place first—the fracture or the dislocation? Sir Astley Cooper answers, without hesitation: "This accident generally occurs in the following way. A person falls and pitches with violence on his shoulder, or a heavily laden carriage passes over it. By the first impression of the accident, the os humeri is dislocated; and, by a second, the neck of the bone is broken, and the head detached and lodged in the axilla." Sir Astley does not assign any reason for this assertion; nor do I know that any case is recorded in which the second cause which he describes has been observed: the passage of a heavily-laden carriage over the shoulder. On the contrary, Malgaigne states distinctly that the cause of the accident has in every case been a fall, probably on the shoulder. Delpech, who first recorded with accuracy a case of this kind, proved, by dissection, not only the possibility of the fracture of the anatomical neck of the humerus, but also the possibility of dislocation of the humerus backwards—facts resting, in his day, on doubtful evidence. He discusses the question of the order of occurrence of the two lesions; and expresses the opinion that the first step is the production of the fracture—the second, the dislocation. "The fracturing force itself, and some chance movements of the arm, are sufficient to produce the dislocation." It is curious to observe that the opinions of Delpech and Cooper, so directly opposite, have been based on the examination of instances of the fracture in which the dislocations took place in opposite directions: in Delpech's, backwards; in Cooper's, forwards.

The explanation offered by Delpech is, that the bone, already rotated inwards by some accidental circumstance of the fall, strikes against the ground—so that the outer margin of its head bears the shock, while the inner rests against the contour of the glenoid cavity; that so the fracture of the anatomical neck is determined, and is followed by the protrusion of the head of the bone through the capsule. Such explanation might readily apply to cases in which the head of the bone is dislocated backwards; but, if we consider the more numerous cases of fracture with dislocation forwards, this explanation fails; for, in these cases, the head of the bone cannot be compressed between the ground and the glenoid cavity. If such were the mode of production, we should expect, in some recorded case, to find comminutions of one or both fragments present; but I find no mention of this condition; it is absent from the specimens before us. Malgaigne avoids this question in his detailed account of the injury; in his chapter on luxations, complicated by fractures in general, he disposes of it thus: "It is very difficult to define exactly the mechanism by which the two lesions, dislocation and fracture, take place; to determine whether the two lesions are simultaneous, or which precedes the other; whether they are due to direct or to indirect injury."

Dr. R. W. Smith, in treating of "fractures of the humerus in the vicinity of the shoulder-joint", omits all mention of this fracture. He describes at length one of the specimens which I now exhibit, and concludes that it is an impacted intracapsular fracture—a conclusion which, I think, a comparison of the specimen with the others on the table, will demonstrate to be incorrect.

The study of the recorded cases, in which dissection has verified the injury with the detailed examination of these specimens, leads me to conclude that the combination of injuries is due to a constant cause, and that this cause acts after the dislocation has occurred. My first specimen suggests this cause, and also its time of action. In this, a recent intracoracoid dislocation, in which the head of the bone has been left undisturbed in its dislocated position, there exists a partial fracture of the humerus in the part of the anatomical neck which is applied against the border of the glenoid cavity of the scapula. It will be seen, at a glance, that the fracture has been produced by pressure of the bone against the edge of the glenoid cavity; and that, from its extent and position, the fracture must have occurred after the bone had been dislocated. This specimen I obtained from the body of a man who fell twenty feet into the empty hold of a vessel, lighting on the kelson. As he tripped and fell, it was noticed by his fellow-workmen that he had the hand of the injured side in his breeches-pocket. He died of injuries to the head within three days, the dislocation remaining unreduced. It will be noticed that the coracoid process has also been broken by the pressure of the humerus against its tip. In the dissection, no superficial injuries of the coverings of the shoulder were visible, only the deeper lacerations, and ecchymoses due to the dislocation. It is interesting to note here that, in Delpech's case, it was ascertained that the injury was caused in a limb which was maintained in a constrained position fixed to the side. In my case, a more powerfully acting force might have extended the fracture, so as to detach the head, with portion of the bone beneath it—leaving, however, the great tuberosity intact. My next two specimens present fractures of this kind. In both, the head of the humerus is in the position of intracoracoid dislocation; while, in each, the path of fracture starts from the anatomical neck, between the great tuberosity and head, and so passes obliquely through the upper extremity of the bone; instead of following the anatomical neck exactly, the fractures pass through the bicipital groove, so having the lesser tuberosity attached to the head. In one, but a very little piece of the shaft has been detached with the dislocated head from its posterior and internal side; in the other, a longer splinter, just two inches in length. In the first, the long tendon of the biceps muscle was buried in the

* Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Cambridge, August 1880.

bone; in the second, it appears to have avoided slipping between the fragments. In both these specimens, the fragments have united perfectly; and in the first of them, the union has extended—so that complete osseous ankylosis of the dislocated head with the scapula has occurred. Except for these unimportant points of detail, these specimens are identical; viewed from the front, they appear absolutely so. These belong to Trinity College. My next illustrations, two in number, have been kindly exhibited by the Royal College of Surgeons in Ireland.

The first is, I think, identical in character with those I have already described, only I speak with less confidence of it, for already it has been described in detail by the late Professor R. W. Smith, in the chapter to which I have referred. He speaks of it in connection with the extreme displacements that occur in impacted fractures within the capsule; but I think that, while it wants the characters of an impacted fracture, it can be readily seen that its proper place is amongst the group that I am discussing. I quote Dr. Smith's description.

"The head of the humerus has nearly altogether abandoned the glenoid cavity, and lies beneath, but principally internal to, the coracoid process; it forms an obtuse angle with the shaft, and is placed rather below the level of the summit of the great tubercle; it is rotated on its axis in such a manner as to be directed forwards, and to such an amount, that scarcely any of its cartilaginous surface is to be seen posteriorly. An irregular deposition of new bone, which has passed upwards, so as to be applied against the inner side of the coracoid process, covers the anterior and nearly the entire of its surface. This remarkable displacement of the head of the humerus appears to have been the result of a fracture traversing its anatomical neck; and, having been thus detached, the head of the bone seems to have been driven forcibly against the broken surface of the lower fragment and against the tubercles, for there is unequivocal evidence of a second fracture implicating these processes. This second lesion passed obliquely downwards and inwards from the summit of the greater tubercle, through the upper part of the bicipital groove at the inner surface of the shaft, about two inches below the head of the bone. The shaft of the humerus (with which the greater tubercle was continuous) was drawn upwards considerably, and the glenoid cavity was occupied by the tubercle, and by the outer and posterior part of the broken neck of the bone. Those portions of the scapula and of the humerus which were in contact were exceedingly rough, and destitute of cartilage, with the exception of the upper part of the glenoid cavity, which was in contact with the remains of the deformed greater tubercle. The superior fragment (which included the lesser tubercle) was displaced inwards, most probably by the action of the subscapularis muscle. The tendon of the biceps ceased where the fracture traversed the bicipital groove; the capsular ligament had not been torn, but it was thickened, and had contracted abnormal adhesions to the bone."

If from this description we remove the idea of two distinct fractures, one of the anatomical neck, and a second traversing the tubercles, we have before us, in the one fracture starting at the summit of the greater tubercle, and passing by way of the bicipital groove downwards and inwards along the shaft for two inches, conditions identical with the second and third specimens which I have shown. It appears, then, unnecessary to assume the existence of an impacted intracapsular fracture, of which even the author I have quoted admits that the traces are lost. He says: "It is no doubt true that, with the exceptions above mentioned, the exterior of the bone furnishes but little evidence of a fracture having existed; but this will not seem surprising when we recollect the length of time which elapsed between the receipt of the injury and the death of the individual."

I have, lastly, to exhibit this specimen from the collection of the College of Surgeons of Ireland, which, though long in the museum, has escaped notice, even by Professor Smith. The catalogue contains the following account of it. "A dried preparation of the shoulder-joint, the exact nature of which is a subject of much difference of opinion, some regarding it as a specimen of old unreduced dislocation on the inferior costa of the scapula, others on account of the misshapen state of the joint, and the irregular masses of bone thrown all around, considering it as more probably a case of old chronic disease. History unattainable. Professor Kirby."

In this specimen, as in those I have submitted, the greater tuberosity of the humerus, continuous with the shaft, rests in the glenoid cavity applied against its lower part, while the upper part of the cavity is porous from the atrophy which results from disease; the head of the bone, deformed no doubt, but easily traced, is displaced downwards, and rests in a socket which is well polished by use, formed on the inferior costa of the scapula. Here we have a rare form of dislocation of the head of the bone, somewhat in position agreeing with the variety of subglenoid dislocation described by Sédillot—the humeral head placed directly on the inferior costa, without inclination to either subscapular or infraspinous fossæ. The lesser tuberosity appears to have remained connected to the shaft as in the recorded cases, where the line of fracture has followed the anatomical neck with accuracy.

Before closing my paper, which was thus far composed before I had the opportunity of learning Mr. Eve's views regarding these injuries, submitted by him this session to the Royal Medical and Chirurgical Society, I have to thank him for his courtesy in sending me the manuscript of his paper, which is not as yet printed. In the condition of the joint which he has described, the several details correspond very closely to those of my case of incomplete fracture; the condition of detachment of the periosteum in place of a rupture of the capsule, strictly so called, which he describes as existing, will probably explain the statements made, that the capsule was intact in such cases as that of which I have borrowed Professor Smith's description; how could it happen that the head of the bone would pass into the recess between the coracoid process and clavicle, unless either the capsule gave way, or its attachment to the periosteum? Yet we find one, preoccupied with the idea of intracapsular impacted fracture, using such description. While Mr. Eve inclines to the view of Delpech as to the order of occurrence of the fracture and dislocation, or rather to the idea of the simultaneous production of the two injuries, referred to by Malgaigne, I prefer the opinion of Cooper, that the dislocation takes place first, then the fracture. While it is possible that direct force may produce the injury in certain dislocations, the absence of comminution in any case seems to put this cause aside. I think that a more probable cause is to be found in the constrained position of the arm fixed to the side, or otherwise, while the dislocation takes place; that thus muscular action, with the continued effect of the fall, determines the fracture, in all cases the result of the wide action of the glenoid bone. This explanation certainly applies to many anterior dislocations, in which it is difficult to conceive direct force to be capable of producing the fracture. I may express my opinion thus: Fracture of the upper extremity of the humerus, occurring as a complication of dislocation, commences at that part of the anatomical neck which rests, after dislocation has taken place, against the border of the glenoid cavity. It is caused by pressure of the humerus against the sharp edge of the glenoid cavity, probably resulting from a constrained position preventing the separation of the elbow from the side, as in ordinary dislocations. While the fracture starts at the anatomical neck, and may follow it strictly, it commonly passes obliquely into the shaft, detaching the lesser tuberosity with the head. The fracture is neither comminuted nor impacted.

OBSTETRIC MEMORANDA.

VERSION IN NEGLECTED SHOULDER-PRESENTATION.

I SEE, in the JOURNAL of April 2nd, a note under the head of Obstetric Memoranda, of a "Method of Facilitating Version in Cases of Neglected Shoulder-Presentation", by Mr. Donaldson; and I think the suggestion worthy of adoption in cases where version is impossible. Some years ago, whilst attending at a farm-house, I was witness to a case of very difficult parturition in a sheep, where the procedure recommended by Mr. Donaldson was carried out on both fore limbs. I was, at the time, much struck with the ease with which it was effected; and had determined, should a suitable case present itself, to put it into practice in the human subject. Fortunately, cases of that kind are by no means common, and I have not had an opportunity of trying it. Mr. Donaldson does not mention whence he got the idea; but it is not improbable that he was aware of the practice in sheep and horses. From the ease with which it is effected, it seems to me worthy of trial in any case where the child is dead and version impracticable, and it affords a ready means of overcoming the difficulty.

JAMES MCNAUGHT, M.D., M.R.C.S.

A FRAGMENT OF EXPERIENCE IN THE FREQUENT AND UNFREQUENT USE OF THE FORCEPS.

I WISH to record the following facts connected with the frequent and infrequent use of the forceps, with the results to mothers and children in two such sets of cases. During the years 1875-76, one of the midwives of the Royal Maternity Charity attended 396 cases, in 33 of which the forceps was applied; a rate of about 1 in 12. The midwife who attended these cases was very old; she was an excellent midwife. Dr. Barnes will remember her well; as, when he was physician to the Charity, he was frequently called on by her to use forceps. The patients of her district largely consisted of Jewesses and Irishwomen. Both these peoples are intolerant of pain, impatient, excitable, and commonly make frequent solicitations for "assistance". It was from

these circumstances, and not from any difficulty or absolute necessity, that assistance was sought by this old practitioner. On her retirement, a young midwife succeeded her in the same district; and, in the next two following years (1877-78), attended 443 cases; and, from not giving way to the importunities of her patients, forceps were used only once—1 in 443. The appended table sets forth the results to mothers and children as regards mortality.

396 cases, with forceps-rate of 1 in 12.

One maternal death from accidental hæmorrhage. Cæsarean section after death.

Still-births 14, about 1 in 28.

Causes of Still-birth.

1 Craniotomy.
2 Premature; not viable.
6 Decomposing (one twin case, one child only counted).
2 Prolapse of funis.
1 Died after breathing a few times; delivered with forceps.
1 Died in birth during labour.
1 Accidental hæmorrhage. *Post mortem*, Cæsarean section.

14

443 cases, with forceps-rate of 1 in 443.

One maternal death, a fortnight after delivery, from malignant disease of liver; child premature and decomposing.

Still-births 18, about 1 in 24.

Causes of Still-births.

5 Accidental hæmorrhage.
1 Placenta prævia.
1 Arm-presentation (podalic version).
1 Head-and-hand presentation; forceps; delivered in next labour by cephalotripsy.
1 Prolapse of funis.
1 Feet and hands presented.
1 Breech-presentation.
1 Craniotomy.
3 Decomposing.
1 Face-presentation.
2 Premature; not viable

18

GEORGE ROPER, M.D., M.R.C.P.,
Consulting Physician to the Royal Maternity Charity; Physician to the Royal Hospital for Children and Women.

PRECOCIOUS MATERNITY.

ON December 10th, 1869, I induced labour, and delivered of a living male, a girl aged 13 the previous August. The catamenia first appeared in March; the second period was the end of April; and she was impregnated about April 14th; so that she was only twelve years and eight months when she was seduced.

HEYWOOD SMITH, M.D.

CLINICAL MEMORANDA.

GANGRENE OF THE LOWER EXTREMITY IN A NEWLY BORN INFANT.

ON Tuesday, March 29th, I was called to see a male child two weeks old, whom I found to be suffering from gangrene of the left leg and thigh. The foot was quite black; the rest of the limb of a somewhat lighter tinge. The mother stated that, eight days before her confinement, she had a heavy fall, and struck forcibly the left side of her abdomen against the edge of the stair. The labour occurred naturally, and the child seemed thoroughly healthy; it was, however, remarked, that there was some limited discoloration of the skin below and at the outer side of the knee. This spot, from the account, appeared to be the centre from which the gangrenous process extended. The *post mortem* examination, which was confined to the left femoral artery, showed no signs of embolus of that vessel.

WILLIAM CASH REED, M.D., Plymouth.

A SCARF-PIN PASSED BY A CHILD EIGHTEEN MONTHS OLD.

IN October 1880, I attended a child eighteen months old, suffering from diarrhœa, sickness, and vomiting. The mother informed me that she supposed the child had swallowed a halfpenny, and the diarrhœa was due to that. A dose of castor-oil had been administered, but no halfpenny appeared. This being so, I concluded that if the child had swallowed the coin, it would come to light again in due time; as, whatever a person can swallow, the alimentary canal will admit of its passage. I therefore prescribed for the child's most urgent symptoms, which was to relieve the sickness and vomiting. When the child defæcated, it cried very much, as if in great pain. In three weeks from the time the halfpenny was supposed to have been swallowed, the child passed a common brass scarf-pin, three inches and three-quarters long, with a sharp point, and a head an inch and a half in circumference, and half an inch in diameter. The mother could not tell me whether the head or the point came first, as she did not see it passed, but found the pin in the fæces on the napkin. After the expulsion of the pin, the child had no more pain at stool, and was soon in its usual health again. In March 1881, the child died, after a very short illness, from what I supposed to be tubercular meningitis.

JOHN E. GARNER, M.B., Preston, Lancashire.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

UNIVERSITY COLLEGE HOSPITAL.

CASE OF POISONING BY BELLADONNA: RAPID RECOVERY.

FOR the notes of this case we are indebted to Mr. J. W. BOND, M.B. Resident Medical Officer.

J. J. W, a boy aged 2½ years, drank, about noon on February 24th, a quantity of a liniment consisting of belladonna and glycerine. The amount of belladonna taken was supposed to have been equal to about four drachms of the extract. An emetic of sulphate of zinc was given by the gentleman who first saw the case, and free vomiting was thus induced. Fifty minutes after the poison had been swallowed, the pupils were "well dilated", the cheeks flushed, and the child seemed much frightened; vomiting was again induced by administering warm water and tickling the back of the pharynx. At 1.10 P.M. (seventy minutes after the liniment had been taken), the pulse could not be felt at the wrist; the brachial pulse was very rapid (about 140) and feeble; the face was flushed; the skin was dry, and of a marked red colour over the knees and elbows; the pupils were widely dilated. Two drachms of animal charcoal were given by the mouth, and a like quantity of brandy by enema. A little later, one-eighth of a grain of pilocarpine was administered hypodermically, and a teaspoonful of brandy was ordered every half-hour. At 1.40 P.M. (a hundred minutes after the poisoning, and ten after the injection of pilocarpine), the skin was still dry. The pulse was 140; the respirations 24 in the minute. The child picked at the bedclothes, and seemed to be very readily frightened. When touched or spoken to, the hands twitched convulsively. At 3 P.M., the child was extremely restless, looking about as if seeing objects, and picking with its hands, which still twitched occasionally. The legs were in synchronous motion, performing evolutions similar to those used in swimming on the back. The boy did not seem to understand what was said to him. He was ordered to take half a teaspoonful of brandy every hour. At 5 P.M., he was much better; the pulse was stronger and slower. At 7 P.M., the skin was a little moist; the rash remained as before; the pulse was 96; the pupils were widely dilated. At 11 P.M., the child had vomited again, but had slept. Milk and lime-water were ordered.

Next morning, the pupils were still dilated; and the child cried when it tried to swallow, but was in other respects quite recovered.

KING'S COLLEGE HOSPITAL.

THREE CASES OF POISONING.

CASE I. *Poisoning by Belladonna: Violent Delirium twenty-four hours after taking Poison: Treatment with Alkalies, Bromide of Potassium, and Morphia: Complete Recovery.* (Under the care of Dr. DUFFIN. Reported by Mr. SILK, House-Physician.)—Charles T., aged 30, was admitted at 7 P.M. on December 12th, 1880, giving the following account of himself. At about 3 P.M. of the same day, soon after dinner, he had swallowed a wineglassful of belladonna liniment. About an hour afterwards, he felt a pain in his stomach; found he "could not spit", "could not walk straight," and the letters of a newspaper that he attempted to read appeared "small and double". His condition on admission, four hours after taking the poison, was as follows. In walking, he reeled like a drunken man. His face was flushed; eyeballs prominent; conjunctivæ injected; pupils widely dilated and insensible to light. There was some slight mental excitement; but he gave a perfectly rational and connected account of himself. The pulse was full and bounding, 160 to 140 per minute, and quite regular. His chief complaint was of the dryness of his mouth and throat. There were no twitchings or convulsions; no diarrhœa; no vomiting; no dysuria. He slept fairly well during the night. There was a slight tendency to wander, but he was never violent. Urine was passed freely. The bowels were not open. He was slightly sick after a dose of castor-oil. He took food well, but was very thirsty.

On the morning of the 13th, he was somewhat more excited in manner; and, in addition to the symptoms observed on admission, it was noticed that he had a restless uneasy expression. The tongue was dry and furred, but steady. There was some subsultus tendinum, and he complained of a feeling of numbness about the fingers. The temperature was 98°; pulse 68, full and soft. There was no rash about any part of the body. The mental excitement gradually increased. At one time, he imagined that some money had been stolen from him; at another, that his friends were in the ward. During the day, his bowels were open once freely after a purgative; there was no blood in the motion. Urine passed freely (a drop of concentrated urine caused marked dilatation of a normal pupil). The feeling of numbness in the fingers disappeared. The pulse and temperature remained as in the morning. The height of the delirium was reached at 9.30 P.M. of the 13th, when, eluding the vigilance of the attendant put to watch him, he made a dash through the window of the ward, and nearly succeeded in jumping into the court below. He was much cut about the legs and arms. He submitted quietly to having his wounds dressed, but jabbered incessantly while this was done. This excited condition was maintained for the whole of the next twelve hours. At 7 A.M. on the 14th, chloroform was administered by inhalation; and, after three unsuccessful attempts, sleep, accompanied by slight contraction of the pupils, was induced. When seen again at 10.30 A.M. of the same day, the symptoms had all abated. The man rapidly improved, and was sent into the surgical ward on the morning of the 16th, quite free from any physiological trace of the poison.

Treatment.—When first seen, the stomach-pump and emetics of sulphate of zinc were used; the resulting fluid being of a greenish colour, and consisted mainly of his recent dinner. Alkalies in the form of liquor potassæ and sodæ bicarbonas, freely diluted with water, were given at intervals of six hours. When the delirium became a prominent symptom, bromide of potassium, in frequently repeated twenty-grain doses, was tried; and, although upwards of seventy grains of this drug were taken between 5.30 P.M. of the 13th and 2 A.M. of the 14th (in, that is, about nine hours), the mental excitement continued to increase. At 9.15 P.M. of the 13th—*i.e.*, about a quarter of an hour before the attempted suicide—one-third of a grain of morphia was injected subcutaneously; and another one-third on the evening of the 14th. The administration of chloroform has been alluded to above. The improvement noticed after its use may fairly be ascribed to the sleep induced, though the contraction of the hitherto immovable pupil is worthy of note.

Remarks.—The interest of this case, apart from the typical course of the symptoms, centres round the use of morphia as an antidote; and it may be as well to indicate a few points which seem to have a bearing upon its action and value in this particular instance. In the first place, the smallness of the dose (one-third of a grain), in proportion to the violence of the delirium, may account for no sedative action having been produced. Secondly, the climax of the delirium coming on after the use of the morphia was probably a coincidence; for there had been a progressive increase in that symptom from the first, and the second injection on the 14th neither increased nor diminished the much less violent excitement of that period. Finally, the result of the use of the second dose of morphia also proves that there was no particular intolerance to the drug, such as is occasionally met with.

CASE II. *Poisoning by Carbolic Acid: Profound Coma: Contracted Pupils: Death in two hours: Post Mortem Appearances.* (Reported by Mr. SILK, House-Physician.)—Thomas T., aged 39, was brought to the hospital at about 12 midday on January 4th, with a history of having taken about a wineglassful of strong carbolic acid about half an hour previously. On admission, he was in a state of profound coma; breathing markedly stertorous, 36 per minute, but regular; the breath having a strong odour of carbolic acid. The lips were shrivelled and white, and there were one or two excoriations about the angles of the mouth. The eyeballs were fixed and prominent; the pupils equally contracted to a pin's point, and insensible to light or touch. The pulse was full and soft, occasionally intermittent, 120 per minute. The temperature was under 95° Fahr. The surface of the body was cold and clammy, devoid of sensibility; the superficial and deep reflexes were completely abolished. There were no convulsions, and no vomiting; and urine and fæces were retained. The tube of the stomach-pump was well oiled, and passed down the œsophagus; and the stomach freely washed out with olive-oil—the returning oil at first having an extremely faint odour of the acid. Sinapisms were applied to the chest and back, and ether injected subcutaneously. The breathing gradually became more stertorous and shallow, the pulse more intermittent; and death occurred at 1.35 P.M., preceded by profuse perspiration about the head and neck, but without convulsions.

Necropsy (twenty-six hours after death). There was marked lividity about the back. *Post mortem* rigidity of arms and legs was still present. All the cavities of the heart and all the large veins were full of very fluid blood, of a rich mulberry colour and faint carbolic odour; there were no clots of any description. The lungs were much congested and œdematous. The larynx and trachea were very congested, the smaller arterioles being distinctly visible. There were some excoriations about the epiglottis, but none in the trachea or bronchi. At the bifurcation of the trachea, a clot of yellowish mucus, smelling strongly of carbolic acid, was found. There was a faint smell of carbolic acid on first opening the abdominal cavity. There was much general congestion. The stomach contained oil mixed with carbolic acid. The mucous membrane was almost entirely eroded, and lay in lines along the posterior surface, looking and feeling like whipcord. The mucous membrane of the œsophagus was gathered into longitudinal folds, and presented very much the appearance of "cigarette-paper". There were no erosions. The intestines were much congested, and contained oil and carbolic acid. There were some slight erosions about the duodenum. The kidneys were congested, and smelt strongly of carbolic acid. There was no urine in the bladder. The spleen was soft and pulpy, and of a deep mulberry colour. The liver was congested. The brain was congested; and there was some slight excess of fluid in the ventricles, with a doubtful faint odour of carbolic acid.

CASE III. *Poisoning by Oxalic Acid: Transient Albuminuria: Recovery.* (Under the care of Dr. JOHNSON. Reported by Mr. SILK, House-Physician.)—Charles P., aged 30, a potman, was admitted into Craven Ward on February 28th, 1881, with the following history. At 9.30 A.M. that day, he had swallowed nearly threepennyworth (*i.e.*, an ounce and a half) of crystallised oxalic acid, dissolved in hot water. This was followed by a feeling of heat and burning in the throat and abdomen, and, in about ten minutes, by vomiting of a yellowish fluid mixed with food and clotted blood. There was also said to have been a tendency to delirium.

When first seen at 11 A.M., he complained chiefly of a feeling of "swelling" in his abdomen, and considerable griping. The throat also felt swollen and sore. His expression was somewhat anxious; the skin was cold and clammy; the mucous membrane of the lips was swollen and excoriated; the tongue was swollen, and bright red in colour; the fauces were intensely red and swollen, the uvula being as large as the forefinger; the pulse was rather small and thready; the temperature was 98.6°; there was much general prostration. The abdomen was distended, tympanitic, and very tender (there were a few isolated reddish papules over the back and chest, but no definite rash). At 4 and at 7 P.M., he was sick, the vomiting consisting of unaltered milk mixed with bright yellow viscid mucus. When seen again at 9.30 P.M., the expression was more bloated. He complained of an additional pain in his back. His bowels had been open once during the day; there was no blood with the motion, but considerable tenesmus. He had passed with difficulty twenty ounces of pale straw-coloured urine, containing crystals of oxalate of lime in abundance, a decided trace of albumen, but no casts and no blood. The pulse was 108, full, and inclined to be bounding. The temperature was 100.6°. From this point, the severity of the symptoms gradually subsided. The pain in the abdomen and back continued for some time, and later on became associated with frontal headache. The sickness continued for four or five days, but ceased finally on the fifth; and, though somewhat obstinate, the vomit never contained any blood. The bowels were at first very constipated, but yielded to enemata, and on the seventh day contained a very slight streak of blood. The dysuria and albuminuria finally ceased on the seventh day. The temperature sank on the morning of the first to 98.6°, and continued fairly normal to the end. The breathing remained unembarrassed, and no abnormal physical signs could be detected either in the heart or lungs from the commencement. At first, there was some dysphagia, probably due to the excoriation of the throat and tongue. No signs of stricture of the œsophagus were ever developed. The man was discharged well on March 25th.

Treatment.—There is little to remark about the treatment of this case. Chalk and other salts of lime were given freely on admission. The other symptoms were treated, as they developed, with opiates, bromide of potassium, ice, and other ordinary remedies.

Remarks.—This case seems worthy of notice on account of the following facts: 1. The amount of the poison taken (1 to 1½ oz.), the vomiting occurring so soon afterwards probably saving the man's life; 2. The transient albuminuria, unassociated with hæmaturia.

CENTENARIANS.—During the December quarter of the past year, ten of the deaths registered in Ireland were recorded as centenarians. Of these, five were returned at 100; one at 101; one at 105; two at 106; and one at 112 years, respectively. The majority of these were females.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, APRIL 12TH, 1881.

ANDREW WHYTE BARCLAY, M.D., F.R.C.P., President, in the Chair.

CASE OF VASCULAR PROTRUSION OF THE EYEBALL.
BY CHARLES HIGGENS, F.R.C.S.E.

THE patient was a woman aged 42. The disease appeared to have arisen spontaneously, and had been gradually progressing for six months. The symptoms were not very urgent, but increased steadily in severity, in spite of rest, low diet, ice to the head, and purgatives. Six weeks after admission, the common carotid was ligatured, with the result that a complete cure was effected, and the patient left the hospital two months later perfectly well. The daily progress of the case was given. At one time there was hemiplegia, which entirely passed away; otherwise, no dangerous symptoms arose. A sketch of the patient's eyes, taken a week before the operation, was shown. Abstracts of two other cases were given.

Mr. HOLMES asked if Mr. Higgens had had a further opportunity of examining the patient, and whether there was any tendency to return of the disease. In some cases of exophthalmos treated by ligature of the carotid, the disease had returned. He would not, however, dissuade from this operation in cases where the disease was very severe. The pathology of these tumours was very obscure; and no doubt they depended on very various causes. Aneurysm was said to have been found in two instances; but, the more the cases were examined, the less frequently would true aneurysm be found to have been present. In neither of the two cases appended to Mr. Higgens's paper was there any indication of anything like true aneurysm; and in neither was any benefit produced by ligature of the carotid. Ligature was only necessary, he thought, in cases where life was threatened, as in Mr. Rivington's case, which was described in a paper read before the Society some time ago. He had seen several cases in which patients had for some time had protrusion of the eyeball, which did not increase; they became accustomed to the noise in the head. Ligature of the carotid artery should not in any case be resorted to until other measures had been tried.—Mr. HIGGENS had seen the patient a few days ago; there was no return of the disease. He would not be in a hurry to tie the carotid again for protrusion of the eyeball. He had lately seen in consultation another apparently urgent case; and had learned that the symptoms had spontaneously receded, and the patient had recovered; he did not know, however, what was the state of her vision.

NEPHRECTOMY BY LUMBAR SECTION. BY ARTHUR E. BARKER, F.R.C.S.

The basis of this paper was a record of two cases, in which the author had recently performed nephrectomy by lumbar section for calculous pyelitis. A brief review was given of the whole question of excision of the kidney in the light of all the cases which he had been able to collect. Referring to a paper published in last year's *Transactions* of the Society, in which he tabulated 28 cases of this operation, he pointed out that of this number 14 recovered, and 14 died; but that, deducting those cases in which the operation was performed upon a wrong diagnosis, or undesignedly, there remained 13 recoveries, and 9 deaths. Passing to the new collection, 26 in number, he showed that 12 recovered, and 14 died; or, making the same deduction as above (of 5 cases), that 11 recovered, and 10 died, out of the remaining 21. Adding the latter to the 22 assigned nephrectomies of last year's table, he found that, of the resulting 43, recovery took place in 24, and 19 died. Two recoveries where nephrectomy was not premeditated might further be added to these 24. The causes of death in the 28 fatal cases of the combined tables were as follow: peritonitis, 8; shock and collapse, 5; pyæmia, 2; uræmia, 2 (in one of these, the other kidney had been destroyed by old disease; in the second, it, as well as the liver, was in a state of advanced fatty degeneration); wound of pleura with consequent collapse of lung, 1; pulmonary thrombosis, 1; hæmorrhage during operation, 1; hæmorrhage after operation, 2; exhaustion of vomiting, 1; œdema of lungs with marked dyspnœa, 1; exhaustion from suppuration, 1; unrecorded, 3. Of the 9 fatal cases, out of these 28 where nephrectomy was unpremeditated, 4 died of peritonitis; 1 of hæmorrhage during, and 1 after, operation; 1 of suppuration and exhaustion; 1 of œdema of the lungs with marked dyspnœa; and in 1 the cause was not recorded. Of the two modes of operation—*i. e.*, in the lumbar region, and in the linea alba—the first showed the largest proportion of recoveries; but the author regarded the mere numerical analysis of the cases as liable to mislead on this point, in view of the varying nature of the conditions for which the operation was undertaken. The histories now recorded were briefly as follow. A married woman, aged 32, was admitted into University College Hospital, on June 16th, 1880, on account of a rapidly growing tumour in the left abdomen, first noticed seven weeks before, and accompanied by pain and much lassitude: the pain had existed since the patient was five years of age. The tumour, on admission, measured 14 by 4½ inches; it was smooth, and fluctuated obscurely. The diagnosis was pyonephrosis, probably due to a calculus. On July 2nd, the tumour was aspirated from behind, and eighteen ounces of fœtid pus withdrawn. The next day it had refilled. Nephrectomy was performed on July 5th, through an incision made downwards and forwards, from midway between the last rib and the crest of the ilium, for four inches. The enormously thickened capsule of the kidney was soon reached, and its removal with the contained kidney attempted. After considerable loss of time, and of blood from the vascular and inflamed tissue, this line of action had to be abandoned, on account of the extremely wide-reaching attachments of this mass of fibrous investing material. The organ itself was then sought for, and was easily shelled out of its capsule with the finger, and without loss of blood. The pedicle was tied with silk, with some difficulty, and the organ was cut away; after which some arterial twigs spouted, and had to be ligatured separately. The whole operation was conducted under Listerian antiseptics, and lasted an hour and ten minutes. The patient died of shock three hours after its completion. The necropsy showed that it would have been next to impossible to remove the capsular structures with the organ. They lay as a great hollow mass of fibrous tissue attached to the spine. Enucleation of the organ alone ought to have been aimed at from the beginning. No bleeding had occurred after the operation; and the peritoneum was not torn. The next case was that of a woman aged 38, to whom an operation for pyonephrosis calculosus had been proposed seven months before, and refused. The kidney was not at that time much enlarged, though a large stone was found in it, by means of an aspirator-needle. Six months later, the patient requested the author to readmit her into hospital, and perform any operation he might deem advisable; she had suffered very severely in the interval, and was losing ground. On readmission, she was very emaciated and bedridden, on account of pain; the slightest movement, even in bed, causing much distress. On October 5th, an incision was made from the middle of the twelfth rib downwards and forwards for five inches, and the kidney rapidly exposed. An aspirator-needle was then thrust into the organ, and the stone struck, about two ounces of pus being withdrawn. A vertical incision was now made down to the calculus with a Paquelin's cautery-knife through the cortex of the organ. The stone was very firmly fixed, and, when drawn on with a forceps, broke, one half only coming away. Very great difficulty being apprehended in removing the remaining half, the excision of the whole organ was determined on. Warned by the last case, Mr. Barker at once sought for the surface of the kidney itself as a guide to enucleation, which was consequently easy. The difficulties of clearing the pedicle, however, were insurmountable in this case; and, after many attempts to clear it, it was ligatured *en masse*, the ligature including much of the kidney-tissue. It was not, however, possible to draw the silk close enough to justify cutting away the organ, which was therefore left *in situ*. In clearing the lower end of the organ, something was felt to give way at the spot to which it was firmly adherent, and it was suspected that the colon had been torn. The operation was completed by a Listerian dressing, having lasted one hour and twenty minutes. The patient died of shock twelve hours later. *Post mortem*, it was seen that the pedicle could not have been cleared, even though the last rib had been resected, which was now done for experiment with ease, and without any damage to the pleura; also that any endeavour to remove the organ, with its investing structures, would have ended in failure, owing to the very extensive attachments of the latter. The colon was found to have adhered to the kidney, and to have been torn at this spot, where it was soft and sloughy. The points brought out by these operations appeared to be: 1. The necessity of removing the kidney, and it alone, in such cases, and of not attempting to take away the investing structures with it; 2. The desirability of early operation, before the parts around the organ, and especially the pedicle, had become converted into a mass of dense inflammatory tissue; 3. The want of every kind of data bearing on this operation, and either encouraging or discouraging its performance.

Mr. CLEMENT LUCAS had performed nephrectomy, fourteen months ago, on a man who had for six years suffered from a sinus in the loin; and he had found difficulty on account of the adhesions. A fortnight after the operation, there was severe secondary hæmorrhage, which was, however, arrested by plugging and perchloride of iron. Six months ago, he had seen the man; he had gained weight, and was able to work. Pus did not disappear from his urine for several weeks after the kidney was removed; it must in many cases come from the bladder and ureter.

He believed that the lumbar incision would be generally preferred, and that the vertical would be reserved for cases in which the tumour was large. He would prefer an incision along the lower border of the last rib, and a vertical one from this to the lower edge of the quadratus lumborum. In an operation in which he had assisted Mr. Morrant Baker, it was found necessary to enlarge the incision vertically, on account of the size of the tumour; and in this case it was not possible to remove the capsule with the kidney.—Mr. MORRANT BAKER agreed that it was better to remove the kidney without the capsule. In a case under his care some years ago, he first performed nephrotomy and afterwards nephrectomy, and would have found it difficult to remove the kidney with the surrounding tissues. The removal was not attended with much trouble or hæmorrhage. Removal of the kidney did not appear to cause much distress: in his case, the patient had syncope, perhaps in consequence of the chloroform taken during the operation; but he had recovered next day, and, some weeks ago, was doing well. —Mr. BARWELL had had under his care a girl who had been long in hospital with pus in her urine, and a large renal tumour. He evacuated a large amount of pus by a free incision; and the kidney, which was fairly movable, was afterwards removed with little difficulty. He suggested that a free incision, with the exploration of the kidney by the finger, was preferable to the use of the aspirator. In a case of perinephritic abscess under the care of Dr. Silver, he had made a wide incision and let out thirty-five ounces of laudable pus, with a slightly fæculent odour. The kidney seemed healthy; but, on the death of the patient a few days afterwards, both kidneys were found to be tuberculous.—Mr. BARKER agreed with Mr. Barwell as to the trivial disturbing effect of the operation; and regarded as valuable his suggestion of a free incision as an aid to diagnosis. In one or two cases, it had been shown that the retention of the ligature, when the pedicle was tied *en masse*, had greatly delayed recovery.

A Nasal Plug.—Mr. HOLMES showed a little instrument for plugging the nares, designed by Mr. Howard. It was made of India-rubber, and was inflated after introduction.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, APRIL 19TH, 1881.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

Cylindroma of Popliteal Space.—Mr. BUTLIN brought forward a specimen of cylindroma occurring in the popliteal space. The patient was a young man aged 17. The tumour was removed by Mr. Willett; it grew apparently from the posterior ligament of the knee. Recurrence took place very quickly; and, in spite of the amputation of the limb, the patient died with wide-spread secondary disease. The primary tumour appeared to the naked eye to be a rapidly growing sarcoma; but the microscopical sections showed admirably the structure of cylindroma. The cells forming the cylinders were polygonal, with well-marked outlines; and there was an abundant intercellular hyaline material. The secondary tumours had the structure of ordinary round-celled sarcoma, and had no hyaline intermediate substance. The origin of the hyaline intermediate substance present in the primary tumour is much disputed; but Mr. Butlin believed it to be derived from the blood-vessels or the fibrous trabeculæ of the glands. As to the nature of the disease, most authors seem agreed that it is a sarcoma; and at least we may say that it is a tumour of fibrous-tissue origin; and it was an interesting fact that, in this case, the recurrent tumours and secondary tumours did not show the cylindrical type.

Cancer of the Rectum.—Mr. HARRISON CRIPPS showed a series of microscopical sections illustrating the development of cancer of the rectum. He had found, in the rectum, all tumours developing on the one type—that of adenoid tumour; and when he used the term "cancer" in this relation, he wished it understood in this sense. A rectal growth originated in two ways. In the one case, it started in the submucous coat; and, later on, the mucous membrane gave way, so that, by subsequent partial destruction of the new growth, a crater-like cavity was formed, while the growth extended at its margins. In the other case, the growth formed a projecting tumour from the first; tumours of this last class are clinically innocent, and have been called papillomata; while the growths of submucous origin have been called epithelioma; but every intermediate form is found. A slowly growing adenoid tumour of the rectum shows, on section, numerous cavities lined by cylindrical cells; that is to say, the tumour is of the glandular type. In a rapidly growing tumour, the section shows fewer spaces of the same kind, lined by an epithelium of very embryonic type, with much embryonic tissue in the intervals between the cavities. If a section of the growing margin be examined, it is found to be exceedingly irregular, having, roughly, a tree-like or undulating form. The cavities above referred to are formed by the coalescing of these various processes. Looking at the surface with the naked eye, these rough leaf-like processes can be seen. The cavities formed by the coalescence of the branches of the processes are obliterated by pressure, or filled up by growths which project into them. These secondary growths are thus formed: two or three epithelial cells outstrip their neighbours in growth; they proliferate, and so form dendritic offshoots. The fibrous tissue in these offshoots Mr. Cripps believed to be derived from the walls of the cells. He believed that, for the purposes of this inquiry, the columnar epithelial cells might be looked upon as independent organisms; and he was of opinion that their nuclei subdivided, and then migrated into the subjacent retiform tissue, underwent there a development into leucocyte-like cells, and passed thence into the lymphatics. In one of the sections shown under the microscope, he thought there was evidence in support of this. If, then, the leucocytes are really the offspring of the columnar epithelium, it is not difficult to understand how the growth may extend in the deeper tissues by the throwing off of these young cells, and their later development into epithelial cells. He combated the objection that these cells were really travelling, if travelling at all, *towards* the epithelial cells; though he admitted that it was impossible actually to prove this point. In growths in the liver secondary to rectal tumour, the structure has been seen to have a distinctly glandular type; and he believed that one of these leucocyte-like cells, thrown off from the epithelial cells, might reach the liver by the ordinary channels, and there undergo the natural development towards a glandular type. The great question remained: What is the cause of this growth in the rectum—this adenoid growth, as he believed it always to be? To his mind, the only satisfactory explanation was to assume that these embryonic offspring of the epithelial cells had in themselves some infective property.—Mr. ALBAN DORAN thought that one of the suggestions rejected by Mr. Cripps was more reasonable than that which he had adopted. It was generally held that the epithelium was rather shed than reabsorbed. Was it not then more probable that the lymphoid cells were the parents of the epithelial cells; and that, on the same principle, under morbid influence, these lymphoid cells developed in the deeper part of the retiform tissue into epithelium, and so into cysts? This served to explain the origin of cysts in any deep tissue. From observations he had made on the ovary, he thought there was evidence in favour of the possibility of lymphoid cells collecting protoplasm about them, and so becoming epithelioid, and giving rise to cysts lined by epithelium.—Dr. THIN thought the sequence of these growths had been admirably traced by Mr. Cripps, who had done for cancer of the rectum what Waldeyer had done for cancer of the breast, what Thiersch had done for cancer of the lip. This was now the third time he had heard at this Society the startling theory that fibrous tissue could be developed from epithelial cells. Mr. Cripps had just said that he believed fibrous tissue could be developed from the walls of epithelial cells. But Dr. Thin, after careful examination of the specimens shown now and on previous evenings, entirely differed from the upholders of this theory. As to the relation of the nuclei in the retiform tissue to the epithelial cell, he believed that the nucleus represented a cell. The suggestion that the epithelial cells shed their nuclei into the connective tissue, did not commend itself to many. He believed that the leucocytes, which were represented in the drawings by their nuclei, when they came in contact with the cancerous elements, underwent morbid changes which ended in their transformation into epithelial cells; if, before complete transformation, they are swept away, and then arrested in other organs, they can act as infective agents.—Mr. GODLEE was glad to hear Dr. Thin's protest against the assumption that epithelial cells and leucocytes were thus interchangeable. In reference to the first case, he wished to ask Mr. Butlin whether he did not think that he would mislead by giving the name cylindroma to the tumour in his case; it originated distinctly in connective tissue. It seemed to belong to that class of new growths in which rapidly growing epithelioid masses were included within trabeculæ of embryonic connective tissue.—Mr. BUTLIN had not given the name cylindroma to his case; Billroth had, he believed, given the name; he wished, on the contrary, to point out that it was a round-celled sarcoma. He thought that Mr. Cripps had not done quite so much for the rectum as Waldeyer and Thiersch for the breast and lip. Waldeyer had traced the cancer of the breast immediately from the epithelium, and so with Thiersch's researches on the lip; and they had thus not been driven to form the theory as to the origin of the growths which Mr. Cripps had been obliged to seek. Mr. Cripps had not been able to show any instance in which the transformation of one of the nuclei into an epithelial cell had occurred.—Dr. THIN, in comparing the researches of Mr. Cripps to those of Waldeyer and Thiersch, had not wished to draw any minute comparison as to details.—Mr. PARKER wished to ask Mr. Cripps whether he

desired to maintain that cancer could be derived from mesoblastic tissue; if so, we must reform our present belief in its epiblastic origin. He had examined recently a tumour of the humerus, of a glandular type, supposed to be primary; but further inquiry showed that an ovarian tumour with glandular growths had been removed some years before, which might explain the character of the growth in the humerus. —Dr. WILKS was interested to see that members were inclined to discuss the origin of the tumours, and not merely content themselves with the histological facts: he thought it very right that this should be so.— Mr. HARRISON CRIPPS said, in reply, that the gradual development of the free nuclei into lymphoid cells, and then into epithelial cells, might be well traced in adipose tissue. He thought it difficult, on Dr. Thin's theory, to explain how it was that these leucocytes could be infected by a temporary sojourn near the cancer, and could lead to a redevelopment of the actual glandular type of the primary tumour itself.

Villous Polypus of the Bladder.—Mr. TREVES said the specimen was obtained from a man who died of cancer of the pylorus. He had suffered from hæmaturia for thirteen or fourteen years. The polypus was about the size of a cherry, and had the colour of a recent blood-clot. He brought forward the case partly from its rarity, partly because patients had died of the hæmorrhage; and, as the tumours had been successfully removed, it was important to make the diagnosis. In this case, the hæmaturia was always intermittent, and generally severe —points in which it resembled cancerous disease. Exercise in the interval did not lead to hæmorrhage, though, during one of the hæmorrhagic periods, it had this effect.

Cirrhosis of the Liver in a Child.—Dr. SEYMOUR TAYLOR showed the liver of a patient who had been under the care of Mr. Osborne. The patient was a boy, aged 10. The family history was good. The patient had suffered from morning sickness, anorexia, and epistaxis, but there was no history of spirit-drinking. At the *post mortem* examination, the stomach was much distended; its coats were thickened, and there was much venous injection. The liver was a typical specimen of cirrhosis with well-marked nodulation; the nodules were mapped out by a fibrous tissue, rich in corpuscles. The spleen was much indurated and enlarged. There was no evidence of perihepatitis, nor of any syphilitic process. There was no valvular disease of the heart.

Membranous Tracheitis from Impaction of a Nutshell. — Mr. CARRINGTON showed the respiratory organs of a child which presented this condition. Tracheotomy afforded relief for a short time, but the child died of slow asphyxia. *Post mortem*, there was collapse of the lower portions of both lungs. There was no membrane on fauces, epiglottis, or anywhere above the glottis. A piece of nutshell was found about half an inch below the chords, imbedded in the mucous membrane, which was there ulcerated; half an inch below this, and at the lower edge of the tracheal wound, an ashy grey, shreddy false membrane was found, which extended into the bronchi. There was no history of diphtheria or croup, either at the home of the patient, or in the ward to which the patient was admitted; and there was no reason to suppose that the tube was not scrupulously clean.

Specimens shown by Card:

Congenital Serous Cyst of Neck.—Mr. TREVES showed this specimen before dissection. An enormous cyst occupied the front of the neck, depending over the chest.

Arrested Development of the Limbs.—Mr. GODLEE showed a living specimen, who presented a congenital imperfect development of all the lower limbs to a very marked degree.

CLINICAL SOCIETY OF LONDON.

FRIDAY, APRIL 8TH, 1881.

T. SMITH, F.R.C.S., Vice-President, in the Chair.

Syphilitic Psoriasis of Face and Neck.—Dr. B. O'CONNOR reported this case. The patient had been exhibited on the 11th March, 1881. She first came under observation March 2nd, 1881. Aged 28 years, she always had been healthy up to six months ago, when complaint was made of pains in the head, most severe in the temples. For this she went under treatment. A week subsequently there was sore throat; a fortnight later still, an eruption appeared all over her, that on the face being similar to what was now seen, while that on the body and limbs took the form of "dark bluish spots". She remained under treatment for six weeks. The patient's husband had, with the exception of the remarkable eruption on the face, presented the same symptoms, though a little earlier; he had also had a severe iritis. He never had a chancre. She had two healthy children; had never lost any; and had had neither abortion nor a miscarriage. She was quite regular. Her mother had died at 34 of some "liver-disease". Her father and all other members of her family were quite healthy. On examination, Dr. O'Connor found a number of pinkish-white scaly rings and some darker circles all over the face, including the eyelids, and on the front, sides, and back of the neck; also some half-circles. All stages of development were noted at the same time. The intervening skin was healthy. The rings, which spread by their outer margins, were not quite symmetrical. The rings were incomplete at the point of contact. The skin was naturally fair. The eruption had always been dry and itched most at the margins. No trace of it existed on the elbows, knees, palms, soles, nose, lip, mucous membranes, ears, or scalp; but the hair had been shed in large quantities, and there was dry seborrhœa. A few brownish maculæ remained on the body, backs of the thighs, and inner sides of the arms, evidently resulting from syphilitic roseola. There was an excavated ulcer near the right tonsil. There was no affection of the nails. A scaly eruption existed on the shins somewhat resembling, though really different from squamous eczema and ordinary psoriasis. The eruption on the face might, in some respects, be compared to that of lichen ruber and herpes circinatus. Under the microscope, with a power of 450 diameters, were found slight hyperæmia and infiltration of the rete mucosum. The following were the reasons for classifying this case as syphilitic psoriasis:—1. The history of the patient and her husband, and the absence of any history of psoriasis (or, in fact, of any skin disease) in any member of her family; 2. The dry scales were less in amount and darker in colour than those found in ordinary psoriasis; 3. The absence of eruption from the elbows and knees. The non-appearance of any affection of the palms of the hands and of the sides of the feet was unusual in syphilitic psoriasis. The treatment consisted of one-twelfth of a grain of perchloride of mercury, with twelve of cinchona, three times a-day; and the topical application of unguentum hydrargyri nitratis.

Case of Arterial Hæmatoma of the Forearm due (apparently) to Embolic Arteritis and Perforation.—Mr. RUSHTON PARKER contributed this case. W. G., aged 14, had rheumatic fever in the first quarter of 1879, during which he experienced pain in the right forearm, followed by swelling of the whole limb, eventual subsidence in the arm, but gradual increase in the forearm. He was admitted into the Liverpool Royal Infirmary on July 23rd, 1879, and was found to have an oval swelling of the right forearm, tense, but slightly elastic, without pulsation, the previous existence of which the patient distinctly negatived. Incision under ether revealed a blood-tumour between the bones and deepest muscles on the flexor side, and an open artery with upper and lower apertures. This vessel was tied, and the wound treated without the spray. Inflammation, however, became intensified, and septic conditions arose, without, however, any evil result until after the twentieth day, between which and the thirtieth several attacks of secondary hæmorrhage occurred. The wound was eventually searched for a bleeding point, but none was found, the oozing being general. Ergotine administered subcutaneously, and turpentine used locally, with elevation of the limb, were followed by cessation of bleeding and rapid cicatrisation. Hitherto no cardiac or respiratory symptoms had been present, though a systolic and diastolic murmur revealed aortic obstruction and regurgitation both on admission and since. He now, after the sixth week, had severe dyspnœa, with palpitation and cardiac pain, commencing with an attack of epistaxis, and producing cyanosis. Opium and digitalis were given, and in a fortnight he was better, with occasional remissions. Under a regulated diet of bread, butter, potatoes, tea, and beef-tea, excluding especially milk and flesh, with opium and no digitalis, he gradually made a complete recovery from all impairment of the respiratory and circulatory functions. The murmurs, however, remained for months, but he was lately (February, 1881) totally free from murmur, and in robust health and strength. Partial division of the median nerve, in the final operation, had resulted in impairment of the palmar muscles concerned, but the main use of the hand was good, and all the most important movements had been preserved. Mr. Parker remarked that the appearance of septic influences was of course due to causes which were probably preventable; and the secondary hæmorrhage was almost certainly due to the intensified inflammation which ensued. This case was only one among examples, which to many surgeons were well known, proving in the clearest way the influence of inflammatory irritation in promoting hæmorrhage from vessels in the vicinity. The converse, though not demonstrable here, was experienced in other cases where the removal of irritation (such as the distensible force of retained discharge or blood-clot) was followed immediately by cessation of bleeding which might previously have been profuse, and apparently unquenchable. As to the original blood-clot, the hæmorrhage of which it was the substance resulted, evidently, from perforation of the artery concerned. The blocking of this artery and the consequent collateral circulation were circumstantially evidenced in the history; while the conditions requisite for embolism were, to say the least, rendered possible by the clinical signs. The age of the patient and all the circumstances left, it was thought, no choice outside the supposition that an

embolism, consisting of active inflammatory material, on becoming impacted in the anterior interosseous artery of the forearm, led to acute arterial inflammation and consequent perforation in place of the obliteration more commonly to be expected.—Mr. T. SMITH said these cases were very rarely met with. He thought the explanation offered a probable one. Rupture frequently ensued from cerebral embolism, but occurred in limbs only very unfrequently.—Mr. GODLEE inquired if any arterial disease had been noticed in any other part of the patient's body?—Mr. HEATH remarked that it was unusual to find arteries diseased at so early an age; and for this, if for no other reason, Mr. Parker's case was unique. He did not, however, feel quite satisfied with the explanation of it that had been given. Had careful inquiry been made to ascertain whether an accident might have produced the arterial wound? He thought the boy might have done better, had the wound been closed with lint and a compress applied over it.—Mr. M. BAKER inquired when the boy had last been seen, and what his condition then was? Curious cysts, he said, sometimes occurred and simulated the appearances due to embolism, but only a thin layer of blood was found surrounding them.—Dr. COUPLAND wished to know if embolism had been found in any other part of the body. He commented on the remarkable fact that the boy had lost the signs of valvular disease of the heart apparent during his early treatment.—Mr. RUSHTON PARKER replied that the age of his patient (14 years) excluded the idea of aneurysm. The two openings in the artery were well defined. The back of the vessel was plainly visible. In explaining the condition, he imagined an embolism might have lodged in the artery and caused the mischief. He had been unable to gather any history of a traumatic origin for it, and examination by the aspirator proved it to be non-malignant. The record of the case, moreover, suggested embolism. There had been pain and swelling of the whole arm, which gradually diminished. The clot found was firm and black, and formed under considerable pressure. The heart was in a bad state on admission; its improvement was very marked.—Mr. HEATH asked if the artery had been divided.—Mr. PARKER said it had not; and there had been no evidence of other embolisms, or of any other disease.

Meningocele.—Dr. STEAVENSON reported this case, which was that of a female child, the last of a family of thirteen, which was brought to the Children's Hospital when three weeks old, with a cleft in the cranial and facial bones extending from the posterior fontanelle to the alveolar process of the jaw. Between the widely separated eyes and nostrils, there was a tuberous swelling communicating freely with the cranial cavity. There was no cleft palate. Respiration was peculiar, a few short, quick inspirations being succeeded by a pause. The heart's action was accelerated. The mother stated that, when she was three months pregnant, she was much frightened by seeing the body of her son in a hospital mortuary, and to this fright she attributed the infant's deformity. The child lived to the age of 4½ months, and a *post-mortem* examination was refused. Out of 39 cases recorded by Laurence, 21 were males and 18 females. In 53 out of 79 cases the meningocele was occipital; in 6 instances adult life was attained; the majority dying in early life.—Mr. T. SMITH said he had never seen a child so horribly deformed as the subject of Dr. Steavenson's paper. The major part of the brain was in the region of the nose, and the eyes were widely separated. It was remarkable that life had been prolonged to four months. The mother had told him that, besides merely seeing her son in the dead-house, she felt his head, and had been shocked to find his skull-cap removed, and a soft yielding vacuity where it should be. This produced a strong mental impression to which the congenital defect of her child might be due.

Case of Progressive Painful Inflammation of Arteries.—Mr. JOHN H. MORGAN read notes of this case. G. W., aged 46, contracted syphilis at eighteen; he had since married, and had several healthy children. He was subject to a curious congenital enlargement of the superficial veins of the chest and abdomen. Nine years ago he was a patient at Guy's Hospital, under Dr. Wilks, who had described his case. In 1876 he suffered pain in the left armpit, which passed down to the bend of the elbow, and then left him. In 1877 he came under Mr. Morgan's care suffering from pain in the left arm, for which there seemed no evident cause; there was no swelling, and he soon recovered from this attack. In 1880 he had an attack of sudden and severe pain in the right groin, deep-seated, and made intense when the part was pressed. The area of pain was confined to a space occupied by two or three inches of the femoral artery, and to one or two inches on each side of it. This pain gradually travelled down in the course of the artery to the popliteal space, being traceable throughout, and being more severe at the part corresponding with the opening in the abductor magnus. In course of time the pain passed into the leg, and here some limited œdema was seen at the seat of pain, but not beyond it. Similar pain came suddenly in the right axilla, and passed gradually down in the course of the brachial artery into the forearm, and here again a limited œdema occured. He was treated with iodide of potassium, alkalies, and biniodide of mercury at various times, and in varying quantities, but without material effect upon the disease. Subsequently the right carotid artery was affected in a similar way; the symptoms pointed evidently to disease of an artery, probably inflammation of the fibrous coat, since the pain passed from the centre to the periphery, was in the course of the various arteries, and was made intense directly the finger perceived the pulsation of the artery beneath it. Mr. Morgan had not been able to find any record of the observation of similar symptoms. The patient was now in good health, and had had no recurrence of the symptoms. He was shown to the Society.—Mr. HEATH said the case was peculiarly interesting from the fact that none of the arteries were blocked, as usually occurred in arteritis. The condition of the vessels might possibly be consequent on inherited diathesis, tending to weaken their walls.—Mr. MCHARDY described a disproportion which he had observed, with Dr. Buzzard, between the retinal vessels of the patient, the arteries being only one-third the size of the veins. This was due to the diminution in the size of the arteries; the coats were not thickened, but the whole vessels were indistinct, exhibiting a double contour.—Dr. F. TAYLOR thought it would be interesting to know the present condition of the arterial walls.—Mr. HAWARD considered that, the patient having suffered from syphilis, this fact afforded the most probable explanation of the disease. Intermission in such cases was a common experience, and in the one described its occurrence favoured the view that it was an instance of syphilitic arteritis. In connection with Mr. Heath's remarks on the absence of clots from the vessels, the question arose whether arteritis was recognisable at all during life, and whether clots did form in the living vessels.—Mr. HEATH explained that arteritis was not common in clinical experience. Books described the arteries as obstructed in it, but its occurrence was most rare. He, himself, had no personal experience of the disease, and quite believed the ordinary book-views of it might require to be modified.—Mr. HAWARD continued that in an extensive series of *post mortem* examinations, he had never found clots in arteries, though often he had discovered evidences of inflammation in the walls of those vessels. Of course, those cases in which a plug had been lodged in the vessel, and then, acting as a foreign body, excited inflammation around it, were excepted.—Mr. T. SMITH thought the diagnosis of this case during life had been unique. He would like to know more definitely what led to it. He, himself, had never seen arteritis during life. In those instances where, in cases under his care, arterial obstruction occurred, it was due to excessive thickening of the walls.—Mr. R. W. PARKER asked on what grounds neuritis was excluded in the diagnosis?—Mr. RUSHTON PARKER said, in some instances arteritis produced clots by plugging. Mr. Lister, twenty years ago, recorded an instance of clotting in the artery of a child. Traumatic arteritis produced arterial clotting. In two instances he had witnessed plugging produced by acute arteritis in a wound. In one case the brachial, in the other, the subclavian artery, was plugged by blood-clot after the injury.—Mr. MORGAN said gout was excluded by the patient's family history. He was aware of the frequency with which arteritis was accompanied by plugging, but at no time could he find in his patient any difference in the volume of blood in the diseased vessels. He would be glad to add the facts described by Mr. McHardy to his paper. No sphygmographic tracings of the pulse had been taken. Neuritis was not at any time indicated as the cause of the disease, this never having been of nervous origin. The diagnosis was not made till some time after the first observation of the case.

Nævoid Enlargement.—Mr. T. SMITH showed, at the end of the meeting, a child in whom one leg was the site of extensive nævoid enlargement, unique in character. Mr. Smith described three somewhat similar cases. One he had treated by bandaging, which induced a red and painful state of the limb, followed by weakness, and death. The skin and subcutaneous tissues were much hypertrophied, and the cellular tissue of the pelvis was invaded by the nævoid growth. A second case was that of a young lady, in good circumstances; the hypertrophy of the limb was very great, but she improved under the better home treatment she enjoyed than was usual in the more dependent classes of society. In the case exhibited, bandaging had been first attempted, but the child's rapidly deteriorating health recalled the experiences formerly gathered under similar circumstances, and an elastic-stocking had replaced the bandage, with marked benefit to the patient.

DR. JULIUS ALTHAUS will, on Monday next, April 25th, at 5 p.m., deliver a lecture on recent progress in the pathology and treatment of cerebral paralysis, at the Hospital for Epilepsy and Paralysis, Portland Terrace, Regent's Park. Practitioners and students will be admitted on presenting their cards.

OPHTHALMOLOGICAL SOCIETY OF GREAT BRITAIN.

THURSDAY, APRIL 7TH, 1881.

WM. BOWMAN, F.R.S., President, in the chair.

Disease in Region of Yellow Spot of both Eyes in an Infant.—Mr. WAREN TAY brought forward this case. The patient was twelve months' old. In the region of the yellow spot, a tolerably well-defined roundish white patch was seen, having a brownish-red spot in its centre; by the direct method, it had the appearance of a gap, which allowed the structures beyond to be seen. The child appeared to have perception of light. There was no history of syphilis or of tuberculosis; and Mr. Tay was inclined to think that the condition was due to some defect in development.—Mr. BRUDENELL CARTER asked whether the appearance might not be due to some condensation of the connective tissue of the retina; as there was no connective tissue at the yellow spot, the subjacent structures would there show through.—Mr. TAY said that mode had occurred to him as one in which the appearance might have been produced.

Case illustrating the condition of the Discs ten years after Optic Neuritis.—Dr. HUGHLINGS JACKSON exhibited a patient who had slight changes in the fundus oculi ten years after optic neuritis. The patient was a man, now forty-nine years of age. His case was recorded (*Medical Times and Gazette*, December 7th, 1872) as one of double optic neuritis, with good vision. The patient was examined ophthalmoscopically by Messrs. Hutchinson and Brudenell Carter, and other ophthalmic surgeons. He had also, at the same time (1871), convulsive seizures, beginning in his right cheek, and some temporary aphasia after them. There was clear evidence of syphilis. The neuritis, however, was not itself syphilitic; it was quite like that consequent on a cortical glioma. Under iodide of potassium, he got rid of his neuritis, ceased to have fits, and felt in all ways well. He consulted Dr. Hughlings Jackson in March, 1881, for numbness of the little and ring fingers of the left hand. Since December, 1871, he had had, until this numbness came on, no ill-health of any sort. His optic discs presented only trifling abnormalities; there was nothing in the fundus from which Dr. Hughlings Jackson would venture to infer, that, ten years ago (on May 16th, 1871), there had been the state then described as follows. "The left optic disc was much swollen, the veins large and knuckling over the edge of the disc. The arteries were obscured. There were very small shapeless white patches and scattered blotches of blood. The right optic disc was in about the same condition." Dr. Hughlings Jackson believed that, if this patient had not been treated by iodide of potassium, he would be blind now. The successful treatment was begun by Dr. Hearnden, of Sutton, before the optic neuritis was discovered.

Blood-clot in Media, remaining unchanged for many months.—The patient, a young girl, had been sent to the Society by Mr. HENRY POWER. With oblique illumination, a clot of blood, of a bright arterial colour, could be seen lying apparently behind the lens, in its lower segment.—The interest of the case was (the PRESIDENT remarked) the fact, that the clot had remained so long unaltered. Ophthalmoscopic examination gave only a dull reflection from the fundus. Had Mr. Power been present, the President would have asked him whether there was any diabetes present.

Colour-Blindness.—The report of a committee formed to consider defects of sight in relation to the public safety was presented by its secretary, Dr. BRAILEY. The accumulation of the statistics had occupied five months, and the examinations had embraced 18,088 persons, drawn from all classes of society. Colour-blindness was taken as an inability to distinguish from each other two or more colours; but persons who had simply confused blue with violet, or green with blue, had not been ranked with the colour-blind. It was clearly distinguishable from a defective knowledge of the names of colours, and from defects of vision in other respects. Those were recorded as *slightly colour-blind* who had failed to distinguish from each other the pale shades only of different colours—mistaking, for example, grey or buff for green, and even mauve, yellow, or pink. Those who, besides failing as above, could not recognise the difference between red and green, matching either scarlet with green, or rose-colour with green, grey, or violet, were called *pronounced colour-blind*. All the pronounced cases reported (615 in all) were affected as to both red and green. There were also a very few cases in which blue or violet were the defective colours; and three in which there appeared to be no appreciation of any colours, these being only seen as shades of different brightness. Though the 615 cases were, as above explained, strictly speaking, red as well as green-blind, they were divided, as far as practicable, into two groups, in accordance with the definitions of Continental authorities. Those matching rose-coloured wools with dark-blues or violets, and scarlet with dark-greens or browns were called *red-blind*; while those matching the rose with greys or greens, and scarlet with light-browns or greens, were called *green-blind*. Notwithstanding that many colour-blinds stood, as regards the wools, in a position intermediate between the two groups, these still appeared to the examiners to have a practical value, as the red-blinds failed to appreciate at all, even as a light, except at a much shorter distance than normal, a light viewed through glass of the purest red obtainable; whereas the green-blind appreciated it at the full, or nearly the full, normal distance. Both varieties failed to name with certainty the colour of a red or green light exhibited singly; and they failed even more strikingly when the exhibition was made under conditions of brightness and distance previously unknown to them. Red-blindness appeared to be, in the United Kingdom, a little more common than green-blindness. Total colour-blindness was excessively rare. Among 16,431 males of various ages, and from all ordinary positions of life in this country, the average percentage of colour-defects, including both slight and pronounced forms, was 4.76. The corresponding average among females was .4. Not only were females nearly thirteen times as exempt from colour-defects, but the forms encountered among them were nearly always slight. Certain classes of persons exhibited a high average. Among Jews, for example (1,679 children examined), not only was colour-blindness more frequent than among others of the same age and station, but it was principally of the form known as red-blindness. Among the Society of Friends, also (707 children examined), colour-blindness was more abundant than the average. Among inmates of deaf and dumb asylums (267 children examined), colour-defects were especially abundant. As a general rule, colour-defects were more frequent among the uneducated than among the educated classes. They were as abundant in adult life as in childhood. As far as the inquiries have extended, they were not more abundant among the populations of towns than in the country. Nor was the percentage higher than normal among lunatics. Colour-blindness was not associated with an inferior average of intellectual power. Its frequently hereditary character had been strikingly shown during the investigations. The results above-stated with regard to Jews, and the effect of social position were in accordance with those of foreign observers. They are also confirmed as regards social position by the inquiries of Mr. Swanzy in Dublin. Owing to obvious causes, the number of Friends and deaf-mutes examined was not large.—Mr. ADAMS FROST related the case of a family in which colour-blindness was hereditary. The father was colour-blind, and six out of seven sons were similarly affected. The three daughters were not colour-blind; but one of these daughters had a son who was "red-blind"—*i. e.*, could not distinguish red from green.—The PRESIDENT did not know that it had before been remarked that members of the Society of Friends were peculiarly liable to colour-blindness. The inquiry, on the whole, tended to show that the frequency of colour-blindness decreased as education increased, which agreed very well with the result obtained in other countries. A very interesting point was, that there were but one or two cases of colour-blindness in one eye on record; to these, Dr. Brailey had added one other. Accurate examination of such a case ought to enable us to ascertain, to some extent, what these people really do see.—Mr. BRUDENELL CARTER thought that, in examinations conducted on the ordinary principle, monocular colour-blindness would be missed. Ought not those cases of slight colour-blindness to be subjected to separate examination of both eyes? Mr. Carter paid a high compliment to the value of the work done by the active members of the committee, and insisted on the great practical significance of their results.—Mr. MCHARDY wished to ask Dr. Brailey, whether the committee had noticed any unusual prevalence of colour-blindness among wood-engravers. He believed that some of them owed their success to this physical defect. He was acquainted with one family of four brothers, all very markedly colour-blind; three of the brothers were wood-engravers; the fourth was a water-colour artist of some position, who, however, was obliged to have the colours labelled for him. This brother was aware of his defect; but the three brothers engaged in wood-engraving did not know that they were colour-blind.—Mr. BRUDENELL CARTER suggested that Mr. McHardy's cases were probably explicable on the theory of heredity. Colour-blindness was hereditary, and so was artistic talent.—The PRESIDENT observed, that, if a colour-blind person had artistic tastes, he was very likely to take up wood-engraving; this might help to explain the coincidence.—Dr. BRAILEY thought that Mr. Carter had pointed out the true explanation of Mr. McHardy's cases, namely, hereditary transmission of defective vision for colour. Dr. Brailey expressed his opinion that colour-blindness might exist in any person as an accidental variation, due to a development-defect either in eye or in brain; also that its slighter forms might be due to a lack of education in infancy. In this way he accounted for the higher acuteness of colour-vision in the female sex, their tastes and earlier development of the observing faculties leading them to an earlier

mastery of colours. The conditions found among deaf-mutes would be accounted for in this way; and also, to some extent, those found in the Friends. He thought that colour-defects, however formed in the first place, might be transmitted to descendants, and strengthened by intermarriage, as among the Jews, and to a less extent among the Friends.

At the close of the meeting, Mr. Nettleship exhibited a lamp designed by himself, which showed red and green lights of various sizes, identical in colour with those used in the actual railway-signals.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

WEDNESDAY, MARCH 2ND, 1881.

Sir JOSEPH FAYRER, M.D., K.C.S.I., President, in the Chair.

The Influence of Fairs, Famines, Floods, and Seasons, on the Development and Diffusion of Cholera in India.—Surgeon-General Dr. JOHN MURRAY read a paper on this subject, which was accompanied by several elaborate statistical tables. Two of these showed the mortality caused by the epidemics which originated at Hurdwar in 1867 and 1879; a third showed the mortality which follows the great fair at Allahabad, in the eastern districts of the North and West Provinces, Oudh and Behar; a fourth related to the mortality in the Delta of the Ganges, after the cyclone wave of 1876; and the fifth showed the mortality from cholera accompanying the famines in Madras in 1866, and in 1875-6-7. These tables were so arranged as to contrast the mortality in the epidemic years with that in ordinary years; and also to show that, in some years, the disease was almost non-existent. An abnormal increase of the disease must be induced by some special causes; and those causes, now under consideration, ranged over a wide area, and involved a population of more than thirty millions, under each head. The statistical returns of the civil population showed the course of the disease more clearly than the records of military hospitals, though the latter had been kept from the beginning of the present century. The period was longer; but the number under observation was comparatively small, and the disease was under the restraint of strict medical and sanitary treatment. The military were also exempt from the influence of floods and famines, and almost so from that of fairs; but the influence of season was common to all. In considering the subject of fairs, the epidemics following the Koomke Mela at Hurdwar were minutely traced, accurate returns having been obtained from all the civil surgeons of the appearance and progress of the disease in the various districts in 1867; and, in all cases, the dates corresponded with the arrival of the pilgrims, at the ordinary rate of travelling. In 1879, the dates coincided in all instances except in Scinde, where the arrival of the disease was accelerated by about two months, which might be attributed to the introduction of railway travelling, more than a hundred cases of the disease having been removed from the trains in a dead or dying condition. The great fair, held in February at Allahabad, was followed by an analogous diffusion of cholera. The fair was held six weeks earlier than that of Hurdwar, and the epidemic appeared six weeks sooner. These facts proved the danger arising from these fairs; but their suppression could not be resorted to by Government, on account of the religious feelings of the natives. To control them, and establish strict sanitary supervision, was all that could be recommended. Dr. Cunningham denied the transmission of the disease by the pilgrims; but rather considered it existed in some aërial form in the villages, and attacked the pilgrims, who were peculiarly susceptible of its inroads—so that, instead of the pilgrims importing the disease which affected the inhabitants, the villages infected the pilgrims. This opinion rested entirely on the theory of the existence of an aërial poison. The next division of the subject referred to the severe epidemic which commenced two days after a cyclone wave overwhelmed the eastern part of the Delta of the Ganges, on October 31st, 1876. It proved fatal in the following four months, in the three coast-districts, to 75,459 persons. The disease spread to the surrounding districts, and the mortality during the year amounted to 159,733. The epidemic culminated in January, and rapidly subsided after February. The course of the disease in this epidemic appeared to be an exaggeration of the usual course of cholera in the Delta, which differed essentially from that in the other Provinces of Bengal, Orissa, Behar, and Assam; and also from its course in the Upper Provinces, Scinde, Punjaub, Central Provinces, and Bombay, where the cold season was a period of quiescence; while it was at its height in the cold season in the Delta of the Ganges. There was a partial cyclone wave on the southern coast of Chittagong, in 1879, followed by a similar outbreak of cholera two days after the subsidence of the water. The influence of famine on cholera was shown in Madras, where there was a severe famine in 1866, when the mortality from cholera amounted to 197,977. A more prolonged famine occurred in 1875-6-7, when the mortality from cholera rose to 617,869. The course of the disease in both famines was identical—the mortality being greatest when the price of food was highest. It was little influenced by season; and was probably aggravated by the collection of crowds of starving people at the famine-kitchens, and its spread on their return to their homes. The influence of season was shown in the returns from the military and civil hospitals, which were epitomised in the tables. They extended over a longer period, but included a much smaller population. The season of the prevalence of the disease, as it appeared from the tables, differed essentially from that shown by the tables relative to the civil population in the epidemic years. In the military hospitals of the Upper Provinces of the Punjaub, the greatest mortality was at the commencement of, or during, the rainy season—*i. e.*, from June to September; whereas the greatest mortality among the civil population commenced in April. By removing the epidemic years from the civil tables, the returns for the other years showed a seasonal increase in the mortality, coinciding with that in the military hospitals; but this was obscured by the excessive mortality of the epidemic years. —In the discussion which followed, the President, Dr. Norman Chevers, Dr. White, Dr. Duka, Dr. Dickson, Mr. Netten Radcliffe, Mr. Lawson, and Dr. Gordon took part.

A letter, from Mr. J. Lawrence Hamilton, on the subject of artificial production of vaccine lymph, was read.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

WEDNESDAY, MARCH 16TH, 1881.

THOMAS EDGELOW, L.R.C.P., President, in the Chair.

The Dental Licence.—Mr. W. A. N. CATTLIN drew attention to a courteous letter he had received from the Secretary of the Royal College of Surgeons of England, asking him to correct one or two slight errors into which he appeared to have fallen in his recent address "On the Imperfections of the Dentists' Act", when alluding to the licence in midwifery. It would appear, that, out of the three unqualified persons who were examined for the licence in midwifery, only one (not three) received it, and two were rejected. From the regulations respecting this licence, a copy of which accompanied Mr. Trimmer's letter, he ascertained the fact, that candidates, who were members or licentiates of other colleges, or who had passed through a curriculum of education prescribed by Rule VI, were, up to 1875, entitled to be examined for the licence in midwifery—so that he was wrong in saying that only members of the college could receive it.

Cases.—Mr. EDWARD BARTLETT read a short paper on the four following cases. Case I was that of a girl, aged 20, with a supernumerary tooth, posterior to and between the central incisors, and which appeared at the same time as the centrals. Case II was that of absence of the second bicuspid, which was accounted for by the posterior deciduous molar being forced up nearly into the antrum by the closure of the first bicuspid and molar over it. This (the crown of the molar) Mr. Bartlett removed; it felt, on exploration, like dead bone, being covered with tartar. Case III was one of two very large supernumerary teeth, and a lateral, which he had removed from the mouth of a man, aged 33, who had a third central incisor, undistinguishable from the normal ones. Case IV occurred in a young lady, aged 19, in which all the permanent teeth were absent, with the exception of the two centrals, two canines, and two molars; some of the temporary teeth remaining in their position.—The PRESIDENT stated that he had described an almost identical case to that of No. II to the Society only a few months since.

Rigg's Disease.—Mr. HAMILTON CARTWRIGHT made some remarks on the treatment of Rigg's disease: consisting of the destruction of the periosteum of the teeth, absorption of the alveoli, and ultimate loosening and loss of the teeth. He said that it generally commenced in an unhealthy condition of the gums, and that he believed the deposit of tartar to be secondary to the disease; the deposits of the saliva pocketing between the separated gum and the teeth. Of course, the first and most important matter was to remove the tartar effectually; but he still held that much might be done by a very, so to speak, "heroic" treatment with the knife and escharotics used alternately. Mr. H. Cartwright gave his mode of treatment in detail.

Jaw of a Dwarf.—Mr. HAMILTON CARTWRIGHT showed a remarkable case of the jaw of a dwarf, about three feet high, and compared the dental arrangement with that of the American "Midgets". The dwarf was the child of wealthy parents, and grew normally for some months, when the development of his body became completely arrested, whilst that of the head and brain continued to a great extent. The boy was about sixteen years of age, and highly intelligent, having recently gained a prize for French at school, and having a great taste for study generally. He walked, however, with difficulty, his head being much larger than his

body; but otherwise he was of a bright and lively disposition. His teeth, unlike most dwarfs, were not deficient, as in the case of "the Midgets", but consisted of a perfectly formed first set. In the upper jaw, only the first molars had been shed, to give place to the bicuspids, which were nearly erupted, whilst the six-year-old molars were just appearing. In the upper jaw, there was a perfect set of milk teeth, without any sign of caries. In conclusion, he wished to draw the attention of the Society to the analogy existing between the teeth and dermic structures in their development; and that, as a rule, both the hair and teeth were deficient in dwarfs; but that, in this case, the hair was as perfect as the teeth—the only peculiarity in the latter being the persistence of the first teeth up to the age of sixteen years.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, MARCH 19TH, 1881.

A. W. FOOT, M.D., President, in the Chair.

Enormous Hypertrophy of Heart.—Dr. WALTER SMITH exhibited a remarkable example of concentric hypertrophy of the heart, removed from the body of a watchmaker, aged 26. The history of the case was imperfect, as the patient died the day he was admitted into hospital; but it was ascertained that he had had two or three attacks of rheumatic fever, and that he had been told his heart was affected. A loud double aortic, and an apex systolic murmur, were audible. Soon after admission, he had an attack of cardiac angina with severe præcordial pain, the pulse being undulatory and irregular. Great relief was afforded by the inhalation of nitrite of amyl; but, a second attack of cardiac pain supervening shortly afterwards, he uttered a shriek and died in three minutes. The heart, empty of clots, weighed forty-four ounces. The pericardium was thickened, and universally adherent. With the exception of a few milky patches on the endocardium, the cavities of the right side of the heart were healthy. There was mitral stenosis, and the aortic valves were thickened and incompetent. There was a large calcareous nodule on the cusp of one of the valves. The left auricle was hypertrophied. The thickness of the wall of the left ventricle was two and a half centimètres, and that of the right, one centimètre. Dr. Smith considered that the hypertrophy of the heart in this case was greater than the valvular disease alone would account for. In the absence of any renal disease, therefore, he thought that the existence of such extensive pericardial adhesion, and the probability of there having been hyperplasia from antecedent myocarditis, might, in addition to the valvular disease, be a sufficient cause.

Multiple Tumours of Knee-joint and Leg.—Mr. ABRAHAM presented a preparation, which exhibited the coexistence of three examples of the connective-tissue type of tumours in the same individual. The subject was a woman, aged 30. For fourteen years, she had had a swollen knee. Ten years ago, there was a sudden increase of the tumour, and then a respite for a few years in its growth. For some years past, she had shown symptoms of pulmonary phthisis, but these were remitted in their appearance. The thigh was amputated by Mr. P. C. Smyly. Five weeks subsequently, she died with phthisical symptoms, which, having been for some time in abeyance, set in with severity immediately after the operation: as if there were some relation between the disease in the lung and the knee. On section, a large mass of spindle-celled sarcoma was found springing from the lower end of the femur, and encroaching into the knee-joint. In front, the ankylosed joint was filled up with an ossifying enchondroma; and on the leg, near the foot, was a fatty tumour. No examination of the lungs was made.

Unusual Mode of Death in Typhoid Fever.—Dr. HAYDEN exhibited a portion of the small intestine of a man, aged 20, which presented congestion of the Peyerian patches and glandular enlargement, but no ulceration. During the fifth week of the disease, with no unfavourable symptom except high temperature, he was suddenly heard breathing stertorously, and found to be struggling for breath. Death occurred shortly afterwards. The thoracic viscera were, unfortunately, not examined at the necropsy, but Dr. Hayden could only account for the sudden death by the supposition that it was due to pulmonary embolism.

Lumbar Caries: Paraplegia.—Dr. HAYDEN showed the spinal cord of a gardener, aged 47, who, last Christmas, had been attacked with pain in the left lumbar region and back. This pain prevented him from pursuing his occupation, and gradually completely disabled him, so that, when admitted into hospital on February 26th, he was paraplegic. Sensation and reflex sensibility in the lower extremities were at this time also lost. There was tenderness on pressure over the lower portion of the spine. He passed his urine involuntarily, and had bed-sores. The urine subsequently became ammoniacal, contained pus, and later on, blood in large amount. On *post mortem* examination, the third and fourth lumbar vertebræ were stated to be in a condition of early caries. Their bodies were soft, hyperæmic, and bathed in pus. The pus had entered the spinal canal, in which it had spread as high as the middle dorsal region.

Extra-articular Fracture of Patella.—Dr. BENNETT exhibited a specimen of this fracture, and stated that he was not aware of any other instance of the injury being on record. There was no history, the specimen having been obtained from a female dissecting-room subject. The line of fracture, which in no way involved the joint, was transversely round, completely encircling the bone, immediately above the part giving attachment to the ligamentum patellæ. There was complete osseous union. Dr. Bennett remarked that the fracture was analogous to rupture of the distal extremity of the ligamentum patellæ, bringing away with it a portion of its tibial insertion.

SATURDAY, MARCH 26TH, 1881.

A. W. FOOT, M.D., President, in the Chair.

Alternate Hemiplegia: Malignant Disease of the Lung.—Dr. WALTER SMITH showed specimens from the body of a seaman, aged 42, the subject of alternate hemiplegia, there being complete paralysis of the right side of the face, and incomplete paralysis of the left side of the body. These lesions depended on a localised hæmorrhage into the lower part of the pons Varolii, with consequent softening above and below. There was coincident paralysis of the sixth nerve, and the fifth and seventh nerves were also engaged. The right ear was deaf. The man had suffered from pleurisy two and a half years ago, and that attack was followed by cough and slight dyspnœa. The attack of paralysis occurred towards the middle of last December, and it was not until the beginning of February that signs of lung-mischief made themselves evident. Rapidly extending, dulness on percussion was perceived over the right side. The man died on March 14th. A transverse hæmorrhage, chiefly towards the right, had taken place into the lower part of the pons Varolii. The left lung was healthy, but the right was universally adherent. At the base was an encysted empyema, containing fœtid pus. The upper two-thirds of the lung were occupied by a new growth—a primary carcinoma. The lower third of the lung was rotten and stinking, the result of a destructive pneumonia.

Palpebral Sarcoma.—Mr. STORY exhibited a tumour from the eyelid of a man aged 51. Swelling of both eyes had occurred five years previously, and pain set in, after a year, in the right eye. The epithelial covering of the conjunctiva was hypertrophied, but intact. Underneath lay a mass of tissue, consisting of nuclei of round fragile cells and delicate hyaline matter. The tissue of the tarsus was almost normal, and so was the muscular structure of the lid. The tumour—a sarcoma—originated in the conjunctival submucous tissue of the right eye. It was removed, but subsequently recurred in the left conjunctiva.

Fracture of the Upper Third of the Fibula from Indirect Violence.—Dr. E. H. BENNETT exhibited a specimen of this injury. A careful examination led irresistibly to the conclusion that the violence which caused the injury was a wrench or shock to the ankle-joint, twisting it outwards while the foot was extended. Dr. Bennett said the specimen confirmed an opinion to which he had come (see a paper in the *Dublin Journal of Medical Science*, February 1880), that fractures of the upper third of the fibula from indirect violence, acting through the ankle-joint, were not uncommon.

Marjolin's Ulcer (Epithelioma) of Leg.—Mr. ABRAHAM showed the bones of the leg of a man, aged 33, which had been amputated by Mr. Porter, of the Meath Hospital. An ulcer first appeared when the patient was seven years of age, and it was twenty-six years growing. The ulcer was situated in the upper third of the front of the leg. It had encroached inwards, involving all the tissues, the bones being fractured or ulcerated through. The posterior tibial artery was not affected, neither were the glands in the groin. The disease was epithelioma.

Caries of Ulna.—Mr. WHEELER showed portions of the humerus, ulna, and radius, removed by excision from a gentleman aged 48. When he was ten or eleven years of age, he had been struck with a cricket-ball on the elbow, and periosteal inflammation followed. Ultimately, suppuration took place. There was no disease of the radius. The humerus also was only slightly affected; but the ulna was extensively diseased. The olecranon had almost disappeared. The sigmoid cavity also was much engaged.

Fibrinous Exudation into the Pelvis of the Kidney.—Dr. ABRAHAM presented a specimen of cyst-like fibrinous exudation into an abscess-cavity in the kidney. The mass measured about an inch in diameter.

Valedictory Address from the Chair.—This being the closing meeting of the session, the President, Dr. A. W. Foot, in a few happy sentences, reviewed the work of the Society during the past winter. He expressed his acknowledgments to Dr. Bennett, the secretary, and to those mem-

bers who had presented specimens. He also complimented the students who had attended the meetings on their uniformly courteous and gentlemanlike behaviour.

The Society then adjourned to next session.

REVIEWS AND NOTICES.

A Practical Treatise on Tumours of the Mammary Gland; embracing their Histology, Pathology, Diagnosis, and Treatment. By Samuel W. Gross, A.M., M.D., Surgeon to the Philadelphia Hospital, U.S. London: H. K. Lewis, 136, Gower Street.

This is a book which supplies a great want, and it should be carefully studied by every surgeon and pathologist. It abounds in original thought and practical observation; and it also gathers into one focus the very various views held by present and past surgeons and pathologists on the important subjects with which it deals. These views are clearly and concisely given, and sharply contrasted in some places with results of the author's own investigations. The author's classification of cases differs in some important particulars from those commonly accepted in this country; but we venture to think it will commend itself to everyone who is not only a clinical surgeon, but also a pathologist and histologist. He points out how much confusion has arisen from the terms adenoma, adenocele, etc., being made to include many distinct histological formations with only one common feature—viz., inclusion of portions of normal gland-structure. True adenoma is really a very rare tumour. Much confusion has also arisen between the medullary forms of carcinoma and sarcoma. His own division is as follows.

Class A.—1. Neoplasms derived from the periglandular connective tissue: Typical—Fibroma, myxoma, lipoma, and chondroma; Atypical—Sarcoma. 2. Neoplasms which proceed from the secreting elements—*i.e.*, epithelial formations: Typical—Adenoma; Atypical—Carcinoma. 3. Neoplasms which are derived from, and are constituted by, higher structures: angioma and neuroma.

Class B.—Cysts from obstruction of ducts, etc.: cysts of new formation inclosing echinococci.

An attempt is made to estimate the relative frequency of the occurrence of the different tumours; but, as may be supposed, with such diversity of nomenclature among the authorities, the attempt is not very successful. Indeed, the tabular statements and statistics generally are the least satisfactory portion of the book.

Dr. Gross discusses very fully the various theories as to the evolution and transformation of mammary neoplasms, and comes to the conclusion that all originate through multiplication or proliferation of existing cells (direct hyperplasia); aided, however, by indifferent cells, acting on the model of embryonic tissue-formation. He points out how completely Creighton's theories must, if true, revolutionise the whole subject; but has failed to substantiate this author's views in certain researches which he undertook with this object.

Passing to the etiology of the various tumours, he finds that about 12 per cent. of all are due to trauma; and that the non-carcinomatous growths are most common after thirty, and the carcinomata at a still later period. He does not believe in the constitutional nature of cancer, but admits heredity, in a certain percentage, as being one of the distinguishing features between carcinoma and the benign neoplasms. The following passage gives the general tone of his views on the etiology of mammary tumours. "Hence I am of the opinion that their development is connected with the changed proportions of the component tissues of the breast at different periods of life; and that the condition of the tissues is, as a rule, indicated by the age of the patient." In the chapter on diagnosis, this passage is amplified, so that the special tumours are referred to their respective periods of mammary growth and activity. Space will not allow any detailed notice of the special chapters on each kind of tumour; but they will well repay careful perusal.

The author's views on treatment may be summed up in the word "thorough", and we cordially endorse them. It is too much the fashion to remove carcinomatous tumours of the mamma as if it is a foregone conclusion that they must return, and consequently a matter of indifference whether the removal be thorough or imperfect. There can be no doubt that the gloomy views of cancer held by many surgeons are the outcome of imperfect operations for the removal of the disease. Dr. Gross refers to a valuable paper on this subject by the late Mr. Moore, which has hardly received the attention it deserves.

The important points in operations for the removal of cancer of the breast are, that the surroundings of the tumour should be so thoroughly removed with it that the growth itself is never seen by the surgeon during the operation. Skin, cellular tissue, fat, fascia, muscle, and glands, should be unsparingly removed; doubtful spots being treated by free use of the actual cautery or strong solution of chloride of zinc. Caustics, the author thinks, should only be used when the knife cannot be effectually used; and they are mere palliatives.

Clinical Lectures and Cases, with Commentaries. By H. Thompson, M.D., F.R.C.P., Consulting Physician to the Middlesex Hospital. London: J. and A. Churchill. 1880.

In this modest volume, the author has republished some of his clinical lectures and various papers, scattered over the proceedings of the various societies and the pages of the medical journals. Its chief purpose is a legacy to the Middlesex Hospital, or rather to its past and future students; and it is a not ungraceful farewell of one who, having long participated in the active working of an institution and in the education of its *alumni*, now retires and bequeaths to his former colleagues the essence and the spirit of his work. But, although this volume is intended to be mainly local in its sphere of usefulness, we doubt whether the intentions of its author will in this respect find fulfilment; but, if so, this will not be, at any rate, because it is wanting in interest to the general body of practitioners. On the contrary, it deals with subjects which, if not of the burning medical questions of the day, at least are of those not yet by any means threshed out. Opinions from a source of such wide experience, set beside the facts which form their mainspring, are always worthy of perusal; and when they are stated temperately, yet in clear and decided language, as here, their utility can hardly be measured. In fact, as we glance through the many topics discussed or illustrated by cases, we are borne down by the wish that some of our seniors would, as they say farewell, for a few short hours or days lay their heads together and settle some of the questions of which, as individuals, they have disposed. For instance, in his remarks upon a case of malformation of the heart, the author evidently regards the rheumatic poison in the mother as efficient to produce intra-uterine endocarditis; and we entirely agree with him. It cannot, however, be said that this is a settled fact; but it might be. And all sorts of questions, which are still seething in the bubbling cauldron, and ever and anon turning up to form a little more of the foam which smothers us and it, would subside into a residue of well-assumed knowledge, easily accessible, if, as each one retired from his hospital labours, he would withdraw for a season to prepare what might seem to each to be the essence of his life's work—the wisdom elicited from it. This, the function of the physician of mature years is not fulfilled by the book-making which falls to the lot of most men in the tide of full practice. Too much of prospect lies in that. This book is pure retrospect—at least, so we view it; and herein lies its charm. Many are the subjects treated of within its pages, of which it will be sufficient to mention Acute Rheumatism with High Temperature treated by Baths, of which careful temperature-charts are given; various Diseases of the Chest and Abdomen; Ulcerative Endocarditis; Cerebral Aneurysm; Congenital Heart-Disease; Diabetes treated with Opium; etc. The diversity of subject-matter hardly admits of a review in the ordinary acceptation. As a summary of his teaching, the book will be valuable to Dr. Henry Thompson's former pupils; and, as we have said, as an *in memoriam*, it is of intense value to the medical profession.

Investigations into the Etiology of Traumatic Infective Diseases. By Dr. Robert Koch. Translated by Mr. Watson Cheyne. London: The New Sydenham Society. 1880.

Dr. Koch has conducted an inquiry for the purpose of determining whether the infective diseases of wounds are of parasitic origin or not. The research is entirely confined to a study of these diseases in the lower animals. Under the term "traumatic infective diseases", Koch only refers to those morbid processes specially interesting the surgeon—*i.e.*, to septicæmia, pyæmia, progressive inflammation and suppuration, and erysipelas.

The first part of the work is devoted to a discussion of the researches which have been made up to the present time; and the result of these researches is found to be contradictory and unsatisfactory. At first, Koch's results were also perplexing; but he soon found that the methods which had been used up to that time were imperfect. He describes a beautiful method of staining and illuminating specimens, so that organisms not visible formerly could be easily seen.

The second part of the work is devoted to the results of his experiments on the lower animals. On injecting a small quantity of putrefying blood beneath the skin of a mouse, he produced an infective disease which he terms septicæmia. By the use of the ordinary methods

of investigation, he was unable to find any organisms in the blood or tissues of these animals; but, on staining the sections with aniline, and employing the method of illumination which he describes, he found that the blood-vessels were full of minute rods—bacilli. These bacilli were also found in large numbers in the white blood-corpuscles. The minutest portion of the blood of these animals produced the disease with certainty in other mice.

At the same time, he got in some cases a peculiar progressive destruction of the tissues in the mice, and he found, on investigation, that this was due to the spread of an organism—streptococcus in the tissues. At first he was unable to separate this organism from the septicæmic bacillus, although he easily separated the bacillus from it, for the minutest portion of the fluids contained not only streptococci, but also bacilli. He, however, separated them accidentally by injecting some material containing both forms into a field-mouse. This animal was found to be insensible to the bacillus, but the streptococcus grew readily.

The injection of putrid fluids into rabbits led, on one occasion, to the formation of a spreading abscess. The walls of this abscess were found to be full of micrococci; and these micrococci, inoculated on another animal, again produced the same spreading suppuration.

The fluid obtained by macerating mouse's skin in water for two days produced pyæmia in rabbits, and the cause of this pyæmia was found to be a minute micrococcus growing in the blood-vessels, and causing the red corpuscles to adhere together. In this way, emboli, consisting of masses of these organisms, with entangled blood-corpuscles, were formed; and Koch suggests that in man a similar process may explain the obscure formation of emboli in the small arteries.

A septicæmia was also got in rabbits, and found to be dependent on a small oval organism growing in the blood.

Lastly, erysipelas was on one occasion produced, and in this case long and large bacilli were seen over the erysipelatous part. This disease was not so fully worked out as the others.

Koch thinks that the idea of increasing virulence of septicæmic blood put forward by Coze and Feltz, and by Davaine, is quite without foundation.

The great importance of these researches, and their bearing on human infective diseases, will be at once evident. The diseases in the lower animals correspond in every respect to those in man. In man, no absolute microscopical demonstration of the presence in the blood of a particular form of organism has yet been made. Seeing the difficulty experienced in finding them in the lower animals, though they were constantly present in large numbers, it is but fair to assume that, when a similar method, or if necessary an improved method, is applied to the study of human infective diseases, a similar definite result will be obtained. It is quite evident, judging from the diverse organisms present in similar diseases in the different species of lower animals, that we cannot expect the same forms of organisms to be found in man. It may be that they are extremely minute, and may escape our present means of investigation; but, nevertheless, these results add greatly to the probabilities of their presence which we derive from clinical facts.

NOTES ON BOOKS.

The Fungus of Syphilis. By J. BERGMANN, M.D., Baltimore. New York: G. P. Putnam's Sons.—This is a pamphlet on somewhat the same lines as the now well-known paper by Professor Klebs of Prague in the *Archiv für Experimentelle Pathologie und Pharmakologie*. The author has examined the fresh prepuce in cases of Hunterian chancre; and in hundreds of sections he has made he finds collections of micrococci and fungoid growths firmly adhering to and partly filling the lumen of the lymphatic vessels. The micrococci resemble those figured by Klebs. The author considers that the natural history of syphilis is readily explained by the existence of these bodies, and is due to an infection due to their carriage from one part to another.

BEQUESTS AND DONATIONS.—Mr. Henry Rogers, of Leadenhall Street, of Wolverhampton, and of Oatlands, has bequeathed £500 to the South Staffordshire General Hospital and Wolverhampton Dispensary; and, upon the death of his wife, £500 each to the Earlswood Asylum for Idiots, and the British Home for Incurables, and an additional £500 to the South Staffordshire General Hospital and Wolverhampton Dispensary. The Corporation of the City of London have given one hundred guineas to the Seamen's Hospital, at Greenwich, and fifty guineas to the Public Dispensary, in Stanhope Street, Clare Market. The Grocers' Company have given £50 to Queen Charlotte's Lying-in Hospital.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, APRIL 23RD, 1881.

CONSULTATION WITH HOMŒOPATHS.

THE fatal termination of Lord Beaconsfield's illness has put a stop to the discussion which had sprung up, as to the rights and wrongs of the course pursued by Dr. Quain in consenting to meet Dr. Kidd in consultation; and the larger but distinct question of the grounds on which medical men generally decline consultation with homœopathists. Not unnaturally, perhaps, the professors of this so-called medical doctrine have chosen to raise the latter question anew, and have made a parade of their alleged grievances, and of the illiberality which is superficially supposed to be involved in the refusal. But, over the grave of a departed statesman, whose loss is felt to be a national calamity, discussions of this kind are necessarily hushed.

A few words we shall be expected to say on the active controversy which had opened up in the daily papers. The refusal of medical men to meet homœopathists in consultation is not based, as it is convenient for homœopathists and lay critics to assume, on an arbitrary rule of medical etiquette. On this score, we may repeat what we have said on former occasions, that there is no such thing as an arbitrary medical etiquette. There is no rule of so-called etiquette which is anything else than a particular application of an obvious rule of ethics; and this is distinctly the case in the present instance. Physicians generally refuse to hold consultations with homœopathists because the laws of medicine, as they understand them, and the practice of medicine, as they understand it, have nothing in common with what homœopathists set up as their guides in the interpretation and treatment of disease. A consultation means that two persons, holding views in some way comparable, adopting principles assimilable, and acting upon lines which may somewhere be made to converge, meet together for the purpose of deciding what is best to be done, under the circumstances, in a case to which these laws and this practice are applicable. A consultation with homœopathists can have no such meaning, and could have, indeed, none at all. There is nothing in common between medicine and homœopathy; the laws of the latter for the application of medicine—the so-called law which its followers mystically and fancifully designate as the law of similars—is to the physician generally a dream and a jargon; their infinitesimal doses are to him generally a sham and a folly. To pretend, therefore, to consult as to the treatment of a patient with persons who speak a different scientific language (if the language they speak can, with the utmost stretch of courtesy, be called scientific), and to undertake what they call treatment with puny weapons, which, to the rational physician, are merely ludicrous toys when they are not false pretences, would be not to help the patient, but to impose upon him and his friends. No consultation can take place in any real sense of the word; no agreement is possible between people who move in intellectual spheres which can never touch each other, and who have nothing in common as to their ideas of the treatment of disease; and physicians are certainly not called upon to take part in any such sham counsel. The rule, therefore, which prevents such consultations is not a matter of etiquette, but of simple morality, plain common sense, and ordinary truthfulness.

This issue, however, prominently raised in connection with the con-

sultation between Dr. Quain and Dr. Kidd, was really beside the question, which was here entirely different. Dr. Kidd was a reputed homœopathist. Dr. Quain, when invited to meet Dr. Kidd, was assured that the statement that the latter was a homœopathist was contrary to the real facts; that Dr. Kidd was treating Lord Beaconsfield with pharmacopœial medicines, in pharmacopœial doses, and on rational principles; and that he was prepared to submit himself entirely, in the conduct of the case, to Dr. Quain's judgment, faithfully to follow his directions, and to be guided in all respects by him. Here, therefore, the circumstances were altogether altered. There was no question of any useless consultation, or of any want of common ground, or of any compromise between rational and irrational treatment. Dr. Quain was left master of the situation, arbiter of the treatment, and sole guide for the patient's welfare in the desperate struggle with a disease which threatened to be mortal. He was allowed to choose, and did choose, his own lieutenant, Dr. Bruce, of Charing Cross Hospital—one of the most trustworthy, able, and accomplished of the younger school of physicians; and he installed his lieutenant by the bedside of the patient. He had, in writing, from Dr. Kidd the assurance, which was faithfully observed, that all his directions should be followed, and all his efforts sincerely seconded. No one can doubt that that written undertaking was carried out in the spirit of the letter.

Another question then arises: Was Dr. Kidd's past professional history, were his writings, such as to make him a person with whom Dr. Quain would, under these momentous conditions, be justified in refusing to enter in consultation? This question, no doubt, is one which a physician has a right to put to himself; although, in its solution, it must always be right to remember that the interests of life and death are at stake; and that, where it is apparent that the physician's help can be and will be important for the patient's life; and where an assurance is given that he, and he alone, shall direct the medical treatment; and that his directions shall be faithfully followed—in such a case, no light responsibility is involved in refusing to give assistance. The responsibility is the more apparent when the patient is *in extremis*, and when his habitual medical attendant is the only person who can give the necessary information as to past illnesses, as to recent remedies, and as to the course which the disease has pursued up to the moment when the consultation is demanded. There may be conceivable circumstances when, in spite of the written indication faithfully to obey a physician's orders, and notwithstanding that the medical man in charge, and who asks for the consultation, has beeen throughout using pharmacopœial remedies in pharmacopœial doses and on rational principles, it will become necessary to refuse, under any circumstances, to meet that man at the bedside, and to allow his help to be available in carrying on the treatment which he had begun. That question is one which must be decided in each case by itself, and by reviewing the past career and the present position of him who asks for the consultation. It should be decided for the meanest and the most insignificant individual, lying in mortal need of medical care, as earnestly, as sincerely, and as straightforwardly, as for the greatest statesman, or most precious life in the land. The duty and the principle is one that knows no degree, and can neither be strengthened nor weakened by the accidents which seem superficially, to mortal eyes, to make one life of more value in the sight of men than another. The physician has regard to the sacred value of life, as life; and to his duties, which know no respect to station, and cannot be lessened by the absence of glitter, of ability, of wealth, of greatness, or of power. To refuse to help, under such circumstances, and from the sole reason of a dislike, or a distrust, of the practitioner who calls for consultation, is what no man would be willing to do, unless he feel that the word of the man is not to be trusted, who declares that he is no homœopathist, and that he has nothing in his mind, in his principles, in his belief, or his intentions which would run counter to the direction of the consulting physician.

Dr. Kidd made that declaration in the most unequivocal terms. It was under those circumstances that Dr. Quain, having first required his statement in writing, consented to undertake this responsibility. It was under these circumstances that men so scrupulous, so experienced, and so calm and ripe in judgment as Sir Thomas Watson, Sir George Burrows, Sir James Paget, and Sir J. Risdon Bennett, the late President of the Royal College of Physicians, endorsed and approved the course which he pursued. We have received one letter, and one only, which we publish this week, urging that a contrary course would have been the right one, and setting forth precedent. For such a discussion, these pages are open. It is not unimportant for future guidance, that an attempt should be made to obtain an unanimous decision on one side or the other.

THE MEDICAL SERVICE IN THE FRENCH ARMY.

We recently expressed a hope of shortly being able to announce that the removal of the medical officers of the French army from the subservient position they have long held under the *Intendance* department had at last been accomplished. We are now able to do so; and we congratulate the members of our profession in the French service on their relief from a state of subjection to another branch of the army, that had none of the qualifications necessary for comprehending even, much less for properly appreciating, their special scientific knowledge and recommendations. The mutual relations that have existed for many years past between the Intendants and the medical establishments in the French army have been altogether anomalous; and, fraught with evil as they were to the best interest of the military service—on the one hand cramping the energies of the medical officers, and on the other thwarting the benefits which the troops might otherwise have had from the application of their sanitary knowledge—nothing but the great political and social influence of the hierarchy among the Intendants could have enabled these relations to be so long maintained. So all-powerful was this influence that, as is well known, even the general officers in military command in vain attempted to keep it in subjection. The law on army administration, which has now been voted by a considerable majority in the Chamber of Deputies, has, however, definitely fixed the position of the Intendants as subordinate to that of the officers endowed with military command; and the autonomy and independence of the medical department, which have also been voted by the Chamber, followed almost as a corollary to the former decision. Henceforth the sanitary corps of the French army will have no one between it and the officers in command, under whose orders it performs its duties; its internal administration will be in the hands of its own officers, instead of being, as hitherto, in the hands of others who were quite incompetent for the task; it will exercise authority in regular military gradation over all its component parts; and, in short, in every respect, so far as concerns the direction and execution of its professional service, it will be its own master, subject only to the general orders of the commanding officers, to whom it may be directly responsible for the right discharge of the functions with which it is invested. The position of the medical department in the French army will be very similar to what it is by established regulation in the British service. It is hardly possible to estimate at its full value the importance of this change to the French medical officers. It is not merely a change of masters, as some have tried to argue; for, as a matter of course, the officers of the sanitary corps have always been subject to the authorities in military command. But, as a subordinate body under the Intendance, the position of the medical corps has been really one of servitude, and has unavoidably been accompanied with a sense of degradation to individuals, and despondency at the condition of comparative unfruitfulness to which they found themselves restricted. The freedom which the corps has now attained will cause it to make a fresh start in its noble and useful calling with renewed vigour, and the beneficial influence of the change must be soon felt by the gain of a higher standard of health and efficiency among the troops in all parts of the French army.

The disposition of the Chamber of Deputies, and its determination to do justice to the claims of the medical service, were strongly manifested by an incident which occurred toward the close of the debate on the new law. By the terms of the Bill, as laid before the Chamber,

the grade of *médecin inspecteur*, which in the French Sanitary Corps corresponds with that of surgeon-general in the British Medical Service, was made to assimilate with that of general of brigade in the military hierarchy. This has been the relative rank of the *médecins inspecteurs*, who are only nine in number on the active lists of the French army, for many years past. On the article relating to the composition and grades of the army sanitary corps, which occurred near the close of the projected law, coming under discussion, the eminent Baron Larrey, one of the deputies, and at the same time the most experienced of French military surgeons, moved, as an amendment, that the grade of inspector-general in the sanitary service should correspond with the grade of general of division in the combatant service. The proposition was opposed, chiefly on the ground that, neither in time of war nor of peace, had the necessity for this higher rank been practically demonstrated. Baron Larrey, however, who has been indefatigable in his efforts to show the need of improvements in the sanitary service throughout the discussions in the Chamber, and who was able to enforce his arguments by numerous illustrations from his own experience while holding the elevated position of Surgeon-in-Chief of the French armies under the Emperor Napoleon during the Italian war of 1859, and the Franco-German war of 1870, carried his point, and the amendment was adopted by a considerable majority. Out of 440 deputies who voted, 247 gave their votes for the amendment, 193 against it. Medical officers of the grade of inspector-general in the French service will, accordingly, have a higher relative position than the surgeons-general who hold the highest grade in the British service. Surgeons-General rank as major-generals, and these correspond with generals of brigade in the French army. Even the Director-General of the Army Medical Department in England cannot attain the rank of lieutenant-general, which is the corresponding rank with that of general of division in the French army. It is difficult to find a reasonable explanation for this defective limitation of rank in the instance of the Director-General, when the magnitude and importance of the establishments whose affairs he has to administer are considered, and when it is remembered, among other points, that a number of surgeons-general, at present holding the same rank as his own, are placed under his orders and direction. The contrast will in future be all the more marked as regards the French service; for, since the abolition of the grade of field-marshal in the French army, that of general of division has become the highest in the service, while there are two steps more elevated than the grade of lieutenant-general in the British service.

The new law on army administration, of such vital concern to the interests of the medical profession in France, which has just passed successfully through the legislative assembly, still requires the approval of the Senate. But there can be little doubt about its being sanctioned and passed by that body. All the principles of the new law had already been adopted by the Senate, before it was submitted for discussion in the Chamber of Deputies. These principles have not been interfered with, although some modifications in the details of their application have been introduced, chiefly in the way of extension, since the projected law left the senatorial body at the Luxembourg. It has been sufficiently apparent, during the discussions in the two parliamentary assemblies at Paris, that both senators and deputies are agreed upon the leading changes embodied in the new law, and, among others, that there shall be in future a thorough reform in the hospital service of the army, the autonomy and independence of the body of medical officers being resolved on as a necessary means of attaining this object; and with this understanding established between them, we see no reason for thinking that any occasion of conflict between the two chambers will be found in the modifications which have been voted in the legislative assembly, and which, after all, are only of secondary importance. We may, therefore, look forward with confidence to the new administrative arrangements of the French Army Medical Service being shortly ratified by the final vote of the Senate.

TUBERCULOSIS AND SCROFULA.

In a recent communication to the Société Médicale des Hôpitaux de Paris, M. Grancher discussed this well worn, but ever interesting subject by the light of recent researches. He considers as primordial the vitreous degeneration, which Virchow attributes to reciprocal pressure of the cells, and Cornil to the primary obliteration of blood-vessels, but which he believes to be produced by a "dystrophy", attacking even the embryonal elements. The caseous nucleus, the giant-cell of tubercle, the lesion of caseous pneumonia, are formed on the same type as the granular. An inflammatory process, accompanied by exudation of fibrin, is developed round the already existing tubercular giant-cell. The microscopic or Köster's tubercle, or the elementary tubercle of Malassez, and the follicular tubercle of Charcot, are essentially characterised by having a giant-cell in the centre, upon which is a vitreous layer of epithelioid cells, and a second layer of embryonal cells. In this anatomico-pathological prototype are two elements, one fibrous and capable of hardening, the other capable of caseation. The characteristic of tuberculosis is a fibro-caseous neoplasm, of a nodular form, tending to become caseous rather than to become hard.

M. Grancher disputed the strange opinion that scrofula is nothing but a local tuberculosis, because the elementary tubercle of Köster is found there; but this never exists there except in an embryonic state; in tuberculosis only, it develops till it arrives at the adult stage, or that of the granulation type. If the giant-cell were sufficient to characterise tubercle, as Schüppel says, then not only scrofula, but even syphilis, and certain sarcomata, would be classed together. Between scrofula and tuberculosis there is only a slight relationship.

In the discussion which followed, M. Féréol remarked that M. Grancher would be more logical in defending the doctrine of the fusion of the two diatheses, as suggested by Friedlander in 1871, and adopted by Charcot in 1877. M. Brissaud, he said, frequently found even the granulation type in strumous deposits. Since scrofulous deposits engender miliary tubercles, why not admit that scrofula engenders tuberculosis? Certainly clinical experience was not opposed to that being the case. Tuberculosis would then be, only, a particular type of scrofula M. Labbé insisted on the fact that frequently simple inflammations terminate in tubercle, apart from any apparent diathesis, especially after mental emotion, excess, and dyspepsia. M. Cornil has, far from being an unicist, considered that diseases differing in cause and their symptoms can give rise, at a certain period of their evolution, to similar anatomical productions. Tuberculosis is characterised by a constant neoplasm—tuberculous granulation—of variable aspect according to its period of development, and by the general appearance of the lesions, their seat, and their evolution. Scrofula embraces, on the other hand, a series of very different morbid conditions, to which are added acute or chronic inflammations, of which the oldest tend to caseation, a termination which is also seen in syphilis, in sarcoma, and in chronic pleurisy. M. Grancher had insisted on the pathological anatomy of lupus being similar to that regarded by most as scrofula, in which, however, one finds again the primitive tubercle or tuberculous follicle, never the typical tuberculous granulation; but this last is not found in tuberculosis of the mucous surfaces. The symptoms, course, and evolution suffice to separate lupus from tuberculosis. A single morbid element cannot characterise a disease. Thus, the organism found in diphtheria resembles those of quite different affections; the false membranes of inflamed mucous patches, from which syphilis may be inoculated, are histologically similar to those of croup. M. Damaschino admitted the two diatheses. Scrofula is, as it were, a soil favourable for the growth of tuberculosis equally with other conditions of debility. M. Thaon was an unicist; he admitted the identity of scrofulous and tuberculous glands. Pulmonary tuberculosis, he said, is only scrofula of the lungs; but there is, as it were, an antagonism between the cutaneous or glandular manifestations of scrofula and the manifestations in the lungs. Scrofula, a diathesis of feebleness, attacks the points of least resistance. It is uncommon in the lungs of the mountaineer, fortified

by, as M. Thaon said, "gymnastique respiratoire". Tubercle is a special not a specific inflammation, in miliary or voluminous foci, tending to caseation or to fibrous degeneration, and the evolution of which is accompanied by fever. Nothing analogous to this is to be found in tumours, such as sarcoma or carcinoma. M. Labbé pointed out that Laënnec regarded tuberculosis as a result of scrofula, the tendency of all debilitating causes, a malady acquired, and not diathetic. Scrofula, a constitutional vice, like all physiological debility, engenders, or at least predisposes to, tuberculosis. Pulmonary inflammation, narrowing of the pulmonary artery, aneurysm of the thoracic aorta, and deformity arising from rickets, lung-disease produced by dust, etc., act in the same way. Tuberculosis is not a specific malady; the existence of tubercle gives it, however, a special character. Heredity of tuberculosis is not so undeniable as that of gout. M. Ferrand did not consider tuberculosis as a diathesis; equally with scrofula and with gout, it is a lesion appearing late in certain diatheses, but not special to any one of them. He did not deny, nevertheless, that it may be developed independently of any diathetic or constitutional disease. A scrofulous or a gouty person may become affected with tubercle, but a tuberculous person does not become scrofulous or gouty. Phthisis of scrofulous origin specially affects the mucous surfaces, and undergoes caseation. Consumption, in gouty persons, attacks the serous membranes, and develops into fibrous tissue. Pathological anatomy is not, at present, able to trace any natural affinity between tubercle and syphilis or glanders, any more than between these two last-named diseases. M. Rendu said that he was dualistic in his views, because, in his opinion, the scrofulous tumour does not exist, because the tuberculous follicle does not characterise tuberculosis, and because the giant-cell is not peculiar to tuberculosis. There is nothing characteristic in scrofula, unless it be "torpidity"; it is quite the contrary, however, in tuberculosis, to such an extent as to call to mind an infective, or even a parasitic, disease. This is more especially the case when one considers that it presents, as it were, foci of contagion, of epidemic concentration; that its inoculation seems possible; and that it is frequently acquired. Regarding the points of resemblance between scrofula and tubercle, it can only be said that scrofula makes the body a favourable soil for the development of tubercular germs.

A SMALL-POX HOSPITAL FOR MARYLEBONE.

In his report for February to the Vestry of Marylebone, Mr. Wynter Blyth says that it is necessary to face the question of a small-pox hospital for the parish; and, in view of this, he gives a sketch of a plan for a hospital which, he thinks, will be a great improvement on former structures of the kind.

The hospital is to consist of four wards, capable of accommodating twelve patients each, together with an administrative block. The wards are to be 20 feet by 32 feet, and 15 feet high. The wards to be built entirely of galvanised iron, so that the walls may be disinfected daily by an atmospheric-burner. Cups of iodine are to be placed in suitable positions in the wards to generate ozone. The drainage is to be disinfected, and heating and cooking to be entirely by gas. A padded room is to be provided for the treatment of delirious cases; and, to prevent any risk of infection being carried by the atmosphere to neighbouring houses, a high tarred paling is to be erected round the hospital. The administrative block is to be 60 feet long by 20 feet wide, and is to contain officers' and nurses' quarters, and kitchen and laundry for the whole hospital.

It will be seen that the cubic space per patient on Mr. Blyth's plan is 800 cubic feet, and there would be only two feet between each bed, assuming three feet as the width of a hospital bedstead. We believe that, in the Asylums Board hospitals, on which, we presume, Mr. Blyth is improving, the cubic space per patient is 1,728 cubic feet, and nine feet between each bed. It does not surprise us that cups of iodine will have to be placed in the wards to generate ozone, to counteract the "very objectionable odour of small-pox". It is difficult to believe Mr. Blyth to be serious when he proposes to disinfect the walls daily by an atmospheric burner, and to prevent the interchange of air inside the hospital grounds with the air outside by the erection of a high tarred paling. Of the administrative block, it is sufficient to say that, as it would contain a small-pox laundry, kitchen, and officers' and nurses' quarters, it would be a very objectionable place to live in. But the most astonishing part of Mr. Blyth's plan is to provide a padded room in which to confine delirious patients. It is not too much to say of this that any medical man who placed delirious small-pox patients, who are generally very dangerously ill, in a padded room, would often be guilty of great cruelty to his patients, and would certainly hasten the fatal result which often occurs in those cases. Altogether, Mr. Blyth's plan is hardly sufficiently matured; and it would be well that, before a hospital for the treatment of small-pox patients is planned, physicians should be consulted who possess practical knowledge and long experience of the disease and its treatment.

THE LAST DAYS OF LORD BEACONSFIELD'S ILLNESS.

The favourable condition of Lord Beaconsfield, which we noticed in our last report, on Wednesday of last week, was maintained until Saturday. There was no development of any fresh or urgent symptoms, he took nourishment fairly well, and seemed to digest it. On Saturday, almost simultaneously with the change in the wind from south and south-west to east, his symptoms changed. He grew weaker, and on Monday night, for the first time it may be said, a failure of the heart's power began to be manifested; the pulse increased in frequency to 90, and there occurred, at every five or six beats, a partial failure. The breathing became more quick and more shallow, and the sleep more heavy. This condition lasted through the night of Monday, interrupted once by a marked attack of difficulty in breathing, which, however, soon subsided; and his heavy sleep passed into the sleep of death at half-past four in the morning, in the presence, as has already been stated, of his friends and physicians. To the details of his lordship's illness which we have already given, it may be well to add that there was but a very limited amount of albumen in the secretion of the kidney; the quantity of the secretion itself was rather deficient, and so was the urea itself, to the extent of nearly one-third. Our professional readers will recognise that this must have been a grave complication of the disease from which Lord Beaconsfield suffered. It is almost a matter of surprise that, suffering from so severe an illness as bronchitis, gout, and asthma, at his age, and with his feeble system, and in such weather as has lately prevailed, his life should have been so long prolonged.

THE PATHOLOGY OF GRANULAR KIDNEY.

Granular kidney, regarded from a clinical point of view, has, since the time of Traube, been generally recognised as a distinct form of Bright's disease; but there has been little agreement concerning the nature of the pathological processes involved in its origin.

Johnson, with certain modifications, accepted Virchow's view that the alteration was essentially a parenchymatous inflammation. Traube held that the inflammatory process was seated in the interstitial tissue. Gull and Sutton described the lesion as consisting in a deposit of hyalin-fibroid material in the intertubular and vascular tissues. Each of these three theories throws a strong light on one aspect of the change, but, taken by itself, is insufficient.

Rosenstein has announced that there is no such thing as a purely parenchymatous or purely interstitial nephritis, but that both the large white and small red kidney result from diffuse inflammation. Weigert has adduced evidence in support of this view; and recently, in this country, Saundby has advanced new and important facts which supply the additional testimony required to prove the accuracy of Rosenstein's observations. When engaged in investigations on the histology of this affection, Saundby met with a valuable and unique case, which throws all the essential phenomena into strong relief. All the microscopic characters of granular kidney were present. The epithelium of the

tubules was proliferating, many of them being filled with young cells, staining deeply with carmine. The endothelium covering the Malpighian tufts had proliferated, and some of these bodies were undergoing mucoid degeneration. The vessels were thickened and surrounded by areas of newly formed and highly nucleated fibrous tissue. But, further, the intertubular stroma contained many lymphoid cells, probably derived from the blood. This rare case, then, points to chronic renal disease undergoing a transient attack of congestion.

As a result of long and careful observation, Saundby has found that the large white and the small red kidney, together with all the intermediate forms, are the result of inflammation affecting all the tissues. The large white kidney, in which the parenchyma is chiefly implicated, is caused by inflammation of great intensity; the small red kidney, with greater effects upon the stroma, results from slight, but prolonged, inflammations; and the intermediate forms correspond to all degrees of intensity.

These observations cannot fail to rouse much attention among pathologists. They confer a signal service upon medical science, by doing away with artificial classification of disease, and giving instead a broad and natural system.

THE Chair of Histology and Practical Physiology at the Westminster Hospital is vacant by the resignation of Dr. Murrell.

DR. GEORGE OGILVIE has been appointed Lecturer on Experimental Physics at the Westminster Hospital.

AT the election of guardians at Brighton last week, all the anti-vaccinators were defeated—a somewhat significant fact, as a noisy agitation on the subject has been for some time carried on there.

WE shall publish in our next number a full report of the proceedings of the meeting of the Yorkshire Branch of the British Medical Association, on the subject of Medical Reform and Medical Education, with corrected reports of the speeches of the movers of the different resolutions.

AT a meeting of the Reading Pathological Society, held April 13th, 1881, the following resolution was passed: "That the members of this Society emphatically condemn any consultation between practitioners of general medicine and reputed homœopaths."

A TELEGRAM from Consul-General Plowden, at Baghdad, dated April 11th, states that the reports for the 4th, 5th, and 6th of April show 252 cases of plague and 119 deaths at Nejif. The disease had appeared at a village named Dissign, near Jaara. Baghdad continued clean.

AMONG the candidates recommended for the Fellowship of the Royal Society are, Dr. J. S. Bristowe of St. Thomas's Hospital; Dr. A. Macalister, Professor of Comparative Anatomy in the University of Dublin; and Dr. Alder Wright, Lecturer on Chemistry at St. Mary's Hospital.

IT was mentioned rather pointedly in some of the daily papers that Lord Beaconsfield had derived relief from one of the many preparations which evolve fumes when burnt. These preparations have as a basis nitrate of potash, mixed with stramonium, belladonna, etc. We have authority for stating, that it is a great question whether the temporary relief afforded by the stimulating property of the fumes, causing expectoration, is not followed by injurious results produced by the irritating properties of the inhalation. We should therefore recommend our readers to carefully watch the use of any such preparations.

COMMUNICATIONS had been made to the mayor of Southampton stating that the Sanitary Institute of Great Britain would like to visit that town in 1882; but on its being intimated that the society could not be conveniently entertained, as the British Association had received and accepted an invitation to meet there that year, the application has been withdrawn, with an expression of the hope that negotiations might be entered into that would permit of the institute coming to Southampton in the following summer.

THE DREADNOUGHT HOSPITAL CASE.

THE inquest upon this case was concluded on Thursday, April 21st. It will be remembered by all who have read in the daily press the account of the first part of the inquiry that the subject of this inquest was a child, aged two years, who had been knocked down and injured by a van in the Old Kent Road. It was taken to the Dreadnought Seamen's Hospital, and, after remaining there a short time, was removed, as it is alleged, upon the authority of a "sister". Subsequently the child was removed to the Children's Hospital at Shadwell, where it died on the following day from fracture of the skull. At the opening of the second inquiry, Mr. Besley, who appeared for the Seamen's Hospital Society, informed Mr. Collier, the coroner, that the child had not been dismissed on the authority of a nurse, but had been discharged by order of the resident medical officer, Mr. W. Johnson Smith. This gentleman, who has had great experience in the duties of his present office, which he has discharged to the satisfaction of all concerned, gave evidence that he had seen the child daily from its admission, on April 1st, till its discharge. It was at first in a state of great collapse, with some swelling of the scalp: by the next day this passed off. Henceforward the child appeared to progress rapidly; there was a complete absence of vomiting, convulsions, partial paralytic symptoms, or coma. The patient fretted for its mother; and, as there had also been several cases of scarlet fever in the hospital, Mr. Smith discharged it on April 7th. He, of course, informed the jury that a "sister" was never permitted to direct the removal of a patient; he moreover took on himself the whole responsibility of the removal of the child, and could exonerate the "sister" from all blame. Moreover, in discharging the case, he had directed the mother to provide medical aid if necessary. Dr. Battom said that the removal of the child to its own home from the Seamen's Hospital could hardly have injured it, but taking it as far as Shadwell more possibly hastened its death. The jury returned a verdict to the effect that the deceased died from injuries caused by an accident; but were further of opinion that it was improperly discharged from the Seamen's Hospital. In answer to Mr. Besley, they stated that they did not desire by their verdict to cast any blame upon either the hospital or on Mr. Smith. Thus the charge against the nurse fell through, and, fortunately cannot be added to the recent list of scandals in matters of nursing. Remembering Mr. Smith's experience, this case shows us how very subtle and latent may be the symptoms of fracture of the skull, and how, in this accident, those most expert in the examination and treatment of injuries may be deceived. That he was absolved from blame is a matter of congratulation to all who love fair play, and who know the difficulties in the diagnosis of cranial and cerebral injuries.

PROFESSOR WHARTON JONES.

As our readers will have learnt from a formal announcement in a previous issue, Professor Wharton Jones has, after an incumbency of over thirty years, found himself compelled to resign the chair of Ophthalmic Medicine and Surgery in University College. Though the trying season through which we have passed has severely taxed the strength of the venerable professor, we are glad to be able to state that he has so far recovered his wonted energy, as to be able to leave the house for daily exercise, and to occupy himself with the review of much valuable material bearing on various vexed questions in the pathology of the vascular system, a subject to the elucidation of which he has made many and valuable contributions. We trust that Mr. Wharton Jones may be long spared to enjoy, in that period of repose which he has so well earned, the consciousness of the gratitude and respect of his many pupils, and the lustre of that world-wide reputation which is so justly his due.

THE NEW PRESIDENT OF THE COLLEGE OF PHYSICIANS.

THE election of Sir William Jenner as President of the Royal College of Physicians, as we last week announced, was a foregone conclusion, and rightly so. Had Sir William Jenner been willing to stand five years since, he would then have been elected as unanimously as on the present occasion. He has long been designated by the general voice of the profession, by the avowed wish of the Fellows of the College, as well as by his position as the member of the profession standing nearest to the Throne and in the first rank in the affection and respect of his brethren, to the post of President of the College. Practically, his election was unanimous, such few votes as were given to other names being, it was well understood, intended to mark rather future intentions, and foreshadow the course of later years, than to have any effect on the election of the day. The unanimity of Sir William Jenner's election, and the universal favour with which it was sure to be regarded by the profession, is due to his position, his career, and his character. Nothing, however, but an eager party spirit could attempt to wrest it into a judgment on recent events connected with Lord Beaconsfield, or to make it imply censure of those of his colleagues who had advised and encouraged Dr. Quain in the course which they and he felt a duty to perform in reference to Lord Beaconsfield. Whatever may be the ultimate decision of the profession when all the facts and arguments in relation to this case are calmly and judiciously considered, it certainly could have no effect, and ought to have no effect, on the decision of the College to appoint Sir William Jenner to a position which has long since been waiting for him to accept, and which he will certainly fill with the same clear and strong sense of duty which has throughout signally marked his career.

LIVERPOOL HOSPITAL SATURDAY.

THE Mayor of Liverpool and others, who are interested in promoting the Hospital Saturday collection, have issued a circular pointing out that the sum raised for the medical charities is much less than in Birmingham, though the population of the two cities is about the same. The circular invites employers of labour to take a personal interest in the collection, and through their foremen or superintendents, to try to place it upon a more satisfactory basis. It has been found that the largest contributions are received from those establishments where a systematic collection is made; that is to say, where a fixed sum, *e.g.*, a penny per man, is set aside weekly.

DR. WALDENBURG.

DR. LUDWIG WALDENBURG died on Thursday last, after a short illness, in the forty-third year of his age. Dr. Waldenburg was professor in the University of Berlin, physician to the Charité Hospital, and editor of the *Berliner Klinische Wochenschrift*. He devoted his attention chiefly to diseases of the respiratory organs, on which he has written a comprehensive treatise, and was the inventor of an apparatus for the inspiration of compressed air, which has been much used. Dr. Waldenburg exercised great influence throughout the medical profession in Germany in his position as the acknowledged editor of its most influential medical journal. The *Berliner Klinische Wochenschrift* was always well edited, contained valuable scientific matter, and had an useful influence on those social and political questions in which the medical profession is constantly called upon to pronounce an opinion, and to direct public opinion, and frequently to prepare the way for necessary legislation. His independent character and his discretion lent force to his advocacy, and gave great weight to his judgments.

SUICIDE BY STARVATION.

THE daily papers have gone to the trouble and expense of publishing the following telegram from New York.

Harriet Duell died in Iowa on Sunday night, after a voluntary fast of forty-seven days. She began her fast on February 23rd. She was fifty-two years old, a hopeless invalid, and determined to end her life by starvation. For the first thirty-three days, she did not take even water. After that, she took a little water each day till the final one, but nothing else passed her lips. Her pulse on Sunday morning was imperceptible, respiration thirty-five per minute. She was in full possession of her mental faculties until the last. The *post mortem* examination showed that there was extremely little blood in her body. The stomach was void of all substance. The body weighed forty-seven pounds. She was never considered insane by her friends, but merely desperate through suffering.

Every lunatic asylum contains cases of a like character: it is, indeed, an ordinary form of mania; and such cases are not very uncommon, whether in public or in private practice. But, under enlightened treatment, death is obviated by forcible feeding, which is carried out by an œsophageal tube; and a practitioner who omitted to adopt and compel this mode of treatment, if necessary, would not, in this country, escape grave censure.

SMALL-POX IN LONDON.

THE fatal cases of small-pox in London, which had increased from 43 to 72 in the four preceding weeks, further rose to 77 last week, and exceeded the corrected average number in the corresponding week of the last ten years by 28; 46 were recorded in the Metropolitan Asylums Hospitals at Fulham, Homerton, Stockwell, and Deptford, and 23 in private dwelling-houses. Of the 77 persons who died from small-pox, 27 had resided in the South, 19 in the North, 19 in the East, 10 in the West, and one in the Central group of registration districts. The number of small-pox patients in the Metropolitan Asylums Hospitals, which had been 820, 899, and 921, at the end of each of the three preceding weeks, further rose to 940 on Saturday last, and exceeded the number under treatment at these hospitals at any time since the spring of 1877. The new cases of small-pox admitted to these hospitals, which had been 256 and 224 in the two previous weeks, were 244 last week. The Highgate Small-pox Hospital contained 85 patients on Saturday last, against 87 and 77 at the end of each of the two preceding weeks; 28 new cases were admitted to this hospital during the week.

CAUSES OF DEAFNESS.

SUPERINTENDENT MCINTYRE reports the following as the causes of deafness of two hundred and forty-four pupils now in the Michigan Asylum for the Deaf and Dumb at Flint: congenital, 81; cerebro-spinal meningitis and brain-fever, 83; scarlet fever, 10; typhoid fever, 14; fever (not specified), 6; measles, 8; whooping-cough, 3; cold and inflammation, 17; dropsy (?) 3; diphtheria, 3; spasms (?) 5; scrofula, 4; mumps, 3; fall, hurt or blow, 10; teething, 4; sunstroke, 1. The causes are those given by the person bringing the child to the institution, and consequently are most likely not free from error.

THE PLAGUE IN MESOPOTAMIA.

THE *Daily News* correspondent telegraphs from Varna, that the local newspapers have been privately forbidden by the Press Bureau to say anything about the plague, whether rightly or wrongly. This has given rise to the suspicion that the disease has passed the cordon drawn through Diarbekir, Aleppo, and Damascus. A Reuter's telegram from Constantinople, under date April 16th, states that: "According to advices received here from Bagdad the plague has not extended beyond the sanitary cordon, but is terrible in its ravages in the districts afflicted. Four thousand inhabitants have quitted Nedjeb, and are encamped in salubrious localities. Nedjeb and Djuhara were burnt down on the 8th instant. The disease has become of a most virulent character, the persons attacked dying in ten hours."

SMALL-POX AND VACCINATION.

DR. J. W. TRIPP, medical officer of health for the Hackney district, states that the total number of cases reported to him since August 2nd, 1880, was 609, and of deaths 95; and he has tabulated the ages of the persons attacked, who were vaccinated and unvaccinated, and finds that although considerably above 90 per cent. of the children alive under five years of age are vaccinated, yet only 32 cases were reported amongst the vaccinated against 36 amongst the unvaccinated at that age. Between five and fifteen years of age, the proportion of vaccinated cases to

population living at that period was greater than at five years of age, and larger still between fifteen and twenty-five years of age, showing the necessity for early revaccination. The largest proportion of unvaccinated cases occurred under fifteen years of age. There were 438 cases amongst the vaccinated persons, 78 of unvaccinated persons, and he was unable to ascertain whether or not 93 persons were vaccinated. There was only one death under one year among vaccinated infants, against 14 among unvaccinated.

BEER-DIET FOR LUNATICS.

THE annual report presented by Dr. Davies, the medical superintendent of the Barming Heath Lunatic Asylum, to the Kent General Sessions, has excited great attention, as it dealt with the results of an experiment in the discontinuance of beer diet to lunatics. It stated that there had been an increase of 60 in the total number of patients left in the institution at the end of 1880 compared with 1879, the totals being 1,193 and 1,253 respectively. This was accounted for by the increased number of private patients, the diminished death-rate, and the smaller number of patients discharged. In 1879, 308 pauper and 12 private patients were admitted, and 137 of the former and one of the latter were discharged, the number of deaths being 193 and 5 respectively. In 1880, 310 pauper and 23 private patients were admitted, 113 of the former and 3 of the latter died, and 146 and 11 were discharged. The proportion per cent. of deaths to the total number under treatment in 1879 was nine, and in 1880, 7.5. The causes of death had been verified in every instance by *post mortem* examination, and the asylum had been free from epidemic disease, while there had been no suicide. Four patients (two men and two women) were sent in who were not insane, the number being the same as in 1879, and during the year three inquests were held. Dr. Davies, continuing, said that it was in March, 1878, that he first advised the committee to diminish the quantity of beer issued to patients and attendants, and, as the change worked so well, in November, 1879, he again brought the subject under their notice, recommending the discontinuance of the issuing of beer as an article of ordinary diet. He did not advise any substitute for the beer, but by most carefully weighing every patient once a month, and keeping accurate records of the results, he was satisfied of the soundness of his opinion, and did not think any unprejudiced observer could question the good results which had ensued therefrom. Monetary payments had been substituted for the beer, and he had good reason for believing that the attendants and servants were themselves grateful for the change. From careful observation of the effects of alcoholic stimulants upon the patients under his care he became convinced that it was not advisable to continue to supply exciting beverages to them, which he felt sure had a tendency to prolong their malady and conduce to a speedy relapse after their discharge in consequence of those inclined to over indulgence retaining a taste for intoxicants.

CURE OF DIPHTHERIA.

A BOSTON physician, speaking recently at the Local Medical Society on this subject, shrewdly observes that the differences in the habits of diagnosis of physicians are quite as great as those of the various types of disease. Practitioners may be broadly divided into two categories. Some physicians seem to meet with very few if any cases of simple "sore throat", especially at times when diphtheria is prevalent. On the other hand, they have, in their practice, a surprising number of cases of diphtheria, counting them by hundreds; moreover, it is observed that their therapeutic results are remarkably satisfactory, and that they have, and express great faith in their methods of treatment, whether by chlorate of potassium, forced stimulation, or potato poultices. The case of a young lady was recalled who was kept in bed for a number of days, and isolated, on account of an alleged "diphtheritic throat", while daily bulletins of her progress were being issued to a large circle of anxious friends; all the while she was steadily gaining weight, and her convalescence was short and rapid. The treatment in this case was remarkably efficient. The other category of practitioners comprises those who have in their practice comparatively few cases of diphtheria; who experience high rates of mortality among them, and are extremely sceptical, with regard to the real efficiency of medicinal treatment in such cases. Physicians of this class, on the other hand, see and treat successfully many cases of tonsillitis of various kinds, and also many cases of faucial angina, catarrhal or herpetic. Evidently the nosological term diphtheria is not always used with one and the same signification.

DISPENSARIES IN THE PUNJAUB.

SURGEON-GENERAL TOWNSEND has issued his report to the Punjaub Government, on the working of the dispensaries in that province during 1879. It appears that, for that year, the number of in-door patients treated amounts to 39,635, and the out-door to 1,349,224, making a total of 1,388,859 applicants for relief. These figures, when compared with those for 1878, show a decrease of 3,555 in-patients and 44,542 out-patients, or a little over 3 per cent. on the total; but, although the totals of the statements for the two years exhibit only a slight decrease in the attendance at the dispensaries in 1879, an examination of the figures returned from the several districts shows that, in many districts, the decrease was very great. In Jullundur, for instance, the number of applicants for medical relief was 32,000 less in 1879 than in the previous year; in Amritsar, it was 19,000. In the eastern districts of the province, on the other hand, there was generally an increase in the attendance at the dispensaries, amounting in Guargaon and Rohtak to upwards of 7,000, and in Umballa to 11,000. The system of medical relief in the Punjaub has now become so far developed, that the attendance at the dispensaries rises and falls with the fluctuations in the general health of the people. The statistics of the dispensaries are, indeed, but very little affected by epidemics of small-pox and cholera; but, in other respects, they correspond closely with the mortuary statistics. While in the eastern districts of the province there was a great increase in the mortality from fever and other diseases, compared with the previous year, in the western districts the mortality from diseases other than small-pox and cholera was considerably less. Accordingly, while in the eastern districts there was generally an increase in the attendance at the dispensaries, in the western districts it was generally less.

CREMATION IN NEW YORK.

A CREMATION society has been organised in New York, and the Rev. J. D. Bengliss elected its first president. Among its rules are, that one half the dues received from active members, and all the dues from associated members are to be devoted to an "incineration fund", the purpose of which is to provide facilities for carrying into operation the cremation of deceased members of the society. This is not to include the cost of conveyance of the body to the crematory, but "only the cremation of the body and the return of the ashes" to the friends or relatives. All active members who may have paid in ten dollars to the treasury of the society during life, and who may be "in good standing" at the time of death, will be entitled to this privilege. The annual subscriptions of active members are to be three dollars, with an entrance fee of the same amount.

EPIDEMIC DISEASE IN COPENHAGEN IN 1879.

DR. SCHLEISNER'S report on the health of Copenhagen in 1879, founded on the weekly returns made by 176 medical men, shows that there were 47,328 cases of epidemic disease, being 203 in each 1000 inhabitants. In 1878, the proportion was 140 per 1000. This increased proportion was chiefly due to the increased prevalence of measles, scarlet fever, whooping-cough, diphtheria, and croup. The death-rate, also, was considerably greater than in the three previous years. Of small-pox, there were 22 cases, and 1 death; of varicella, 875 cases, and 3 deaths. Measles occurred in 10,483 cases (against 83 in 1878), nearly all in the latter half of the year. The maximum was attained in October, when 1,058 cases occurred in one week. The deaths from this disease and its complications (including pneumonia in 87, diphtheria and croup in 26, and whooping-cough in 17) were 293 (none in 1878). Scarlet fever was reported in 1,968 cases (against 298

in 1878); it increased in frequency until December, when there were 223 cases. The deaths were 132 (7 in 1878); of these cases, 56 were uncomplicated, 32 complicated with diphtheria and croup, 18 with renal disease, and 11 with pneumonia and pleurisy. Of diphtheria and croup, there were 1,097 cases, and 194 deaths (against 815 and 139 in 1878); of whooping-cough, 2,410 cases, and 194 deaths (against 164 and 13 in 1878). There were 845 cases of mumps, 172 being in the troops in garrison. Gastric and typhoid fever occurred respectively in 1,421 and 425 cases (against 1,729 and 569 in 1878); there were 62 deaths from typhoid fever, against 71 in 1878. Most of the cases of both diseases occurred in September; and two local epidemics are reported, one of which appeared to have been due to the use of milk infected by washing the milk-cans with impure water. There was only one case of exanthematic typhus, and none of Asiatic cholera. Cholerine and acute diarrhœa were much less frequent than in 1878 (5,018 cases against 8,018), 1,160 of the cases being children under one year; the deaths were 312 (against 474 in 1878), of which 280 occurred in children under one year, 115 of whom were illegitimate, and for the most part put out to nurse. Acute bronchitis, pneumonia, and laryngitis occurred respectively in 11,805, 1,848, and 5,623 cases (the numbers in 1878 having been 8,546, 1,287, and 4,824). There were 133 deaths from acute bronchitis, 184 from capillary bronchitis and catarrhal pneumonia, 679 from inflammation of the lungs, and 42 from pleurisy (against 63, 129, 233, and 28 respectively in 1878), 266 of the 738 deaths occurred in children under one year of age. The winter (December 1878 to February 1879) was extremely cold and unusually dry; while the summer was very wet, and the rainfall greater than in any year since 1861. The atmospheric pressure was lower than usual, except in the latter part of the year. Dr. Schleisner thinks it possible that the increased prevalence and mortality of chest-diseases, as well as the greater mortality from consumption (727 cases against 627 in 1878) is to be partially attributed to the comparatively low temperature of the year; but, at the same time, he allows that the epidemic prevalence of measles and whooping-cough might have had some influence. The total number of deaths in Copenhagen during the year was 5,988 (against 4,888 in 1878); including 218 still-births (221 in 1878). The births in the year were 8,466. The deaths in the first year of life were 1,826, or 21.56 per cent. (against 20.91 per cent. in 1878). The death-rate (the population being estimated in the middle of the year at 232,544) was 25.78 per 1000 (against 21.95 in 1878). A large proportion of this increased mortality was due to the deaths between the ages of 1 and 5 years; they were 1,055 in number, and were chiefly due to epidemics and to children's diseases. A new hospital, exclusively for epidemic diseases, was opened in 1879.

A SECOND CASE OF RESECTION OF THE STOMACH.

IN a second case of resection of the stomach, performed by Dr. Billroth, unfortunately, the patient died on the eighth day after the operation, from inanition. Milk, coffee, soup, wine, and various forms of solid food, especially meat and biscuits, freely divided and in various combinations, were tried as food; but nothing remained longer than three or four hours in the stomach, being then vomited, mixed with gastric juice and tinged with bile. As symptoms of peritonitis were entirely absent, the vomiting could be traced only to mechanical obstruction to the passing of the contents of the stomach into the duodenum. At a meeting of the Vienna Medical Society, Dr. Billroth expressed the opinion, that there must have been a kind of bend in the passage from the stomach to the duodenum, by which the transit of the food was made difficult. Another important fact noted was, that the stomach, having been previously much dilated, would scarcely have sufficient power of contraction to overcome this obstruction. The action of the stomach was also considerably impeded by peritoneal adhesions to surrounding parts, especially the abdominal wall. These considerations induced Dr. Billroth to reopen the wound six days after the operation, in order either to remove an existing mechanical obstruction, or to form a duodenal fistula, through which the patient might be temporarily fed. Dr. Billroth opened the stomach for the second time, under anæsthetics, and found it very much dilated and fixed, not only within the sphere of the former operation, but also higher up towards the diaphragm. The passage into the duodenum was free, but bent. As a fresh and complete suture of the stomach would have taken too much time, and, moreover, was not advisable in the lowered state of vitality of the patient, the abdominal wall was fixed to the opening in the stomach by a few sutures; and a drainage-tube, about the size of a finger, was placed in the duodenum for the introduction of food. This arrangement answered well; but the patient, who, since the operation, had been nourished only by enemata, was past recovery, and died from exhaustion thirty hours after the second operation. The necropsy confirmed the observations made during life. Signs of general peritonitis were entirely absent. This second case, as well as the first, teaches that the operation of resection of the stomach carries with it as little danger of general peritonitis as any other laparatomy, carried out under strict antiseptic precautions, without spray. It appeared further, from the necropsy, that the extirpation of the cancer was complete. The mesenteric glands were intact. With respect to the mechanical cause of death, this case is prospectively instructive, especially in cases where the stomach is dilated. These first two cases of Dr. Billroth have made a beginning in this serious operation; but much labour and experience will be necessary until recovery can be expected after resection of the stomach, as quickly and with as little anxiety as after ovariotomy. The first patient operated on by resection of the stomach is at the present time in perfect health.

AUTO-CHIRURGERY.

A CURIOUS case, according to the *Nordiskt Medicinisk Arkiv*, was reported by Dr. G. A. Hesselgren at a meeting of a medical society in Sweden. A soldier was admitted into the hospital at Mohed, suffering from a severe attack of colic. On his admission, he stated (and his statement was confirmed by the captain of his company) that, a year previously, he had accidentally stabbed himself in the abdomen with a shoemaker's knife. The wound was two inches long, and the intestine protruded. The soldier, who was nine miles (Swedish = nearly sixty English miles) from a medical man, himself replaced the intestine and sewed up the wound, which healed in three weeks, without, it was said, any inflammatory symptoms of importance. The scar, an inch long, was visible to the right of the linea alba, three inches above the symphysis. The only results of the injury were a disposition to constipation, and severe attacks of colic after exertion. The patient used to relieve the colic by taking large quantities of yeast. As he was no longer capable of much exertion, he was discharged as unfit for service.

ATROPHIC INFANTILE PARALYSIS.

M. ONIMUS has just written a paper, entitled "Considerations on the Etiology and Diagnosis of the Atrophic Paralysis of Childhood", in which he asserts (*L'Union Médicale*, April 3rd) that the examination of the very much weakened electro-muscular contractility by induced currents, and less frequently by continuous currents, is the only criterion by which to distinguish infantile hemiplegia, or the peripheric paresis of the muscular groups, from the atrophic paralysis of childhood, most generally due to changes in the cells of the anterior cornua of the spinal cord. M. Onimus proves, by cases observed, that chill is the most frequent cause of this disease, by directly bringing on congestion of the grey substance of the atrophic nerve-cells. In certain cases, however, the rheumatismal influence primarily affects the muscles and the peripheric nerves, in which inflammation sets in at once. It is especially in the spring, summer, and autumn, more than in winter, that this disease originates, by transition from heat to cold, and from imprudences committed at this period of the year. M. Onimus is convinced that modification of circulation in the divers organs of locomotion are more logically the cause of the atrophic paralysis of childhood, than dentition, heredity, breast-milk, or the so-called internal convulsions.

PROFESSOR PIROGOFF.

THE fiftieth anniversary of the professorship of this eminent surgeon will be celebrated on June 5th. From a notice in the *Vratchebniza Vedomosti*, we learn that he commenced his studies in the University of Moscow in 1824, and left in 1828, being then only 17 years of age. After this, he attended lectures in Dorpat and Heidelberg, and, when only 20 years old, was appointed to the chair of surgery in Dorpat, where he taught anatomy from 1836 to 1840. In the latter year, he was invited to the professorship of surgery in St. Petersburg. In 1848 he served with the army in the Caucasus, and in 1855 in the Crimea. At the recent meeting of the German Surgical Congress, it was resolved to send him an address on the occasion of the anniversary.

DIPHTHERIA: THE EMPRESS OF GERMANY'S PRIZE.

AT the meeting of the German Surgical Congress, on April 8th, Professor von Langenbeck announced that thirty essays had been sent in by competitors for the prize on diphtheria offered by the Empress of Germany in 1879. Of these, only nine fulfilled the conditions under which the essays were to be sent, and not one was considered deserving of the prize. With the concurrence of Her Imperial Majesty, the prize is again offered for competition, the subject being "The Determination of the Causes of Diphtheria, and the Practical Results to be derived therefrom." The last day for sending in essays will be March 31st, 1882, and the decision of the adjudicators will be made known on September 30th. The prize is of the value of 2,000 marks (£100). Essays may be written in German, French, or English, and are to be sent to Professor von Langenbeck, Berlin.

THE UNIVERSITY OF PRAGUE.

THE Austrian Government has decided on the establishment of a Czechish (Bohemian) University in Prague, in addition to the old German University. The old name "Carolo-Ferdinandea" will be common to both universities; and the Czechish institution will have the use of the hall of the German University for conferring degrees. In all other respects, the two schools will be perfectly separate. The medical department of the new university is to be opened in the autumn of 1882.

SCOTLAND.

EPIDEMIC CONNECTED WITH MILK-SUPPLY IN ABERDEEN.

A FORTNIGHT ago, the local authority of Aberdeen was informed that in two or three families there had been a sudden outbreak of some peculiar form of disease, which there was reason to suspect might be connected with the supply of milk from one particular dairy. It turns out that the total number of families supplied with milk from the Old Mill Reformatory was 110, and of these at least ninety families have been affected—some of them to a very severe extent. About 300 individuals were affected. No case of the disease has occurred in any family which did not receive its milk-supply from the Old Mill Reformatory. This pointed very strongly to the milk as the source of the disease; but whether it is due to the milk *per se*, or to some ingredients added to the milk, is another question. The symptoms of the disease are quite characteristic. It begins suddenly with a very severe rigor, or series of rigors, which last several or many hours; this is followed by very well-marked febrile symptoms. The throat and tonsils are affected, although no false membrane is to be found. The local symptoms in the throat are followed by swelling of the lymphatic glands in the neck and above the clavicle. When the fever subsides—usually in two to four days—the patient is left in an extremely weak and prostrate condition. In some cases there is a relapse, and the fever symptoms are repeated. The local glandular affection remains for a considerable time after the general symptoms have subsided. Three deaths have taken place as a result of the disease. The patients were old, frail people, who were unable to recover from the extreme exhaustion caused by the disease. The mortality might have been much greater had it not been for the prompt action of the directors in stopping the milk supply. With regard to the cause of this curious disease, investigation showed that the arrangements connected with the water-supply to the dairy were of the worst possible description. The perfectly pure water of the Dee, which is used, is collected in a large cistern, which is placed in the byre—a large shed containing forty-six cows, and open from end to end. The cistern was covered with a loose wooden cover, so that there was nothing to prevent, but everything to favour, the contamination of the water with the exhalations of the animals, etc. The vessels used for holding or carrying the milk were washed in this water. Chemical analysis showed that this water was contaminated to a very great extent. It was even "dangerously" so, containing, as it did, .212 per cent. of albuminoid ammonia. Chemical analysis of the milk revealed no impurities, nor any increase in the amount of water. One observer is of opinion that he has found a peculiar kind of organism in the water, and also in the cream. It seems clear that the disease is traceable to the water, but what is the exact nature of the poison—whether it is a bacterium or other organism, or some unknown organic matter, has yet to be made out. The disease has now entirely disappeared, as the supply of milk—the source of the poison—has been stopped. The disease is not infectious, and the poison, whatever its nature, must be directly introduced into the body to cause its characteristic symptoms.

UNIVERSITY OF EDINBURGH.

ON Thursday, March 14th, the curators of the University of Edinburgh elected Dr. William Smith Greenfield to be Professor of General Pathology in the University. Dr. Greenfield will also teach as a Professor of Clinical Medicine in the University wards of the Royal Infirmary. Including Dr. Greenfield, there were five candidates for the chair; the others being Mr. D. J. Hamilton, M.B., Dr. Charles S. Roy, Dr. Byrom Bramwell, and Dr. Andrea F. Rabagliati. At the first professional examination held this month, 110 candidates passed in Botany, Chemistry, and Natural History. The new class-room of Clinical Medicine in the Infirmary has been completed, and will accommodate 300 comfortably; it will be occupied this summer. It has taken nearly nine months for its construction, owing largely to the inclemency of the weather. Through the courtesy of Professor Annandale, the class met during the winter session in the Clinical Surgery class-room.

UNIVERSITY OF GLASGOW: GOLD MEDAL FOR BOTANY.

MR. THOMAS SMITH, L.R.C.S.E., has offered to the University of Glasgow, in memory of a deceased relative, a gold medal of the value of about £10, to be awarded every second year. The subject of competition is always to be botanical; and the competition is to be open to all matriculated students of the session in which the award is made.

THE PUBLIC HEALTH (SCOTLAND) ACT.

THE magistrates and Council of Glasgow, as local authority under the Public Health (Scotland) Act, 1867, have approached the authorities of other cities and large towns in Scotland with the view of directing their attention to, and, if so arranged, conferring with them regarding, the existing state of sanitary regulation. The magistrates and Council desire also to arrange for joint and co-operative effort on the part of these authorities in the direction of approaching and inducing the Government to amend the Public Health Act for Scotland, and to embody in the amended Act such provisions as may be mutually deemed desirable and necessary. With this view, they have submitted to the authorities in question a statement regarding (1) the position of sanitary legislation for Scotland; (2) outlines of suggested amendments of existing sanitary laws; and (3) suggestions regarding the constitution and powers of the central and local authorities empowered to administer the sanitary laws of Scotland. Of the leading amendments deemed necessary in an amended Public Health Act for Scotland, the chief are, enlarged powers over new buildings, the provision of proper hospital accommodation, compulsory reporting of infectious diseases,

and the sanitary supervision of the milk-trade. It is to be hoped this movement of the Glasgow sanitary authorities will meet with the support it deserves.

SICK CHILDREN'S HOSPITAL, EDINBURGH.

MR. J. W. B. HODSDON has been appointed resident physician in the Royal Edinburgh Hospital for Sick Children, in place of Mr. William Fligg, M.B., who retires. The trustees of the late Mr. Archibald McGlashan have intimated a legacy to the institution of £300 from the estate of deceased, bequeathed by him. The same gentleman also bequeathed £300 to the Longmuir Hospital for Incurables, Salisbury Place.

ANDERSON'S COLLEGE DISPENSARY, GLASGOW.

THE third annual meeting of the subscribers to this dispensary was held on the 18th instant. The report, which was read and approved, states that the total number of patients who have come to the dispensary during the year amounts to 30,384, and 1,794 patients were visited at their own homes. On comparing the above figures with the previous year's numbers, an increase is found in those who have this year availed themselves of the benefits of the institution. Financially, the affairs of the dispensary seem satisfactory. The debt has been somewhat diminished, and the current expenses were kept at a reasonable figure. The directors appeal to the benevolence of the public for a sum of £350 to meet the ordinary expenses of next year; and, while no doubt it will be forthcoming, we think that the directors would do well to consider whether they could not introduce more of the provident element into the working of the dispensary, which may react prejudicially on the future interests of their institution in deterring younger members of the profession from coming forward to carry on the important work of the out-patient department. There is very general sympathy felt for Dr. Lyon in this matter; and, as he has on several occasions already shown his fitness for discharging the office of surgeon, it is to be hoped that the managers will see their way, on an early opportunity, to do their duty towards him, and give him wards.

GLASGOW DISPENSARY FOR SKIN-DISEASES.

THE annual meeting of the supporters of this institution was held on the 13th instant; and, from the report, it appears that the total number of new cases treated during the past year was 1,192; and 84 of these, which were of a more serious nature, were sent for treatment to the special wards of the Western Infirmary. The financial statement showed that the cost of working the institution during the year was £388, which represented a cost of six shillings per patient. The benefits of the dispensary are sought, not merely by the inhabitants of Glasgow, but by numbers from a distance; and the course of instruction given by the physician continues to interest and attract students. Altogether, the report of the directors indicates a satisfactory condition of the dispensary in every way.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending April 9th, it appears that the death-rate in the eight principal towns was 23.5. This rate is 3.0 below that for the corresponding week of last year, but 2.8 above that for the previous week of the present year. The lowest mortality was recorded in Dundee—viz., 17.6 per 1,000; and the highest in Perth—viz., 33.9 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.2 per 1,000, being 0.5 above that for last week. Acute diseases of the chest caused 163 deaths, being 17 more than the number for last week. The mean temperature was 37.5°, being 1.9° above that for the week immediately preceding, and 7.3° below that for the corresponding week of last year.

GLASGOW WESTERN INFIRMARY.

AT a meeting of the managers of the above institution, held on the 12th instant, the vacancies of physician and surgeon on the visiting staff were filled up. To the post of physician, Dr. Tennent was elected; and Dr. H. C. Cameron was appointed surgeon. While the institution is to be congratulated on securing the services of such an excellent surgeon as Dr. Cameron, there is a general feeling that the managers, in overlooking the claims of Dr. Lyon, their senior assistant-surgeon, have not acted very fairly towards that gentleman, after his long years of service in the out-patient department of the Western Infirmary. Further, in selecting a surgeon of another hospital, they have established a precedent.

HEALTH OF THE EIGHT PRINCIPAL SCOTCH TOWNS FOR MARCH.

IN the eight chief Scotch towns, the deaths of 2,585 persons were registered during the month of March, of whom 1,273 were males and 1,312 females. Making due allowance for increased population, this number is 495 under the average for the same month during the preceding ten years. The respective mortalities were, per 1,000: Greenock, 20; Edinburgh and Leith, 22; Dundee, 23; Glasgow and Aberdeen, 25; Paisley, 26; and Perth, 27. Forty per cent. of all the deaths were of children under five years of age; and the percentages of the various places were: Edinburgh and Dundee, 34; Paisley, 34; Aberdeen, 39; Greenock, 40; Leith, 42; and Glasgow, 46. Zymotic diseases caused 12.7 per cent. of the entire mortality; in Edinburgh and Leith, however, this rate was, owing to scarlet fever and whooping-cough, exceeded. Of 35 deaths ascribed to fever, 15 were registered as typhus, 17 as enteric, and 3 as simple continued fever. Whooping-cough caused 117 deaths, and was the most fatal of the epidemic diseases. Scarlet fever caused 47, measles 31, croup 28, diarrhœa 26, and diphtheria 18 deaths. Apoplexy and paralysis caused 122, cardiac diseases 144, hydrocephalus 48, and premature birth debility 84 deaths. Phthisis pulmonalis contributed 11.6 per cent. of the entire mortality, while other inflammatory affections of the respiratory organs contributed no fewer than 706 deaths, equal to a percentage of 27.3 of the total, and a sufficient commentary on the rigorous weather which prevailed. From violent causes, there were 79 deaths, 4 of them being from suicide. There were 7 deaths of individuals over 90 years of age, only 1 of them being a male; the eldest, a widow, was 102 years of age. The births of 1,895 males and 1,766 females were registered, giving a total of 3,661 children. The mean barometric pressure was less by .064 inch; the mean barometric range less by .033 inch; the mean temperature less by 2.6°; the mean humidity less by 1°; the rain-depth greater by .01 inch; and the wind-pressure greater by 0.27 lb., than the averages of the same month during the previous 24 years. The chief characteristic of the month was its being colder than any March since 1867, and having so many snowstorms and high winds.

IRELAND.

MR. JOHN EVANS, of Dawson Street, Dublin, has been appointed Chemist to the Queen in Ireland.

THE chairman of the Dublin Artisans' Company reports that the rate of mortality among the residents in the Company's dwellings was only 21, while that of the whole of the city was 35.

A CONSIDERABLE decline has taken place in the mortality from small-pox in Dublin; and, during the March quarter, only nine deaths were registered; while, for the past fortnight, no new case has been admitted to the principal hospitals in that city.

THE COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES.

THE Executive Committee of the Dublin Sanitary Association have adopted the following resolutions on Mr. Gray's Bill.

"That in the opinion of this committee, any Bill to provide for the notification of infectious diseases in Ireland should be compulsory, and should apply to every sanitary district in Ireland." "That the medical practitioner (if any) in attendance shall either note directly to the sanitary authority the existence of a case of infectious disease, or else hand a notification to the occupier of house or person in charge of inmate."

"That a fee shall be payable only in case of the medical practitioner reporting directly to the sanitary authority." "That where no medical practitioner is in regular attendance on a person suspected to be suffering from an infectious disease, within the meaning of this Act, it be incumbent on the occupier, etc., to obtain a certificate from a registered medical practitioner as to the nature of the disease, if any; and in cases where the sick person is entitled to gratuitous medical attendance, said occupier shall obtain such a certificate from the medical officer of health of the district in which the sick person resides."

ROYAL COLLEGE OF SURGEONS IN IRELAND.

SIXTY-FIVE gentlemen passed the first half of their examinations for the Letters Testimonial of this College, held this month. Among the successful candidates was Sir Charles Coote, Bart. Thirty-six candidates were rejected.

THE ROYAL UNIVERSITY OF IRELAND.

AN examination for a diploma in Sanitary Science has been introduced into the scheme adopted by the Senate. This diploma will be conferred only on graduates in medicine of the University. The fee for the examination is £2. The examination shall embrace the following subjects. Climate: A general knowledge of meteorological conditions; the reading and correction of instruments, and tabulating the results of meteorological observations. Chemistry: Constitution of the atmosphere; pure and impure waters; food. Geology: The character and structure of rocks, with reference to water-supply and drainage. Physics: Laws of heat, mechanics, pneumatics, hydrostatics, and hydraulics, or sanitary engineering; the construction of dwellings, barracks, hospitals, schools, factories, etc., in accordance with the principles of warming, ventilation, drainage, water-supply, etc. Vital statistics. Hygiene, including the causation and prevention of disease. Sanitary law. The examination in chemistry shall include a practical part on the chemical and microscopical examination of air, water, food, poisonous substances used in manufactures, etc. The examination in physics shall embrace the reading of plans, sections, scales, etc., in connection with buildings, sanitary constructions, etc.

SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

A DEPUTATION from the Irish Medical Association, composed of the President, Dr. Chapman; Dr. J. W. Moore, Chairman of Council; Dr. Jacob; and Dr. Speedy, Honorary Secretary, waited on Mr. Forster, Chief Secretary for Ireland, on Monday last, with the object of inducing the Government to introduce a Bill into Parliament for the compulsory superannuation of Poor-law medical officers, instead of the present permissive system. Mr. Forster made several inquiries as to the condition of the medical officers, and promised the deputation that the matter should have his consideration.

MEDICAL TEMPERANCE ASSOCIATION.

A MEETING was held last week, under the presidency of Mr. H. G. Croly, surgeon to the City of Dublin Hospital, with a view of establishing an association in Dublin, having the same objects as those followed by the English association.

SANITARY CONDITION OF IRISH DISTRICTS.

THE reports of the various registrars, for the December quarter of the past year, while, in several instances, reference is made in satisfactory terms as to the sanitary condition of their respective districts, yet, in too many cases, examples are given of the neglect of the ordinary laws of health. The registrar of Mohill believes that the recent outbreak of enteric fever in his district was due to defective sanitary arrangements in the first place, and also to the barbarous habit of "waking" the dead, which still exists—as he distinctly traced the illness of an entire family to the fact of one of its members having attended the "wake" of a party who died of typhoid fever. The registrar of Renvyle, Clifden Union, states that his district is still in the same hopelessly unsanitary condition; and at Lowpark, in Swineford Union, it is shown that the sanitary state of Charlestown is in a most defective condition. Last year, there was an epidemic of fever; and a recurrence is expected this year, unless precautionary measures be adopted. In the street where the medical officer resides, there is no sewerage of any kind, and an almost total absence of the most ordinary sanitary requirements. The medical officer of Kilmacthomas regrets to say that the sanitary law is but very spasmodically and ineffectually put in force by the sanitary authority; while the wretched state of the cabins occupied by the agricultural labourer, is deplorable in the extreme. Manure-heaps and cesspools, bad roofs allowing the rain to enter, and want of separate sleeping accommodation for the sexes, are some of the many evils which contribute to the social and moral degradation of the poorer classes. At Goleen, the registrar remarks: It would be impossible that the sanitary state of the district could be worse. The surroundings of some of the drinking-wells are disgusting to sight, offensive to smell, and the water is so polluted that it is totally unfit for domestic use. The sewerage also in the villages is extremely bad, and there are no privies attached to the houses—consequently, the public streets are used for private purposes. A good deal of this is caused by poverty, yet improvements could be made; and, for a very small public outlay, the inhabitants could have good sewage and a proper water-supply.

PROFESSOR HELMHOLTZ.

THE University of Dublin and the Royal College of Surgeons in Ireland embraced the opportunity afforded by the visit of this eminent scientist to Dublin, last week, to confer on him their highest honours. When it was known that Professor Helmholtz was to deliver in Dublin his lecture on "The Modern Development of Faraday's Conception of Electricity", the Council of the Royal College of Surgeons resolved to award him the honorary Fellowship of the college. This honour has been only five times previously accorded to foreigners, and is only given for eminent service in the science of surgery, or in any of the branches of knowledge auxiliary thereto. The President of the College, Dr. M'Clintock, in conveying to Professor Helmholtz the honorary Fellowship, in the presence of a large number of Fellows, alluded, in most felicitous language, to the Professor's valuable contributions to physiology and surgery, and to the immense benefits he had conferred on science in various other walks. A special meeting of the Senate of the University of Dublin was also summoned, for the purpose of receiving a Grace from the Provost and Senior Fellows for conferring the degree of LL.D., *honoris causâ*, on Professor Helmholtz. In supplicating for the Grace, the Senior Proctor referred at length to the numerous and valuable researches of the distinguished man, in conferring an honorary doctorate on whom, he said, they did honour to themselves. The Grace being accepted, a commencement for conferring degrees was subsequently held. Professor Helmholtz was introduced by the Public Orator, Dr. Webb, in an eloquent Latin address, replete with happy allusions to Helmholtz's discoveries and studies: for example, the following passage, referring to his discovery of the ophthalmoscope—"luminum penetralia lumini patefacit".

MULTIPLE BIRTHS IN SWEDEN.—In the *Hygiea* for 1880, F. T. Berg has published the statistics of the multiple births in Sweden, from 1776 to 1875. During that period, 9,539,053 births were recorded, of which, 144,386 were twins, 2,168 triplets, and 44 quadruple births; thus there were in each 10,000 births, 151 twins to two triplets. This average was exceeded in the first nine quinquennial periods. The reduction in the number of multiple births was not attended by a corresponding reduction in the number of ordinary births. A comparative examination of the statistics of various countries, shows that Sweden holds a foremost place in the number of multiple births; and it appears that the generally received opinion, that the number of such births is less in towns than in rural districts, does not hold good for that country. It appears that, in twin cases, the children are of different sexes most frequently, and both are females most rarely; this agrees with observations made in other countries. As regards the proportion between living and still-born children in single and twin births, it appears that during the decennial period 1869 to 1878 the proportion of still births was greater in the twin cases, and that in both cases more males than females were still-born. Mixed sexes occur in triplets in greater proportion than in twin births, and there is a preponderance of the female sex.

THE CORONERSHIP OF CENTRAL MIDDLESEX.

We regret to have to record the death of Dr. Hardwicke, coroner for Central Middlesex. While in the active performance of his duties last week, he was seized with an attack of apoplexy, and, notwithstanding the attention of his deputy, Dr. Danford Thomas, and of Dr. Buzzard, he died in a few hours.

Dr. Hardwicke has passed through a laborious and useful career, in which he had from the first shown a strong sense of public duty, and an earnest desire to help forward sanitary, social, and medical reforms. As a private practitioner, as a medical officer of health, and as coroner, his sympathies and his work had never been narrowed to the mere limits of his private or official duties, but had always extended to a wide sphere of humanitarian activity. He was assiduous in work at the Public Health Section of the Social Science Association, and never at any time ceased to show his interest in the public health, and in measures of social progress. Without possessing the high order of abilities of his eminent predecessors in office, Mr. Wakley and Dr. Lankester, he was, from the outset of his career, a man of some mark, and of excellent endeavour. His conduct as coroner, if it did not always escape criticism, was plainly dictated by humane predilections in favour of the prisoner, the pauper, and the distressed and the sick; and he showed no little courage, not always tempered, perhaps, with unquestionable discretion, in the performance of the duties of his office, without fear or favour. Thus far he maintained the traditions of his office, which has now been filled for three generations by medical men, who have always preferred the public interests to the smiles of other officials. It is much to be hoped that this will always be the guiding principle of the coroners of Middlesex. The candidates now in the field are Dr. Danford Thomas, Dr. Hardwicke's deputy; Dr. Diplock, Coroner for West Middlesex; and two legal candidates, the Messrs. Bolton. Our sympathies are necessarily with the medical candidates.

Mr. Ernest Hart was for twenty-four hours announced as a candidate. The following address, which he has to-day issued, explains the reasons which have induced him—although assured by the most influential and competent persons that his election was a foregone conclusion, and might, with little effort, be placed beyond a doubt—finally to decline to undertake so serious an addition to labours and responsibilities already far from slight. Mr. Hart's address is as follows.

"Yielding to friendly solicitation, and with the assurance of extensive support from the most influential members of my own and the other learned professions, and of both political parties, I consented to become a candidate for the officer of coroner. On close review of the amount of time which the duties of the office would occupy, I find that it would be incompatible with my journalistic engagements, and with much of my public and social work. These I am not prepared to surrender, and therefore withdraw from the candidature. I have to offer warm thanks to the very numerous friends who have at once and spontaneously offered me their cordial assistance in the canvass, and to express my regret if I have caused inconvenience to anyone."

MR. DARWIN ON VIVISECTION.

The following letter has been addressed by Mr. Charles Darwin to Professor Holmgren, of Upsala, in answer to a request for an expression of his opinion on the question of the right to make experiments on living animals for scientific purposes—a question which is now being much discussed in Sweden.

"Down, Beckenham, April 14th, 1881.

"Dear Sir,—In answer to your courteous letter of April 7th, I have no objection to express my opinion with respect to the right of experimenting on living animals. I use this latter expression as more correct and comprehensive than that of vivisection. You are at liberty to make any use of this letter which you may think fit, but if published I should wish the whole to appear. I have all my life been a strong advocate for humanity to animals, and have done what I could in my writing to enforce this duty. Several years ago, when the agitation against physiologists commenced in England, it was asserted that inhumanity was here practised and useless suffering caused to animals; and I was led to think that it might be advisable to have an Act of Parliament on the subject. I then took an active part in trying to get a Bill passed, such as would have removed all just cause of complaint, and at the same time have left physiologists free to pursue their researches—a Bill very different from the Act which has since been passed. It is right to add that the investigation of the matter by a Royal Commission proved that the accusations made against our English physiologists were false. From all that I have heard, however, I fear that in some parts of Europe little regard is paid to the sufferings of animals, and if this be the case I should be glad to hear of legislation against inhumanity in any such country. On the other hand, I know that physiology cannot possibly progress except by means of experiments on living animals, and I feel the deepest conviction that he who retards the progress of physiology commits a crime against mankind. Any one who remembers, as I can, the state of this science half a century ago must admit that it has made immense progress and it is now progressing at an ever-increasing rate.

"What improvements in medical practice may be directly attributed to physiological research is a question which can be properly discussed only by those physiologists and medical practitioners who have studied the history of their subjects; but, as far as I can learn, the benefits are already great. However this may be, no one, unless he is grossly ignorant of what science has done for mankind, can entertain any doubt of the incalculable benefits which will hereafter be derived from physiology, not only by man, but by the lower animals. Look, for instance, at Pasteur's results in modifying the germs of the most malignant diseases from which, as it so happens, animals will in the first place receive more relief than man. Let it be remembered how many lives and what a fearful amount of suffering have been saved by the knowledge gained of parasitic worms through the experiments of Virchow and others on living animals. In the future, everyone will be astonished at the ingratitude shown, at least in England, to these benefactors of mankind. As for myself, permit me to assure you that I honour, and shall always honour, every one who advances the noble science of physiology.—Dear sir, yours faithfully, Charles Darwin.—To Professor Holmgren."

THE WAR IN THE TRANSVAAL.

A correspondent has sent us the following information, under date of February 25th.

The medical arrangements for the campaign are as follows: Principal Medical Officer of the Forces, Deputy Surgeon-General Holloway, C.B.; Principal Medical Officer of Lines of Communication, Brigade-Surgeon Sinclair; Senior Medical Officer of the Field Force, Surgeon-Major S. B. Rowe; Senior Medical Officer of Colley's Division, Surgeon-Major J. A. Scott; Senior Medical Officer of Wood's Column, Surgeon-Major P. W. Stafford; Sanitary Officer of the Force, Surgeon-Major C. H. Giraud. There will be two field hospitals in each column; in charge of No. 1 Field Hospital, Colley's Division, Surgeon-Major Babington; in charge of No. 2, Surgeon-Major W. Keir; in charge of No. 1 Field Hospital, Wood's Column, Surgeon-Major W. P. Smith; in charge of No. 2, Surgeon-Major Barker. Newcastle, in Natal, 170 miles north of Maritzburg, is the base; and here the base hospital will be in charge of Surgeon-Major Stokes. Two rest houses for convoys of sick will be placed intermediately between Newcastle and Maritzburg, each in charge of a medical officer. The station hospital at Maritzburg, in charge of Surgeon-Major Elgee, will receive all sick and wounded sent down from Newcastle. There are, at present, at the last-mentioned place, over one hundred wounded men. Several operations have been performed. The medical officers at present at Newcastle in charge of the wounded are Surgeons-Major Stokes and Babington, Surgeons McGann, Ring, and Drury.

March 3rd.—I mentioned, in my last letter, the disposition of the medical officers intended for duty with the two columns of the Field Force; but the disaster which occurred on the 27th ult. at the Amajuba Mountain, and the death of Sir George Colley, may alter the arrangements already made. The last engagement adds 8 officers and 123 men to the previous number wounded—about 190 men and 6 officers—or a total of 14 officers and 320 men, 130 of whom are at Mount Prospect camp, about sixteen miles in advance of the Newcastle camp on the Pretoria road, and the remainder are here in the base hospital, which consists of twelve huts, supplemented by marquees as required. You will have received full accounts of all three disasters, and of the numbers of killed and missing in each. At the last reverse, Sir George Colley, Captain Maude, 58th Regiment, and Surgeon-Major Cornish, were killed, and Surgeon Landon died from his wounds the following evening. Both medical officers were shot through the chest. Captain Morris, 58th Regiment, was shot through the shoulder, but the lung was not involved; Lieutenant Hill, 58th Regiment, obliquely through the right forearm; and Lieutenant Lucy, also 58th Regiment, through the left thigh, without injury in either case to the bones. Captain Romilly, of H.M.S. *Boadicea*, was shot in the stomach. The other officers are returned as slightly wounded, and are doing favourably. A few of the wounded at the fight of the Amajuba Hill struggled off the field towards the camp on the evening of the fatal day, but succeeded only in reaching the farmhouse of a man named O'Neill, midway between the camp and Amajuba, and there the night was spent. The majority, however, remained all night on the field, and were only recovered next day by the ambulance party with Surgeon-Major Babington. To give some idea of the rugged nature of the

ascent, it is stated that six hours were fully occupied in bringing the first lot of wounded to the wagons at the foot of the hill. The wounded were brought in from O'Neill's farm on the following day. Many primary surgical operations have been performed at Mount Prospect Field Hospital. Of the cases in the base hospital here, there are a few fractures of the thigh, without implication of the bone; several single, and in a few instances double, perforating wounds of the chest, mostly doing well, under Surgeon-Major Stokes and Surgeon Drury, assisted by four sisters of charity from Bloemfontein, and four nurses, and an ample number of the Army Hospital Corps. The hospital arrangements here are very creditable to Surgeon-General Holloway, C.B., who travelled up from Maritzburg lately to organise the base hospital, and prepare all medical aid required for the force. The wounded can have everything they want. There is, in quantities, that inestimable article to the sick and wounded, fresh milk. Medical supplies are coming up in abundance, and there is no fear of a scarcity of these occurring whilst the Surgeon-General is at the base of supplies. The Ambulance Corps from England has arrived in the colony, and is now on its way up here, to remove to Pietermaritzburg all available sick and wounded. A rest-house for sick convoys is being established at Ladismith, where the base hospital was placed during the Zulu war. The wounded will be sent home when they are in a condition to embark. Mrs. Deeble and six nurses from Netley have arrived at Durban, and are coming on here at once. All military operations are suspended for the present; but His Excellency General Wood is not idle, being engaged in taking up new posts on the line of communications, and in strengthening the existing ones.

Newcastle, March 9th, 1881.—Since I last wrote there has not been any movements of note amongst the troops; an armistice for eight days was arranged on the 6th, during which the beleaguered garrisons of the Transvaal are being provisioned, which is supposed to be the harbinger of peace, but preparations are going on with activity, and it is supposed that General Wood will move forward with the whole force by a circuitous route on or about the 20th. Fifty wounded, mostly slight cases recovering, were sent from here to-day to Maritzburg in company with the remnant of the gallant 58th Regiment, which has been now withdrawn from the scene of active operations, and sent down country—only 200 left. We are expecting fifty wounded here to-morrow from Mount Prospect Camp, where it is rumoured there is the commencement of an outbreak of hospital gangrene, though the report is not confirmed; but, if it is true, the wounded from Mount Prospect will certainly be segregated as a precautionary measure from those cases at present in the Base Hospital here. It was proposed to take the Dutch church in the town of Newcastle as a supplementary hospital, and Surgeon-Major Stafford, who was deputed to report on its suitability, recommended its being taken and supplemented by two hospital marquees to accommodate fifty serious cases during the present rainy season, and as an auxiliary hospital, but the idea was abandoned, which seems to be a pity, considering the crowded condition of the wounded in the Base Hospital at present. There are eight rest camps being prepared between here and Maritzburg—170 miles—and a central hospital midway for thirty beds at Ladismith, under Surgeon Hyde. Surgeons-Major Leask and Thompson are appointed to this line of communication for duty, and the arrangements made by Surgeon-General Holloway, C.B., for the care of the wounded are, as usual, complete. Brigade-Surgeon Sinclair is Principal Medical Officer here, Surgeon-Major Roe, Senior Medical Officer of the Forces, Surgeon-Major Scott, Senior Medical Officer of the Natal Field Force, and Surgeon-Major Stafford of General Wood's division, but events may happen to alter this disposition. Surgeon-Major Stokes, a young but most promising officer, is in charge of the Base Hospital, with Surgeon-Major Keir. Surgeons Drury and Mapleton are for duty also. Surgeon McGann, who was so honourabiy mentioned in general orders, and who deserves the Victoria Cross for his gallant conduct on two separate occasions, has gone up to the front. The latter is at present in charge of Surgeon-Major Babington, until Surgeon-Major Scott arrives to take charge of that column. The Field Hospitals of General Wood's column are being now organised under the direction of Surgeon-Major Stafford, Senior Medical Officer. The native hospital bearers for the Ashanti cots for the wounded have just arrived, and are being taught to carry them. There will be ten cots for each column, five for the worst cases in each of the four hospitals. And now about the wounded. About thirty of those hit at Langes Nek on January 28th were able to come down to the Base Hospital on the 3rd ult., and comprised two wounds of the chest, three of the shoulder, seven of arm and forearm, one of abdomen, three of the thigh, nine of leg and foot, etc. Most of these are included in the convoy which left for Maritzburg to-day. Nearly all the wounded at the "Schuins Hooghte" on the 8th ult. were brought back to Newcastle direct, except a few cases which were able to accompany the column marching on after the fight. The casualties there were as near as can be stated, four wounds of the head, two of the neck, ten of the chest, ten of the shoulder, nine of the arm, thirteen of the forearm and hand, two of the abdomen, four of the back, seventeen of the thigh and hip, and fifteen of the leg and foot, etc. I must not omit to enumerate the seven of the Naval Brigade as well. The wounded from the last engagement on the 6th inst. at the Amajuba Mountain all went to the camp at Mount Prospect, eighteen miles in front. They straggled into the camp all through the following day, many of them, including several officers, having been out all night on the field. Captain Singleton, 92nd, was shot through the knee, and the leg has been amputated; Captain Morris, 58th, by latest accounts was not progressing so satisfactorily. Several primary operations were performed at the front camp, and I will recount the number and nature of these in my next. Surgeon-Major Giraud, "Sanitary Officer", has arrived here to-day, and not a moment too soon, the sanitary state of the place being most shocking. Mrs. Deeble has not arrived after all, though I stated so in my last letter; the mistake arose from the announcement of her arrival at Durban having been made in a Durban paper. The Bloemfontein Sisters of Mercy here are indefatigable, especially Sister Louise, who was so well known at Ladismith Base Hospital during the Zulu war.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

YORKSHIRE BRANCH.—A meeting of the Branch will be held at Ripon on Wednesday, April 27th, at 3.15 P.M. Members intending to make communications are requested to write at once to the Secretary.—A meeting of the Branch and the profession will also be held at the Philosophical Hall, Leeds, at 5 P.M., on Wednesday, April 6th, to consider the report on Medical Education; P. E. Miall, Esq. (President), in the chair.—ARTHUR JACKSON, Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next meeting will be held at the Cawdor Arms Hotel, Llandilo, on Thursday, April 28th. Gentlemen intending to be present, and desirous of reading papers, etc., are requested to communicate with ALFRED SHEEN, M.D., Honorary Secretary, Cardiff.

NORTH OF ENGLAND BRANCH.—The spring meeting will be held at the Grand Hotel, Tynemouth, on Thursday, April 28th, at 3 P.M.; G. B. Morgan, Esq., President, in the chair. The following papers have been promised: 1. Dr. Eastwood: On the Working of the Habitual Drunkards' Act, 1879. 2. Dr. Philipson: On Hæmorrhagic Infarction of the Lungs. 3. The President: On some of the Symptoms presented in Obstruction in the Gullet and Larger Intestine. 4. Dr. Adamson: Notes of a Case of Trephining for Epilepsy. 5. Dr. W. H. Dixon: On a Case of Disseminated Sclerosis. Dinner at the Grand Hotel, at 5 P.M.; charge (exclusive of wine), six shillings. Gentlemen who intend to be present are requested to communicate at once with the Honorary Secretary.—T. W. BARRON, M.B., Honorary Secretary, 10, Old Elvet, Durham.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.—The usual monthly meeting of this District will be held at the house of Dr. Norman Kerr, 42, Grove Road, Regent's Park, on Wednesday, April 27th, at 8.30 P.M., to resume the adjourned discussion on Alcohol in relation to Medicine and the Nervous System of Man. The discussion will be opened by Dr. Dowse.—T. STRETCH DOWSE, Honorary Secretary, 14, Welbeck Street, Cavendish Square.—April 18th, 1881.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.

THE fifth meeting of the district was held in the Library of the London Hospital Medical College on March 17th, 1881; F. J. REILLY, Esq., in the chair.

Communications.—1. Mr. Frederick Treves read a paper on the Treatment of Nævus. In the course of a very exhaustive review of the different phases of treatment, he suggested the plan of removing the slough which formed after ligature with a scalpel about three or four days afterwards, rather than waiting till it became detached, as a more expeditious and a more surgical method of treatment. 2. The discussion of Mr. Greenwood's paper, on the Symptoms and Diagnosis of Typhoid Fever, was resumed and concluded.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.

A MEETING of this District was held at the house of Mr. S. S. ALFORD, Haverstock Hill, on Thursday, March 24th. The following papers were read:

1. Mr. Lennox Browne: The Diagnosis of Syphilis and Tubercle in the Throat.

2. Dr. Norman Kerr: Alcoholic Heredity as a Predisposing Cause of Dipsomania. The history of a number of cases that had been under his care, illustrative of the operation of this natural law, were given.

3. Mr. S. Alford: On Defective Nerve-Power as a Primary Cause of Disease, with special relation to Dipsomania.

CORRESPONDENCE.

CONSULTATIONS WITH HOMŒOPATHS.

SIR,—It seems presumptuous to question, on a point of professional ethics, the ruling of men who are something even more than the heads of our profession—of Sir T. Watson, of Sir G. Burrows, of Sir R. Bennett, and of Sir J. Paget. I venture, however, with all respect, to do so, because, as it seems to me, their opinion *in re*, if carried to its inevitable issue, not only sanctions, but prescribes as right and proper, our consultations with homœopaths. This is, of course, if not the rehabilitation, at all events the habilitation, of homœopathy—the reversal of the hitherto settled opinion of the profession. The question of these consultations was thoroughly threshed out some twenty years ago, and the chaff sifted out of it. It was then decided that such consultations were to be regarded as breaches of professional morals; and that, under no consideration, under no plausible pretence, should a member of the profession meet a homœopath in consultation. No one, at that time, more thoroughly subscribed to this resolution than the then President of the British Medical Association, Sir G. Burrows. He had been accused of having met a homœopath in consultation. The accusation was unjust; and he was completely purged of it in the pages of our JOURNAL (January 24th, 1863). Now, it happens that the circumstances of that case resemble in every particular those of the case of the present moment—excepting only, that in one the patient was an obscurity, and in the other illustrious; and that, in Sir G. Burrows' case, the physician knew not that the medical attendant was an homœopath, whilst in the other he had that advantage. The comments of Sir G. Burrows, and the opinions which he then expressed of the physician who could knowingly take part in such a consultation, are of especial value in application to this present case. In his letter to the JOURNAL (1863), Sir G. Burrows was "shocked and surprised" that such a charge should have been made against him. He goes on to show that he was utterly ignorant that the gentleman in charge of the patient was a homœopath; he wrote a scientific prescription, and affixed to it the names of those present, etc. He adds: "I think you and the profession will agree with me, that, in the antecedents of the case, in the position of the medical attendant on the patient, *in the character of the remedies which had been employed before my arrival* .....there was nothing which could lead me to suspect I was in consultation with homœopaths." I cannot conceive why he (the correspondent of the JOURNAL) "should suspect me of forgetting my position, and belying my principles, so far as to meet homœopaths in consultation. *I never did such a thing; and, unless my principles and convictions should be completely changed, I never will do so.*" (The italics are mine.) The physician (declares Sir G. Burrows) who knowingly meets homœopaths in consultation forgets his position and belies his principles. But the case of this day resembles in its minutest particulars the case which drew forth these vigorous comments. In 1863, the homœopathic attendant used "scientific" remedies before the physician was called in, just as in 1881. He signed the physician's prescriptions, just as in 1881; and, as if to make the parallel complete, he stated in the JOURNAL (February 14th, 1863) that he used ordinary remedies as freely as the best of us, just as the homœopathic attendant does in 1881. "Dr. Burrows", he said, "was perfectly right in assuming as he did, that I was practising medicine according to his teaching". Is it possible to read this without fancying that Sir G. Burrows has changed his "principles and convictions"? Or are questions of this kind to be treated as questions of expediency—each one on its own merits or demerits? But if so, where is the limit of the thing expedient to be sought? Anyhow, if the rule of practice is to be settled by the social position of the patient, we must, in the future, wander about and seek advice, on each particular occasion, as men do when they have no fixed principle to guide them. I have seen a large brass plate on the door of a registered medical practitioner, setting forth that patients were treated to their taste, homœopathically or allopathically. Now, as far as I can see, this gentleman comes under the saving clause of the opinion of our leaders. He is ready to meet the physician on any terms he pleases. He offers, in his past and his present practice, all the requirements which are now set forth as *grace suffisante* in this present case. Why should he not be met? Moreover, if the giving by the homœopath, in the past and in the present, of "scientific" drugs is a justification of the consultations, we may as well at once cut the matter short by admitting *en bloc* all homœopaths into professional communion. Homœopathy constantly boasts, and the fact is well known, that the remedies it employs are very much, in kind and quantity, the remedies of scientific medicine; that infinitesimal quantities and special globules and drops are no necessary part of its creed. And it should not be forgotten, that the homœopathic consultations suppressed twenty years ago were kept alive, justified, and fostered on the very grounds which are now accepted as making them permissible at the present moment. The profession then saw clearly enough that such a conjunction was a manifest acceptance and patronage of homœopathy, and they would have none of it. But now the unpleasant thing is once again revivified; and, unless I am under a delusion, the reading of the special case before us is, in effect, the legitimising of consultations of physicians and surgeons with homœopaths; or else we must take it that our code of ethics, as applied to the *corpus* of sick humanity, is not a stable quantity, but admits of variation, according to the status—aristocratic or common—of the patient. I see that homœopathy has already begun to shout *Io! Triumphe!* in the *Times*.—Yours obediently,

London, April 16th, 1881. W. O. MARKHAM.

THE NEW NAVAL MEDICAL WARRANT.

SIR,—Until the promulgation of the Admiralty circular giving effect to the Order in Council of April 1st, it would be premature to offer an opinion as to its merits or otherwise, as many matters still pending cannot be settled till then; but as there seems to be a misapprehension existing on one or two matters, judging from the paragraph in your last issue, I will, with your permission, make a correction. Competitive examination is not abolished, but exists as heretofore on entry. The examination alluded to is one to qualify for promotion, and must be passed after eight years' service—this in accordance with recommendation of committee. No new rank is introduced, as all fleet-surgeons rank with and as brigade-surgeons, and receive the same pay and retirement; this is a larger concession than was asked for; and, if you recollect, advocated by yourself. It was proposed by your scheme that the first twenty fleet-surgeons (I think) should receive these advantages. As you appear to wish for the expression of the views of the service on this Warrant, I will, with your permission, address you on a future occasion.—I am, etc., MEDICO.

SIR,—The new Naval Medical Warrant, in which you have taken much interest, is at length out; and in your issue of the 16th April you say: "Nor do we propose to fully discuss it until we hear the comments of our associates in the naval service, and learn the general feeling of the department"; by which I infer that you invite discussion upon the subject.

If the officers of the different ranks in the Royal Navy discussed the grievances, requirements, and claims of their respective ranks, limiting themselves to their own rank, much substantial information would be obtained, and you would be the better able to grasp the question, and form a better idea of what the service generally requires. No doubt, you may meet with eccentricities in the correspondence; but even these might help towards the question.

I shall give you some of my ideas, and shall commence with the full pay of inspectors-general. It is now £2 15s. *per diem*. It should have been £3 3s. *per diem*. Only two officers of the whole body can enjoy this seemingly high pay. These officers hold the position of administrative heads of Haslar and Plymouth hospitals; their position is prominent, and consequently subject to extra expenses. They have a house, and an allowance (extra) of £85. To have raised their pay to £3 3s., under the circumstances, would have been a gracious act on the part of the authorities.

In the Army Medical Warrant of last year, there was a clause retrospective as well as prospective, ordaining that "all officers who have been and shall be damaged by the alteration of age for compulsory retirement from sixty-five to sixty years shall have an addition to their retired pay for the net loss incurred in the change". In the Naval Medical Warrant of 1881, no such provision occurs; this, however, appears to be an unintentional omission.

When the Admiralty contemplated the changes in 1875, they did so with the view of rendering the service more popular. The cry came from the juniors; it was for more rapid promotion; but when indulging in this luxury, there seemed to be a forgetfulness of justice due to the seniors. To answer to the cry, something must be done, something sacrificed: expediency came to the aid of the authorities, and the seniors were compelled to retire, their official life cut short by five years, and all hopes and all chances in the future curtailed.

In thus writing, I wish to expose to you that which is considered a very great grievance by the officers of inspectorial rank now retired, which, if properly and dispassionately represented, may be met with a willing ear, and the omission redressed. Wishing you every success in your zealous endeavours to redress wrongs, I am, yours very faithfully,

R.N.

THE CHOROID PLEXUSES OF THE FOURTH VENTRICLE AND USE OF CEREBRO-SPINAL FLUID.

SIR,—Kindly permit me to point out Dr. Moxon's mistake in his very able lecture, as reported in the JOURNAL of April 2. It is with his severe attack on anatomists that I am most concerned. He affirms that the choroid plexuses of the fourth ventricle have escaped observation by anatomists, and that the continuity of the ventricle, with the subarachnoid space, has received only a passing notice; above all, that the equalising power of the cerebro-spinal fluid over cerebral circulation has not been touched upon, frog physiology being resorted to for the requisite explanations instead.

Mr. Ledwich, in his exhaustive work on human anatomy, writes: "The choroid plexuses of the fourth ventricle are two in number, or one on each side; they commence by a very slender stalk, which is connected to the inferior vermiform process, wind round the medulla oblongata, behind the origin of the pneumogastric nerves, and, becoming more expanded, terminate on the subpeduncular lobules" (third edition, p. 552). Again, at p. 532, he says: "The subarachnoid fluid serves to adopt the varying size of the brain to the cavity in which it is contained; but the predominence of the fluid inferiorly, in the vicinity of the large vessel which supply the organ, would seem to imply an equalising function in reference to the cerebral circulation." With regard to the communication of the subarachnoid space with the fourth ventricle, he writes: "We are convinced, by our own numerous and repeated examinations of fœtal brains, that the perfect continuity of ventricular and external arachnoid should be admitted as an established fact; nor is the analogy, which has been traced between the foramen of Bichat and that of Winslow, in the abdomen, the exaggerated effort of a too vivid imagination, as some writers seem to think" (p. 533). As to vascular pressure on nerve-roots and nerve-trunks, Mr. O'Leary, of the Ledwich School, held that, "from the peculiar relation which the third nerve bears immediately after its origin, to the cerebral and cerebellar arteries, affections of its motor function are frequently associated with cerebral vascular derangement, producing a drooping of the upper eyelid, or ptosis" (from same source, p. 569).

I maintain, then, that the choroid plexuses of the fourth ventricle have been fully described by Mr. Ledwich, the continuity of the ventricle with the subarachnoid space most unmistakably enforced, and the equalising power of the cerebro-spinal fluid over cerebral circulation, thoughtfully and intelligently suggested, at least, so far as would be consistent in a work devoted to pure anatomy. Further, Mr. O'Leary clearly pointed out the physiological influence of increased arterial pressure upon cerebral nerves.

So far, then, as the illustrious Dublin School of Anatomy is concerned, Dr. Moxon's attack is successfully repulsed. He has been anticipated by Messrs. Ledwich and O'Leary; but I do not imply that he is aware of this. Ledwich's *Anatomy* is second to no work as a companion in the dissecting-room, and, for accuracy of description and fulness of detail, stands unsurpassed. Dr. Moxon will find a choroid plexus of the third ventricle described in it also; and I would remark, in passing, that the "tip" for the Irish college is, "Three pairs of choroid plexuses in the brain."—I am, Sir, your obedient servant,

Lichfield, April 4th, 1881. JOHN LOWE, L.R.C.S.I.

THE BEAUGENCY VACCINE-LYMPH.

SIR,—Having received many inquiries about the source whence the lymph in my establishment for vaccination with calf-lymph was derived, and trusting that this matter has some general interest, I should be very much obliged to you if you would allow the following note to appear in your next issue.

Dr. Lanoix of Paris, in the year 1869, forwarded some lymph from a spontaneous case of cow-pox, which occurred at Beaugency in France, to the establishment for animal vaccination at Rotterdam, and this has been propagated there in an uninterrupted series of calf-to-calf vaccinations ever since. All the other *parcs vaccinogènes* in Holland have received their stock from Rotterdam, where the lymph has now (April 5th, 1881) arrived at its 592nd generation without a single failure. This, no doubt, is a sufficient proof of the vigour and reality of the original stock, as well as also of the skill and carefulness of the medical officers in Rotterdam, and most prominently of Dr. Minderop, the medical director, to whom I am indebted for having sent to me a few tubes of his lymph, with which I vaccinated my first calf.—I am, sir, yours very respectfully, CHARLES RENNER, M.D.

228, Marylebone Road, April 7th, 1881.

THE Earl of Cadogan has been elected to the Presidency of the Chelsea Hospital for Women, which office had become vacant by the death of the Earl of St. Germains.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

MEDICAL PROTEST AT HASTINGS.

THE recent appointment of Mr. Shaw as Medical Officer of Health, for the Urban Sanitary district of Hastings, is exciting great professional dissatisfaction, and from causes which will be readily understood and accepted. There were nine candidates, and of them, Mr. Shaw was the youngest in years, the youngest in medical qualifications, the youngest in practice, and consequently, whatever his natural abliity may be, the most inexperienced—and a homœopath to boot. The office is one which, of all others, requires not only great tact and mature judgment, but the cordial co-operation of resident medical practitioners, and this the following letter to a local newspaper, signed by nearly the whole of the faculty of the town, shows that Mr. Shaw can never hope to obtain.—"To the editor of the *Observer*.—Sir, We, the undersigned members of the medical profession, practising in this borough, desire to address you in regard to the recent appointment of a medical officer of health to the borough, made on the retirement of Mr. Ashenden. We are convinced that the duties entrusted to that officer are of high importance in all questions affecting the public health. It is obvious that for the efficient performance of those duties the gentleman filling the post should command the confidence and esteem of the body of medical men in the town, for without the loyal co-operation of each individual member of the profession his means of procuring information must be curtailed, and his usefulness thereby materially affected. This would appear to have been the opinion of the nominator of the candidate who was elected; for Mr. Alderman Davis, in proposing Mr. Knox Shaw, is reported to have said that, he was a gentleman who stood very high in the esteem of the members of the medical profession in the borough.' Now to this statement, sir, we desire to give an unqualified contradiction; to many of us Mr. Shaw is personally unknown, and he was not only the youngest of the nine candidates for the post, but he is also understood to practise a mode of treatment diametrically opposed to that pursued by the very large majority of practitioners in the town, and is thereby precluded, by principle, from rendering that co-operation which is so needful. Seeing that in order to make this selection the council passed over many candidates eligible, both on account of their age and position, who presented themselves for their acceptance, we leave the public to judge whether they have not thereby gratuitously and seriously impaired the usefulness of the office they have thus filled.—We are, Sir, your obedient servants, (signed) C. A. Adey, M.D., F.R.C.P.; B. H. Allen, M.D. Lond.; Chas. Ashenden, M.R.C.S.; F. Bagshawe, M.D., F.R.C.P.; C. A. Brodribb, M.R.C.S.; Wm. Campbell, M.R.C.S.; J. G. Colborne, M.R.C.S.; John Cooke, M.B., Lond.; Douglas W. Duke, M.R.C.S.; D. Hoadley Gabb, M.R.C.S.; C. B. Gabb, M.R.C.S.; W. A. Greenhill, M.D., Oxon.; F. R. Haward, M.R.C.S.; Richard Heath, M.D.; Henry Humphreys, M.D.; S. W. J. Joseph, M.D.; S. A. Julius, M.R.C.S., etc.; G. C. Kernot, M.R.C.S.; W. P. Kirkman, M.D.; W. S. Law, M.D., F.R.C.S.; F. H. Parsons, M.D.; John Penhall, M.D., M.R.C.S.; A. D. Scott, M.D.; Henry G. Shorter, M.R.C.S.; A. R. Ticehurst, M.R.C.S., etc.; Otho R. Travers, M.R.C.S.; T. Trollope, M.D., Cantab.; John Underwood, M.D.; S. H. Wadd, M.R.C.S.; W. R. Warwick, M.D.; R. J. Wilson, F.R.C.P.Ed." The appointment appears to have been wholly and solely political, and therefore obviously wrong in principle; by it, the town council have slighted and alienated all the other medical men of the town, of every shade of politics, run counter to the feelings of the profession throughout the country, by electing a homœopath, and completely isolated Mr. Shaw and placed him in a position of great disadvantage, by making him the successor of a man like Mr. Ashenden, who held the office for six years, and performed the duties with singular ability, energy, and success. The successful and easy working of this office is of peculiar importance to a watering place such as Hastings, which is largly affected by the extent to which it engages the favour and confidence of the medical profession generally. Hastings owes much to the good opinion and favourable recommendations of medical men; and the step complained of is as unwise as it is open to objection.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

TORQUAY.—For this popular watering place Mr. Karkeek has regretfully to record an increased death-rate for 1880. The rate per thousand of the estimated population was 15.9, or an increase on the rates for the three previous years. The rise is partly to be accounted

for by the mortality from measles and whooping-cough, but a good many more deaths occurred from general causes in 1880 than in 1879. The outbreak of measles in the early summer had somewhat remarkable symptoms. The disease, in too many instances, seemed to defy all treatment; and in a number of cases the rash did not come out freely, indeed in many hardly at all, and in these signs of very great prostration soon showed themselves, followed by serious chest complications. In the fatal cases, capillary bronchitis and pneumonia were mostly the immediate causes of death. Scarlatina caused six deaths, and seems to have often spread by carelessness as regards infection. Mr. Karkeek gives some interesting particulars as to a number of cases of typhoid fever, which happened towards the end of February, a wet month. With one exception, they occurred amongst servants in first-class houses, and these servants were in every case those whose employment necessitated their standing by the scullery or kitchen sinks. Mr. Karkeek's inference, is that the rains of February had driven the sewer gas from the main sewers into the private drains, and this escaping through the sink-pipes which entered directly into the drains, poisoned those at work near. He says he has generally noticed that when typhoid occurs in people of this class, it has been when continuous rains have followed a long drought. This certainly points to the importance of a more effective ventilation of private drains, and a systematic flushing of public sewers in dry weather; matters to the necessity of which Mr. Karkeek refers in another part of his report. The works necessary for the continuous system of water-supply have made considerable advance; but the scheme of providing a hospital for infectious diseases has only just emerged from serious vicissitudes.

WOLVERHAMPTON.—For the last quarter of 1880, there was a lower death-rate at Wolverhampton than in any corresponding quarter of the preceding seven years. At the commencement of the quarter an outbreak of scarlatina occurred in the western district of the borough, 112 cases being personally visited by Mr. Love as health-officer. Looking to the inadequacy of the accommodation provided at the Wolverhampton and Staffordshire Hospital, we are glad to learn than the Sanitary Committee are considering the propriety of providing increased accommodation for isolation purposes. The principal causes of death were phthisis and other chest affections, which were fatal to 100 persons. The high death-rate in the Borough amongst infants is greatly to be deplored. Of a total of 395 deaths, 171 were of children under five years of age, and 103 of infants under the age of twelve months. Mr. Love looks upon this mortality as due to the absence of parental care; and it is certainly a matter deserving of the earnest attention of local philanthropists.

HELMSLEY RURAL DISTRICT.—There is much opportunity for active medical officers of health in scattered rural districts, to add facts to our knowledge as to the behaviour of disease, which their brethren, dealing with the more tangled conditions of urban life, find it impossible to ascertain with any degree of exactness. We are glad to find, in various reports of health-officers of remote districts, evidences of careful study of the occurrences of disease. In none have we noticed greater evidence of this than in the reports of Dr. Bruce Low, of Helmsley, whose paper on the origin of enteric fever, that appeared in these columns on the 6th November last (see Vol. ii, 1880, p. 733), is an admirable specimen of the kind of help that rural health-officers can give to etiological research. Dr. Low reports, for 1880, an unusual prevalence of infectious sickness. Measles, scarlatina, whooping-cough, and diphtheria, were all introduced from without, while enteric fever and diarrhœa developed themselves apparently from within. Certain outbreaks of fever and diarrhœa, at Helmsley, are ascribed, by Dr. Low, to the inefficient drainage of certain parts of the town, and the want of systematic excrement removal. The total number of deaths, after exclusion of those not belonging to the district, was 74, equal to a death-rate of 19.1 per 1,000. Notwithstanding the continued rains and the comparatively low temperature, the deaths from diseases of the respiratory organs were fewer than usual. Twenty-one deaths occurred amongst infants under one year of age: a high proportion, explained to a considerable extent by the large percentage of illegitimate births in the district. In connection with this subject of illegitimacy, Dr. Low urges strongly the need for an extension of the Infant Life Protection Act, so as to bring every single nurse-child under supervision.

LANCASTER.—The death rate of Lancaster for 1880 was still unduly high (22·2 per 1000), though an improvement on previous years. Dr. Harkey refers in terms of satisfaction to the notification of cases of infectious disease now made compulsory in the town by the local Act of last year, and to the new hospital for infectious disease, which "answers admirably, and is for the benefit of poor and rich alike". Diarrhœa of a fatal character prevailed during the third quarter of the year, owing to errors of diet and the intense summer heat of the moist tidal valley; and it is a curious fact that ague made its appearance again after many years' absence. The number of deaths from none of the zymotic diseases is stated, which is an unsatisfactory feature of the report. Routine matters, including disinfection, are reported as having been carefully attended to.

THE HEALTH OFFICERSHIP OF JARROW.

DR. ROBERT E. HUNTLEY of Jarrow writes to us a long letter on the subject of our recent comments on his proposal to offer a salary of £150 per annum for the whole time of a medical officer of health for that place. Dr. Huntley justifies his proposal on the following grounds. 1. He has met with and employed young and doubly qualified medical men, who have accepted work and performed it creditably on similar terms. 2. Advertisements are every week appearing for, and appointments made of, duly qualified men on similar, and even less favourable, terms. These, of course, are hospital and dispensary appointments; but Dr. Huntley does not regard this as affecting the main question at issue. Our ideas about combination of authorities are quite in accord with his own in the abstract, but he thinks that our want of knowledge of the conditions actually existing in the district has led us into error.

In regard to sanitary matters, so much dissension and ill-feeling has arisen, that such a combination of authorities is, he thinks, altogether out of the question. He holds that there are several reasons why such an appointment as he advocated would be eagerly sought after. 1. The work would be light, and ample time afforded for reading; 2. The field is a good one for study of sanitary work in all its phases, and would furnish an excellent training-ground for young men who aspire to make such appointments their aim in life; 3. The salary, though very moderate, is ample for the modest requirements of an unmarried man; 4. It is somewhat proportionate to the size and importance of the town.

Dr. Huntley's contentions do not seem to us to invalidate the conclusions at which we arrived, after considerable experience of the general question; but, in justice to him, we think it right to give his explanation of the views which influenced him in making his somewhat unusual proposal.

THE REGISTRATION OF INFECTIOUS DISEASES.

SIR,—Being defendant in the case tried in the police-court here under the Local Improvement Act, 1878, I trust you will find space for a few remarks in addition to those which have already appeared in your JOURNAL.

The Act defines "infectious disease" as meaning small-pox, cholera, and fever; and enacts that the medical practitioner in attendance on such case shall, under a penalty of five pounds, send to the corporation the name of the patient, etc., and the "nature of the disease". Whilst bearing in mind the evident intention of the Act, it surely seems more reasonable to consider small-pox, cholera, and fever, as intended to indicate the kinds or types of disease to be reported infectious, excluding, *e.g.*, whooping-cough, which, although infectious, it was probably deemed inadvisable in the meantime to have brought prominently under the notice of the local sanitary authority; than to hold by an interpretation which would exclude diseases equally fatal and infectious (*e.g.*, measles and diphtheria) as those to be reported. Besides, when a case is reported "infectious disease", its nature is sufficiently indicated to enable the sanitary authority to adopt precautionary measures. Such a mode of reporting is, also, a means of preventing a possible mistake in diagnosis from being brought prominently before the Council and the public, and possibly the author of the report from being subjected to injudicious criticism, which might prove injurious to his professional reputation. That such a result is likely, may be inferred from this case. Not being permitted to give evidence, my solicitor submitted that it was impossible to report anything but infectious disease, as I had not ascertained its precise nature. In opposition to this, the sanitary medical officer stated, on oath, that, on first seeing the patient, he had no difficulty in diagnosing the disease, and that I could not possibly have any difficulty on the previous day in stating its precise nature. We are continually being reminded of the great strides recently made in medical knowledge; and it may be inferred from this evidence, that the horn-books of the profession can now even dispense with the rail-blade and pathognomonic contents. Still, a little consideration might be shown for those less gifted, without in any way preventing the most efficient sanitation.

True, as stated, we are paid for our reports; and some of our councillors say that the interpretation indicated above is contended for so that a few more diseases may be reportable, and a little more money made by it. But it will probably be found out by-and-bye that an Act of Parliament, even when backed by a shilling fee for each report, may utterly fail in compelling medical men generally to be saddled with the position of specialist in diagnosis, when a sanitary medical officer is employed for the purpose of supplying such information.—I am, etc.,

Jarrow-on-Tyne, April 4th, 1881. W. WHAMOND.

MILITARY AND NAVAL MEDICAL SERVICES.

STAFF-SURGEON CHARLES JOHN FENNELL has been promoted to the rank of Fleet-Surgeon in Her Majesty's Fleet, with seniority of the 31st March, 1881.

VOLUNTEER SURGEONS.

SIR,—I am glad to see, from Dr. Fraser's letter, that the subject of the authoritative recognition of surgeons of volunteer regiments who have served twelve years as surgeons-major, is now being placed before the Secretary of State for War. I obtained my first commission in 1859, and served twenty-one years without being recognised as surgeon-major. I have in my possession a memorandum from the War Office, procured for me in March 1877, stating that "medical officers of volunteers rank according to army rules. The surgeons, therefore, rank as the old surgeons of the army did" (see Pay Warrant of 1870, page 26).

I hope my brother medical officers of the volunteer force will assist Dr. Fraser and myself in at once placing this matter before the Secretary of State for War, through members of Parliament and their respective commanding officers, and so endeavour to obtain for us the relative rank of surgeon-major, which in justice I think we ought to have.—I am, sir, yours faithfully,

ROBERT MANNERS MANN, Surgeon 6th Lancashire R.V.

2, Great Bridgewater Street, Manchester, April 6th, 1881.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology, at a meeting of the Board of Examiners, on the 13th instant, and when eligible will be admitted to the pass examination.

Messrs. Goolden Perrin, Walter B. Tomson, Thomas Johnston, George W. Ford, and W. W. Constable Robson, students of St. Thomas's Hospital; Alfred E. Hind, Thomas H. White, Charles B. Leaver, and Samuel Stephens, of St. Bartholomew's Hospital; Harry Littlewood, Thomas Wilson, and Frederick A. Dixey, of University College; Charles W. Biden, and C. Langford Josling, of the Charing Cross Hospital; Arthur W. Clark, and William Watson, of Guy's Hospital; C. Tidbury Street, and Charles J. Weller, of St. George's Hospital; Thomas Whaley, of the London Hospital; James R. Roberts, of the Middlesex Hospital; and A. Waldegrave Mitchell, of King's College.

Three candidates were rejected.

The following gentlemen passed on the 14th instant.

Messrs. Frederick Bryan, Duncan B. Irving, J. L. Clarke Cox, and Charles D. Green, of St. Thomas's Hospital; John J. Powell, William H. Brown, and Arthur H. Mason, of University College; Trevor Webster, Clifton Sturt, and T. Sydney Short, of King's College; Robert Caldwell, and Charles S. Humphreys, of the Westminster Hospital; Clement S. Robinson, and Frank Percival, of St. George's Hospital; F. B. Willmer Phillips, and William L. Blight, of Guy's Hospital; J. Norman Vogan, and Albert Cresswell, of St. Bartholomew's Hospital; and John J. Rowland, of the Charing Cross Hospital.

Thirty-eight candidates out of the two hundred and fourteen examined, having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for three months.

The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College, at a meeting of the Court of Examiners on the 19th instant.

Messrs. Oscar B. Shelswell, Sibford, Oxon; C. Egerton Jennings, Malmesbury; E. Talbot Palmer, Southsea; H. Nelson Holberton, Hampshire; William Eames, St. John's, S.E.; H. Waytes Pomfort, Hollingworth, Cheshire; Robert J. W. Oswald, Kennington Road; Henry G. Bryer, Washington, U.S.; John H. T. Walsh, Cheltenham; James Cox, Melbourne; Walter R. Awdry, Kidderminster; John A. West, Bickley, Kent; Ernest O. Wight, Clarendon Road; Jean Kaeser, Avenue Road, N.W.; Lennard Stokes, Lee, Kent; John E. Howe, Knowle, Warwickshire; Wilfred B. Thomson, Ledbury Road, W.; Walter B. Platt, Boston, U.S.; Alfred E. Wells, Brixton; Edward F. Potter, Knaresborough; Walter O. Trotter, Stockton-on-Tees; Thomas Kelly, Ontario, Canada; and William G. Black, South Shields.

Five candidates were rejected.

The following gentlemen passed on the 20th instant.

Messrs. Ernest M. Knowling, Wellington, Somerset; Herbert C. Hallowes, Chesterfield; Frank H. Shaw, Hastings; William H. Cory, Bath; William T. Maddison, Cardiff; Frederick E. Row, Devonport; Harold R. Osborne, St. Ives, Hunts; Oswald A. Browne, Lympstone, Devon; Edwin F. Hatton, Peterborough, Canada; G. Neville Stephen, Lincoln; Charles Downing, Falmouth; Walter Pearce, Maidenhead; Henry W. P. Makeham, Chelmsford; Percy H. White, Norwich; and Thomas B. Luscombe, Hampton.

Ten candidates were rejected.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 14th, 1881.

Batterham, John Williams, 26, Maitland Park Villas, N.W.
Harvey, Frank Williams, Cromwell House, Gunnersbury.
Luscombe, Thomas Benjamin, Hampton, Middlesex.
Oakley, John Lewis Bagnall, Newland, Gloucestershire.
Stott, Hugh, West Kensington Park, W.
Whister, Charles Watts, Ashburnham, Sussex.

The following gentlemen also on the same day passed their Primary Professional Examination.

Goodall, John Kenaz, Charing Cross Hospital.
Iliewiez, Henry Frederick, London Hospital.
Lipscombe, Arthur Augustus, London Hospital.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the Quarterly First Professional Examination, held on Monday, Tuesday, and Wednesday, April 4th, 5th, and 6th, the following candidate was successful.

George Abbott, Wigan, Lancashire.

At the usual monthly examinations for the Licences of the College, held on Monday, April 4th, and the three following days, the successful candidates were—

For the Licences to practise Medicine and Midwifery.—Hope Bridges Adams, London; Charles Dillon Barrett, Boyle, Co. Roscommon; John George Cronyn, Dublin; Patrick Arthur Daly, Dublin; Charles Burke Gaffney, Dublin; William Henry Holden, Bolton; John Vincent Lentaigne, Dublin; Edward Hayes McLaughlin, Clapham, London; Alice Kyme Marston, London; Isabella Mears, Tynemouth; Francis John Robert Russell, London; Edith Shove, Lewisham, Kent.

For the Licence to practise Medicine.—William Gem, Warwick; John Laird, London; John O'Halloran, Listowel; Vincent Adolphe Passanha, Madras; William J. Trotter, Summerhill, Co. Meath.

For the Licence to practise Midwifery.—James Quirke, Wallslough, Co. Kilkenny.

MEDICAL VACANCIES.

THE following vacancies are announced :—

CARLISLE DISPENSARY—Assistant House-Surgeon. Salary, £90 per annum. Applications to the Honorary Secretary.

DARLINGTON HOSPITAL—Assistant House-Surgeon. Salary £100 per annum. Applications to C. Panson, Esq., Fairfield House, Darlington.

HOLLOWAY AND NORTH ISLINGTON INFIRMARY—Two Medical Officers. Particulars from the Resident Medical Officer.

HULL ODD FELLOWS' MEDICAL DISPENSARY—Medical Officer. Salary £200. Applications by the 23rd instant.

KENT COUNTY ASYLUM, Barming Heath, near Maidstone—Junior Assistant Medical Officer. Salary, £150 a year. Applications to be sent in by the 28th April.

LANCASTER COUNTY ASYLUM—Assistant Medical Officer for few months. Salary at the rate of £100 per annum. Applications to the Medical Superintendent,

MIDDLESEX HOSPITAL, W.—Ophthalmic Surgeon. Applications by April 30ht

MIDLETON UNION—Medical Officer for Cloyne Dispensary District. Salary, £100 per annum, with £25 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 26th inst.

NEW ABBEY PAROCHIAL BOARD, Dumfries—Medical Officer. Salary, £40 per annum. Applications by April 16th.

PARISHES OF TINGWALL, WHITENESS, AND WEISDALE—Estimated income, £300 a year. Applications to be sent to Mr. C. C. Beatton, Inspector of Poor, Tingwall, Shetland, before April 25th.

RATHDOWN UNION—Medical Officer for Bray portion of Bray and Rathmichael Dispensary District. Salary, £110 per annum, with £29 10s. as Medical Officer of Health, registration and vaccination fees. Election on May 2nd.

SHERBURN HOSPITAL, near Durham—Medical Officer of Ancient Foundation. Salary £250. Applications by May 20th.

SOUTH DEVON AND EAST CORNWALL HOSPITAL—Surgeon. Election to take place on May 4th.

ST. GEORGE'S AND ST. JAMES'S DISPENSARY, 60, King Street, Golden Square, W.—Physician, and Physician for the Diseases of Woman and Children. Applications by the 27th instant.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck Street, Cavendish Square—Obstetric Physician. Applications by May 22nd.

SUNDERLAND INFIRMARY—Two House-Surgeons. Applications by May 4th.

THE HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Junior Resident Medical Officer. Salary, £50 per annum. Applications by the 27th April.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY—Senior House-Surgeon and Provident Medical Officer. Salary, £100 per annum. Applications to be sent in by Monday, May 30th.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY, Torquay—Junior House-Surgeon and Dispenser. Salary £90. Applications by June 6th.

TOTTENHAM TRAINING HOSPITAL—House-Surgeon (single). Salary £150 per annum. Applications by April 30th.

TRALEE UNION—Medical Officer for Brosna Dispensary District. Salary, £90 per annum, with £12 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 27th instant.

UNIVERSITY COLLEGE, London—Professorship of Ophthalmic Medicine and Surgery. Applications by May 10th.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY AND FEVER HOSPITAL—House-Surgeon. Salary, £150 per annum. Applications before May 1st.

MEDICAL APPOINTMENTS.

EWBANK, Henry, M.R.C.S., appointed Senior House-Surgeon to Cheltenham General Hospital, *vice* G. A. Carden, M.R.C.S., resigned.

PRATT, Reginald, M.R.C.S. and L.S.A., appointed Resident Medical Officer to the Royal United Hospital, Bath.

PUBLIC HEALTH MEDICAL APPOINTMENTS.

MASON, Samuel Butler, L.R.C.P., L.F.P.S., L.S.A.Lond., has been appointed Medical Officer and Public Vaccinator to the Pontypool District of the Pontypool Union.

WHITHAM, Alfred, L.R.C.P., L.R.C.S.Ed., appointed Medical Officer of Health for Adlington Local Board District, and for the Rivington District of the Chorley Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

MARRIAGE.

GREVES—SOUTHAM.—On Thursday, April 7th, at St. Giles's, Shrewsbury, by the Rev. R. L. Burton, assisted by the Rev. Loftus Owens, Edwin Hyla Greves, M.B., C.M., 27, Oxford Street, Abercromby Square, Liverpool, to Agnes Emily, fourth daughter of Thomas Southam, The Hollies, Shrewsbury.

SANITARY INSTITUTE OF GREAT BRITAIN.—At the adjourned ordinary meeting of the Institute, to be held at 9, Conduit Street, on Wednesday, April 27th, at 8 p.m., the discussion will be continued upon the address delivered at the last meeting:—"Suggestions for the management of cases of small-pox, and of other infectious diseases in the metropolis and large towns," by Dr. Richardson, F.R.S., chairman of council.

HEALTH OF FOREIGN CITIES.—The following facts, indicative of the recent health and sanitary condition of various foreign cities, are derived from a table in the Registrar-General's last weekly return. In the three largest Indian cities, the death-rate averaged 37.1 per 1,000, and was equal to 29.9 in Bombay, 34.7 in Calcutta, and 51.1 in Madras; fevers showed marked fatality in Bombay and Calcutta, and small-pox caused 70 deaths in Madras, a further increase upon recent weekly numbers. In Alexandria, the rate was equal to 39.9, and 3 fatal cases of small-pox were recorded. According to the most recent weekly returns, the average annual death-rate in twenty European cities was equal to 32.1 per 1,000, showing a marked excess upon the average rate in the twenty large English towns last week, which was only 22.9. In St. Petersburg, the rate was no less than 63.1; and the fatal cases of typhus and typhoid fever further increased to 109, from 82 and 103 in the two previous weeks. In three other northern cities—Stockholm, Copenhagen, and Christiania—the death-rate did not average more than 25.5; the highest rate was 30.3 in Stockholm, showing a slight decline from the rate in the previous week. The Paris rate was equal to 32.7; and the recorded deaths included 31 fatal cases of small-pox, and 30 of typhoid fever. The rate in Brussels was 26.3; while it did not exceed 21.8 in Geneva. In Amsterdam, Rotterdam, and the Hague, the rates were, respectively, 23.7, 26.9, and 20.3; typhus and typhoid fever caused 5 deaths in Amsterdam. The Registrar-General's list includes seven German and Austrian towns, in which the death-rate averaged 30.0, and ranged from 23.9 and 24.7 in Hamburg and Berlin, to 35.7 and 40.2 in Munich and Buda-Pesth. Small-pox caused 19 deaths in Vienna, 16 in Buda-Pesth, and 3 in Munich; while diphtheria showed fatal prevalence in Berlin. In three Italian cities, the average rate was 27.1, and showed a further decline from recent weekly rates: the rate was 23.6 in Turin, 25.4 in Venice, and 30.6 in Rome. Small-pox caused 4 deaths in Rome, and typhoid fever 6 in Turin. In four of the largest American cities, the recorded death-rate did not average more than 24.4. It was equal to 32.4 in New York, while it did not exceed 18.3 in Baltimore, and 22.2 in Philadelphia. The rate in Baltimore, however, is understated by an overestimate of the population; it is calculated upon an estimate of the population in the middle of 1880, which exceeds by more than 60,000 the number enumerated at the recent census. The population of Philadelphia appears also to be somewhat overstated; the latest returns from this city shows 43 fatal cases of small-pox, or 6 more than were returned in the previous week.

PUBLIC HEALTH.—The annual rate of mortality during the week ending April 9th, in twenty of the largest English towns, averaged 22.4 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Portsmouth 16, Leicester 17, Brighton 18, Bristol 19, Bradford 19, Salford 19, Plymouth 20, Sunderland 21, London 21, Norwich 21, Leeds 21, Hull 22, Nottingham 22, Sheffield 23, Birmingham 24, Newcastle-on-Tyne 25, Manchester 26, Oldham 26, Wolverhampton 27, and Liverpool 28. Scarlet fever showed the largest proportional fatality in Wolverhampton; and whooping-cough in Portsmouth and Leeds. The highest death-rates from fever (mainly enteric) were recorded in Newcastle-upon-Tyne and Portsmouth. Small-pox caused 77 more deaths in London and its outer ring of suburban districts, one in Liverpool, but not one in any of the eighteen other provincial towns. In London, 2,612 births and 1,532 deaths were registered. The deaths were 233 below the average, and gave an annual death-rate of 21.6. The 1,532 deaths included 72 from small-pox, 63 from measles, 19 from scarlet fever, 11 from diphtheria, 26 from whooping-cough, 6 from enteric fever, 5 from ill-defined forms of continued fever, 9 from diarrhœa, one from dysentery, and not one from simple cholera; thus, 212 deaths were referred to these diseases, being 43 below the average. The deaths referred to diseases of the respiratory organs, which had been 345, 348, and 358 in the three preceding weeks, further rose to 359 last week, but were 92 below the average; 221 were attributed to bronchitis and 94 to pneumonia. Different forms of violence caused 59 deaths; 51 were the result of negligence or accident, among which were 20 from fractures and contusions, 9 from burns and scalds, 9 from drowning, and 7 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 40.5°, and 6.2° below the average. The mean was below the average on each day of the week. The general direction of the wind was easterly, and the horizontal movement of the air averaged 21.5 miles per hour, which was 9.2 above the average. No rain was measured during the week. The duration of registered bright sunshine in the week was equal to 53 per cent. of its possible duration. The recorded amount of ozone showed an excess on Monday, Wednesday, and Saturday, but was below the average during the rest of the week.—The annual rate of mortality last week, ending on the 16th inst., in twenty of the largest English towns, averaged 22.9 per 1,000. The rates of mortality in the several towns were as follow: Brighton 14, Leicester 15, Norwich 18, Hull 19, Bristol 19, Plymouth 20, Birmingham 20, Newcastle-on-Tyne 20, Salford 21, Bradford 22, Oldham 22, London 22, Leeds 23, Nottingham 23, Sunderland 24, Manchester 24, Sheffield 24, Wolverhampton 25, Liverpool 27, and Portsmouth 28. Whooping-cough showed the largest proportional fatality in Manchester and Leeds; and scarlet fever in Wolverhampton. The highest death-rates from fever (mainly enteric) were recorded in Plymouth, Liverpool, Sheffield, and Newcastle-upon-Tyne. Small-pox caused 85 more deaths in London and its outer ring of suburban districts, one in Oldham, but not one in any of the eighteen other large provincial towns. In London, 2,344 births and 1,636 deaths were registered. The deaths were 72 below the average, and gave an annual death-rate of 23.0. The 1,636 deaths included 77 from small-pox, 62 from measles, 28 from scarlet fever, 9 from diphtheria, 41 from whooping-cough, 2 from typhus fever, one from cerebro-spinal fever, 14 from enteric fever, 2 from ill-defined forms of continued fever, 14 from diarrhœa, one from dysentery, and not one from simple cholera; thus, 251 deaths were referred to these diseases, being one below the average. The deaths referred to diseases of the respiratory organs, which had slowly increased from 345 to 359 in the four preceding weeks, further rose last week to 395, but were 14 below the average; 250 were attributed to bronchitis and 105 to pneumonia. Different forms of violence caused 55 deaths; 47 were the result of negligence or accident, among which were 17 from fractures and contusions, 12 from burns and scalds, 2 from drowning, and 10 of infants under one year of age from suffocation. Eight cases of suicide were registered. At Greenwich, the mean temperature of the air was 50.8°, and 3.6° above the average. The direction of the wind was variable, and the horizontal movement of the air averaged 8.3 miles per hour, which was 3.8 below the average. Rain fell on two days of the week, to the aggregate amount of 0.15 of an inch. The duration of registered bright sunshine in the week was equal to 18 per cent. of its possible duration. The recorded amount of ozone showed an excess on Tuesday, Wednesday, and Friday.

METROPOLITAN WATER-SUPPLY.—Dr. Frankland reports as follows the results of the chemical analyses of the waters supplied to the inner and portions of the outer circle of the metropolis during the month of March:—"Taking the average amount of organic impurity contained in a given volume of the Kent Company's water during the nine years ending December, 1876, as unity, the proportional amount contained in an equal volume of water supplied by each of the Metropolitan water companies and by the Tottenham Local Board of Health was:—Kent 1.1; Colne Valley, 1.7; Tottenham, 2.1; New River, 3.6; Grand Junction, 4.6; Chelsea, 4.7; Southwark, 5.3; East London, 5.3; West Middlesex, 5.6; Lambeth, 5.6. The Thames waters supplied by the Chelsea, Southwark, Grand Junction, and Lambeth Companies was of considerably better quality than during the previous month; on the other hand, the West Middlesex Company's water, which in February was the best drawn from the Thames, exhibited in March a noticeable deterioration. The Chelsea and Grand Junction Companies alone delivered water that had not been efficiently filtered. Of the water derived from the Lea, the New River Company's supply recovered its usual superiority over the metropolitan waters of river origin, while that of the East London Company was no better than average Thames water. The supplies of both companies were efficiently filtered before delivery. The deep-well waters of the Kent and Colne Valley Companies and of the Tottenham Local Board of Health were of their usual excellent quality for drinking, and that of the Colne Valley Company, being softened before delivered, was also well suited for all domestic uses. Seen through a stratum two feet deep, the waters presented the following appearances:—Kent, Colne Valley, and Tottenham, clear and colourless; New River and East London, West Middlesex, Southwark, Lambeth, clear and pale yellow; Chelsea and Grand Junction, slightly turbid and pale yellow.

TREATMENT OF SCABIES.—M. Fournier, in his lectures on the treatment of scabies, gives the following prescription for an ointment, which is preferred to that of Helmerich, as being less irritating:—R. Sodæ carbonat ℥iss; sulphur sublimate ℥iij; tragacanthi gumm gr xv; glycerinæ ℥vj. The preliminary friction with black soap, practised at St. Louis Hospital, may be replaced by prolonged frictions with the ordinary toilet soap; the ointment is then very freely applied over the whole surface of the body, well rubbed in and allowed to remain, the patient putting on his ordinary under clothing, so that any acari contained therein may be destroyed at the same time.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th. 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. R. J. Lee: The Special Character of Cutaneous Diseases in Infants and Young Children. Dr. Allen Sturge will exhibit two Patients illustrating some interesting points in connection with Muscular Atrophy. Dr. Gilbart Smith will exhibit Photographs of the Machines used in the Mechanico-Therapeutic Institution of Stockholm.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. George Thin: On an Unusual Case of Warty Growths on the Face. Dr. Champneys: second communication on Artificial Respiration in Stillborn Children; Expansibility of Various Parts of the Lungs.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following were the questions on Anatomy and Physiology submitted to the two hundred and fourteen candidates at the recent primary examination for the membership of the Royal College of Surgeons. They were required to answer four, and not more, of the six questions in each subject. *Anatomy.*—1. Describe the Second Cervical Vertebra. 2. Describe the Greater and Lesser Sacro-Sciatic Ligaments. What Foramina do they respectively assist in forming? What Structures pass through these Foramina? 3. Describe the Rectus Abdominis Muscle, and the Sheath within which it is contained. How is it supplied by Blood-Vessels and Nerves? 4. Describe the Parotid Gland, and its Duct. Enumerate the structures with which they are in relation. 5. Describe the Lateral Ventricles of the Brain. 6. Give the Dissection necessary to expose the course and distribution of the Posterior Interosseous Nerve. *Physiology.*—1. Describe the minute structure and the action of the Auriculo-Ventricular and Semilunar Valves of the Heart. 2. What is the Normal Temperature of the Human Body? Within what limits does it vary physiologically? How is it kept within these limits? 3. What are the Functions of the Roots of the Spinal Nerves? By what experiments have these functions been determined? 4. Describe the Minute Anatomy and the Mode of Action, of the Œsophagus. 5. What is the evidence of the existence of a Respiratory Centre in the Medulla Oblongata? How is this centre excited to action? 6. Describe the varieties, the microscopic appearances, and the uses of Yellow Elastic Tissue, and state where these varieties are chiefly found.

The following were the questions on Surgical Anatomy and the Principles and Practice of Surgery submitted to the candidates at the pass examination for the diploma of membership of the College, on the 14th instant, when they were required to answer at least four, including one of the first two, out of the six questions on Surgical Anatomy and the Principles and Practice of Surgery. 1. Give the Anatomy of Hunter's Canal and its Contents, and describe the operation for tying the Artery therein. 2. Describe the relations of the Colon in its whole length. Name the Operations in which that Bowel is implicated. 3. Describe the Fractures which occur at the lower end of the Humerus, and state how they may be distinguished from Dislocation. 4. Supposing Tracheotomy to have been performed on a Child for Acute Inflammation of the Larynx, describe, in detail, the subsequent management of the case. 5. Describe the mode of formation of Fistula in Ano. 6. To what causes may Enlargement of the Abdomen in a Woman be due? How would you investigate such a case with a view to Diagnosis?

The following were the questions on the Principles and Practice of Medicine submitted to the seventy-seven candidates. 1. Describe the signs and symptoms of Pneumonia, the modes by which it can be distinguished from the disorders which resemble it, its ordinary course, results, and treatment. 2. What are the chief causes of Jaundice? Indicate the symptoms of the more important conditions which give rise to it, with the treatment proper to each. 3. State the therapeutical effects, preparations, and their doses, of Digitalis and Colchicum. Mention the chief components, effects, and doses of the following preparations:—Pilula Colocynthidis Composita; Pilula Hydrargyri Subchloridi Composita; Pulvis Kino Compositus; Pulvis Jalapæ Compositus; Pulvis Ipecacuanhæ Compositus; Mistura Sennæ Composita; and Mistura Ferri Composita.

COLONEL TOTTENHAM'S QUESTION AND IRISH LUNATIC ASYLUMS.

SIR,—Permit me to correct an error in Dr. Laffan's letter, under the above heading, in your issue of March 12th. In speaking of the fact that, in Ireland, consulting physicians to asylums are always selected from general practitioners, he seeks to defend his position in the following terms. "Thus it happens that the physician who is to be appealed to by these very superintendents in a case of difficulty is himself a Poor-law medical officer, who has never had the alleged experience of an assistant. The doctrine has received, however, a much more notable illustration from the other side of the Atlantic, where the National Association for the Insane has, *with the full concurrence of the chief medical superintendents* (italics are mine), actually proposed to supplement the deficiencies of these very superintendents by supplying each asylum with a consulting staff taken from the ranks of general practising physicians."

Without presuming to discuss the merits of the particular question at issue, as one which does not intimately concern the American physician, I must correct the italicised portion of the above quotation. It is true the proposition was actually made by the so-called "National Association for the Protection of the Insane and the Prevention of Insanity"; but, fortunately for society, far from concurring in the aforementioned plan of consultation, asylum-superintendents, as a body, "chief" and otherwise, strongly object to having their "deficiencies" supplemented in any such manner.

An altogether erroneous impression seems to be abroad in regard to the character and scope of this would-be philanthropic association. It is a self-constituted body, and not national in character in any proper sense of the word. It is presided over by the superintendent of an idiot school, has not among its officers a single superintendent of a lunatic asylum, and counts among its members, so far as I can learn, but few superintendents of asylums of any class, as there are but few who need such supplement for deficiencies. It is not, to quote from your leading article of January 1st ultimo, "cordially supported by many of the most eminent and advanced medical superintendents of asylums" in the country. Whether or not the association is "the work of a few malcontents", or whether any concealed motive is to be apprehended from its organisation, it would be foreign to the purpose of this letter to question.—I am, etc.,

G. A. BLUMER, M.D.

State Lunatic Asylum, Utica, New York, March 27th, 1881.

FEES FOR MEDICAL EXAMINATIONS FOR INSURANCE OFFICES.

SIR,—I have seen some correspondence in your columns lately on the above subject, and there is one point which has not (I believe) been touched on, but which, I think, is well worthy of the attention of the profession. It is the custom of some offices of giving only half a guinea as fee when the proposal is for under some amount (in some offices £300, in some £500). This has always struck me as an anomaly; for surely the medical examination and report are, or ought to be, the same in all cases, whatever the sum proposed to be assured is. I examine for a good number of offices here (perhaps a dozen); and it has been my custom to write a protest to the secretary on receiving my first half-guinea fee from any office, pointing out the inconsistency, and asking on what principle they act.

I am happy to say that one of my offices last month reduced the minimum amount for the full fee of one guinea from £500 to £300; and that I have had a letter from the secretary of another only this week, saying that they "have pleasure in stating that a fee of £1 1s. will be allowed in all cases in future". This is encouraging, and shows, I think, that if other medical examiners for insurance-offices would write similar letters, we might soon have a guinea in all cases—not too large a fee, in my opinion, for any such report as most offices demand, and have, I think, a right to expect for their own protection.—I am, sir, yours, etc.,

Halifax, April 12th, 1881. E. WEST SYMES, M.D.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

ARUM MACULATUM.

SIR,—As I do not see in any works of reference, inclusive of the BRITISH MEDICAL JOURNAL for the last five years, any case quoted showing the poisonous nature of the Arum maculatum, commonly called "lords and ladies", the following account of a fatal case may be of interest to readers.

On Saturday, April 9th, I was called at 7.35 A.M. to attend M. A. M., a girl, four years old. I attended at 7.45 A.M., and found her dead; the skin mottled all over, rigor mortis setting in, and the body nearly cold. She was reported to have died at 5.30 A.M. The history was that she came in from play at 5.30 P.M. on Friday, complaining of being tired. Her mother laid her down, and she slept at once. At 5.30, she awoke, and took some tea with milk; immediately she vomited some thin milky substance, and went to bed, when she slept somewhat restlessly until 12.30 P.M., when she awoke with vomiting and severe purging; this continued with pain until 5 A.M., when she had a slight convulsion, and actually died at 5.30, though her mother thought she had only fallen asleep, and had to be enlightened by a neighbour.

On the coroner's order, I made a *post mortem* examination on Sunday, thirty hours after death. Rigor mortis had nearly passed off. All the organs were healthy and normal, except that the bases of both lungs were congested. The heart was empty in both ventricles, and firmly contracted. The stomach and small intestines were thickly coated with a creamy lining of mucus, with bile; no blood. The stomach further contained half an inch of the fatal leaf; there was also found about as much in one of the stools, and probably more was passed. This, with the firmly contracted heart, constituted the chief confirmatory evidence of the irritant nature of the poison which caused death.

The parents regarded the illness as a bad attack of biliousness, and were not alarmed until the child was actually moribund. The child had been warned by another older girl not to eat the plant, but had persisted. I am, sir, yours faithfully,

A. J. ALLIOTT, M.D.Cantab. and M.R.C.S.E.

St. John's, Sevenoaks, April 14th, 1881.

MR. J. C. PARSONS, Guernsey. The method of administering protoxide of nitrogen under pressure is that devised by M. Paul Bert. An apartment is constructed for the purpose, of the nature of a diving-bell, and in this are placed the patient and operator. A full account is given in Dr. Rottenstein's treatise, *Sur L'Anesthésie*, especially written by him, as a dentist, for dentistry.

A CLINICAL DIFFICULTY.

SIR,—Will you kindly have the notes of the following case printed in your JOURNAL, as I very much wish to have the opinion of some of the members upon it?

I first saw a little girl, aged five years and three months, on March 11th, 1881, with all the typical signs of jaundice, viz., the conjunctivæ, and the whole surface of the skin, yellow; high coloured urine (like beer), and a firm white motion. She had been ailing for about a fortnight with a cold, which the parents thought would pass off; became much worse the last four days, with headache and anorexia, etc. She was not subject to worms, and had no cough or tightness of the breath. I ordered sulphate of magnesia, and tincture of rhubarb every four hours, and three grains of hydrargyrum cum creta at night.

On the 13th, at 10 A.M., I was sent for, as the child was much worse. She had been very restless and excited during the night, throwing her arms about, drinking eagerly, and biting the spoon, and was with difficulty kept in bed. On my visit, she was in a semicomatose condition, with the pupils widely dilated, and the conjunctivæ partially sensible to the touch. She could swallow. The bowels had not been opened since the previous morning. I administered a powder of jalapine, calomel, and ipecacuanha. At 4 P.M., she was much worse; pulseless, unconscious, with stertorous breathing. There was no action of the bowels. She died at half-past five.

I should very much like to have the opinion of members on the above case, and the following questions, viz.: What were the probable causes of the jaundice, and of the supervention of the comatose condition? And what was the correct treatment? I am, sir, yours truly,

F. H. THOMPSON.

Cleobury Mortimer, Salop.

SIR,—I have been attending the sister of a clergyman who is taking temporary duty, and has no church preferment of his own. Their father was a medical man, and died some years ago. These two have always lived together; and I know they have some private means of their own. Are they entitled to gratuitous attendance? I enclose my card.—I am, etc., RUSTICUS.

. Rusticus would be justified in charging for attendance.

CHRONIC PSORIASIS.

SIR,—In reply to the query of "Cutis", for treatment in a case of chronic psoriasis, I would recommend a trial of ten minims of Fowler's solution in an ounce of decoction of cinchona, three times daily; and externally, chrysophanic acid ointment in the proportions of 1 to 10. It should be well rubbed in night and morning.—I am, etc., A. W. WOODMAN-DOWDING, M.B., Clinical Assistant in the Skin-Disease Department, London Hospital.

SIR,—If "Cutis" will try the mixture of potassa sulphurata and Fowler's solution of arsenic as an internal remedy, and use chrysophanic acid ointment externally, well rubbed in till it causes a tendency to inflammation, and then substitute "huile de Cade", he will, I think, get good results. At all events, it cured a most inveterate case that came under my care, after having been getting worse and worse under various treatments at a hospital. The ulcer was literally covered from her chin to her instep. I began by giving three grains of potassæ sulphurata, and three minims of liquor potassæ arsenitis in an ounce of water, three times a day; and as I found it borne well, increased the dose of potassa sulphurata to eight grains and the arsenic to ten minims; and had the satisfaction of seeing the case perfectly cured in a few months. Two years afterwards, she had a relapse; but by taking it in time, it was soon cured, and this spring she again came with it out rather fully; and again, in two or three weeks, it was cured.—Yours truly,

Navland, Colchester, April 7th, 1881. H. W. PALMER.

P.S. Chrysophanic acid I have found excellent in eczema marginatum, but I never use it on a patient who is highly strumous, as I have seen it produce impetiginous eczema of scalp and great pain in that class of patients. I always have it made with vaseline.

DR. R. LORD.—Apply to the Secretary, Miss F. Lankester, 44, Berners Street, W.

THE SPELTHORNE SANITORIUM.

SIR,—A short time since, the attention of the committee of the Spelthorne Sanitorium was drawn to a notice in your JOURNAL of the value of the work being done in this institution. In consequence of this notice, the lady-superintendent received, and still continues to receive, telegrams and applications for the admission of men. **The committee will, therefore, feel greatly obliged if you will kindly insert this letter, explaining that the Spelthorne Sanitorium is for the reformation of women only.** The home has been opened two years last January.—I beg to remain, faithfully yours, EDMUND E. ANTROBUS, Chairman.

14, Kensington Palace Gardens, April 15th, 1881.

MR. W. J. SQUARE (Plymouth).—Our correspondent's friend would probably be able to obtain a degree in medicine, of excellent repute, at either of the Scottish universities—Edinburgh, Glasgow, or Aberdeen. One year's attendance on the lectures in either of these would be sufficient; and the study at a medical school up to the present time would be recognised. Application should be made to the Secretary at either of these universities for the regulations under which degrees are granted.

NOISELESS COAL-BOXES.

SIR,—Mr. Gillespie's invention is one that will approve itself to many. To those who are not in a position to command the luxuries of the sick-room, a simpler expedient, that I have often resorted to with a similar object, is worth remembering. Wrap about half a scoopful of coal in a piece of newspaper, and repeat this until the scuttle is full. The fire can thus be replenished from time to time without the least noise or rattle, and without soiling the fingers. The little packets may be placed bodily on the fire, or the paper unfolded and the coals gently distributed.—Yours faithfully, ARTHUR W. EDIS.

THE LATE MR. MERRIMAN.

WITH regard to the obituary on Mr. John Merriman in our last number, Mr. J. Jones Merriman sends the following correction of an error

"It was Mr. Merriman's brother, Dr. James N. Merriman, who shared with him and their father the appointment to the Queen; and, in 1861, he was joined in the partnership by Mr. Arthur Roberts (cousin of Sir Frederick Roberts, the hero of Candahar), who still remains in the firm."

FLUKE IN SHEEP.

SIR,—As this disease is very prevalent just now, I would be glad to have the opinion of some members as to whether the meat of animals suffering from it should be condemned: 1. in the early stages; 2. after the animal's health has become manifestly impaired. As an example, I may mention a case in which the aggregate weight of three carcases of sheep exposed for sale was only 5½ stone. The livers were full of "flukes". As the subject is an important one, and, as far as I am aware, not clearly settled in any of the text-books, I am anxious to obtain the opinions of some members whose experience may enable them to throw light on it, especially with regard to the stage of the disease in which the meat ought to be condemned.—Yours faithfully, M.B.

ERRATA.—In Dr. Bugnion's paper at page 332 of the JOURNAL for March 12th, the following corrections are required. In the heading, *for* "Geneva", *read* "Lausanne". In the third paragraph, line 3, *for* "three pairs", *read* "two pairs". In the fifth paragraph, line 2, *for* "12.0-18", *read* "12 to 15". In column 2, line 34, *for* "hæmatoid", *read* "nematoid".

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. Holmes, London; Mr. S. C. Smith, Halifax; Mr. J. T. Neville, Dublin; Dr. Moxon, London; S. H.; Mr. F. G. Barnett, Bristol; Dr. Wade, Birmingham; Mr. T. M. Stone, London; Inspector General R.N.; Mr. Reginald Pratt, Bath; Mr. Arthur Flint, London; Mr. G. M. Kay, Bishop Auckland; Dr. Underhill, Edinburgh; Mr. A. Kelsey, Redhill; Dr. W. O. Markham, London; Mr. A. G. Young, Mountmorris; Dr. Lindsay, Lesmahagow; Our Glasgow Correspondent; Mr. Richard Jeffreys, Chesterfield; Dr. Julius Althaus, London; Dr. Holman, Reigate; Our Dublin Correspondent; Mr. R. Lockhart Lawson, London; Mr. Harvey, St. Leonard's-on-Sea; Dr. Laffan, Cashel; Mr. Sankey, Oxford; Mr. John Appleyard, Bradford; Dr. Barron, Durham; Mr. Atkin, Sheffield; Miss Walker, Eastbourne; Dr. Gowers, London; Mr. Fitzsimon, London; Mr. Parkinson, Wimborne; Our Edinburgh Correspondent; Mr. Edmund E. Antrobus, London; Mr. Balmanno Squire, London; Dr. Edward Haughton, Upper Norwood; Dr. Saundby, Birmingham; Dr. W. V. Lush, Weymouth; Mr. G. Fastes, London; Dr. Greenfield, Edinburgh; Mr. Thomas Leeds, Balham; Dr. Galabin, London; Mr. W. J. Square, Plymouth; Dr. John D. Hillis, Carlow; Corpus Sanum; J. J. Smith, London; Dr. M. W. Taylor, Penrith; Dr. H. H. Phillips, Reading; Mr. E. White Wallis, London; Dr. J. Rogers, London; Dr. Taggart, Antrim; Dr. W. A. Edwards, Mauritius; Mr. J. S. Sergeant, Brigg; Dr. James Braithwaite, Leeds; Mr. W. H. Beaumont, London; Mr. John Donald, Banff; Dr. T. Gelston Atkins, Cork; Dr. T. Trollope, St. Leonard's-on-Sea; Mr. C. E. James, Kilkenny; Dr. J. W. Wilson, Plymouth; Dr. A. C. Alliott, Sevenoaks; Mr. William Whysall, Grantham; Mr. J. Whitehouse, Smethwick; etc.

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THE LUMLEIAN LECTURES
ON
BRIGHT'S DISEASE.

Delivered before the College of Physicians.

By REGINALD SOUTHEY, M.D.Oxon., F.R.C.P.,
Physician and Lecturer on Clinical and Forensic Medicine at St. Bartholomew's Hospital.

Lecture III.—Part I.

Turning once more to the anatomy of the kidney, you will perceive that this reveals an apparatus perhaps more remarkable than that of any other part of the human body in its contrivance. It is a sort of safety-pump, arranged always to work a little. Each ureter of a dog has been shown to drop alternately one drop a minute, but ready, instantly that the blood is surcharged with water, as after a full draught, to flow in a full stream. Look at the elaborateness of the tubuli, and the peculiarities of the vascular supplies. Nearly the entire blood that passes through the organ has first to make its passage through the minute capillary plexus rolled up in the Malpighian bodies, or through the vasa recta tufts, before entering on the main drains, which are singularly large capillary networks laid down between the secreting tubes. The vascularity of the whole organ relatively to its size, and the great length of its entire capillary system, the so-called double system of capillaries the blood has to traverse, have attracted the attention of physiologists from the first. Now, each glomerule is not merely a sluice-gate regulating the blood-stream through the organ, but has been shown recently to be a sort of erectile organ.

The varying size of the glomerules, according as they are flushed and distended with blood, or comparatively collapsed and flaccid, was pointed out by von Nussbaum in his observations upon the mode of functioning of the living kidney of the triton, which can be laid in a wet chamber under a microscope, and watched at work. He notices how the neck of the ampulliform capsule shortens, and how remarkable the alteration in size of the glomerule is, according to the amount of blood-pressure through the tuft.

When the large number of the glomeruli in the kidney is considered, and their distensibility according as they are blood-flushed or flaccid, it is obvious that the pressure exercised by them against the relatively unyielding fibrous capsule of the whole kidney must be of no mean amount.

The concentration of the urine, the quality of the secretion, depend upon the blood-pressure and the rapidity of the blood-stream through the renal capillaries. The tufts and the afferent arteries are the apparatus by means of which the blood-pressure through the organs is regulated. In disease, and under undue pressure, the Malpighian bodies probably are the spot, as Cohnheim suggests, where blood and blood-plasma most easily make their passage into the urine-tubes; just as injection-fluids occasionally tend to burst through into the tubuli at this point. If the endothelium over the tufts be swollen up, says Cohnheim, albumen can and does transude here.

The concentration of the urine is always in an inverse ratio to the rapidity of its secretion; to the rapidity, that is, of the blood-stream through the organ. Experiments have shown that, directly the pressure upon the tufts in the Malpighian bodies is so great that the inflow *per vas afferens* exceeds the outflow *per vas efferens*, the tuft becomes distended to its maximum; but further pressure only leads to the transudation of albumen or the migration of blood-cells.

I mention all these things, because they bear so very directly upon pathological states of kidney, and on some of the symptoms of disease in the kidney; upon albuminuria, for instance, which may mean much or little, according as it is temporary or persistent, increased or decreased by exertion, or the filling of the veins of the body, or by the causes which increase or diminish the arterial pressure.

It is now well known that the diseases of the kidney which are most abrupt and acute, and attended for a short time by very alarming symptoms, are those which are most curable by ordinary remedial measures, and by a common-sense treatment. Whereas the most dangerous, because most irremediable, lesions of the kidney may coexist with an aspect of comparative health, and renal functions apparently very little abnormal.

Bartels deserves the credit of having pointed this out more clearly than any one before him, except James Gregory (in 1831). In making a diagnosis and prognosis of Bright's disease, you must not pay exclusive attention to the casts, or to the albumen, or to the sediment of the urine; but to the quality of the whole urine of the twenty-four hours, as representing the functional capacity of the kidneys.

The lecturer is to be congratulated who comes to such matters as may be better pointed at on diagrams than talked about, since he has breathing time, and thus gives his audience thinking time.

I wish to direct your attention once more to the diagram on my right, to Bamberger's table upon his secondary form of Bright's disease—different, not pathologically, but in causation only, from the primary disease; about which latter we can say this much only, that we can trace it no further back; that we believe it therefore a primary disease.

Now, of course, it is this secondary Bright's disease which we all see far the most of; and the causes of it, or the "noxium quid", which stands first as most frequently leading to it, is the disease which is commonest in cold and wet climates—namely, chronic phthisis. Phthisis is associated with fifteen per cent. of all the varieties of morbus Brightii mixed together. Further, as you see, more than two-thirds of the grand total thus made up were what we call white or mottled kidney forms.

Next, I wish you to observe what a large proportion, both of the white and atrophic forms, are associated with cardiac valvular lesions; and are, according to Bamberger, the results of the latter. Now, glance at the order in which the primary diseases run, which illustrates the frequency with which they appear to provoke renal disease.

After phthisis, comes heart-disease; next gravidity; then disorders of the urinary outlets; then suppuration; then alcoholism. Scarlet fever really stands very low on the list. That alcoholic excesses are a more frequent cause of Bright's disease, or of acute nephritis, than has been supposed, I am becoming daily more satisfied. It was about five years ago that I first became aware that delirium tremens, and protracted alcoholic excess, were associated with a most fatal form of acute parenchymatous nephritis; and that many who were reported to die of alcoholic mania died really of uræmia.

The first case which taught me this was that of a young lady, nearly thirty, who used to obtain leave to absent herself from her family, and stay with an old nurse, for rest and quiet. She had taken to brandy; and, while intent upon indulging herself in this way, concealed herself from observation. One evening, she sent for me to see her; her tremulous state, and several other circumstances, betrayed the nature of her case. Her urine, which was passed in copious amounts for two days, was at first of high colour and specific gravity, but contained no albumen. On the third day, it solidified nearly from albumen; then followed complete suppression for over twenty-four hours, and death by uræmic coma. The next case was that of a wild young gentleman, of twenty-six; he had drunk hard for many years, and recently had been in some mental trouble for about six weeks, during which time he had taken brandy to about a bottle-and-a-half daily. He presented the ordinary symptoms of acute alcoholism; but his urine contained a large amount of albumen; and, upon the third day, he died in an epileptic attack. The kidneys of both these patients were large, swollen, puce-coloured, and soft; their capsules easily detached. They were typical samples of acute parenchymatous nephritis.

I have seen a fair share of delirium tremens, both before and since, and was well acquainted with the disposition of these patients to die suddenly and in fits; but since this I have found that few patients die thus who do not have either albumen in their urine, or suffer suppression of that secretion.

Let me direct attention next to some tables and facts of my own, compiled from our own *post mortem* records at St. Bartholomew's Hospital. I am extremely indebted to Dr. Norman Moore for furnishing me with the materials from which they were prepared.

The table upon my left shows that we have a grand total of 550 cases of different forms of primary renal disease which died.

Table I.

Granular Cases.—Males, 223; females, 135	Totals, 358
White or Mottled Kidneys.—Males, 101; females, 40 ..	,, 141
Amyloid Kidneys.—Males, 22; females, 13	,, 35
Acute Postscarlatinal Nephritis.	,, 16
Grand total	550

You can see by a glance at the table how the several forms fell upon the two sexes, and that males appear to suffer with all forms about twice as frequently as females; perhaps because they are more exposed to weather, perhaps because they drink more. I was hardly prepared to find that the granular atrophied cases so largely outnumbered the large white forms; the fact being that the former cases do not occupy

beds long, they come into the hospital dead or dying; nor that the acute postscarlatinal cases so seldom died.

TABLE II.—358 *Fatal Cases of Granular Kidney.*

	No. of Cases.
Without dropsy at death	272
Presented heart-hypertrophy	241
,, valvular lesions and hypertrophy	96
,, dropsy	86
,, cerebral apoplexy or softening	79
,, acute pneumonia or bronchitis	41
,, phthisis	40
,, pleurisy	35
,, pericarditis	27
,, peritonitis	8
,, cirrhosis of liver	20
,, simple serous effusions	16
,, embolic infarcts	8
,, aneurysm of large vessels	6
,, aneurysm of heart	2
,, carcinoma	4
,, fibrosis of lung	3
,, ulceration of intestines	3
,, erysipelas	3
,, pyæmia	1
,, empyema	1
,, gangrene	1
,, meningitis	1

TABLE III.—141 *Fatal Cases of Large White or Mottled Kidney.*

Cases.	
Presented at Death	106. Dropsy.
,, ,,	35. No dropsy, or not mentioned.
,, ,,	15. Dropsical effusions into thorax.
,, ,,	67. Heart normal.
,, ,,	39. Heart valvular lesions: hypertrophy.
,, ,,	27. Simple heart hypertrophy.
,, ,,	2. Heart dilatation.
,, ,,	23. Inflammations of serous membranes.
,, ,,	12. Pleurisy.
,, ,,	6. Peritonitis.
,, ,,	5. Pericarditis.
,, ,,	12. Acute pneumonia.
,, ,,	11. Phthisis.
,, ,,	5. Lung œdema.
,, ,,	3. Acute bronchitis.
,, ,,	2. Lung gangrene.
,, ,,	3. Empyema.
,, ,,	2. Œdema of glottis.
,, ,,	2. Abscess.
,, ,,	2. Carcinoma.

TABLE IV.—35 *Fatal Cases of Amyloid Kidney.*

Of whom: 28 cases presented heart normal.

,, 13 ,, ,,	phthisis.
,, 7 ,, ,,	great dropsy.
,, 4 ,, ,,	slight anasarca.
,, 5 ,, ,,	no trace of dropsy.
,, 3 ,, ,,	peculiar atrophy of heart.
,, 2 ,, ,,	valvular cardiac lesions.
,, 3 ,, ,,	empyema.

There were various questions I wished to get answered: about the coincidence of heart-hypertrophy and dropsy; upon the two main forms, the white and the atrophic; Bright's disease; and the associated lesions at the time of death. But I must not devote too much time to them. Much can be seen by a mere glance at the tables; and most of the likely lesions and complications we all know about in a general sort of way. But was it so well known that valvular lesions accompanied the heart-hypertrophy of granular kidney so often, as 96 out of 358, or 26 per cent., shows it to be? Again, I was hardly prepared to find that phthisis accompanied granular kidney so often: we were told by Dr. Wilks, years ago, of the association of chronic phthisis and chronic white kidney; but you see that, while it occurs in 12.9 per cent. of the white kidney, it is also present in 8.9 per cent. of the granular forms.

Referring now to the table which notes the facts associated with fatal cases of white kidney, simple heart-hypertrophy is obviously less frequent in this than in the other form, only 19 per cent.; but if you put the 27 and 39 together, or all the associated heart-hypertrophies, you will see that 46 per cent. of the cases exhibit heart-hypertrophy; whereas, in the granular variety, we encounter heart-hypertrophy nearly invariably in 94 per cent.

I may mention one thing more, brought out by my statistics, which I have not drawn out upon a table, about uræmia: that, in 38 cases out of 141, in large white kidney, death was notified as having been attended by uræmic symptoms; since, however, their exact nature is not specified, and, in the cases of granular kidney, have not been specially referred to, I need only express my conviction, from clinical experience, that the more gradual a kidney-disease is, the more tolerant the system appears to become of blood overloaded with nitrogenous excreta, and the less the likelihood is of any sudden eclampsia.

Further, so far from Traube's idea being confirmed, that dropsy of the brain has anything to do with uræmic convulsions, the larger the amount of general dropsy, the less is the tendency to die by uræmic symptoms.

Dropsy and serous effusions appear to be nature's conservative actions, by which she stores away, often in silent and insidious innocuity, large amounts of urea, which, if circulated in the blood, had hardly failed to have provoked most marked poisoning symptoms.

The larger the amount of dropsy, the less the heart-hypertrophy, and *vice versâ*. With heart-hypertrophy, you have increase of blood-tension, and restoration of kidney-functions, and diminution of dropsy, in chronic renal disease; and, doubtless, the heart-hypertrophy is a most salutary conservative effort upon the part of the individual whose kidneys present circulatory obstacles and excretory incapacity under ordinary blood-pressures.

I must ask your attention next to those changes in the blood-vessels which have recently excited so much attention.

THE ARTERIO-CAPILLARY CHANGES OF BRIGHT'S DISEASE.

Bright, and after him, Dr. Wilks, had remarked on the atheromatous changes in the arteries generally associated with Bright's disease. Toynbee is the first observer who comments upon the enlargement of the smaller arteries visible in the kidney in chronic Bright's disease.

As early as the year 1850, Dr. George Johnson noticed the remarkable thickening, both of the minute arteries and of the Malpighian capillary walls, that occurred in chronic Bright's disease; in 1868, another paper was published from the same indefatigable observer, in the *Medico-Chirurgical Transactions* (vol. li, page 57), offering a new physiological explanation of the phenomenon, which further experience had placed beyond dispute. This thickening occurs, as most writers are agreed, in the advanced stages only of the complaint; but it is common alike to the large white and to the small red granular kidney; in fact, although sometimes little noticeable in the former, it nearly always accompanies atrophic kidneys. The change was by Dr. Johnson attributed at first entirely to muscular hypertrophy; by Gull and Sutton, in 1872, to their hyaline-fibroid metamorphosis of the external coat of the arterio-capillaries; by Lancereaux, Charcot, Rendu, and continental writers generally, it is allowed to involve all the walls of the arteries; but, curiously enough, they say the intima most of all, and so call it "endo-arteritis obliterans"—something very similar to, if not identical with, atheromatous degeneration.

Dr. Johnson wrote: "The fact that this hypertrophy occurs in the white kidney with much obstructed intertubular capillaries, and in the small red kidney with short circuit and free current to the circulation, is proof that the change cannot be brought about by mere impediment to the blood-flow; nor is it reasonable to infer that it can serve other purpose than obstruct the blood-stream." He pointed out, also, how universally extended throughout the body this hypertrophy of the muscular coat of the arterioles was. His original idea, put forward in 1850, was that this change in the arterioles helped to urge forward the impure blood that would not pass easily through the capillaries; but, in 1875, he offered a new physiological explanation of the same phenomenon; and, in vol. li of the *Medico-Chirurgical Transactions*, p. 73, he attributed it to increased action of the arteriole-walls in their stopcock or delaying function, "the result of over-stimulus conveyed to them through the nerves from the capillaries". He says that the noxious quality of the blood irritates the capillaries, and stimulates the nerves to make the arterioles contract, and retard its entrance; that the heart strives against the arterioles, and the arterioles resist the blood-passage. The two work at cross-purposes, and both become hypertrophied. But the arterioles become hypertrophied because they strive in spasm to resist the violence of the hypertrophied left heart, or secondarily to the heart. The fact of the hypertrophy of the arterioles is not disputed; it is not the chief change in the blood-vessels, it is not the sole change; it is not so important a change as the thickening of the inner coat; it is certainly not the same thing as the hyaline-fibroid change of the capillaries and the external coat of the arteries; but it is a real thing enough. Its early recognition by Dr. Johnson was a very important thing in the history of Bright's disease, and has led to the discovery of other changes which the coats of the blood-vessels undergo. But surely it is more reasonable to attribute this hypertrophy to one and the same cause as that which produces hypertrophy of the left ventricle of the heart—namely, to over-exercise. Dr. Johnson must know, as well as we do, that in aortic valvular defect, compensated by hypertrophy of the left side of the heart, a quite identical hypertrophy of the muscular walls of the arterioles takes place. In both cases alike, there is increased pressure to be supported, increased blow to bear; at each systole, increased movement to be made, a heavier than normal task to accomplish in moderating the blood-current through the capillaries.

In 1872, Sir W. W. Gull and Dr. G. Sutton described, in the *Medico-Chirurgical Transactions*, vol. lv, their arterio-capillary change, saying: "in granular contraction of the kidney, a hyaline-fibroid substance may be seen between the convoluted tubules; it exists in considerable quantities round the Malpighian bodies, and in still greater amount in and around the walls of the minuter arteries". Exactly the same appearance was described, but not specially named, by Dr. Dickinson in his *Intertubular Nephritis*, as an early stage of granular kidney, before the epithelium became much altered or contraction was advanced.

Can there be much doubt, after reading the description of Klebs, Weigert, and Cohnheim, of the mode of development and progression of glomerulo-nephritis and interstitial nephritis, that, under different names, all these writers are describing one and the same thing—nuclear embryonal hyperplasia of connective tissue? This is the change in the outer wall of the capillaries and arteries with which I am best acquainted in the kidneys of chronic Bright's disease; and then Gull and Sutton's argument, that these metamorphoses (page 278) impede the blood-supplies and promote atrophic changes in the renal epithelium, will be accepted by everyone.

We are informed that the change in question, or the material, this hyaline-fibroid substance, is at an early stage of its development more hyaline, and a late stage more fibrillated. That it is not ordinary atheroma may be inferred from the fact, upon which all who describe it insist, that the greatest amount of this thickening is found, not in the larger arteries, but in the arterioles and capillaries; that it is a real pathological change, and not a piece of self-deception by the material in which the specimen is treated or mounted, the concurrence of opinion as to its existence, although different interpretations have been given of it, and different processes of mounting adopted, may be held to prove conclusively. That hypertrophy of the muscular walls of the artery is associated with it often, although not necessarily, as Dr. Johnson has shown, is readily conceded. Gull and Sutton's observation of the fact in the kidney is one thing; their discovery that the same change existed, and was the probable key to some of the widespread pathological changes that take place throughout the body in chronic renal disease, is another and far more important one; but there exists some concurrent testimony in its favour.

At page 281, Gull and Sutton conclude that this arterio-capillary change is the cause of the red granular atrophic kidney. They think it may exist in various parts of the body, without necessarily implicating the kidneys, and that it cannot, therefore, be a consequence of mere impurity of the blood from chronic renal disease. This argument would be a strong one if it were supported by sufficient facts, but the evidence of this vascular change not associated with renal disease which they offer is small and insufficient at present. At page 288, they attribute the hypertrophy of the heart in renal disease to it, and not to the kidney-disease; and the case certainly admits of being thus argued.

Rindfleisch describes an identical appearance in the inflammatory indurations that occur in the substance of the spinal cord in patches of disseminated sclerosis.

Von Buhl describes changes in the muscular substance of the heart in the hypertrophy of Bright's disease, which he regards, not as true muscular hypertrophy, but as myocarditis.

The change in question was not one to be dismissed, as Professor Bartels was inclined to in his work, because he dissents from the interpretation which Gull and Sutton gave of it, and which we hold ourselves to have been both unfortunately selected and rather misleading. It will be remembered that, at first, they likened the changes to those which took place in the blood-vessels and capillaries in old age, and allegorically called them senile. Now, the latter are changes due to collapse from loss of supporting fat in the tissues, and to thickening from lesion and atheroma of the blood-vessels—true endo-arteritis; whereas the former are, we believe, identical with tissue-changes attributed hitherto to chronic inflammatory induration.

Apart from old endocarditis and disease of the aortic valves, which we have found largely associated with chronic renal disease, and attended usually by compensative hypertrophy of the left ventricle, we have not met with distinct hypertrophy of the muscular coat of the arterioles so frequently in cases of the small red granular kidney as in the white contracting kidney; but in both forms of renal degeneration, when the disease has lasted a long time, we have found marked thickening of all the coats of the arterioles in those vessels whose size we know best—in the afferent vessels to the Malpighian bodies, for instance, and in the intertubular capillaries.

In 1877, Ewald published in Virchow's *Archiv*, Band lxxi, pp. 453-499, his observations on the changes that take place in the smaller blood-vessels in Bright's disease, and his opinion upon the recent views put forward about them. He perceived that Johnson, Gull, and Sutton were most likely not describing the same thing, and that both were correct in their several facts. He attributes the hypertrophy of the muscular wall of the smaller arteries (which he fully admits) to the same cause as we had done before we had read his paper, namely, to the increased pressure which the blood-vessels have to support. He calls Gull and Sutton's hyaline-fibroid degeneration "endarteritis fibrosa". The change itself he considers a chronic inflammatory one, in which the whole thickness of the wall is increased and the several elemental tissues are all implicated, but the lumen of the vessel is narrowed and irregularly encroached on by the intima. He does not agree with Gull and Sutton, that the vascular degeneration is the cause of the atrophy of the kidney; he believes that the kidney-change is usually, if not always, first in the order of events; and he was able to light upon only one case, a man of 30, who died with granular kidneys, the walls of whose smaller arteries were widely and generally degenerated throughout his body, after the manner described by Gull and Sutton. His opinion was, that the capillary changes and the renal degeneration progressed *pari passu*, that the next event was compensative hypertrophy of the heart; following upon this came increased tension, undue pressure upon the walls of the arterioles, muscular hypertrophy, and thickening of them; and, lastly, degenerations in their elemental structures, the consequences of perverse nutrition.

This sounds all very likely; but the question is far from settled yet, and an article has appeared from the pen of Dr. E. Leyden, in the *Zeitschrift für Klinische Medicin*, Berlin, 1880, which reopens it. Dr. Leyden publishes some cases and facts in favour of the endarteritis, which he calls arterio-sclerosis, being the primary change, the common cause of the renal and other degenerations; but others which tell the other way, and are in favour of the vascular changes being secondary to the renal. He infers, therefore, that there are two kinds of vascular changes, both of which admit of being described as arterio-sclerosis: one, Ewald and Thomas's, obviously a secondary change mainly associated with the contracting stage of ordinary chronic parenchymatous nephritis; the other, Gull and Sutton's hyaline change, which may perhaps be the cause of renal atrophy, and may explain the cardiac and cerebral symptoms sometimes associated with it.

Thus we have arterio-sclerosis, meaning vascular thickening, associated with renal disease, with a sub-form, endarteritis obliterans, in which the inner coat is puckered up, thickened in places, and encroaches upon the lumen, and which is indistinguishable from ordinary atheroma found in all forms of renal disease; and another sub-form, Gull's hyaline-fibroid change, a homogeneous glassy degeneration that takes place like amyloid degeneration, either inside or outside the muscular coat of the arterioles, as crescentiform deposits which merge into each other; the new material colours deeply with carmine and violet dyes, but does not give the amyloid reaction with iodine. We may refer to Dr. Leyden's drawing of this, which has been enlarged to diagram size.

This change Dr. Leyden found in the blood-vessels of the kidneys in a case of a patient who died with large red kidneys, not contracted at all, and which presented very little parenchymatous change. The afferent vessels to the Malpighian bodies were principally thus affected. Glassy degeneration and contraction of the capillary loops of the tufts were seen within the glomerules. The same hyaline-fibroid degeneration was, however, found to a much more advanced extent in the branches of the coronary artery, and the heart's muscular substance was hypertrophied and much degenerated. Thus the heart was tough, hard, and brown; its visceral pericardium laden with fat; and its endocardium fatty. Its muscular fibres presented some highly fatty bundles; others were without striæ, converted into pigmented bands of fibrous tissue. Similar hyaline-fibroid changes were found in the arteries of the brain.

Dr. Leyden's cases are scarcely sufficient to justify his inference, or to lend much real support to Gull and Sutton's theory of granular kidney as one symptom only of a general vascular degeneration.

Case I (156) is that of a man aged 55, who, after suffering repeated attacks of dropsy, came into hospital for otorrhœa, was suddenly seized with convulsions, vomited, passed little urine, and died comatose. His kidneys were specimens of granular kidney with interstitial nuclear growth, with tough thick adherent capsules. The glomeruli were crowded together, with very litttle parenchyma between them. The Malpighian bodies were contracted, waxy-looking, and the capillary tufts hardly visible in them. The large renal arteries all presented extreme endarteritis obliterans, and were almost blocked up; the smaller arterioles, afferent vessels, and tufts exhibited Gull's hyaline degeneration. The heart was hypertrophied, dilated, fatty. There were purulent pericardial effusion and pleuropneumonia.

Case II (157).—A male, aged 66, was admitted for granular atrophy, with tortuous radial arteries, a pulse of high tension, scarcely perceptible

heart's impulse, clear sounds, reduplicated second sound. The patient, who had no asthma, passed less and less urine, with constant albumen in it, and died. His large arteries exhibited endarteritis obliterans. The Malpighian afferent vessels and capillaries showed Gull's hyaline degeneration.

CASES III and IV showed similar general arterial degeneration; but their kidneys were large, red, tough, moderately granular, but not contracted; and the inference drawn is, that asthmatic and cerebral symptoms exhibited during life were due to changes in the heart and brain secondary to the vascular degeneration; and that the patients died prematurely, but in an early stage of what would have become small red granular kidneys.

If now we accept this hyaline-fibroid vascular degeneration as the cause of the interstitial renal disease, as Gull and Sutton and Dr. Leyden would ask us to do, and because it is sometimes far advanced when the renal disease is only beginning, and mainly because it well explains the hypertrophy of the heart and some of the associated mental and cerebral symptoms of renal atrophy, it must be admitted that we have more facts in support of endarteritis obliterans as a change following upon ordinary renal degeneration, than of its being the cause of it; and, from the paucity of the facts in support of Gull and Sutton's hyaline-fibrosis theory, we infer that this is a rare change even in well-marked atrophied kidneys.

Gull and Sutton's original argument was, that this arterio-capillary change was wide-spread throughout the body; that atrophied kidney was one symptom of it only; that it was a premature growing-old or wearing out of the blood-vessels, which led to structural local degenerations situated principally in the kidneys, the brain, the spinal cord, the heart, and the lungs—local degenerations which have been elevated to a too great importance, and regarded apart as local diseases; that in the kidney, and I suppose that they would add in the lungs and in the liver—three of the most vascular glands in the body—these fibrosis-changes may be expected to manifest themselves most prominently. The changes in the kidney entail, however, a peculiar train of symptoms, from the function of this gland; and these have been moderately well understood and studied, under the name of Bright's disease. The kidney is found atrophied in a peculiar way; and the disease, which is really a general one with some remarkable local tendencies, is, they say, wrongly attributed entirely to the organ which is found to have suffered predominantly. Thus they would altogether separate the small red kidney from Bright's disease.

The increase of knowledge of all disease is to make us realise our ignorance of its first beginnings, and to acquaint us further with the evidence of its extension throughout the body. Man is not built in separate compartments well fitted together, although he may be studied thus. This new conception of the cirrhotic granular kidney is bold, and may be true; but we must hold it, as yet, far from proved.

Lastly, we must say something of the widely maintained views in France and Germany, that the change in the blood-vessels mainly concerns their inner coat, and is an endarteritis obliterans. This, doubtless, is the change most extensively associated with chronic renal disease and an impure blood, and, we believe, nearly as often with the white contracting kidney, in its later stages of contraction, as with the red granular one; but this is a degeneration principally affecting the larger arteries, and very usually secondary to hypertrophy of the heart, and dilatation of the arteries. Admittedly, it is not the change in the capillaries and arterioles, to which Gull and Sutton allude; and herein, we think, lies the explanation of the differences of opinion. Dr. Johnson is describing one thing, a very apparently real muscular hypertrophy, although one difficult to estimate; for the state of contraction or dilatation and the mode of treatment after death, whether by injection or otherwise, of an artery, makes a singular difference in the apparent thickness of its muscular walls; Drs. Gull and Sutton are describing another; while Lancereaux, Bartels, Charcot, Rendu, are referring to a third. All are right, and each is only wrong in misunderstanding the other.

Side by side, and therefore most conveniently placed for comparison, in the same volume (xxviii) of the *Pathological Society's Transactions*, 1877, may be read three papers upon this interesting subject from the pens of Drs. Gull and Sutton, Johnson, and Mahomed. It is encouraging once more to find that a feature of such importance in the history of Bright's disease, as these vascular changes are, should have been first publicly notified by his countrymen. But we are not of opinion that they detract at all from the entity of Bright's disease. At most, Gull and Sutton establish one form of renal degeneration secondary to a vascular degeneration. But when the renal degeneration has reached the stage of imperfect or insufficient urinary depuration, the symptoms are in the main those of ordinary Bright's disease.

[*To be continued.*]

THE CROONIAN LECTURES
ON THE
INFLUENCE OF THE CIRCULATION UPON THE NERVOUS SYSTEM.

Delivered before the Royal College of Physicians.

BY WALTER MOXON, M.D., F.R.C.P.,
Physician to Guy's Hospital.

LECTURE III.—PART II.

THE consideration of fainting, epilepsy, and the fatal coma of cerebral exhaustion, has confined our attention, so far, to the influence of the circulation upon the nervous centres. But there are other bearings of the influence of the circulation on the action of the nerves which are worthy of some notice, and the chief of these is the condition known as angina pectoris.

Perhaps no complaint has attracted more attention than this singular and painful affection, and perhaps the attention devoted to a complaint has never given rise to so large a record of somewhat incongruous anatomical lesions as causes of the disorder. To select among these, in the hope of finding a proximate cause of the angina, is not a promising task. For one might well say that every kind of disease of or about the heart has been found to be the cause of angina pectoris. Hence, pathologically, angina pectoris had become a rather wearisome topic, when new interest in it arose through the clinical observation of its connection with a certain state of the circulation. No medical discovery in recent years has received a more marked and more just attention than that made by Dr. Lauder Brunton, as to the power of nitrite of amyl to relieve angina pectoris. Indeed, it stands among a very few instances in which the physiology of a disease has enabled a trained and acute scientific mind to infer successfully the remedial powers of a physiological agent. It is well known that Dr. Lauder Brunton observed that, in cases of angina pectoris, the tension in the arteries is very high, and that nitrite of amyl, by relaxing the small arteries, reduces the tension and relieves the suffering.

But, whilst the benefit thus obtained in some cases of angina pectoris is most satisfactory, in other cases it is so utterly wanting, that there must be some differences in the cause of the pain corresponding to so great a difference in the effects of the remedy. I will now ask your attention to some facts which may throw light on this difference.

I will send round tracings from the pulse of a man who is in Guy's Hospital for angina pectoris, and who is always relieved by the amyl. Afterwards, I will send round tracings from the pulse of another man, who died of angina pectoris, which never was relieved in the slightest degree by amyl, but in whose case there is some good reason to believe the amyl acted injuriously. The man who obtained relief is in No. 19, Philip Ward; he is sixty years of age, and has done no work for eighteen months, on account of pain in the chest, which is not constant, yet is present for the most part as a moderate pain. But this pain seizes him at times in a much more severe manner; it then has all the characters of angina pectoris—an excruciating sense of pain and compression of the chest, extending through the left shoulder and down to the fingers of the left hand. This seizure of great pain generally occurs when he is walking. When he has persevered, in spite of the pain, he has several times fallen and been convulsed. Two such convulsive attacks observed in the hospital were seen to be epileptic. (I may remark, in passing, that the epileptic convulsions of this man are more nearly certainly due to anæmia of the brain than in any case I have met with; but the same association of angina with epilepsy has been observed before.) Examination of the heart and great vessels shows evidence of obstruction of the aortic orifice. The man never had rheumatic fever, so that the obstruction doubtless arises from disease of the aortic wall, invading the valves.

Dr. Galabin has been kind enough to take tracings during an attack of the angina, and during the relief which the patient was obtaining from nitrite of amyl. When the paroxysm is at its height, the tracings show that the heart is labouring against high pressure. This is to be inferred, because the pulse bears four ounces and a half pressure; and also because we find a slanting up-stroke, a round top, and almost no dicrotic wave. As soon as the amyl begins to act, and the pain to be relieved, these signs of "high tension" begin to rapidly pass off, and

the pulse-tracings return to the condition usually seen in this man. The relief of the pain goes with evidence of more effectual circulation. But there is some doubt whether this more effectual circulation is brought about merely by reduction of the arterial tension; for the pulse in the natural state bore a much higher pressure than it would bear during the angina; so that the actual tension appeared rather lower in the paroxysm, and the state of the artery during the paroxysm would be better ascribed to the heart's failing to keep up to its hard work. The first tracing after the nitrite of amyl shows rather slanting up-stroke, then deep dip, but slight dicrotic rise. Next tracing shows sharper up-stroke and more dicrotism. It looks as if the drug first relaxed the arteries and reduced tension, and then, a little later, stimulated the heart to act more sharply. The tracing with the effect of nitrite of amyl going off after the paroxysm is very like the ordinary tracing without the drug. It may be observed that the pulse is slower, though the tension is lessened in the attack; so that the cardiac regulating-apparatus does not act quite normally.

From this observation, it would appear that the pain in angina pectoris occurs in persons whose arterial tension is high; but that the attack of angina does not coincide with an increase of tension; rather, indeed, with a decrease of it. The pain comes on through a temporary, and in fatal cases a permanent, failure of the power of the heart to cope with the high tension in the arteries. And the relief of the pain by amyl comes partly through the nitrite relaxing tension, and partly through its stimulating the heart. In short, angina pectoris arises in this man whilst the heart is labouring in vain against an ordinary high tension—that is, through relative failure of the heart against high tension; and, as pain occurs with a lower than normal tension, the painful parts must, at the time, have increased sensibility to such tension. In other words, we must recognise state of nerve, as well as strain of vessel, among the causes of the pain.

Now my second case, in which amyl did not in the slightest degree relieve the excruciating and overpowering suffering, shows in the pulse-tracings a very different state of affairs. The pulse, in its ordinary condition, has characters, which appear like those of slightly higher tension than normal, about the degree of increase of tension that is met with in chlorotic girls. A pressure of four ounces developes the tracing best, and the tracing offers a marked tidal wave and a slight dicrotic wave. But a pressure of five ounces flattened and a little more crushed, the pulse. These tracings were taken by an authority, whose skill in using the sphygmograph and ability in interpreting its writing is, I had almost said, unequalled. Dr. Galabin, who took the tracings, ascribes the condition of the pulse, rather to inelastic arteries than to high tension: concluding this to be the case on account of the sudden crushing of the pulse by a moderate pressure. Now when the gentleman whose pulse furnished these tracings, used some effort and produced the pains of which he complained, and when Dr. Galabin took a pulse tracing as speedily as possible, and whilst yet some of the pain remained, it was thereupon found that the pulse showed lower tension than in its natural condition. And when nitrite of amyl was at once administered, there was scarcely any effect at all produced by it upon the pulse, hardly any dicrotism appeared, although there was a slight diminution in breadth and increase of weight of the tidal wave; and the amyl produced no relief whatever. Shall I be excused for giving full particulars of this case, important as it is from the completeness with which the conditions of it during life and after death were allowed to be observed? The history is as follows. Mr. B., Civil Engineer, 42 years old, a well-built, healthy-looking man, of appearance younger than his stated age, said that he had been ten years in India; when there, he had nothing beyond a very slight sunstroke, and inflammation of the bladder of a few days' duration, which, however, he said, rather brought him down in the way of nerve-power; he recovered on the way home and has been well ever since, until a month ago, when going up a hill he suddenly felt a pain which stopped him; the pain went across his chest at the level of the heart, and up the breast-bone and down the left arm into the fingers. When he persevered in the attempt to walk the pain went up his neck to his jawbone, and seemed to fix his jaws; when he desisted from the effort, his pain soon ceased. But since the day when he was taken, he finds himself unable to go up a hill without a recurrence of the pain; and latterly it has been more easily brought on, and in fact stops him whenever he goes walking, and stops him in the most absolute way. The pain is not accompanied by palpitation or any sense of effort of the heart, or fault of the heart's action that he is conscious of; he ascribes the pain to his liver. There is no tendency to sickness when he perseveres in walking or tries to do so. He praised his appetite and digestion. Up to that time, he had not had a single attack that was not caused by exertion. The possibility of such a thing had not struck him. I examined his heart very carefully, and could not detect any abnormal murmurs; the sounds themselves were rather feeble, the apex-beat was scarcely palpable. These conditions were not more evident than is the case in many quite healthy persons. The temporal arteries were not visible, nor were the radial arteries either thick or tortuous. The pulse was, however, slightly visible at the right wrist. This gentleman was advised to take with him in his walks some nitrite of amyl capsules, and when pain appeared, to break the capsule and use it by inhalation. Dr. Bosworth, of Sutton, wrote to me December 14th, "he still has the pain, he has carefully tried the nitrite of amyl capsules, but they have not the least effect either in abating the pain or preventing its recurrence." Meantime Dr. Galabin kindly took the tracings I have shown.

The next I heard of Mr. B., was December 23rd, from Mr. Ewen, of Exmouth, who said that Mr. B. had been seized there with an attack of angina, whilst in bed. Again, two weeks after that, he had had a cerebral attack, including aphasia; and finally, I heard that Mr. B. had died suddenly. An inspection was made, and the heart and roots of the lungs were sent to me, intact, by Mr. Ewen for examination. The specimen is here, and it very clearly shows why nitrite of amyl failed to relieve the pain, and failed to produce any marked effect at all upon the sphygmographic tracing. The heart is of about natural size. Its left ventricle is dilated, and the wall is thin. The portion of this ventricle, near the apex, for about two square inches, is changed to a yellow fat-like substance, looking quite unlike muscle; a lesser degree of the change in the form of fibrous degeneration extends around this part, so that but a moiety of the whole substance of the thin wall of this ventricle is free from change. Where the change is most extreme at the apex, there was seated an *ante mortem* polypus of clot as large as a filbert. This was burst open, and its contents partially gone. Microscopic examination showed the yellow leathery substance to be altered muscular fibre; fully one-third of the wall of the ventricle was thus destroyed and the rest was thin, wasted, and flabby.

Now, in this case, the symptoms were those of angina pectoris in its most characteristic form, as described by Heberden; and the symptoms were utterly unrelieved by amyl; and when we consider the facts, which are beyond doubt in this case, we must see reason to conclude that high arterial tension is not the only, or the necessary, cause of angina pectoris, even if it be the principal cause.

For the facts are these. First: sphygmographic tracings showed rather inelastic arteries than high tension. Second: exertion which brought on the pain lowered the tension of the pulse, as shown by the sphygmograph. Third: nitrite of amyl produced very little change in the pulse, as shown by the sphygmograph, and brought no relief at all. And lastly: the state of the left ventricle, as found on *post mortem* examination, showed such extreme wasting and degeneration, that it appeared impossible that tension could have been raised by its action; and to confirm this impression, an old *ante mortem* clot gave evidence of a long-standing passive and stagnant state of the blood in the left ventricle. The condition of the cardiac nerves, which no doubt caused the angina, I will presently describe. In short, the doubt as to high tension which the pulse contributed; the nearly certain assurance that there could be no high tension which the heart contributed, and the conclusive evidence that there was no high tension to relieve which the total inefficiency of amyl contributed: all these sum up to prove that in this case the angina, typical as it was, must have arisen from some other cause than high tension in the arteries.

Let me now show another set of tracings, taken by Dr. Galabin from the pulse of a gentleman who has angina pectoris in a most typical form. In this case the disorder has lasted about two years; some of the attacks have been so severe that recovery appeared hopeless to the medical attendant, so intense was the pain he endured, and so great was the consequent prostration. But in the height of the attacks no change was noticeable in the pulse, either in rate or in quality. I could not obtain tracings of this pulse during the paroxysm. The tracings taken in the interval are thus described by Dr. Galabin. "The pulse is fully developed by a very low pressure — one ounce and a half, but bears pressure up to three ounces (about the average pressure for a youthful normal pulse) without much change; a pressure of three ounces and a half destroys its characters, as you will see; and a very little more quenches it altogether. The curve differs from that of a perfectly normal soft pulse only in the fact that the tidal (predicrotic) wave commences too early in the descent. I should think that the general conclusion is, that the arterial elasticity is in very fair condition, considering the patient's age, and that there is no excess of tension, the pulse being a soft rather than a hard one."

Now, in this gentleman's case, the inhalation of nitrite of amyl produced no relief whatever. Injections of morphia were the only means by which the pain could be assuaged. Here, then, we have evidence that, in the intervals between the attacks, the tension was low; whilst in the attacks we can infer that there was no high tension, inasmuch

as amyl proved of no service whatever: in other words, relaxation of the arteries did no good.

In the series of three cases just related, we have, first, a patient with signs of aortic disease, whose pulse-tracing during the paroxysm gave the characters of high tension, and whose pain was relieved by nitrite of amyl; thus showing that the tension was an essential factor in the attack of pain. But, at the same time, it was observed that the tension of the pulse was lower in the attack than in the patient's ordinary condition; so that some other factor than the tension brought on the attack, although lowering the tension took the attack away. Thus, even where the relief of the tension removed the attack, the tension is proved to have been but one factor in the causation of the pain.

In the second case, slight signs of high arterial tension were present in the ordinary pulse; but it was observed that in the pain this tension was lowered, whilst nitrite of amyl was utterly useless. Here we find tension reduced in the attack, as in the first case; but it is not in this case a factor in the production of the pain—relief of tension has no effect.

In the third case, there is no high tension, but quite the contrary; the pulse is of low tension, and amyl is again utterly useless. In this case tension passes out of sight altogether.

The general conclusion is, that high arterial tension is not to be regarded as the determining cause of angina pectoris, but as one factor of pain in some cases of angina pectoris; and that, whilst it is true that amyl gives relief when high tension is present, there is reason to be cautious in pressing the amyl when it fails: for, by lowering tension when already low, the amyl may dangerously increase the tendency to stagnation of the blood; and there was evidence, in two of the cases, that tension was really lower during the pain. Indeed, the achings which are suffered at the heart are of two distinct kinds, like the achings which are suffered in other parts—say the teeth. In either case, there is a kind of ache which is more properly a tenderness of the part, so that it suffers in its ordinary service, as when a tooth cannot chew, or the heart cannot beat without pain, more or less severe. Here, in the case of the teeth, we are able to use the other side of the mouth, or even, if hard driven, to live on liquid diet, and give the tender organs a rest for their recovery; and even in the case of the heart, when its work distends the aorta and causes pain, we can take advantage of what Dr. Lauder Brunton has so well taught us, and can open the distal vessels with nitrite of amyl, so as to relieve the tension.

The relief thus given lasts only for a while, and often only for a short while; and it is very desirable, if possible, to find means of lowering pressure permanently. If the pain in angina, which is relieved by amyl, is caused by the pressure of a bulging aorta, there is a fair prospect of permanently lessening or removing such pain by any measures that would tend to permanently lower general arterial tension. But what means have we of permanently lowering arterial tension? Such a result is not so easily obtained as might at first be supposed. It is natural to think that if blood be drawn, the tension in the vessels must be reduced with the loss of their contents; but it has been shown by experiment that this is not the case. Bleeding does not with any certainty, or to any large extent, lower the pressure in the arteries. Neither, indeed, will any attempt to suddenly alter the whole quantity of blood in the body succeed in suddenly lowering arterial tension.

Yet it is certainly possible to lower vascular tension by lessening the quantity of liquid in the whole blood mass. This is shown in a rather horribly conclusive way, in some experiments of Kussmaul and Tenner, in which they desired to remove the cerebrum, and then to examine the results of further sections of the cerebellum. But they found that all their normal rabbits bled to death before the ultimate conditions for their experiments could be reached. Hereupon the experimenters kept some rabbits on a dry diet of corn, etc., for two weeks, and the effect of this deprival of liquid in the food was so satisfactory, and the blood in the vessels fell to so low a tension, that such a rabbit could have its calvaria and cerebrum cut away, and its occiput and cerebellum mutilated to any desired extent, without dying too soon for Kussmaul and Tenner's purposes. Here we see the power of bleeding and dry dietary crucially contrasted; and the result is to show that the method of Valsalva for the cure of aneurysm, so far as it proceeded by bleeding, did not correspond with the most hopeful line, neither so far as it proceeded by starvation of solids did it correspond with the most hopeful line. The experiment of Kussmaul and Tenner rather shows clearly that for reduction of blood pressure it is not necessary to bleed, nor is it necessary to reduce solids in the diet, so far as they are truly solid, and not succulent; but that a very great degree of reduction of tension may be reached by starvation of liquids.

In the Clinical Society's *Transactions*, vol. iii, there is a case of angina pectoris relieved by nitrite of amyl. It is very ably and carefully reported by Dr. Lauder Brunton; and it shows well the signs of high tension in pulse-tracings taken during the pain, and also the relief of the tension as the amyl came into operation. The pulse was quickened during the attack of pain. The sphygmograph used by Dr. Brunton did not enable him to estimate the degree of pressure upon the pulse. His conclusion was that, in this case, the attack consisted in spasmodic contraction of some, if not all, of the small systemic, and probably of the pulmonary vessels, causing great increase of the blood-pressure on both sides of the heart. He remarks upon the fact, that with the high tension the pulse becomes quicker, thus showing a derangement of the cardiac regulating apparatus, which should cause the pulse to become slow as the pressure rises. But I believe that, unless we can estimate the pressure borne by the pulse, one cannot certainly conclude from the pulse-tracing that the tension is positively high; all that can be said is, that it is high relatively to the power of the heart. So that there may not have been unusually high tension, but rather a failure of the heart to cope with the existing tension, such as Dr. Galabin found in my case. Dr. Brunton concludes that the pain was not originally in the nerves composing the cardiac plexus, but was produced by a pressure of blood upon those of the heart and arteries, and that the pains were of a rheumatic character.

It appears, then, to be exceedingly difficult to decide what was the proximal cause of the pain in these cases; but it is a significant fact, that Dr. Brunton's case, which was relieved by amyl, was one of aortic disease with regurgitation, and my case was also one of aortic disease, and as it was not rheumatic it was in all probability of the nature of deforming aortitis. Indeed, I believe that it is chiefly for the relief of attacks of anginose pain in aortic disease that nitrite of amyl has come into such general use in our hospitals since Dr. Brunton's valuable discovery was made known; whereas I have been generally disappointed with amyl when there has been no sign of disease of the aorta. Cases of relief by amyl in angina in which there was no evidence of heart-disease are recorded; but I do not know of any such cases which have been cleared up by *post mortem* examination.

But we have seen that the cases of angina pectoris which are due to high arterial tension form only a part of the whole number, and there are other cases of angina which are more purely neuralgic, and are not relieved by amyl; and these latter cases have an altogether different kind of cause. It may be that the pathological change which produces the more purely neuralgic angina is not always the same. But an example of what I have found, in many cases, to be a very evident cause of the pain is before me now in this specimen, which is the heart in my second case, that of Mr. B., whose pulse showed reduced tension when under the pain, and whom amyl failed to relieve. The state of the nerve accompanying the anterior coronary artery of this heart is sufficient to account for any degree of pain. In searching for the cardiac nerves, I observed that the aorta was quite healthy. It was quite separable from the texture around. The cardiac nerves in their course between the aorta and pulmonary artery, close to the origin of these vessels, were easily found; and on following them down, they were quite natural in appearance until the anterior branches came to a diseased part of the corresponding coronary artery. Now the mouths of the coronary arteries were natural, and the anterior vessel was natural for about half an inch, then suddenly became swollen at a bifurcation so as to be thick and white. At the same spot, it became impossible to separate the vessel from the tissue around so as to render visible the exterior of the artery. In fact, here, dissection of the vessel became impossible, and the nerve could no longer be separated from the artery without tearing or cutting the veesel. At one inch from its origin, the artery was quite blocked up, and full of pus-like detritus of old clot; the diseased part of the heart's wall corresponded to this part of the artery. Microscopic examination of sections of the vessel showed a good example of deforming arteritis. Whatever was the origin of this patch of inflammation in the artery, it extended to the tissue around, with the effect of causing a dense fibrous change, which involved the branch of cardiac nerve. In short, the nerve was involved in the inflammatory decay of the artery in the same way as the branch of dental nerve is involved in the inflammatory decay of a carious tooth.

Let me give one perhaps yet more striking case of neuralgic heart-ache. The most remarkable case of angina pectoris which I have met occurred in a child of eleven years of age, who used to be seized with onsets of intense thoracic pain when at play. No physical signs of heart-disease were found in her. In one of her seizures the child died; and, on examining the heart, I found the aorta in the first two inches of its length softened, and with almost gelatinous appearance, through subacute inflammation. At the point where the cardiac nerves passed between the aorta and pulmonary artery, they were involved in the thickening and inflammation which surrounded the former vessel. Neither the valve nor the coronary arteries were at all involved in the

disorder. But the implication of the nerve in the inflammatory disease of the vessel was most obvious, and the pain was a completely explained by the *post mortem* appearances as facial neuralgia is explained by finding an exposed branch of dental nerve. In both these cases, the nerve was involved in inflammatory decay of the artery. A similar case of inflammation, including the cardiac nerves and causing angina pectoris, is given by Lancereaux, and is figured in his *Atlas of Pathological Anatomy*.

From the foregoing observations, it would appear clear that there are two distinct kinds of angina pectoris: one which is a result of tenderness under overstrain of the great vessels. In this kind of pain, high tension in the arteries is a factor, although a morbidly sensitive state of the nerves must at the same time be present. Such pain corresponds to pain and tenderness in the teeth during mastication, and it is lessened by whatever will lessen the strain upon the tender parts—so that amyl nitrite, or (less certainly) nitro-glycerine, will bring welcome relief, even when it does not give entire comfort. But the relief thus afforded is apt to be temporary, and often only partial—so that, even in these cases, we have to bring in other means, and supplement the service which the amyl renders in relieving the strain upon the vessel by such further service as morphia can render by reducing general sensitiveness. A second form of angina pectoris is a kind of neuralgic heartache, arising from actual inclusion of a cardiac nerve in the inflammatory decay of an artery, and no signs of high tension in the vessels are present. This disease corresponds with such neuralgic toothache as arises when a branch of the dental nerve is involved in inflammatory decay of a tooth. It is more paroxysmal and violent than the first form, the intervals are more free, and there are usually no signs of disease of the heart or great vessels. The means of relief are those which are found useful in the similar neuralgia of the face; and lead us, firstly, to reduce morbid sensitiveness by such improvement of tone in the general health as may be possible; secondly, to employ such alterative drugs as, like arsenic and quinine, have proved themselves to possess some power of controlling the tendency to neuralgic pain; and, thirdly and chiefly, the use of sufficient quantities of morphia to afford relief in the attacks. Morphia, given in the form of subcutaneous injection, will produce the most satisfactory result in the way of temporary relief of this form of angina pectoris.

But angina pectoris does not always arise from organic changes in the heart or arteries: for, like facial neuralgia, it may occur secondarily, as a reflected pain, whose source is at a distance. The primary disturbance which gives rise to reflex angina pectoris is usually seated in the course of the pneumogastric nerves. A very remarkable example of this occurred in the person of one of the greatest surgeons of our own or of any past time. My late friend and colleague, Mr. Hilton, was attacked, three years before his death, with severe angina pectoris—so severe that the cramping thoracic pain would not allow him to walk many steps, and he was obliged to have a cab to go a distance of one hundred yards. This pain, after causing great suffering for several months, passed away; and then, very gradually, during the next two years, the symptoms of cancer of the stomach developed themselves. The heart and great vessels were found after death to be entirely free from all morbid changes.

But, not only may the gastric branches of the pneumogastric thus influence the cardiac nerves, and give rise to the special pains of neuralgic heartache; but, on the other hand, I have met with some remarkable cases, which time will not allow me to detail, in which aortic disease has been associated with abdominal pain in the hepatic region, of a neuralgic character; and, in its mode of onset, and conditions of relief, behaving just like angina pectoris. Nor is it only the sensory fibres that thus vicariously suffer. A lady, fifty years of age, has been for three years under my observation, with no other sign of organic disease than a weak heart and feeble pulse. This lady is reduced to a most sedentary mode of living by the fact, that, if she tries to walk but a few yards, she is suddenly attacked with vomiting. Heberden, in his description of angina pectoris, mentions that some of his patients, who persevered in walking in spite of their pain, were attacked with vomiting. In this lady the vomiting appears without the preceding pain; the onset of gastric disturbance, without previous nausea, is as sudden and surprising to her as is the pain which seizes the chest in angina.

The largness of the subject I chose, when the College honoured me with an invitation to deliver these lectures, was not so broadly apparent to me as it is now that I have to take leave of it, with so deeply felt a sense of the imperfection of the treatment it has received at my hands. I can only hope that the few points I have brought before you may contribute a little towards maintaining, for the hour, that interest which continuously belongs to everything affecting the brain.

In my first lecture, that part of it which spoke of the cornu of the fourth ventricle, I adduced Dr. Guy's observations as in support of the suggestion I made with respect to the function of the choroid plexus in the cornu. I inadvertently reversed the bearing of a part of his results, and they were thus made to appear more favourable to my suggestion than they really are. I did not say that the choroid plexuses of the fourth ventricle are overlooked in our anatomical works, but that the occupation of the cornu by the choroid plexus is not mentioned.

A LECTURE
ON THE
PATHOLOGY OF SCROFULOUS LYMPHATIC GLANDS.

Delivered at the Royal College of Surgeons of England.

By FREDERICK TREVES, F.R.C.S.,
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Mr. President and Gentlemen.—There are few matters in the domain of pathology that are at the present time more indefinite, and more in need of scientific limitation, than is the pathology of scrofula; and probably in the past there will be found no condition of disease that has been more susceptible to varied interpretation, or more burdened with repeated change and frequent amendments of opinion. That this should be so, it is not hard to understand; and I believe that the explanations of the difficulty depends mainly upon two factors. In the first place, the less marked forms of this disease constantly merge into the manifestation of what is known as mere ill-health, mere delicacy of constitution. These terms refer to conditions that are without any definite significance, without a pathology, and without the least scientific meaning. The very condition, indeed, known as poor or delicate health, represents a wide and blank area in all pathological surveys; it exists as an indication of want of knowledge and lack of precise and inclusive notions of disease; it is, from a pathological point of view, a species of common land unowned and uncultivated; many diseased conditions besides scrofula encroach upon it, and every year's increasing acquaintance with morbid change causes some portion of this area to be absorbed by one disease or by another, and rendered thereby definable and distinct. So long, however, as it will be possible to ascribe any morbid conditions to mere ill-health, to delicacy, to a feeble state of body, so long will pathological knowledge be incomplete; and as scrofula has been bordered widely by this chaotic district, it is a matter of no surprise that the term should still be somewhat vague, and the character of some of the included diseases a little indistinct. In the second place, the subject of scrofula has been considerably complicated by its connection with the subject of tuberculosis. In commencing any discussion upon the pathology of scrofulous affections, it has been customary, if not necessary, to open the argument with a definition of tubercle, and to then proceed to answer the question, is scrofula a tuberculous or a non-tuberculous process? This forced alliance of a vaguely defined disease, with a still less distinct morbid condition has, I believe, proved a serious bar to the proper appreciation of scrofulous processes. Notions as to the nature of tubercle have undergone, from time to time, most rapid and emphatic changes; attributes, once considered as essential, have been one by one eliminated; the very term has shifted from this morbid appearance to that; and the tubercle of one period of knowledge has not been the tubercle of another. The forced association of scrofula, therefore, with this unstable element, the very Proteus of pathology, has, I believe, contributed not a little to the present indistinctness in our knowledge of that affection. The great point has been, to range such facts as have been adduced on the one side or the other; to class them as tuberculous or non-tuberculous. Thus it happens that few additions to our knowledge of the histology of scrofula have been made, that have not been seriously encumbered by theoretical matter; new observations have been influenced, often to no slight degree, by an attempt to make appearance accord with theory; and many sound investigations have been lessened in value by the deductions and inferences with which they have been introduced.

The clinical difficulty, therefore, on the one hand, of clearly isolating scrofulous affections from the unknown factors of ill-health and frailty of constitution, and the pathological difficulty, on the other, of avoiding the indistinctness that appears to have been always the hereditary right and

possession of tubercle, seem to have been the two agencies most active in rendering the outlines of this affection ill-defined. It will be my humble endeavour, in placing before you some fresh facts in the pathology of scrofula, to have especial regard to these matters of difficulty.

As the limits of this lecture will not permit me to discuss the minute changes observed in even the more conspicuous scrofulous affections, I will confine my remarks on this occasion solely to one affection—to the scrofulous process in lymphatic glands. Many reasons can be adduced for selecting this one affection, and for regarding it even as a type of the general process involved in scrofula. These gland-affections form the most frequent, the most characteristic, and certainly the most easily recognised of all those outcomes of disease designated scrofulous; in all discussions upon the subject of scrofula, they have occupied a conspicuous position; their clinical characters have been fully investigated, are well known, and have been for ages appealed to, as the one great evidence of a so-called strumous taint. The lymphatic gland moreover presents great facilities for examination; its structure is comparatively simple, and the morbid processes to which it is subject are, from anatomical reasons, well isolated and circumscribed.

The first change noticed in these glands is an increase in the number of their lymph-corpuscles, an increase observed both in the sinuses of the organ, and in the proper gland-tissue itself. The more active the process the better marked is the change, the sinuses in such cases appearing so blocked and crowded with lymphoid bodies, that Berlin blue injected by a Pravaz's syringe only imperfectly follows the course of the lymph-paths.

It is significant to observe, that an increase in the number of their contained corpuscles is the very first indication of the inflammatory process as it affects lymphatic vessels, a condition constantly observed by Dr. Klein in the pleural lymphatics of animals, the subjects of chronic pleurisy. And in connection with this point, it is necessary to remember that the mode of development of lymphatic gland-masses shows that they are merely modified lymphatic vessels. Whence these corpuscles come it is perhaps at present impossible to say, but it has been suggested, with reference to this condition both in the glands and in the vessels, that they may have been derived from some initial seat of inflammation, or that they are leucocytes escaped from the neighbouring blood-vessels, or finally, that they owe their origin to the proliferation of the existing cells of the part. And it may here be convenient to allude to a singular and incorrect statement that appears to have been handed down from one pathological handbook to another; and that is, to the effect that the changes in the glands are first observed at their extreme periphery, *i.e.* in the cortical sinuses and follicles, a statement explained by the theory that the periphery is that part of the gland that would be first exposed to any irritant brought from a primary seat of inflammation—for it is generally allowed that in nearly all cases of scrofulous enlargement of glands some primary inflammation can be detected with which the lymphatic lesion is more or less directly in connection. With reference to this statement, I must assert that in no single instance, in all the specimens examined, have I ever found the morbid changes commencing at the periphery of the organ, including in that term the cortical sinuses, and a fair amount of the cortical follicles. Indeed, the exact converse holds good, and the changes invariably commence in the medullary or deeper portions of the gland. It must have been obvious, over and over again, to all who have cut open a scrofulous gland, that the gross changes visible to the eye are always most advanced in the central parts of the organ. If there be only a few specks of caseous change visible, they will always be found to occupy, not of necessity the precise centre of the affected organ, but, at least, a part other than the extreme periphery. The same holds good for limited suppuration, and, within certain limits, for even extensive purulent or caseous collections.

This drawing was taken from a large gland of more than one inch in diameter that was absolutely caseous throughout, with the sole exception of the extreme periphery, where, as is shown in the figure, unaltered lymph-corpuscles can still be seen in great numbers. If, however, the previous statement were true, and the changes commenced in the periphery, one would expect to find them most advanced in that situation. So much for the fact. With regard to the theory, notice has not apparently been taken of this fact, that the afferent vessels of the gland first enter the plexus between the strata of the capsule, and then pass on to the cortical sinuses. The capsular plexus, therefore, is the part of the gland first brought into contact with infecting material, and yet that capsule is acknowledged by these very observers to be only secondarily affected; and, as a matter of fact, this plexus is almost the last part of the true gland-tissue to be involved.

The next change noticed in these glands assumes the form of certain spots of varying size and shape, and which owe their conspicuousness to the fact that, in specimens prepared with hæmatoxylin, they appear more tightly stained than does the rest of the gland. They are observed first in the medulla, then in the cortex, are always limited to the gland-tissue proper; and the more active the process, the more distinctly do these changes assume the character of isolated spots. Closer examination shows that these districts are occupied by a large number of cellular forms of very diverse character; they range from ordinary lymph-corpuscles on the one hand, to certain very large and conspicuous cell-elements on the other. These latter are nucleus-like roundish bodies, that stain lightly, are pellucid, and present a very distinct intranuclear plexus; between them and the unaltered lymph-corpuscles every gradation can be observed, and there can be no doubt that from these latter they are derived. All these elements, both large and small, show evidence of active division. The endothelial cells of the part appear unaltered. The blood-capillaries in these districts are very numerous and distinct, and are often provided with a well-marked adenoid sheath that, while described by His as of normal occurrence, is certainly best seen in slightly inflamed glands. That these conspicious changes indicate so many spots or foci of inflammation may, I presume, be granted, especially on the ground of their precise resemblance to changes elsewhere of undoubted inflammatory origin.

The large cells with glistening protoplasm form a great feature in all scrofulous inflammations. They were first noticed by Rindfleisch, who regarded them as characteristic; he described their segmentation, and conceived their origin to be from the leucocytes of the part, an origin almost undoubted in the present instance. All subsequent pathologists have observed them and their almost uniform appearance in scrofulous inflammation, as an important factor in that process. With regard to the future of the cell-products in these exudations, it can only be said that, as a whole, they are short lived, or become involved in subsequent changes. The large elements, especially, soon undergo degeneration and disappear from the scene; in no instance do they experience any further development, and they have no share whatsoever in the formation of giant-cells, which, it may be remarked, are never observed at this stage of the process. The changes just indicated become more or less general, and very soon fresh manifestations of a somewhat different character become apparent.

Before detailing these further changes, I might draw attention to what I believe to be a new feature in the anatomy of lymphatic glands. The system of lymph-sinuses in the glands is well known, and the current of the lymph in them, I believe, well established. It is known that lymph brought to the glands by the afferent vessels enters first the capsular plexus, passes then to the cortical sinuses and through them to the medullary sinuses, whence it issues by the efferent lymphatics at the hilus. In addition, however, to these vessels and passages, I would draw attention to the existence of proper lymphatic vessels in the gland-tissue itself, that appear so far to have escaped notice. These vessels are ordinary lymphatics, their walls are composed of a single layer of endothelium, and they run in the proper gland-tissue, both of the medulla and of the cortex. They are rendered very distinct in the affection now under consideration, but that they have escaped notice in normal glands is no matter of surprise, inasmuch as, when filled with lymph-corpuscles, their distinction from the surrounding gland-tissue must be a matter of difficulty, if not impossible. Into their further anatomy, their mode of division and of termination, I will not now enter; suffice it to say that they have no connection with the system of sinuses, and appear to be concerned, indeed, solely in the simple process of nutrition. The fresh changes now to be described are intimately associated with these very lymphatic vessels, affecting at the same time, although in a less degree, the lymph-sinuses of the part.

It is important to note that they commence in, and for some time remain limited to, the sinuses and lymphatics of the medulla. These lymph-vessels are found to be distended, the endothelial cells lining their walls distinct, and showing evidence both of individual and of numerical increase. Across the lumen of the vessel a fine but irregular reticulum is being developed, composed in one place of fine fibres, in others of broader bands, or even membrane-like expansions. This reticulum is closely associated with the lining endothelial cells, and many acts point to the probability that it is actually developed from those cells. These changes, so far, are almost identical with those observed by Klein in the lymphatic vessels under the pleura and in the lungs, in cases of chronic pleuritis; and to this reticulum developed within the vessels, he has given the name of the "endolymphangeal network". Within the lymphatics, and occupying the meshes of this reticulum, are a varying number of lymph-corpuscles, with a certain but small proportion of those larger cell-elements observed in the earlier stages of the process. These morbid products are no doubt developed from the lymphoid corpuscles that would normally be found within the lymphatic vessels, there being no evidence that they are derived by absorption from a more remote or more advanced focus of disease. Lastly, these vessels always contain more or less of a homogeneous or faintly granular material; and that is

evidently but coagulated lymph, as shown by comparison with undoubted coagula. The changes noted in the sinuses are precisely similar to those first described, and need no special description.

Marked changes at the same time are going on in the gland-tissue adjacent to these affected vessels and sinuses. That tissue, already crowded with altered lymph-corpuscles and the typical large cell-elements, becomes conspicuous by the appearance of opacity, and the loss of the transparent condition of the intercellular spaces. This opacity is always first noticed in the immediate vicinity of the sinuses or vessels, and is due to deposit in the part of the homogeneous material that is obviously only coagulated lymph. The corpuscles appear embedded in this material, and the anatomical details of the affected district become indistinct. The fibres of the adenoid reticulum increase in density and width, become softened, and of so nearly the same refractive index as the structureless coagulum, that the general ground-substance of the spot assumes a more or less homogeneous appearance. These spots tend to extend by peripheral increase, and always assume, therefore, a rounded outline; for the same reason, a faintly concentric arrangement is often given to such relicts of fibrillation as persist. The lymph-vessels are lost to view. The trabeculæ become altered, their whole tissue becomes infiltrated with lymphoid corpuscles, their fibrillation very indistinct, until at last they cannot be distinguished from the adjacent gland-tissue, especially as by this time every trace of the corresponding sinus will have been lost. In this manner, spots of opaque altered tissue appear simultaneously in many parts of the gland; they increase in size, still retaining their rounded outline, often fuse together, and so produce those conspicuous patches that have been so prominently regarded by all who have investigated this subject. The connection of these opaque patches with the lymphatic vessels is often very clearly seen. The cell-elements in these patches soon indicate a condition of decay. The largest cells are first to perish, and are soon lost in the general monotony of fatty degeneration; whereas the endothelial cells are the last to go, and, even when caseous changes are far advanced, will persist, shrivelled and deformed, as the sole survivors of a once vigorous crowd of corpuscles.

Early caseous degeneration, then, is the usual sequel in such glands as present the disease in some degree of intensity, although the process does not necessarily end there. If further change ensue, the little caseous spots appear to act as irritants, an indolent suppuration follows, purulent collections are formed that are at first small and isolated, and that ultimately, if left to themselves, occupy the greater part of the gland tissue. The clinical features of these glands are as follows. They enlarge quickly, and often with distinct inflammatory symptoms; soon become caseous or suppurate; seldom attain great size, but become matted together, if numerous, and contract adhesions to adjacent parts. They present little thickening of their capsules, are fleshy and opaque on section, and show, here and there, a cheesy spot that projects above the cut surface, or a cavity or two filled with thick pus, or larger areas of caseation or suppuration. For convenience of reference, glands with these characters may be distinguished as glands of the first variety.

When the process is more chronic or less intense, the appearances are somewhat different; and this difference depends, I would urge, mainly upon the fact that, the more active or intense the inflammatory process, the greater the tendency for the products of that inflammation to be cellular rather than fibrous.

So far, cell-elements have been most conspicuous in the process, but in the more chronic forms, now to be described, it will be observed that a development of fibrous material becomes always the most marked feature. The process is similar, differing only in degree; the reticulum within the lymph-vessels and sinuses is dense and more extensive, as is also the adenoid tissue of the proper gland-substance. The result is, that the opaque basis or ground-substance of the patches is now less homogeneous, and shows more distinct fibrillation; the change being slower, the cellular elements show more varieties of outline, and, on account of the prominence assumed by the fibrillar structure, appear to be much less numerous. Now it is in the midst of such opaque patches that giant-cells first appear. The aspect of these bodies is well known. It is necessary to insist that they never, as some have stated, commence the process; they indicate the attainment of a certain stage in the process of the inflammation, and never appear, under any circumstances, until that stage has been reached. Still more important it is to observe that with their appearance the process terminates and caseous degeneration follows—a fact first noticed I believe by Virchow in connection with the giant-cells in phthisical processes.

Glands showing these changes may be classed as glands of the second variety; they form by far the commonest form of scrofulous gland-tumour: they enlarge slowly, may attain great dimensions, remain for a long time freely movable, have an uniform fleshy semi-transparent aspect, as if they had been soaked in glycerine, and, if caseous, show that change but slightly to the naked eye, and only in faint diffused districts rather than in isolated spots.

Before dealing with the subject of giant-cells, I will draw attention to the last and most chronic or least intense process noticed in scrofulous glands. This change occurs in glands that have undergone the most indolent enlargement, as a rule; that attain large size and yet produce few symptoms, that are apt to be numerous, to extend, to form no adhesions, and to shell out with great ease if treated by operation. They may be termed glands of the third variety.

As, in other forms, the scrofulous changes are apt to assume rounded outlines, so in this last variety the most conspicuous feature is a great fibrous development, with a tendency for that material to arrange itself in more or less rounded masses. In some cases, these rounded masses are so dense as to appear quite solid, the contained cell-elements being scanty and withered; they can be isolated by shaking, and, although they present no characters that would now distinguish them as tubercle, yet in less recent descriptions they have received that name. In other districts will be seen a rounded spot, occupied by more or less open but irregular fibrous structure, that often presents a concentric arrangement at its edge. Such an area contains different degenerate cell-elements, the periphery and adjacent tissue being at the same time probably occupied by lymph-corpuscles, but little altered. Throughout all parts of the affected spot, can be seen the homogeneous material that closely resembles coagulated lymph. In other instances, giant-cells are introduced into these spaces, and the appearance denominated tubercle is produced. Into the reputed structure of the true reticular, lymphoid, or submiliary tubercle, I will not enter. It is sufficient to refer to the fibrous material so arranged as to include a more or less circular space, with a giant-cell in or about its centre possessing branched processes that reach the periphery; and casually to mention the larger and smaller cell-masses that occupy the tissue between the giant-cell and the periphery, and that are considered to represent all gradations between that cell and the little lymph-corpuscles that may crowd the outskirts of the tubercle. Lymphatic glands are supposed to show the structure of this tubercle to perfection; but an examination of a large number of such glands leads to the conviction that the appearances described as indicative of tubercle are certainly not common, and that they are rather constructed from many different parts of the affected tissue, than represented in their entirety by one. Many of the affected districts contain no giant-cells; others only show the circular arrangement of the fibres, or show giant-cells with no definite fibrous arrangement; while another part contains few, if any, of the corpuscles that are considered typical of the appearance. Certain it is that, with the appearance of these giant-cells, or of this tubercle, the process ends, and degeneration of a gross character immediately ensues.

It will now be convenient to discuss very briefly the nature and relationship of these giant-cells and tubercles. I would urge that the so-called giant-cells are merely lymph-coagula involving in their coagulation a greater or less number of cellular elements; and it would be simpler to confine the remarks upon this head in the first instance to the giant-cells observed in the glands of the second variety. The reasons for this belief are the following: the material of which the mass of the so-called cell is constructed, is precisely similar to undoubted lymph-coagula. These bodies are found, under favourable circumstances, distinctly to occupy the lymphatic vessels or sinuses of the gland. Their position in these channels is not clearly indicated in the bulk of instances, owing to the rapidity with which the anatomical details of the part are lost. They precisely resemble in every respect the giant-cells sometimes found in chronically inflamed connective tissue, and that are located without doubt in the lumen of lymphatic vessels. Their appearance is associated with the appearance, throughout the greater part of the gland, of a material precisely similar to coagulated lymph, and that could hardly from its extent and distribution be regarded as protoplasm.

In opposition to the theory that they are protoplasmic masses, I would remark that the number of contained nuclei bears no relation whatsoever to the size of the cells. The arrangement of the nuclei in some of these bodies is so casual and incoherent, as to suggest no other explanation than that of a plug of cells in a coagulum. Then again, if the cell-elements in the neighbouring tissue are few, the nuclei of the giant-cell are few and *vice versâ*. Giant cells are found in a tissue on the point of death and decay, and in parts that are absolutely, if not quite, non-vascular; and I cannot conceive that, surrounded by these conditions, it is possible for such active and vigorous changes to ensue, as must of necessity exist, if the protoplasmic theory be correct. It is urged by some, that they are developed in blood-vessels, but; as just stated, they do not appear until the tissue has become practically non-vascular. The orderly arrangement sometimes noticed in the nuclei clustered at the margin of a giant-cell is considered conclusive as to the origin from

the endothelium of a blood-vessel; but a similar orderly arrangement can be seen in giant-cells occupying lymphatic vessels, whose endothelium is not disturbed.

I would urge that these masses are formed in the meshes of the reticulum that occupies the lymphatics and sinuses, and that they indicate the absolute cessation of all lymphatic current, for, up to the time of their appearance, the possibility of a circulation of lymph still exists. It will be remembered that the first changes appear in the medulla; its sinuses are blocked, the afferent vessels appear quite empty, and yet the cortical sinuses are distinct, often dilated. This appears to support the belief that lymph is still entering the gland by the afferent tracks, and may be actually distending the organ, owing to the greatly obstructed outflow. I believe that their processes are merely portions of the reticulum in which they are deposited; and it is a most significant fact that the distinctness and density of the processes vary precisely with the state of the surrounding tissues. These processes are acknowledged to be continuous with the adjacent network; and so similar are the refractive indices of the reticulum and the cell-mass, that that part of the reticulum embedded in the mass is not obvious. The shape, moreover, sometimes assumed by these bodies is eminently suggestive of a formation within a vessel.

A similar explanation I would urge for the giant-cells found in the so-called tubercle. The circular outline often noted in these tubercles appears to be merely a circumstance in the inflammatory process, by no means peculiar or specific. The anatomical details of the sinuses and lymphatics are no longer obvious in gland-tissue presenting tubercle; but I would still urge that these giant-cells are lymph-coagula formed in the irregular meshes of the now quite disordered structure. Some districts show no giant-cells, but in their place the material that is in no way different from a coagulum. The masses, moreover, are as often seen at the periphery as in the centre of the supposed tubercles, and the smaller giant-cells would represent smaller coagula. The connection of the processes of one giant-cell with those of another, and the still further connection of those processes with the surrounding reticulum, is fully explained on the supposition that these giant-cells are coagula deposited haphazard in the meshes of the fibrous tissue of the gland, and that they conceal the reticulum to an extent equivalent to the size of the coagulum or so-called cell.

In proof of this, I would draw attention to the giant-cell figured here, which has been taken from the edge of a caseous patch. The giant-cell and surrounding tissues are degenerating; and when such degeneration takes place, the cellular elements and the lymph-coagulum are always the first to perish, the fibrous elements resisting for a longer period the caseous action, and acquiring thereby a temporary distinctness. Therefore, if the giant-cell is deposited in a reticulum and blots out by its very substance the details of that reticulum, it is obvious that, as the mass degenerates, the fibres of that mesh-work should again become apparent. Now, in this decaying giant-cell, a fibrous mesh-work can be seen stretching across the mass, exactly similar to that observed in the vicinity; and especially it is to be noticed that this reticulum is continuous with the so-called processes of the giant-mass, and, through them, with the adenoid tissue in the neighbourhood. The appearance of fibrous matter in moribund giant-cells has been observed. Klein, in speaking of the giant-cells in tubercle of the lung, states that, before undergoing final decay they are often converted into a fibrillar substance; on this point, however, I would urge that the development of fibrous material in a tissue partly decayed and quite destitute of blood-supply would seem scarcely probable. The changes in the blood-vessels, it may be briefly said, are very similar to those observed by Dr. Wilson Fox, in connection with the caseous processes attending artificial tuberculosis.

Such, in outline, are the changes that occur in scrofulous glands; and from the data furnished, in addition to extensive observations that have been made in other scrofulous affections and with the same general results, some conclusions may be attempted as to the nature of the process.

Scrofula indicates a tendency on the part of the individual to inflammations of a peculiar character. The peculiarities are numerous, and, taken *en masse*, distinctive. The inflammatory process always tends to be chronic and ill-conditioned, to be excited by slight, and, as I shall show, often peculiar irritation: the products are remarkably cellular in character, and present especially certain large cell-bodies of almost distinctive appearance. These products show a great disposition to resist absorption, and to linger in the tissues. The affected districts soon present signs of diminished vascularity; the inflammatory action tends to increase within certain limits, but to be restricted by no barrier of healthier action. The great feature, however, in these inflammations, is the early, marked, and constant implication of lymphatic vessels and tissue.

Caseous degeneration is a common mode of termination, and depends upon three main factors—upon the cellular character of the exudation, the deficient blood-supply, and, above all, the lymphatic implication—factors that all point to difficulties in any effort at absorption. In the course of this process, giant-cells may appear, and the condition known as miliary tubercle be observed: but, as I have previously shown, the scrofulous process may run its complete course before any giant-cells are met with; or, again, giant-cells have appeared, before any so-called tubercle has been found. These so-called giant-masses and tubercles merely indicate stages or degrees of the process; they mark grades of intenseness, and are more incidental than necessary.

Tubercle appears in the most chronic or least intense form of the process; and with regard to its relation to scrofula, I would urge that it is a product simply of a peculiar inflammation; that it indicates simply a stage or particular degree of that inflammation; and, above all, that it, like the giant-cell, requires for its development the anatomical element of lymphatic tissue.

Time will only permit me to deal with a few of the features of the scrofulous inflammation; and I will, therefore, draw attention to that most important and essential factor of the process—the implication of lymphatic tissue. In the first place, some well known clinical facts may be alluded to in support of this point. One of the commonest, perhaps the commonest, symptom of a strumous disposition, is an enlargement of those lymphoid bodies, the tonsils, or, if not actually of the tonsils, at least of the adenoid tissue at the back of the pharynx. Then, again, the scrofulous ulcer of the intestine commences in the lymphatic tissue of the part; the same tissue in the bronchi would appear to be most conspicuously involved in scrofulous bronchitis; the disease known as pharyngitis scrofulosa is merely a caseous inflammation of the lymphoid tissue of the pharynx; and other affections of the mucous membranes, such as scrofulous ozæna or coryza, and the vaginitis of strumous children, probably commences in, or largely involves the same structure.

The best evidence under this head, however, is of course afforded by the glandular enlargements in the scrofulous. In answer to the question, what glands are the more usually involved in scrofula? we should be told the glands of the neck, the bronchial glands, and the mesenteric glands.

Now comes a point of the utmost interest in the present matter. Why should these particular sets of glands be so commonly affected? Speaking only of the surface of the body, it may well be asked why the cervical glands should be so constantly involved? There are large numbers of glands in the axillæ and the groins, the limbs are exposed to injuries that may well prove sources of peripheral irritation, the parts themselves are subjected to constant and often violent movement, and, as a matter of fact, the glands in the axillæ and groin are actually more often affected in the non-strumous than are those about the neck. The explanation that I would venture to urge of this remarkable fact is the following. The glands that are most usually affected in scrofula, are those whose radicles are connected at the periphery with adenoid tissue. The most extensive collections of such adenoid tissue are found about the mouth and pharynx, in the bronchial mucous membranes, and in the mucous lining of the intestines. The glands that receive the lymph from these areas are the cervical, the bronchial, and the mesenteric.

The irritation that may produce enlargement of glands in scrofula may be slight, but, to operate effectually, it should be located in the lymphoid tissue of a mucous membrane. Sores about the limbs, or on the face or neck, even when of long duration, very commonly induce no more gland-trouble in the scrofulous than they do in healthy individuals.

With regard to the enlarged cervical glands, it is well known that the main sources of peripheral irritation are to be sought for in the mouth and throat, and the particular vigour of irritations in this situation is well shown in a case of this kind, one of many that I have collected to illustrate this point. A little girl had a strumous ulcer on the cheek that had existed for nearly a month, and yet the submaxillary glands were not affected. She became, however, the subject of scrofulous pharyngitis, *i.e.*, the adenoid tissue became involved, and in a few days the glands on both sides of the neck were enlarged, and subsequently attained a great size.

To view the question under another aspect, caesous inflammation is an usual ending of scrofulous processes, and the connection between the extent of this change and the extent of the lymphatic implication is most marked. Certain animals, as the rabbit and guinea-pig, are extremely liable, under the most trifling irritation, to caseous inflammations; and the one great fact in the pathology of such inflammations is the prominent part taken by the lymphatic structures in the morbid change. Indeed, it would appear that the extent of the caseous change in such animals is to be measured by the extent of the lymphatic implication. Lastly, proof can be afforded of the fact that lymphatic vessels, as dis-

tinguished from lymphoid tissue, are of themselves capable of showing all the changes incident to scrofula. The capsular plexus in glands is well isolated between the two layers of the capsule; it represents a tissue composed solely of lymph-vessels well marked off from surrounding parts, yet this tissue can show all the changes incident to struma, the large cell-elements, the giant-cells, the tubercle so-called, and the caseous termination.

In conclusion, I will draw attention to certain practical points, illustrated by the pathology of these affections. It has been stated that, in the earlier stages of the process, the gland is crowded with lymphoid corpuscles; often many glands are affected in this manner, and under such circumstances one would expect that some, at least, of these cell elements would enter the general circulation by the efferent vessels, and produce a state of leucocythœmia. But opposed to such a supposition is the fact, that an anæmic appearance is not commonly observed in these affections, not even in the earlier stages, and a reference to the glands themselves explains the reason of this. The medulla is the part first affected: and the medullary sinuses. whence the efferent vessels are derived, are therefore soon blocked and rendered practically impervious. At the same time, sections made through the hilus show that the efferent vessels, instead of being crowded with lymph-corpuscles on their way to the general circulation, are absolutely deficient in those elements. They contain merely a little coagulum, a small cluster of corpuscles here and there, and nothing more. One must assume, therefore, that the early compression of the sinuses is instrumental in preventing an increase in the white elements of the blood. This condition is in strong contrast to that observed in the glands in lymphadenoma. In such organs, no attempt appears to be made to prevent the escape of the rapidly proliferating elements, and the vessels at the hilus are seen to be actually crowded with leucocytes on their way to enter the circulation of the blood.

The question as to the mode of extension of this disease of glands in scrofula touches very pointedly upon the value of operative interference in certain cases, and receives excellent answer in the pathology of the process.

There is no doubt that, from some one peripheral irritation in a mucous membrane, many glands may be simultaneously affected, or at least involved in rapid succession; but in addition to this mode of increase, I would draw attention to the fact, that glands already attacked have the power of conveying the disease to others in the vicinity, by a process of local infection. One constantly meets with cases where glands are involved, one after the other, in a very regular succession, and in a direction often actually the reverse to that of the lymph-current. From some definite peripheral irritation a gland may enlarge just above the clavicle, and be followed, in the absence of any fresh irritation, by a series of glands that will appear in order one after the other, and mount up the neck, the last gland affected being that nearest the jaw. In such a case, it may be urged that the circulation of lymph is so interfered with by the implication of the original gland, that a species of backward stasis is produced and the diseased lymph thrown thereby into collateral channels. In the same way, it is very common to see gland-mischief extend from the neck into the axilla, in a most precise order, and by direct continuity of parts.

The microscope, however, reveals another explanation; the diseased process may actually be followed from the gland-tissue back into the capsular plexus, and thence into the afferent vessels: these latter become blocked up by the corpuscular elements, develop within their lumen a reticulum, just as observed by Klein in inflamed lymphatics elsewhere, undergo all the scrofulous changes, and become in time caseous. I imagine that, by means of these vessels, connected glands may be affected, especially as one finds connecting lines of diseased tissue running from one gland to another. Moreover, this morbid change can extend along the vessels, independently of valves and in the reverse direction to the lymph current.

Then, again, it is well known that the larger glandular masses may present more separate gland-bodies than can be accounted for by the anatomists. Many of these are no doubt due to the enlargement of glands so small in health as to escape the eye of the dissector. And again, I have repeatedly found little glands wholly caseous, which are yet no larger than hemp-seeds. Now, I believe that many of these apparently supernumerary bodies are produced from the afferent lymphatics of the adjacent diseased glands by the following process. Klein has shown that irritated lymphatic vessels very readily develop into masses of adenoid tissue surrounded by a perfect sinus, which sinus is nothing indeed but the altered vessel itself. These little masses may assume the features of a gland, although they retain a much more rudimentary structure, are quite capable of increasing indefinitely, of showing the whole of the changes incident to scrofula; and I have no doubt that they form, in time, many of the bodies that are not to be distinguished from the ordinary lymph-glands. These points would strongly support the early removal of glands in certain situations and in certain subjects, especially the more chronic forms which are the most inclined to extend on the one hand, and the most easy to remove on the other; but in any case the mischief should be recent, the nature of the affection undoubted, and the glands involved few and well isolated.

There is another mode of treatment—namely, that of scooping out the interior of the gland through a small incision—that is even more restricted in its application; and I think that the needful restrictions are clearly indicated by the pathology of the disease. Such a proceeding could only be applied to glands that are advanced in disease, and that are either very caseous or have partly suppurated. It is most applicable to those glands referred to as of the second variety; for in their latter stages these glands become very adherent to the adjacent parts, their contents become soft on the one hand, and their capsule very dense and thick on the other. These three conditions being present, a good prospect is afforded for the success of this method. But in some of the less intense forms, and again some of the most chronic forms, before suppuration has been induced, such a plan would be attended by much risk, for these glands are often very movable, have formed few adhesions and possess moreover a very thin capsule.

In conclusion, I should imagine that much can be done by operative measures to lessen the duration and to modify the subsequent ill effects of these gland-diseases; but there can scarcely be a disorder where such procedures require more care in their application, and more restrictions in the selecting of proper cases, than does the affection to which I have now had the honour of drawing your attention.

ON THE USE OF STEAM IN THE SICK-ROOM FOR INCREASING THE ATMOSPHERIC HUMIDITY.

By WILLIAM MARCET, M.D., F.R.S.,

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It is now fully admitted that the atmospheric conditions most beneficial in pulmonary congestion, bronchial irritation, and many other affections, are warmth and humidity. Unfortunately, the temperature required indoors cannot be attained without a considerable accession of atmospheric dryness; and this we endeavour to counteract by steaming the air.

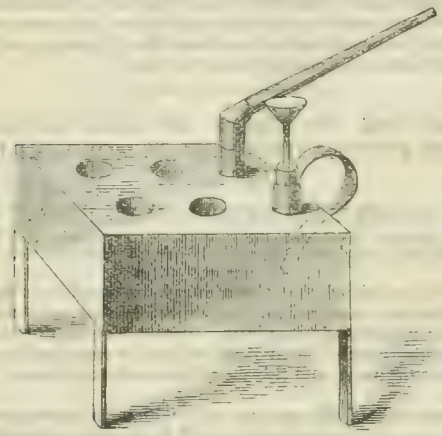
On January 20th of the present year, with a temperature of 32° out of doors on my dining-room window-sill in Grosvenor Street, the wet bulb reading gave 65 per cent. of moisture, while in that room, with a temperature of 53°, the atmospheric humidity registered only 55 per cent. On the 22nd, the temperature out of doors was 27.5°, and relative humidity 90 per cent.; indoors temperature 49°, relative humidity only 57 per cent. On the 23rd, humidity out of doors 76 per cent.; indoors 60 per cent. It is, therefore, very obvious that, on cold days, the relative humidity in warm rooms falls to a very low figure; and, in cold and wet weather, the humidity indoors will be much below what it registers in the open air.

The usual way of imparting dampness to the air in a room is to keep water boiling with a spirit-lamp, or generate steam from the common bronchitis-kettle placed on the fire. Thus volumes of vapour are emitted, often giving an erroneous impression that the air is becoming dampened to a considerable extent. In a small room, holding only 1,454 cubic feet of air, with double doors shut, and no other ventilation than that going on through the chinks of an indifferently fitting window, I have obtained with the usual bronchitis-kettle an increase of relative humidity amounting in one case to from 57 to 67 per cent., or by 10 per cent. with an open-air temperature of 40° and 96 per cent. of humidity, which were favourable conditions towards the artificial addition of moisture. On another occasion, the increase was from 61 to 71 per cent.—again 10 per cent.—with 41° out of doors and 88 per cent. of relative humidity: again a favourable condition towards the dampening influence of steam. In a third instance, the increase was from 59 to 64.4 per cent., or by 5.4 per cent.; open-air temperature 43°, and 85 per cent. of relative humidity; the circumstances being in this case rather less favourable towards the influence of steam as increasing the atmospheric humidity.

In the first of these experiments, the steam was emitted for one hour, during which time two pints and eight ounces of water were evaporated out of three pints from a common bronchitis-kettle placed on the fire. In the second, two pints of water poured into the kettle were converted into steam in thirty-five minutes, or at the rate of a little over three pints and eight ounces per hour. In a drawing-room holding 4,184 cubic feet of

air, and having an adjoining back room about half as large, with which it communicated, on one occasion I could not obtain any marked increase of moisture; on another, the conversion of water into steam at the rate of four pints and four ounces per hour succeeded in adding only 5 per cent. of relative humidity; the outside temperature at the time was about 40°, and the relative humidity about 84 per cent. Another observation was made in a bedroom of a capacity of 3,218 feet; while the air out of doors contained 83 per cent. of relative humidity, with a temperature of 53°. The atmospheric moisture was 71 per cent. in the room before steam was emitted; the steaming with a common bronchitis-kettle was continued from 3.38 P.M. till 5.10 P.M.; and an increase of relative humidity by 1 per cent. only could be obtained. In this last experiment, I observed that, when the thermometers were held full in the stream of vapour, about a yard from the spout of the kettle, both stood at 70°, showing the air to be saturated; while, if the instruments were placed close to the steam, at that distance from the kettle, though not actually in the vapour, no increase of dampness was observed beyond that of the other parts of the room.

The results of these observations are not altogether encouraging as to the use of the ordinary bronchitis-kettle for steaming the room of an invalid. With the object of evaporating a larger weight of water within a given time, I have had a tin kettle made, supplied with tubes on the principle of the tubular boiler for steam-engines. This boiler



may of course be any size, but for private use I have had it made seven inches in length, six inches in breadth, and four inches in depth; four tubes, having each of them one inch in diameter, are passed through the boiler, and soldered to it top and bottom. Two necks are also soldered in the boiler; the steam delivery-pipe is connected with one of them, while a straight tin tube run through a perforated cork is fitted into the other. This tube, which is funnel-shaped at its upper end, is lowered into the water to about half an inch from the bottom, and answers three purposes: first of all, when steam is emitted through it, the water in the boiler is shown to be too low; then it allows water to be added at any time without the risk of burning one's fingers by removing a cork or a screw-tap; and thirdly, should the steam delivery pipe become accidentally stopped by some unforseen cause, this tube will act as a safety-valve, letting out water and steam, and preventing any possibility of an explosion. Four short iron legs assist in holding up the kettle on the fire, and support it when not in use. The advantage of the tubes in increasing the surface exposed to the heat is very obvious; four tubes, with three inches in circumference and four inches in length, would give an additional surface of forty-eight square inches, or about double that of the bottom of the kettle. I propose to call this vessel the Bronchitis Tubular Kettle; a tap can be fitted into the side of the kettle, away from the fire, and it may be observed that in every case where a large volume of steam is wanted, and boiling water required with as little delay as possible, there can be no simpler or cheaper means of attaining these objects.

The cost of this kettle will be, I understand, under ten shillings, without the tap. Mr. Probyn, chemist, 55, Grosvenor Street, and 7, Pall Mall East, is prepared to supply them. It will be important to keep the tubes clear of soot, and brushes will be sold for the purpose. I shall have no pecuniary interest in the sale of the bronchitis-tubular kettle.

In a first experiment with that boiler, I poured into it three pints of cold water, and placed the kettle on the fire of the small room holding 1454 cubic feet of air at six minutes past noon; at 12.13, or only seven minutes later, the water was boiling and steam given out in large volumes. The temperature out of doors was 40°, and relative humidity 84 per cent.; while the atmospheric moisture in the room registered 58 per cent. Observations as to the relative humidity in the room while steaming was in progress were made every five minutes. A maximum increase of relative humidity amounting to 15 per cent. was obtained in thirty-two minutes; very soon afterwards, I observed steam coming out at the funnel, and the operation was discontinued. There were thirteen ounces of water left in the boiler, the evaporation having, therefore, taken place at the rate of very nearly four pints and eight ounces per hour.

Another experiment was made on a dull and cold day in February. The readings out of doors were 37° for temperature, and wet bulb 35.5°, corresponding to 87 per cent. of relative humidity. The object was to try the steaming of my bedroom, holding 3218 cubic feet of air, with the tubular kettle. The relative humidity in the room before steam had commenced being emitted was 58 per cent. Observations were made every five minutes. I also used in this experiment a hair hygrometer, which, although very sensitive to moisture, could not be reckoned as giving such accurate indications as the dry and wet bulb thermometers. I shall, therefore, restrict myself to those readings. At 12.33, steam began arising from the tubular kettle, then holding three pints of water. At 1.25, the relative humidity had risen to 67.5 per cent., or by 9.5. From 1.35 to 2.15, I was away; but on returning into the room at 2.15 P.M., I found 70 per cent. of relative humidity, an increase by 12, which proved to be the maximum degree of humidity obtained. The hair-hygrometer had only shown an addition of 9 per cent. of humidity. From 2.15 to 2.50 P.M., when the experiment was concluded, the moisture varied between 70 and 67.5 per cent., though falling once to 63.5 per cent. The maximum increase of 12 in this case was obtained with an evaporation taking place at the rate of only one pint and four drachms per hour. The air on that occasion was very dry indoors, and cold and rather damp outside. As the external air had not much capacity for moisture, while that in the room was accessible to a considerable addition of humidity, the steam emitted remained in the room and increased the dampness of its atmosphere; had the open air been warmer and drier, its capacity for moisture would have increased, and a smaller accession of humidity would have been obtained from the amount of steam emitted. It is, indeed, remarkable that the air out of doors should have such an influence on that of a room with closed doors and windows.

In conclusion, it must be borne in mind that the steaming of the atmosphere indoors yields less humidity than might be anticipated, especially in a large room; the increase of moisture will depend on the temperature and humidity out of doors, on the degree of atmospheric humidity in the room, and on the amount of water vaporised within a given time. The tubular kettle, with the flame playing through its tubes, must give out on the same fire a larger amount of steam within a given time than the ordinary bronchitis-kettle; but, of course, the rate of evaporation of the water will depend in a great measure on the brightness of the fire.

As to the actual increase of moisture obtained by emitting steam in a closed room, I should think an accession by 10 or 15 per cent. of relative humidity may be expected under favourable circumstances, especially with the use of the tubular kettle; while under unfavourable conditions a slighter increase will be obtained, and even in a large room, the humidity added may be scarcely appreciable by the hygrometer.

PRESERVING FLUID FOR MEAT.—J. Wickersheimer, whose patent of a preserving fluid for anatomical specimens was purchased by the German government (see *New Remedies*, 1880), has patented a new liquid for the preservation of meat intended for food. Its composition is as follows: 36 grammes of potassa, 15 grammes of chloride of sodium, and 60 grammes of alum are dissolved in 3 litres of water; the solution heated to 50° C. (122° F.), and afterwards 9 grammes of salicylic acid added, together with 45 grammes of methylic alcohol and 250 grammes of glycerin. In smaller animals, 100 grammes of the liquid are used for every kilogramme of weight of body; in larger animals, the amount may be reduced to 40 grammes per kilogramme. The liquid is either injected, before slaughtering, directly into the heart, or, after slaughtering, in the carotid. In the case of neat cattle and hogs, 3 grammes of saltpetre are added to the above liquid. The preserving power of the latter may be augmented by increasing the methylic alcohol to 20 grammes, salicylic acid to 12 grammes, and glycerin to 450 grammes per litre of liquid. The meat may then be preserved two or three weeks entirely without odour.—*Chem. Zeit.*, 1880. No. 52.

CLINICAL MEMORANDA.

POISONING BY ARSENICAL WALL-PAPER.

THE following short account of symptoms due to poisoning by an arsenical wall-paper has a double interest: first, from the nature of the symptoms; and, secondly, from the generally assumed unsuspicious appearance of the poisoned paper.

A lady, whose health is generally of the best, complained of giddiness; severe headaches, especially on rising in the morning; constant drowsiness and lassitude; and a quite unwonted loss of all energy. The giddiness was so marked as frequently to make her feel as though about to fall. There was no other complaint made; and no discoverable derangement of the digestive or any other system. She thought, herself, that her symptoms were due to cold and fatigue, and that she would soon recover by a temporary change of air. But I was struck with the fact that these symptoms dated as far back as the end of January, the time of my seeing her being towards the end of March. Previously to the end of January, she had been in perfect health, with the exception of a "cold". And she was one of those who are not given to making vague or exaggerated complaints. The date, moreover, of the first definite notice being taken of these symptoms was about six weeks after entering a newly decorated house. Being impressed with the account of these complaints, and going over in my mind the various possible local causes for them—such as drains, food, bad ventilation, etc.—and finding no satisfactory explanation, I came at last to the wall-papers. The colour of the paper of the sitting-room in general use was one of the dull "æsthetic" greens now in vogue; that of the bed-room a light blue-and-white. Bearing in mind a former case, with strikingly similar symptoms, of an entirely nervous character, which I had found to be due to an arsenical paper, and published in the JOURNAL of November 4th, 1876 (to which I would refer those interested in the subject), I determined to have the papers examined. My colleague, Dr. Dupré, again very kindly tested them for me, and found the blue-and-white bed-room paper to be highly arsenical; while the green paper of the sitting-room contained but very slight traces. The bed-room paper was at once taken down; and the symptoms promptly disappeared. On subsequent inquiry, I found that this lady had suffered from some slight smarting pain in the eyes, but had forgotten to mention this to me, believing it was due to overuse; and that she had also noticed a constant "curious" taste on putting the tongue to the lips. Her husband, I afterwards learnt, had recently complained of unwonted drowsiness and slight sore-throat, though these symptoms were not much remarked at the time, and had not lasted so long as his wife's. Although experts are aware that it is not only green papers that are arsenical, yet even the educated public are still in great ignorance on the matter. The dangerous nature, therefore, of some of these harmless-looking papers, and the somewhat scantily recognised character of the nervous symptoms recorded, appear to give sufficient excuse for making this case public.

H. DONKIN, M.B., F.R.C.P., Senior Assistant-Physician to Westminster Hospital.

SPRUE—CEYLON SORE-MOUTH.

IN reading Dr. Patrick Manson's description of "sprue" (BRITISH MEDICAL JOURNAL, April 2nd, 1881), I was forcibly reminded of the disease called "Ceylon sore-mouth".

During a residence of three years and a half in the island of Ceylon, I met with several cases of this disease, and with one more especially, which was under my observation from its onset until its disappearance. This patient, a married lady, had previously suffered from an attack of acute dysentery, from which, however, she had perfectly recovered. Besides the "remitting inflammation of the mucous membrane of the mouth", etc., mentioned by Dr. Manson, I generally found ulceration present, and have no doubt, from the symptoms, that this extended more or less along the alimentary canal. There was also vomiting, and often continued retching, in more than one of the cases. The diarrhœa was great, and accompanied by pain. The treatment was very disappointing, as, if the ulceration were partially cured, the diarrhœa increased; and, if the latter were cured, or partially so, the mouth at once became affected, and so tender, that it was very painful to take anything in the way of nourishment. After trying numerous remedies, the only ones that gave relief were bismuth and carbonate of soda, and morphia in hypodermic injections, the latter proving useful when the diarrhœa and pain in the bowels were severe. As to food, nothing but milk-diet and eggs was found to be of any use.

I am not aware of its occurring amongst the natives of the island, but their remedy for the disease is fresh palm-juice, or "taddy". As a rule, the only certain cure is to leave the country; but, in the case mentioned above, a cure was effected by a two-months' residence at the seaside, the patient having previously lived up-country, about ninety miles from the coast. I have known men suffer from "Ceylon sore-mouth" intermittently for many years; but they have been in a position to take a run home once in every few years, which, so to speak, "sets them up" for the time.

WILLIAM DONALD, M.D., Banff.

OBSTETRIC MEMORANDA.

THE AXIS TRACTION-FORCEPS.

I DO not propose entering into a discussion on the merits of the various modifications of Professor Tarnier's forceps, as, having seen most, if not all, that have been published in this country and America, I prefer his original forceps, such as is illustrated and described in the BRITISH MEDICAL JOURNAL of May 26th, 1877; and, of those who will take the trouble to refer to that drawing, I think the majority will not regard as an improvement any modification which lessens the perineal curve or the handle-curve.

What, however, I am anxious to do, is to elicit from obstetricians who have used it, the opinions they have formed of it; as I believe that, if its merits were more widely known, it would come into more general use. For my own part, I may state that the first case I tried it in was one where Barnes's forceps had failed to deliver; but I fared no better with Tarnier's, and craniotomy had to be resorted to. Not then perceiving its advantages, I put it away for a couple of years. I at length, however, determined to give it a fair and extended trial; and, having now used it in more than twenty cases, I am satisfied that it justifies the claim of its inventor, in permitting traction to be made in the axis of the pelvis, so that consequently much less force is needed in its use than in that of any other forceps we possess. The prehensile branches, also, as alleged, give a reliable indication for the direction of traction. But, when we come to the question of mobility of the head, my experience is, that, notwithstanding the mechanism of the joint at the transverse handle, the blades within the pelvis do not, and cannot, rotate beyond a very slight extent in coming through; and that, as the head is delivered, so was it grasped.

It takes a little longer time to introduce, and to get the traction-stems into the transverse handle; but there is really no difficulty in its application, and, when it is once on, the ease with which delivery can be accomplished, more especially—as compared with other models—when the head is above the brim, but also when in the pelvis, or even on the perinæum, should commend its use to all much engaged in obstetric practice. In using it, it is necessary to slightly tighten the blades by means of the fixation-screw before applying traction; and this should be eased during the intervals, care being taken not to screw the blades too tightly, as otherwise the forceps may be converted into a cephalotribe, for which it has sufficient power, as I have verified by experiment on a dead fœtus.

Finally, I may add that, as regards the invention of irremovable traction-stems, those in the original forceps, such as I purchased from M. Collin of Paris four years ago, may be removed when not in use, for the convenience of carrying, etc.; but that they are intended to be attached to the prehensile blades before introduction, as stated in the JOURNAL for 1877, page 666, is evident from the fact that, once the forceps is *in situ*, unless the head be very low down, the traction-stems can neither be applied nor removed.

JAMES MURPHY, M.D., Sunderland.

THERAPEUTIC MEMORANDA.

TREATMENT OF FREQUENTLY RECURRING ERYSIPELAS OF THE FACE.

THIS affection is very annoying to the patient, for, in spite of every precaution, it will recur again and again. If any cause can be discovered, such as bad drainage, it should at once be remedied; but, whatever other hygienic or medical treatment be employed, some local application is generally necessary. All these applications are either disfiguring or disagreeable, or totally inefficient. For many years, my father and I have used with entire success a strong solution of tannin (four to eight grains to the drachm of spirits of wine and water). This application, which is not disagreeable to the patient, should be painted over the parts affected with a soft brush every two or three hours, and allowed to dry, the patient being careful to keep the face from the fire. If there be a tendency to frequently recurring erysipelas, it is well to keep the tannin at hand, as it will always arrest a threatened attack.

JAMES BRAITHWAITE, M.D., Leeds.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

LONDON HOSPITAL.

(Under the care of Dr. SUTTON.)

LEAD POISONING—CEREBRAL SYMPTOMS—DEATH.

Reported by H. S. GABBETT, M.D.

REBECCA C., aged 22, married, a lead-worker, was admitted into the hospital on March 15th, 1881. She complained of severe pain in the abdomen and back, with restlessness and thirst. Her statements were somewhat incoherent, but it was elicited that she had always lived in London, and had enjoyed good health until two months before admission. She had been married for two years and a half, and had one child. There was some reason to believe that her habits had been intemperate, but no very positive evidence on this point was obtained. She had been employed at a white-lead factory for three months, and had an attack of colic about two months before admission. The precise date of the commencement of her present illness could not be ascertained: but it appeared that she had been suffering for about four days. She stated that the first symptom was great abdominal pain: that this continued and increased until she was obliged to take to her bed; that she lost her senses at one time and fell out of bed, and that convulsive movements of the head appeared on the day before admission.

On admission, the woman was well developed and well nourished; she lay heavily in bed, and seemed to dread being moved: her head was incessantly tossed to and fro, and the face twitched convulsively. She occasionally rambled in her talk, but gave fairly intelligent answers to questions. The temperature was 103°, the pulse small and fast, the respirations hurried and shallow. There was a well-marked blue line on the gums; the tongue was tremulous and covered with white fur; she had no appetite for food, but complained much of thirst; she made frequent ineffectual attempts to vomit. The abdomen was excessively tender to the touch, but soft, and neither distended nor retracted. No sign of disease was found in the heart or lungs. She said she had pain in the elbow and knee joints; there was no redness, swelling, or effusion. There was much hyperæsthesia of the whole surface of the body.

On the next morning the temperature was 104°, and rose to 105° at 4 p.m. There was no marked change in her condition throughout the day; she vomited several times, and complained of pains all over, aggravated by movement or touch. She occasionally talked incoherently, but understood questions and answered rationally. The optic discs were normal. The urine contained a minute trace of albumen.

On the 17th, the patient's condition was worse; the tongue was dry and brown, she said she had much pain in the head, and complained of numbness of the arms; she often moaned, and was occasionally delirious. Dr. Sutton called attention to her manner, her extreme agitation in speaking, the tremulous twitchings of the face, the hurried unrhythmical action of the diaphragm, the extreme hyperæsthesia of the surface, and the patient's dread of being moved; and pointed out that these symptoms denoted disease of the cerebro-spinal centres. He also remarked that there was no sign of peritonitis, pneumonia, pericarditis, endocarditis, or nephritis: so that by a process of exclusion the observer was led to think of disease in the brain and cord. With regard to the nature of that disease, he directed attention to the marked blue line upon the gums, and related cases of lead poisoning with prominent cerebral symptoms, where no meningitis or other coarse change had been found after death. Throughout the day the patient's temperature remained at about 104°. She was pretty quiet, and slept a little in the night.

On March 18th and 19th, there was no material change in her condition, except that she was obviously becoming more exhausted. She was still slightly delirious, and rather slower of comprehension. The twitchings and tremor continued, but were less marked. She vomited frequently, curdled milk with bile. The temperature (taken every two hours) was usually 104°; and on two occasions alone sank to 103°. The tongue was dry and brown, and sordes appeared on the teeth.

On March 20th, she was evidently sinking rapidly; she lay on her back taking no notice of anyone; breathing fast and shallow; very little twitching of the face was noticeable; she occasionally muttered something unintelligible, and picked at the bed clothes. She died in the evening, the temperature taken shortly before death being 105°.

At the *post mortem* examination, no change was found in the thorax or abdomen; beyond venous congestion, all the organs appeared to be healthy. The brain and cord were minutely examined; no trace of meningitis was seen, there was distinct flattening of the cerebral convolutions, but no excess of fluid in the ventricles, and no naked-eye appearances of any disease.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.

(Under the care of Dr. WELCH.)

Reported by Miss CLARKE, M.D., House Surgeon.

TETANUS NEONATORUM; RECOVERY.

WM. K., aged 12 days, was brought to the out-patient department November 4th, 1880. The child was said to have been strong and healthy looking when born; the cord separated at the end of the fourth day, and nothing unusual was then noticed, but four or five days later it had difficulty in sucking, its mouth seemed stiff, and hands drawn; on the morning of the 4th it was quite unable to suck, and did not swallow anything given it from a spoon.

On admission, the child's hands were tightly clenched, the toes extended, the arms and legs stiff and flexed, the tip of a little finger could with difficulty be passed between the gums, but the jaws could not be separated more widely than this; the neck was not arched, but the muscles were rigid; there was some redness and hardness about the umbilicus. The child uttered a constant low wail, and appeared to be unable to swallow. Half a grain of chloral hydrate was administered, the child was put into a warm bath for twenty minutes, and, whilst in the bath, fed from a bottle, there was some difficulty in getting the nipple between the gums, but that being once overcome, the child sucked readily, and but little of the milk ran out of his mouth; the spasm of the muscles relaxed slightly whilst the child was in the bath, and it fell asleep when taken out. Three hours later it was again fed but at least a quarter of the milk ran out of its mouth. The child was ordered to be fed at regular intervals, chloral to be given so as to keep it constantly under its influence, and a water dressing to be applied to the umbilicus, with cotton wool and a firm bandage round the abdomen. Child slept fairly during the night, but the rigidity had not decreased, the lips were lightly drawn over the gums, the eyelids closed and œdematous; the last time the child was fed during the night nearly all the milk ran out of its mouth; the child was ordered to be fed whilst in a warm bath, the chloral to be given as before. November 6th, the spasm of muscles appeared to be more painful, causing the child to cry out sharply at times. At night the child was worse, almost all the milk given ran out of its mouth, and it was difficult to pass the nipple between its gums; chloral was ordered in one grain doses, and a warm bath night and morning. There was rather less inflammation about umbilicus. On the following day there was some discharge from the umbilicus which was softer though still red and excoriated. The child was beginning to look pinched, and there was no improvement in the rigidity.

November 8th, the umbilicus was touched with nitrate of silver; during day there was diarrhœa, and at night the child was given an enema containing one minim of tincture of opium. On November 10th, there was a decided improvement in the state of the umbilicus; the diarrhœa was less, but watery mucus often escaped from the rectum when the spasms occurred. It was found that three to four grains of chloral in the twenty-four hours kept the child constantly under the influence of the drug. It was always worse at night than during the day.

On November 12th, it was decidedly easier to pass the finger between the gums, and less milk ran out of the mouth when fed. The arms were stiff and the hands clenched, but it cried out less frequently with spasm. The umbilicus was healed, there was double inguinal and umbilical herniæ, apparently due to the straining during the spasms.

On November 15th, the toes were not extended; the hands were clenched, the left arm could be straightened with a little force, but the right arm and the muscles of the neck were still rigid; the mouth could be opened better, and it took milk well, and slept most of the day and night.

On November 17th, the child was more rigid, the toes were extended; when lifted by its clothes it was perfectly rigid and stiff.

From this date the child steadily improved. On November 19th, it opened its mouth when it cried; and by November 24th, the muscles generally were relaxed, though the hands were clenched.

When discharged on December 9th, the thumbs and fingers were still flexed, but could be extended with a little force and without making

the child cry. After November 17th from two to three grains of chloral were given daily.

The child was seen a month after its discharge, it then looked plump and healthy, and there was not the least muscular rigidity, though it still held its thumbs and fingers slightly flexed.

REMARKS BY Dr. WELCH.—Tetanus in newly born children is an exceedingly rare affection in this country; this is the second case which has come under my notice in many years of hospital practice. Recovery from the disease is still more rare, the great majority of the patients dying within a few hours of the onset.

The exciting cause of the attack was probably the irritable condition of the umbilical scar, and with the cessation of this irritation, the spasm to a great extent subsided.

Although the disease, in this case, appears to have assumed a chronic rather than an acute form, the recovery was I believe due to keeping the child fully under the influence of chloral.

UNIVERSITY COLLEGE HOSPITAL.

CHOREA DURING PREGNANCY: SEMI-MANIACAL ATTACKS: MELANCHOLIA: RECOVERY UNDER THE USE OF OPIUM:

Under the care of Dr. CHARLTON BASTIAN, F.R.S.

(Reported by DAWSON WILLIAMS, M.B., late House Physician.)

MARGARET T., aged 24, was admitted September 16th, 1880, with chorea. Her sister had the same complaint about eight years ago, and a short time afterwards this patient was first affected, and was an in-patient of this hospital for about six weeks. She had a slight relapse after leaving, but recovered completely at Eastbourne, and has shown no sign of disease since, till within the last fortnight. About that time, slight difficulty in speaking was noticed, then irregular movements came on, first in the right arm, subsequently in the right leg, and finally in all the limbs. She had been married in the previous March, and had not menstruated since May; a tumour could be felt in the hypogastrium, of about the size of the uterus at the fifth month, and, on auscultation; a little later, the fœtal heart sounds were distinctly heard. The choreiform movements were not very violent, and were more marked in the right than in the left limb; there was distinct weakness on the right side, the grasp (as measured by the dynamometer), being on that side 48, while on the left it was 62. The eyeballs moved in a somewhat jerky manner, and all the muscles of the face were very distinctly involved. She heard rather better on the left side. There was no difficulty in swallowing; the tongue, after a short interval of indecision, was protruded suddenly in the middle line, but could not be held steady. Speech was very thick and indistinct; she seldom spoke except in reply to questions. Her mental condition appeared obtuse and dull, though this had not specially attracted the attention of her friends.

The heart's maximum impulse was in the fifth space, one inch inside the nipple line; and the first sound in this situation was almost entirely replaced by a harsh blowing murmur of no great duration.

The movements daily grew more violent; she was seldom quiet for many minutes together, and was very restless at night. On September 21st, she was ordered ten grains of chloral and the same quantity of bromide of potassium every four hours. During the early part of the night she was very violent, flinging herself out of bed, unless constantly watched, sometimes she subsided into quietness and a flood of tears, but this mood was quickly succeeded by a condition of wild excitement approaching to mania. After remaining two days in this condition, she became quieter, and slept for the greater part of the succeeding twenty-four hours; at the end of this time she again became restless, sometimes weeping noisily, at others wearing a very morose and obstinate expression, and declining all food; on the following day, September 25th, her condition had become worse, she had taken advantage of the momentary absence of her nurse, to get out of bed, and had immediately fallen and bruised herself severely; an extemporised padded room was made in a corner of the ward with mattresses, and after a sleepless night, during which she made many efforts to escape, she grew somewhat quieter. On October 1st, owing to feebleness of the pulse and the coldness of the extremities, she was ordered seven minims of tincture of digitalis instead of the chloral. During the next fortnight, the choreiform movements gradually grew less violent, but her mental condition deteriorated; when spoken to, her face assumed an expression of great obstinacy, and she either refused to speak at all, or made use of oaths and filthy expressions; when left undisturbed, she wept, as a rule quietly, but uttered an occasional cry. On October 18th, she was placed in a private ward, kept under constant supervision, and ordered seven minims of tincture of opium every six hours, in place of former medicaments. About a week after this date, she began slowly to improve; sleep became more regular and less disturbed, the periods of excitement grew less frequent, and were not so violent. At the beginning of November, at which time she was in the early part of the seventh month of her pregnancy, she had become quite quiet and tractable, took interest in all that went on about her, and was able to sew, and help in the work of the ward.

Her temperature throughout was never above the normal standard; it was mostly below normal, ranging between 97° and 98.2°.

She continued to take the opium, but at longer intervals (eight hours), and was discharged on November 9th, apparently in her natural mental condition. After this, she attended as an out-patient for some time, the opium being gradually reduced, and finally stopped altogether.

On February 11th, 1881, she wrote a legible and cheerful toned letter, in which she stated, that she had been confined on February 1st, and was doing well, but that the child—a boy—was "a weak little thing."

REMARKS BY DR. BASTIAN.—This case is one which presents many points of interest. A severe attack of chorea had occurred in this patient, at the age of sixteen, very shortly after one of her sisters had suffered from the same illness. The disease recurred at the commencement of the fifth month of her first pregnancy, when its outbreak may have been favoured, both by an altered blood condition, as well as by that augmented iritability of the nerve centres, which is apt to be excited in a reflex manner during the first pregnancies, especially in neurotic patients. That chorea is at times associated with delirum is well known. In this case, a wild semi-maniacal condition existed for several days, followed, for a time, by a weak and very disordered action of the heart. Shortly afterwards a tolerably well-marked attack of acute melancholia became established. This state lasted between two and three weeks. Opium, which had been at first withheld on account of the patient's pregnant condition, was after a few days given carefully in small doses. Under its influence she soon began to improve, and finally became quite well. The opium was continued, for a time, in order to guard against a relapse, and was then very gradually discontinued. The appearance of mania or melancholia during the middle of pregnancy is an extremely rare event; but, in this case, its etiology was in all probability very intimately connected with those structural and functional changes in the cerebral hemispheres, which lay at the root of the semi-maniacal attacks, complicating the originally simple chorea. It is, I believe, also extremely rare for a person who becomes the subject of mania or melancholia during pregnancy, to recover from such a condition previous to the birth of the child. In this case the melancholia disappeared about the beginning of the seventh month; and at the expiration of her term, the patient was safely confined of a living, though probably puny child.

WAKEFIELD.—The annual report of Mr. Wade, though styled "A Report on the Sanitary Condition of Wakefield for the year 1880," is little more than a commentary on the death-statistics. He says, however, that he attributes the lowered death-rate to the improved sanitary regulations, amongst which he gives the first place to the ventilation of sewers (the agitation against which he deprecates), and to the covering in of the ash places, so as to protect them from rain. He also urges a more extended use of the infectious hospital of the borough, which has already been of conspicuous service. The birth and death-rates of the place were 35.03 and 20.33 per 1,000. Respiratory diseases were very fatal, causing 125 deaths. Of zymotic diseases, the chief mortality was from diarrhœa, which caused 65 deaths, but which Mr. Wade does not attribute to "zymotic form". He believes it to be from improper feeding of infants, caused by mothers having to leave their children whilst they go to work as charwomen, in order to eke out a deficient income caused by bad trade.

NORTH WITCHFORD RURAL DISTRICT.—A great deal of pains has evidently been bestowed by Mr. Stephens upon the preparation of his annual report for 1880, which, if a little long, nevertheless impresses the reader very favourably. He draws attention to the steady decrease in the birth-rate since 1877, since which year there has been a falling-off of 7.42 per 1,000 births. The total number of deaths in the district was 69, equal to a rate of 14.27 per 1,000. Mr. Stephens deals in a very thorough fashion with the deaths occurring at each of the various periods of life; but we must be content with merely referring to this. Six deaths were due to zymotic causes, against 8 in 1879, and 4 in 1878. The only other disease calling for notice is cancer, which directly caused five deaths. Mr. Stephens promises to deal with this subject at length in his next report, and his observations will have considerable interest in connection with the geographical distribution of cancer. From the description given of sanitary work done, it would seem that the medical officer of health carries out his duties very thoroughly.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, APRIL 6TH, 1881.

J. MATTHEWS DUNCAN, M.D., President, in the Chair.

Dermoid Cyst.—Mr. KNOWSLEY THORNTON showed a dermoid cyst of the left ovary, which had been entirely twisted off from its pedicle, and had become attached to the right side of the omentum. The patient first came under his care seven years ago, with a doubtful abdominal tumour. She had since had four children, and during the last pregnancy the tumour gave her great pain. On April 2nd, Mr. Thornton removed the tumour, together with a cystic tube, the remains of the twisted pedicle on the left side, and a cystic right ovary.—Mr. DORAN showed microscopic sections from a dermoid cyst, removed by Mr. Thornton from a woman aged 31. The wall consisted mainly of patches of true skin, with sebaceous glands and hair-follicles. There were tooth-like bodies which proved to consist of cartilage. Small secondary cysts projected from the inner wall. In certain long, narrow cavities in the subcutaneous tissue, was seen well-formed mucous membrane, having a perfect cylindrical epithelium, resembling that of the small intestine, as though developed from a hypoblast.

Fatal Monstrosity.—Mr. DORAN showed a female fœtus, which displayed extreme arrest of development of the genito-urinary tract. It was born at the seventh month, and breathed for a quarter of an hour. There were ectopia of the abdominal viscera, club-foot, and spina bifida. The bladder consisted of two lobes, and, between them, superiorly, the intestine opened from above. The ureters were impervious. On the right side were a Fallopian tube, and a tubular thick-walled half-uterus: the ovary was undeveloped; on the left, an ovary and Fallopian tube, the uterus being an impervious cord.

Calculi Embedded in Female Urethra.—The PRESIDENT showed several small oxalic acid calculi, which had been removed from the wall of the female urethra, in which they had become embedded.

Fallopian Gestation.—Dr. GODSON showed the uterus, etc., of a woman aged 25, who had died in the Dorking Infirmary. Mr. Hopcroft, who sent up the specimen, could give no history, except that the woman was believed to be unmarried, and was in a dying state when admitted. Two pints of blood were found within the peritoneum; old adhesions, including omentum, etc., to the uterus: both Fallopian tubes were dilated and tortuous. The outer end of the right tube enclosed a fœtus of about six weeks' development, in a fleshy mass containing villi. He thought the adhesions might have been due to gonorrhœa.

Adjourned Debate on Dr. Barnes's Paper on "Missed Labour".—Dr. INKSON related the case of a lady who, when three months and a half advanced in pregnancy, underwent great fatigue in travelling in India. After this, there was no increase of size, but menstruation did not recur. About the time that labour should have taken place, she took a long ride on a restive horse; expulsive pains were induced, and an oval mass, containing a very small fœtus, came away.—Dr. EDIS said that several instances had been recorded by different authors, as Simpson, Meigs, and Atlee, in which gestation had been prolonged for one, two, or three months beyond the normal time; but in many such cases there was strong presumptive evidence that they were really instances of extra-uterine gestation: the supposed cervix being really a fistulous opening. Dr. Müller, after investigating forty-five cases of alleged missed labour, concluded that "there does not exist an authentic observation of retention of the fœtus within the womb beyond the term of ordinary pregnancy". In this conclusion Dr. Edis fully agreed, unless Dr. Barnes's case were an exception; but even this might have been partly interstitial, and not an ordinary extra-uterine pregnancy. In some cases in which the labour was obstructed by contraction of the brim or other causes, the uterus ruptured, the fœtus passed through the rent and became encysted, and was afterwards disintegrated and expelled.—Dr. GALABIN had met with one case of supposed missed labour, which tended to confirm the view that many cases so described were really instances of extra-uterine gestation. There was an effort at labour at full term, and he saw the patient two months later, when there was then a sanguineous, somewhat offensive, discharge from the vagina, and her condition had become very grave. A catheter passed through the cervix into a cavity resembling the uterus, gave exit to a fluid like that which had escaped from the vagina. After dilatation of the cervix by a tent, the breech of the fœtus could be felt, presenting through a round opening which seemed to be the internal os. This turned out to be an aperture in the uterine wall, at the point at which it was shortly retroflexed, and the gestation proved to be abdominal, lying in front of the fundus. If no necropsy had been made, all who saw the case would have continued to suppose the fœtus intra-uterine.—Dr. HEYWOOD SMITH remarked on Dr. Godson's observations, that menstruation had not taken place in consequence of the presence of the arrested fœtus; that it was an interesting question why such should be the case: the fœtus ceasing to grow, and so pregnancy proper ceasing, why did menstruation not occur? for it was probably owing to its non-appearance that the ovum was not thrown off.—The PRESIDENT said he believed in the occurrence of protracted gestation and missed labour. They occurred in the lower animals, and missed abortion, or missed miscarriage, occurred, certainly in women. He did not think the occurrence of premonitions of labour a necessary part of missed labour. In a case which he had seen, and published in his *Clinical Lectures*, there were no phenomena of labour till the evacuation of the uterus was undertaken artificially. In the last case of protracted gestation which he had seen and published, there was a beginning of labour at full term, and labour came on spontaneously some weeks later. He thought the term "lithopædion", at present often used as synonymous with mummified fœtus, should be better defined. The fœtus never became calcified, like an uterine fibroid; but calcification affected only the membranes, and sometimes the adjacent parts of the fœtus.—Dr. GODSON called attention to a case which came under his observation at St. Bartholomew's, which formed the basis of a paper by Dr. Greenhalgh on "Missed Labour", in the eighth volume of the *Hospital Reports*. The case was one of "missed abortion", and not one of "missed labour", and the head of the fœtus should have been described as of four and a half, and not of six, months' development.—Dr. BARNES, in reply, said, in reference to Mr. Spencer Wells's suggestion, that the pregnancy might have been intramural, that there was no evidence in favour it; and intramural gestation generally ended by a fatal cataclysm at the second or third month. Dr. Roper's suggestion was ingenious, and might apply to some cases; but he thought not to the one before the Society. The rhythmical action of the uterus could not be expected to be detected when the uterine contractility was impaired, after the death of the fœtus. He would make a point of studying Dr. Duncan's cases. Meantime, he thought that protracted gestation for an indefinite time required better proof than we possessed. He thought the term "missed abortion" a singularly unhappy one, and that the term "concealed", or "incomplete abortion", was much to be preferred. He could not agree with Dr. Duncan that the term "lithopædion" and "mummified fœtus" were commonly used as synonymous. A "stone-child" should at least be stony; and the distinction was the more important, since Cruveilhier had insisted, rightly as he believed, that a lithopædion was never found in the uterus.

Delivery through an Imperforate Vagina.—Dr. HEYWOOD SMITH described this case. The patient was 31 years old, married ten years, pregnant for the first time. The vagina was only an inch and a half long, and was completely closed by a roof of the normal thickness of vaginal tissue. It was congenital, and there was no cicatricial tissue. Her mother, a trained nurse, was aware of the malformation. Eleven and a half years previously she had consulted Dr. Edis for leucorrhœa, and he failed to detect the slightest orifice in the vaginal roof, though the patient menstruated, but with pain. The author was called to see the patient at the British Lying-in Hospital, where she had been in labour thirty hours. On admission, the urethra was so patent as to admit nearly two fingers; and, from the husband's account, coitus probably took place per urethram. The vaginal roof was lax, as the head was arrested at the brim. The os was completely dilated, and the bones of the head had begun to overlap. A careful examination failed to discover the slightest depression, or any indication as to any aperture, however small. The patient was, therefore, placed under chloroform, the vaginal roof was picked up with forceps, and a cut made at once with scissors directly through it, when, the finger being passed through the aperture thus made, the head was felt. The opening was then enlarged by tearing with the fingers, until a passage was formed large enough for delivery, which was speedily effected by means of the long forceps, and a living female child extracted. The patient made a good recovery, and examination last December showed a normal vagina, with but a slight constriction, not at all hard, formed by the remains of the previous vaginal roof. The author quoted other recorded cases; amongst them one by Dr. Isaac Taylor of New York, almost the counterpart of his own, except that the advancing head pressed down upon the vaginal roof, until a slight depression revealed itself, which was scratched through, and the opening dilated. There was a question of interest, as to the mode of impregnation in the present case—whether it was through some undiscovered aperture, through which menstruation also took place, or whether there existed some slight fistula between the bladder and the upper chamber of the vagina.

Imperforate Vagina.—Dr. PERCY BOULTON related the case of a

patient, aged 18, married, in whom the catamenia were always very painful, and were followed by "green waters" for several days. The vagina was found to be a *cul-de-sac*, about an inch and a half deep, and no opening whatever could be felt. An examination was made under chloroform, and a dilating speculum introduced. On either side of the vaginal terminus a small opening was then found, through which a probe could be passed. The openings were dilated with tangle, and there was then found—1st, a normal uterus; 2nd, a tripartite vagina, the upper portion being double, separated by a septum, which formed a triangle, with its base downward. A small communication between the two was found, close up to the vaginal neck. The central block was divided by passing whipcord round by a sound having an eye at the end, and attaching it to an *écraseur*. A vulcanite vaginal plug was worn for three weeks, and the patient then went home well.—Dr. BARNES said that Dr. Oldham had long ago pointed out that, in some cases of absence of vagina, the urethra was largely patent, and this without having served for intercourse. It was not necessary to postulate a fistulous communication through the bladder. There was, no doubt, a small aperture, which had become closed after impregnation.—Dr. ROUTH noted that the patient was treated during her pregnancy for leucorrhœa. He thought there might have been an opening, allowing impregnation prior to the vaginitis, which was afterwards closed by this inflammation.—Dr. BOULTON, in reply, said that he thought that in most, if not in all, cases of apparently imperforate vagina, in which menstruation or pregnancy occurred, a pin-hole opening existed.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.

THURSDAY, MARCH 24TH, 1881.

Syphilis and Tubercle in the Throat.—Mr. LENNOX BROWNE read a paper on the diagnosis of syphilis and tubercle when occurring in the throat, illustrated by coloured photographs of drawings from nature, shown by means of an oxy-hydrogen magic lantern. Commencing by the statement that the laryngoscope had enabled one to indicate, with much greater precision than formerly, the relative importance of all subjective symptoms, he showed, step by step, how alteration in the character of each functional act was due to a certain objective change, which varied in each of the diseases under consideration. Thus, the *voice* of syphilis was generally hoarse, but rarely aphonic, because there existed congestion or ulceration, with irregular thickening; whereas, in phthisis, complete loss of voice was a very early symptom, and was due partly to muscular enfeeblement and insufficient lung power, but mainly to mechanical impediment to approximation of the cords, caused by the swelling of the submucous tissue covering the arytenoid cartilages. Respiration was but rarely continuously affected in syphilis, except in the later stages, when there was stenosis of the glottis, though acute attacks of dyspnœa, due to œdema, were not uncommon. In either case, paroxysmal stridor was the form in which this symptom was most often present. In phthisis, breathlessness was a constant and early symptom. Another characteristic difference of the two diseases was the absence of pain in syphilis, even with considerable ulceration, unless in the rare cases where there was perichondritis, and the acute agony in performance of every functional act, as swallowing, coughing, etc., in laryngeal phthisis. Turning to the physical or objective evidences, the distinctions were equally remarkable. In syphilis, the order of things was: congestion, ulceration, cicatricial narrowing, and deformity; in phthisis: anæmia, grey semi-solid thickening, and ulceration; and the author insisted very strongly how characteristic was the red, angry, pinched out, deep excavated ulcer of syphilis—the epiglottis, for example, frequently looking as if a piece had been bitten out of it by some rodent animal, as a rat; whereas, in phthisis, the ulcers were pale and feeble, and began as small superficial worm-eaten points, gradually commingling, so as to resemble rather the nibbling of a mouse. These differences were well seen in the illustrations; and the author strongly deprecated the modern and growing practice of not giving decided opinions on the nature of laryngeal diseases, unless the lungs were actively diseased; or, the patient being on the dead-house table, the aid of the microscope was invoked. Where there was doubt, most important assistance was afforded by accurate observation of the variations of body temperature and weight. He had often been able to confirm a doubtful diagnosis by means of the thermometer and weighing-scales, especially in cases of tubercle affecting the larynx, before the stethoscope revealed any signs of active disease in the lungs; and, by brief reference to instances in his own experience, Mr. Lennox Browne showed that the tuberculous character of the disease might often be recognised by means of the laryngoscope, when stethoscopic examination gave purely negative results. Demonstrations of slides of cancer of the larynx, and of diphtheria, concluded the communication.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

MONDAY, MARCH 7TH, 1881.

THOMAS ARNOLD ROGERS, F.R.C.S.Eng., President, in the Chair.

Sarcoma of Upper Jaw.—Mr. C. MACNAMARA exhibited a patient from whom he had removed a sarcomatous tumour of the upper jaw, and read notes of the case. The patient, a married woman, aged 51, was admitted into the Westminster Hospital on January 29th. She had first noticed a swelling of the right upper jaw about fourteen months before; at first it caused little inconvenience, but, during the last three months, she had suffered severely from neuralgic pain in the right side of the face. The tumour occupied the maxillary process of the right superior maxillary bone; it did not extend back to the soft palate nor project into the nasal or orbital fossæ, and there was no enlargement of the neighbouring lymphatic glands. On February 5th, Mr. Macnamara removed it by making an incision through the upper lip, along the right ala nasi, and across the cheek to the malar bone; the alveolar process was then divided to the right of the symphisis with a Hey's saw, together with the nasal process of the superior maxilla and the malar bone, completing the separation of the tumour with bone forceps. The patient made a rapid recovery. Mr. Macnamara showed a cast, taken by Dr. Walker before the operation, and also some sections of the tumour, which proved to be an osteo-sarcoma, under the microscope.—Mr. BUTLIN called attention to the presence, in these sections, of some small rounded or oval bodies, composed of calcareous matter; they were homogeneous, highly refractive, and marked with slight parallel lines concentrically arranged. So far as he was aware, these bodies had only been observed in three other cases; these were all tumours of the lower jaw, and all occurred in young subjects.—Mr. CHARLES TOMES had noticed the small calcareous bodies spoken of by Mr. Butlin on, at least, two previous occasions, in tumours in the mouth, and was not aware of their great rarity. One was a case of great hypertrophy of the gums, and the other was an ordinary fibroid epulis. He was much struck with their close resemblance to the bodies called calco-spherites, which were apt to form whenever salts of lime were precipitated in presence of organic matter.

Histology of the Gustatory Organs of the Tongue.—Mr. CHARTERS WHITE read a paper on this subject, in which he gave an interesting description of the remarkable bodies known as the gustatory or taste bulbs, which are found on the base of the tongue, especially in the vicinity of the papillæ circumvallatæ. The paper, which was in the main a *résumé* of the article, by Professor Engelmann, published in Stricker's *Human and Comparative Histology*, was illustrated by diagrams, and by some beautiful microscopic specimens, prepared by Mr. White.—An animated discussion followed.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: PATHOLOGICAL SECTION.

MARCH 25TH, 1881.

B. W. FOSTER, M.D., in the Chair.

Nomination of Office-Bearers.—The following gentlemen were duly nominated as office-bearers in the Section during the coming year: *Chairman:* Mr. J. F. West; *Secretaries:* Dr. Carter and Dr. Saundby.

Deformity of Hand.—Dr. SEMON showed a woman with a deformity of the hand, apparently due to loss of the phalanges and drawing up of the muscles.

Plastic Bronchitis.—Dr. SAUNDBY showed a boy with plastic bronchitis, and specimens of casts expectorated. The patient was eleven years of age; the disease was quite recent, having existed only a month, and was preceded by a slight attack of pleurisy; there had been no hæmoptysis; there was no evidence of the affection having had a diphtheritic origin; there was a history of phthisis in the father's family.

Fracture of the Neck of the Humerus.—Dr. MOUILLOT showed a specimen of comminuted fracture of the anatomical neck of the humerus, which had proved fatal by exhaustion.

False Teeth in Pharynx.—Dr. BARLING showed a gold plate, with two teeth attached, which remained for a month at the back of the larynx, encircling the thyroid cartilage. Exploration of the pharynx and œsophagus failed to discover it at first; but, on pain being referred to the region indicated, it was found and extracted.

Placenta from Case of Triplets.—Dr. BASSETT showed a placenta from a case of triplets, presenting three cords, but having no divisions on its uterine surface, and which was therefore probably the product of a compound Graafian follicle; the children were all females.

Anencephalous Fœtus.—Dr. BASSETT also showed an anencephalous fœtus, in which the posterior part of the base of the skull was adherent to the placenta.

Disturbance of Smell.—A paper was read by Dr. ALTHAUS, of London, on disturbance of the sense of smell: its clinical and pathological significance.—At the conclusion, a vote of thanks was moved by Dr. FOSTER, seconded by Dr. BASSETT, and carried with acclamation.

WEST SOMERSET BRANCH.

MARCH 17TH, 1881.

JOHN MEREDITH, M.D., President, in the Chair.

Recovery from Tetanus.—Mr. G. W. RIGDEN read a paper on two cases of recovery from tetanus, which had occurred in the Taunton and Somerset Hospital. In the first case, a boy aged 18, the symptoms came on seventeen days after a severe scalp wound—the wound being almost healed; this case was but a mild one, the only symptom being rigidity of the mouth, neck, and abdominal muscles; no spasms or opisthotonos. The patient was treated with quinine and opium, a bromide mixture, and strong beef-tea and milk diet. The symptoms lasted for three weeks. The second case was more severe, in a man aged 27; the symptoms commenced fourteen days after a lacerated wound of the hand. There was constant opisthotonos; and frequent, severe, and prolonged spasms. He was treated in the same way as the boy; and also with brandy and hypodermic injections of morphia, as required, for a week; as much as two grains of morphia were injected during the twenty-four hours. At the end of thirteen days, the spasms were less violent; but the general rigidity was not diminished, and the patient was much more feeble; the pulse very weak and irregular; the brandy was increased. On the twenty-seventh day, there was improvement in the general condition of the patient. On the thirty-fifth day, the spasms had quite ceased, as also the opisthotonos, but the rigidity of the neck and abdominal muscles remained; he could, however, open his mouth, and had a slice of mutton for dinner. On the forty-third day, the only symptom remaining was a slight risus sardonicus. After this, the patient made an uninterrupted recovery. In commenting on the above case, Mr. Rigden drew attention to the importance of keeping up the patient's strength by means of strong beef-tea and brandy, in order, if possible, to enable the patient to wear out the disease. Opium should be given, both to enable the patient to sleep, and also possibly to lessen the severity of the spasms; and he thought the hypodermic injection of morphia was the best means of administering it.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS IN IRELAND.

WEDNESDAY, MARCH 2ND, 1881.

W. G. SMITH, M.D., Vice-President, in the Chair.

On Lethargy or Trance.—DR. THOMAS MORE MADDEN read an interesting paper on this subject, illustrated by two cases, recently met with in his practice. The first was a well-marked case of hysterical cataphora or trance, a state of mental and physical torpor, showing itself as an idiopathic disease, and apparently differing from natural sleep only in its long duration. The second was an example of soporose coma affecting all the voluntary powers as well as the intellectual and sentient faculties—the flickering vital spark being merely preserved from complete extinction by the involuntary action of the spinal and ganglionic nervous centres; the immediate cause of the comatose condition being evidently cerebral anæmia, resulting in the deficient graduation of nerve-force—the true *apoplexia ex inanitione*, described by Willis and other older writers as an occasional event in the later stages of putrid fevers. The following are the particulars of these two cases of protracted torpor. CASE I. *Hysteric Trance.*—In the afternoon of December 31st, 1880, Miss R., aged 19, apparently in perfect health, went into her room to make some change of dress. A few minutes afterwards she was found by her mother lying on her bed in a profound sleep, from which she could not be aroused. This continued until the time when Dr. Madden saw her twenty-four hours later. She was then still sleeping tranquilly, the decubitus being dorsal; respiration scarcely perceptible; pulse 70, and extremely small; her face was pallid, lips colourless, and the extremities icy cold. At this moment, so death-like was her aspect that a casual observer might have doubted that she was still alive; no external stimulus seemed to produce any sensorial impression, with the exception that the pupils were found normal and responded to the light. Dr. Madden directed sinapisms to be applied over the heart and to the legs, where they were left on until vesication was occasioned without causing any evidence of pain. Faradisation was also resorted to without effect. The bowels were cleared out by a fœtid injection; and nutritive enemata, with ammoniated tincture of valerian in each, were ordered to be given every third hour. On January 2nd, her condition was unchanged, but during the night she had twice got out of bed for an instant without apparently awakening. A little beef tea put into her mouth was now after same delay, slowly swallowed. On the morning of the 3rd she was still lethargic and weaker than before, her pulse being hardly discernible at the wrist, the feet were icy cold. Under the influence, however, of stimulants, and especially the hypodermic injection of sulphuric ether, she rallied; the pulse and temperature improved, and for a moment, by shouting loudly in her ear, she was so far aroused, without opening her eyes, as to whisper very faintly, "I am tired," and then relapsed into lethargy. A few hours later she sat up in the bed for a moment, stared wildly about, muttered some unintelligible nonsense, and again at once fell back into her previous condition. On the morning of the 9th of January, she suddenly woke up, called for her clothes, dressed herself, and wanted to come down to breakfast, as she was in the habit of doing, without consciousness that anything unusual had occurred. Her recovery was comparatively rapid. For a week longer she was confined to her bed by extreme weakness and a sense of fatigue, remaining semi-lethargic and sleeping for a great part of the day; but these symptoms gradually passed off, and a fortnight from the commencement of the attack she was perfectly well. CASE II. *Comatose Lethargy.*—On November 3rd, 1880, a boy, aged six, was attacked by gastro-enteric fever. The temperature ran up to 105°; within a few days the pulse reached 140, and was full and bounding; the diarrhœa, which set in early, was frequent and uncontrollable, and he emaciated rapidly; the skin was hot and dry, and there was obstinate insomnia. As the disease progressed, the nervous hyperæsthesia and incessant loquacity which marked the first ten days of the fever gradually subsided, and he became torpid, and ultimately comatose; the diarrhœa ceased, but the evacuations were involuntary; he could not be aroused; his temperature fell to 101°; and the pulse, which remained as rapid as before, became so feeble as to be almost imperceptible at the wrist. Nourishment and stimulants were administered by enemata. The extension of bed-sore was prevented by most careful nursing. In this condition he remained between life and death for forty-seven days, until February 7th, when his mother and the infirmary sister who were watching him were suddenly startled at hearing a faint voice uttering at long intervals a few nearly unintelligible words. Almost as gradually as he had lost them, his physical strength and mental vitality now returned, and three weeks after the first appearance of consciousness he was able to go to the country, where he soon convalesced. Dr. Madden concluded his paper with observations on etiology of lethargy, and with a bibliographical account of the analogous but still more profound torpor—the "death-trance."—A discussion followed.

Enteric Fever with Typho-Malarial Symptoms.—Dr. CECIL BUSHE detailed a case of enteric fever which, in his opinion, opened up the question whether what was called "malaria" was in any degree transmissible between individuals, and whether a subject previously healthy, and who had never been exposed to the influences, climatic and otherwise, from which the malarious contamination commonly arose, could be so influenced by the presence and contact of other individuals who had been so exposed as to produce a visible effect on his health. Dr. Bushe drew attention to the fact that an odour similar to that peculiar to malarious districts, at night might be recognised in the excreta of malarious patients, more particularly in the sweat and occasionally in the fæces. The case brought forward was that of a lance-corporal of the 80th regiment, aged 23, of two years' service, who had never been abroad, and had served only at the depôt of his regiment, and at the Curragh Camp. He was admitted to hospital from the Royal Barracks, Dublin, on December 20th, 1880, complaining of continued rigors, vertigo, and sickness of stomach. Nearly all the symptoms of enteric fever were present, and there was extensive pneumonia chiefly on the right side. From December 24th, the temperature gradually crept up with the regular rise and fall of enteric fever till the period of convalescence set in—the symptoms being those of an ordinary case of enteric fever; but the strangest feature in the case was that, during the period of convalescence, the patient was liable to frequent remissions, with the regular rigors, succeeded by the hot stage and sweating, of true malarial fever, for which Dr. Bushe found it necessary to treat him with quinine.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, MARCH 12TH, 1881.

A. W. FOOT, M.D., President, in the Chair.

Disease of Knee-joint and Femur.—Dr. BOYD showed the leg of a girl, aged 20, which he had amputated about the middle of the femur, in consequence of disease of the knee-joint and lower end of the femur. There was a favourable family history, and the girl was of a naturally

sound constitution. The left knee became painful two years ago. Swelling and stiffness of the joint persisted. The pain in the joint was of a dull, aching character, always worse at night. The swelling was oval in outline. There was but little constitutional disturbance. When the limb was examined after the operation, pulpy degeneration of the synovial membrane was found. The cartilages had been removed by erosion. Sections of the lower end of the femur were examined microscopically by Dr. Coppinger, who found the bone to be in the stage of osteitis, preliminary to caries—the *transformation graisseuse* of Ranvier.

Pleurogenic Pneumonia.—Dr. DUFFEY, having referred to Professor Charcot's classification of chronic pneumonia—viz., chronic lobar pneumonia, subacute or chronic broncho-pneumonia, and chronic pleurogenic pneumonia—exhibited a specimen of the last-named variety. The subject of the disease was a man aged 57, a spirit-drinker, who had a chronic cough. He sought advice for anasarca of the lower limb of eight weeks' standing. The percussion note of the chest was clear. *Râles* were heard generally. There was prolonged expiration, with feeble inspiration. Slight ascites was present, as also solid œdema of the lower extremities. The urine was scanty and albuminous. The right lung was found after death firmly adherent to the pleura. It was airless, and, on section, "cried" under the knife. Its tissue was resistant. The branches of the pulmonary artery were distended, and showed patches of atheroma. Connective tissue dipped down from the pleura into the substance of the lung. The bronchial glands were indurated and pigmented. The left lung was emphysematous. The heart, free of clots, weighed no less than 32½ ounces. The right auricle was dilated, its walls were thinned, and the seat of a fatty deposition. The right ventricle was also dilated. The left ventricle was enormously dilated, with but little hypertrophy. There was atheroma in the aorta. The kidneys together weighed 18½ ounces. A large concretion existed in the spleen. There was nutmeg liver.

Large Blood-clots, passed per Urethram.—Mr. ABRAHAM showed a number of large inspissated blood-clots passed, *per urethram*, by an Indian drover, who was kicked in the loins by a bullock. Symptoms of renal colic were followed by the discharge of the clots, one of which was two inches long and three-quarters of an inch in its transverse diameter. Complete recovery ensued.

Primary Carcinoma of Œsophagus.—The PRESIDENT exhibited a specimen of primary cancer of the lower third of the œsophagus of a man aged forty-four years. The disease almost surrounded the tube in the form of a belt; and, from projection inwards of the ulcerating mucous membrane, the lumen of the œsophagus was lessened, so as to amount to a stricture of the passage. The carcinomatous band was five centimètres in breadth. The surface of the granular tumour was sloughing, of a dark-greenish colour, very fœtid. The disease did not encroach upon the cavity of the stomach; but the lymphatics over the immediate subphrenic abdominal expansion of the œsophagus were diseased, and clusters of glands, like button mushrooms, were crowded together. The liver was light and soft, weighing only 2 lbs. 11½ ounces. It was the liver of starvation, of which the patient practically died, owing to dysphagia.

NOTES ON BOOKS.

Handbook of Chemical Physiology and Pathology, with Lectures upon Normal and Abnormal Urine. By VICTOR C. VAUGHAN, M.D., Ph.D. Third Edition, revised and enlarged. Ann Arbor Printing and Publishing Company.—This is a modification of the previous edition of Dr. Vaughan's handbook. Some new subjects have been introduced; and the plates have been bound with the text, instead of being issued in the form of charts, as was previously the case. A most exhaustive scheme for the analysis of abnormal urine is given, together with a form for reporting on an examination of a sample of urine. Full directions are supplied for the quantitative analysis of healthy and morbid urine. The plates, although accurate, are not engraved, in some cases, with the finish that characterises our standard English works. Nevertheless, the book may be commended as a carefully compiled physiological treatise. The customary chapters on proximate principles and elementary substances are not taken first, digestion being the subject primarily dealt with. Next, the various tissues are described, and their constituents and products. The subject of urine, however, is the one to which the author seems to have principally devoted his attention. Taken either from a pathological, physiological, or chemical point of view, this part of the book is of considerable value to both student and practitioner alike.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

STETHOSCOPES WITH PLUGS.

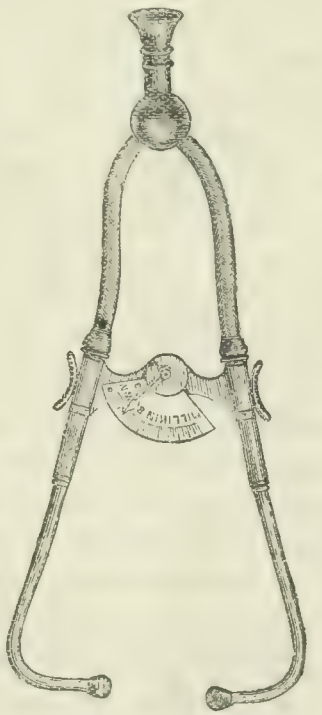
SIR,—I see noticed in your paper to-day, in the list of new inventions, etc., a stethoscope in which the parts are fixed by a plug, instead of a screw. I have been using one with a plug for two years at least, and have given a few to my friends. I gave one about eight months ago to Messrs. W. B. Hilliard and Sons, surgical instrument makers, Glasgow. It had also an India-rubber ring fitting into a square neck in the chest piece. The ring is an old idea, but I think a good one for general use. Pressure, which is very commonly too severe, is easier borne; the ring adapts itself better to a thin chest, it does not rustle so much when applied over the clothes as wood or metal, and it does not break when it falls.

Mr. Hilliard was much pleased with the idea of the plug, and promised to follow it up and call it "Lindsay's modification." I have no doubt he has a supply of them in stock. If not, he will be able to show the original production. The plug is quicker of application, does not give way like the screw, and is, in my opinion, a nearer approach to the stethoscope made of a single block.—I am, sir, yours faithfully,

Lesmahagow, N.B., 16th April, 1881. J. LINDSAY.

AN ADDITION TO THE BINAURAL STETHOSCOPE.

THE accompanying plate shows an addition to the ordinary binaural stethoscope, devised by Mr. Irwin Palmer. That instrument is thereby adapted for use as calipers, and the elastic band is replaced by a circular box-spring at the hinge. Attached to the joint is a dial-plate, which registers the divergence of the two metal arms, thus



at once enabling diametric and other measurements to be accurately and readily made without the addition of a separate instrument. It will commend itself to the profession for the facility with which it permits anatomical measurements to be registered: as, for example, in estimating the relative expanding power of the two sides of the chest in lung-disease, or the abnormal dimensions of rickety heads, etc. The idea has been very creditably carried out by Messrs. Millikin and Down, of St. Thomas's Street, London, S.E.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, APRIL 30TH, 1881.

GASTRO-INTESTINAL DYSPEPSIA.

PROFESSOR SÉE has just published a work on gastro-intestinal dyspepsia, in which he interprets the various forms of this disorder by the light of physiology. In his own words, "up to the present time, we have failed in precision by studying only gastric dyspepsia. There is not only one process of digestion, besides that which goes on in the stomach; henceforward there must be admitted intestinal, pancreatic, and biliary digestions. This is the only way in which we can understand the functional deviations of the four organs which compose the digestive apparatus, which cannot be divided and parcelled out without great injury to the study of clinical medicine as interpreted by physiology." He then goes on to define the nature of dyspepsia. In his opinion, the *sine quâ non* of all dyspepsia is chemical disturbance. That is the primordial lesion around which may be grouped both pain, tympanites, and even vomiting. These are, he acknowledges, accidental phenomena, merely episodes of the pathological course. Nervous disturbances, giddiness, palpitation, etc., will only be secondary effects, sequences of bad digestion. In fact, the forms of gastro-intestinal dyspepsia are defective chemical operations.

M. Sée admits six classes of gastric dyspepsia: 1. From defect of acids; 2. From defect of efficacious or dissolved pepsin; 3. From mixture of mucus with the gastric juice; 4. From excessive alimentation—that is to say, excess of peptones in the stomach; 5. From inanition. He then goes on to describe the symptoms and effects of dyspepsia looked at in their method of production, in their diagnostic value, and according to their respective importance. They commence by vomiting and regurgitation of fermented matter. If the vomited substances indicate excessive metamorphoses of the carbo-hydrates, it is, M. Sée thinks, a strong presumption in favour of chemical dyspepsia, especially of that which relates to feculent aliments. In this part of his work, he goes into the study of the gases of the stomach, and their origin, their method of production, and the mechanical effects of meteorism.

Next comes, in order of semeiological importance, the slackening of the gastric or intestinal digestion, which the author qualifies by the classic name of *bradypepsia*. He explains it in the following manner. "The alimentary mass, in consequence of an exaggerated contraction of the gastric muscles, is expelled rapidly from the stomach, and passes into the intestine, where it slowly undergoes the action of the digestive juices. In order to be thoroughly digested, it is obliged to remain in the intestine. The slackening in the progress of the alimentary mass in the intestine, or rather its prolonged stay in this viscus, may be favoured by the weakness of the muscles of the abdomen, which can no longer exert sufficient pressure to ensure the breaking up of the food and the digestive action of the intestinal juices. It may, therefore, be that, in consequence of the special disposition of the pylorus, and without any increase of the contractions of the body of the stomach, the mass of food may not be retained sufficiently long to be digested. The pylorus no longer resists to the impulse which the mass enclosed in the stomach imparts to it; in a word, according to the expression of Londe, recently revived by Ebstein, 'there may be pyloric incontinence'."

Painful and abnormal sensations, such as epigastric pains, cramps, and spasms of the stomach, and painful irradiations, are believed by M. Sée to find their interpretation in either the spasmodic or the atonic condition. In his opinion, the nervous sensitive system is not at first implicated. In these cases, there is neither neuralgia nor hyperæsthesia, but only a varying amount of disturbance of motor power. Whatever may be the starting-point of the spasm, whether it be due to a local impression, or whether it follow fatigue of the distended gastric muscle, the spasmodic pain, in the same way as all other gastralgic pains, is merely the effect of motor, and not of sensory, disturbance. The best proof that the case is one of atony of muscle, in which irritability succeeds to weakness, is the almost constant presence of meteorism.

After having described the predigestive sensations, anorexia, thirst, the condition of the tongue, mouth, and the secretions in dyspeptic patients, M. Sée comes to the following conclusions. Chemical phenomena are the only ones that characterise dyspepsia; all the other symptoms are but the consecutive effect. Therefore, the changes of the gastric juices should be taken into consideration—that is to say, the degree of hydrochloric acid; the quantity, and, especially, the condition of the pepsin; the alterations of the gastric juices by the mucus; the physiological modifications by the presence of an excess of peptones; the peptic troubles brought on by inanition; the signs of putrefaction of the food—that is to say, the substances vomited; and the gases of abnormal fermentation. It may be objected that this chemical criterion does not suffice in all cases to distinguish the dyspepsia, since the disease frequently remains latent, or takes on the appearance of another affection. We constantly see dyspeptics who only complain of sleeplessness, headache, and backache. It is necessary, in these cases, to discover the hidden source of the suffering; and, by analysing these symptoms with care, we discover their exact relation with the intestinal trouble. M. Sée has not overlooked these considerations, aad gives many cases relating to the nervous, psychic, and vaso-motor phenomena in dyspeptic patients, which he has observed in his wards at the Hôtel-Dieu. He admits the theory of reflex vascular action—that is to say, the excitation starting from the gastro-intestinal mucous membrane, propagating itself by the vagus or sympathetic nerves, and reflecting itself on the vaso-motor nerves of the brain by bringing on constriction of the vessels of that organ, whence the cerebral oligæmia, which, in his opinion, helps to explain the psychic phenomena, vertigo, and headache. The muscular pains he believes to be explained in the same manner by the reflex stimulation of the muscular nerves. Ischæmia of the muscles would be the principal cause of their defective action, of their increased contraction; and the painful pressure exercised on the muscular terminations of the nerves has no other origin than contraction of the capillary arterioles.

COLOUR-BLINDNESS.

A VALUABLE contribution to our knowledge of colour-blindness has been made by Dr. de Fontenay, of Copenhagen, who has published the result of his researches in the *Nordiskt Mediciniskt Arkiv* for 1880. He follows the classification proposed by Holmgren: 1. Total colour-blindness; 2. Partial colour-blindness: *(a)* complete blindness of red, green, or violet; *(b)* incomplete colour-blindness; *(c)* feeble sense of colour. The last is not Daltonism, properly so-called, and is omitted in the statistics. The examinations were made by means of Holmgren's coloured wools; and in some of the cases, in which colour-blindness was detected, the results were controlled by various additional tests.

The total number of persons examined by Dr. de Fontenay was 9,659, of all ages from eight years upwards; 6,945 being above the age of sixteen, and 2,714 below that age. Of the whole number, 217, or 2.25 per cent., were colour-blind. Of 4,492 adult males, 165, or 3.7 per cent., had colour-blindness. Among these, 1,001 belonged to the upper classes, and showed a percentage of 3.09; while in 3,491 artisans, labourers, etc., the percentage was 3.87. The percentages of colour-

blindness varied greatly with the employment of the individual: thus, of 2,737 railway officials, 3 per cent. were colour-blind; of 183 post-office officials, 9.28 per cent.; of 930 artisans of various kinds, 3.22 per cent. It is not certain how far these proportions are accidental, or how far the greater prevalence of colour-blindness in the lower orders may be due to defective cultivation of the sense of colour, or to heredity. In any case, Dr. de Fontenay's observations agree with those of Holmgren, Magnus, and others. In order to render his results as exact as possible, Dr. de Fontenay did not confine his researches to a single part of Denmark, but extended them over the whole country.

Of 6,945 adults above the age of sixteen (4,492 males and 2,453 females), 176, or 2.56 per cent., were colour-blind. Among the females, there were only 11 cases of colour-blindness, or 0.45 per cent. Adding to these the female children who were examined, a total is obtained of 3,819, among whom there were 16 colour-blind individuals, or 0.42 per cent.; while, in a total of 5,840 males (adults and children), the number of cases of Daltonism was 201, or 3.44 per cent. All the sixteen colour-blind females belonged to the working classes. Among the 2,714 children, aged from eight to sixteen, 41, or 1.51 per cent., were colour-blind—viz., 1,348 boys, with 36 cases of Daltonism, or 2.67 per cent.; and 1,366 girls, with 5 colour-blind, or 0.37 per cent.

Two cases of violet-blindness, which were incompletely examined, being excluded, there were found to be 56 cases of red-blindness, 24 of green-blindness, and 135 of incomplete colour-blindness. In all the cases, both eyes were examined separately, and found to be affected. As regards the relation between the colour of the eyes and colour-blindness, Dr. de Fontenay does not find any special predominance of colour-blindness in dark or in fair individuals.

With regard to hereditary transmission, exact information was obtained in 34 cases, in 27 of which heredity was denied. In two of the cases, the fathers were colour-blind in the same way as the subjects examined. The parents of another had normal vision; but a paternal uncle, two brothers, and the son of the person examined were colour-blind. In the parents and grandparents, and the son, of another person, the colour-sense was normal; but his brother and three maternal uncles had colour-blindness. In another case, the perception of colours was normal in the father, mother, brothers, and sisters; but the maternal grandfather, a maternal cousin (male), and the son of a female cousin on the mother's side, were the subjects of Daltonism. Another of the colour-blind persons had four relatives who were similarly affected: a maternal uncle and cousin, his mother's grandfather, and a brother. There was no instance of consanguineous marriage among Dr. de Fontenay's cases of colour-blindness.

The original paper contains a table of the 217 cases of colour-blindness, in which particulars are given as to the age, the colour of the eyes, the question of heredity, the result of examination with Holmgren's test, and also with other methods when employed, and the diagnosis. The author shows an extensive acquaintance with the literature of the subject; and quotes frequently, for the purpose of illustration and comparison, from the writings of Holmgren, Gladstone, Magnus, Cohn, Joy Jeffries, Wolfe, and others, who have investigated it. He says that the increased attention paid to colour-blindness, within the last few years, has been attended in Denmark with some important results. All the *employés* of the public (State) and private railways have been examined, in order to ascertain their sense of colour (except in the case of one private company, which did not think such an examination necessary); and henceforth all candidates for situations on railways are to be tested as to their perception of colour. No law on the subject, however, has as yet been enacted; nor has any regulation been made with regard to the navy and mercantile marine, beyond obliging candidates for admission to the school of naval officers to submit to an examination.

Herr E. J. Mellberg, principal teacher of physics in the Lyceum at Helsingfors, has also examined the colour-sense of 227 pupils in that institution. Among them, he found ten cases of Daltonism, or 4.4 per cent.; four of red-blindness, one of green-blindness, two of violet-blindness, and three of incomplete colour-blindness. In addition, among the boys whose sense of colour is stated to be normal, there were three who confounded light yellowish-red with rose-colour; eighteen who could not distinguish between bluish green and pure green; fourteen who failed in both these respects; and nine in whom the perception of colours was weak. The ages of the subjects varied from nine to twenty; and only one case of colour-blindness was met with in three above the age of seventeen.

The theory of Young and Helmholtz is regarded by Herr Mellberg as incapable of explaining, completely, either normal vision or colour-blindness. In his opinion, the eye possesses separate organs of perception—not only for three or four different colours, but for all the shades which can be distinguished; and colour-blindness, properly so-called, consists of incapability to receive the impression of a shade of colour, and is not necessarily connected with the impossibility of distinguishing between the impression received and the other colours of the spectrum.

THE PLAGUE IN MESOPOTAMIA.

We are enabled to state, on official authority, that Consul Plowden, telegraphing from Bagdad on the 25th, announces that the plague is localised at Nedjef, and that Bagdad and Busreh are clean. Very exaggerated and incorrect reports are propagated on this subject from Constantinople through French sources; and the prohibitive quarantine regulations imposed on British ships from the Persian Gulf to Egypt—notwithstanding their long passage at sea—is most oppressive commercially, and, scientifically, uncalled-for.

Syria and the North of Mesopotamia are comparatively free from danger; this, the official circular, published by the Sanitary Council, shows clearly; it states that a system of strict isolation is adopted, and the quarantines rigorously enforced at Bussorah, Damascus, and Aleppo, for the purpose of protecting Syria, and saving the navigation on the Red Sea and the Mediterranean from such serious annoyance as would be occasioned by the severe measures observed when the plague appeared in Astrakhan. An European doctor is associated with the native medical inspector to supervise the observance of the quarantine, and ensure its integrity. The Egyptian Sanitary Council, nevertheless, exacts that all provisions exported from Syria shall undergo forty days' quarantine. The Constantinople International Congress and Ottoman Sanitary Authorities agreed that this severe precaution was premature. The Congress officially notified this opinion to the Egyptian Council. To those who look into the question, it is very clear that these rigorous laws of the Egyptian Council are the result of the shortcomings of the sanitary organisation on the Egyptian coast of the Mediterranean. There is not a single lazar-house, a single landing place, where goods can be inspected. Some years ago, when the cholera raged at Morocco, a ship full of pilgrims coming from that country, on arriving at Egypt, were sent into quarantine in Syria. This unhappy state of affairs is of international importance, and ought not to be lost sight of in Europe. The Egyptian sanitary arrangements are extremely defective—in fact, there are almost none. Thus it is that the Syrian provisions are refused, and travellers have to undergo three days' quarantine on board a vessel, there not being a land lazar-house to receive them. The only sanitary organisation Egypt possesses is on the banks of the Red Sea, at Tor, on the peninsula of Sinai, at a little place known as the fountain of Moses.

PROPOSED REORGANISATION OF THE PARIS LYING-IN HOSPITALS.

The lay public and the medical profession have long since been impressed by the serious shortcomings of the Paris lying-in hospitals, and the maternity wards in the general hospitals. In Paris, there are three lying-in hospitals directed by hospital surgeons. In eight other hospitals—Lariboisière, Saint Louis, La Charité, Lourcine, La Pitié, Beaujon, Saint Antoine, and Necker—there are maternity wards. The ward at Lourcine is under the care of a hospital surgeon; the wards in the other hospitals just named are in the charge of physicians.

Certificated midwives receive into their own homes patients who cannot be admitted into the hospitals from want of vacant beds. Certificated midwives and district doctors *(médecins du bureau de bienfaisance)* attend lying-in women at their own homes. For the last three years, a special commission, composed originally of eighteen medical men, afterwards increased to twenty-one, has sat to inquire into this question. Four reports have been drawn up. The last is diametrically opposed to the three previous ones, which are not in strict harmony with each other.

The first report, drawn up by M. Siredey, recommends a competitive examination *(concours)* for accoucheurs, who should have the direction of the lying-in hospitals and the lying-in wards in the eight other hospitals, and should also supervise the practice of the certificated midwives. This report was rejected.

The second report, drawn up by M. Le Fort, supports, to a great extent, the views of M. Siredey, but suggests that there should be fewer lying-in hospitals, and fewer maternity wards dispersed among general hospitals; that the number of both classes of certificated midwives—those who receive patients into their houses, and those who go out to perform accouchements—should be increased, and placed under the supervision of accoucheurs who are specialists, and have passed the competitive examination for accoucheurs. This report was also rejected.

The third, drawn up by M. Nicaise, supports the proposition of a competitive examination for accoucheurs, who should remain specialists, and overlook the practice of the certificated midwives. But M. Nicaise would refuse them hospital appointments, both in the lying-in hospitals and in the lying-in wards in the other hospitals; he would have them only called in to perform obstetrical operations in these hospitals. This report met with the same fate as that of its predecessors.

The fourth and last report, drawn up by the special commission, opposes the views expressed in the three previous reports issued by that commission; it is also at variance with the Conseil Municipal (Corporation of Paris), which body asks that the proposition of a competitive examination for accoucheurs be rejected; that the ordinary hospital surgeons be retained in the lying-in hospitals, an examination in obstetrics being added to the usual competitive examination *(concours)*. This report observes a strict silence on a most important part of the question. It neither mentions the certificated midwives who perform accouchements in their own houses, nor the work done by district doctors *(bureau de bienfaisance)*. This fourth and last report has been presented to the "Council of Surveillance" by the Assistance Publique.* The Council has decided that it cannot discuss the question of "The Medical Reorganisation of the Lying-in Hospitals of Paris" without taking, also, into consideration the *rôle* of the certified midwives. It has been voted that a new report be drawn up, in which the position and duties of the certified midwives is to be treated.

* A public body which superintends the organisation of hospitals.

MEDICINE AND FICTION.

THE medical student has hardly been fairly dealt with by writers of fiction; and it is remarkable that romance has, up to the present, made so little of the house-surgeon, a highly picturesque individual considering his duties, his surroundings, and his prospects; an official which the pen of a clever novelist or poet ought to be able to represent in situations of deep interest, even to the most frivolous reader. The French *interne*, notwithstanding the more select character of his appointment and his long tenure of office, must be reckoned as the homologue of the British house-surgeon and house-physician combined. M. Jules Claretie has deservedly glorified him in his new novel, *Les Amours d'un Interne*.

Vilandry, the hero, is a learned and industrious young doctor, deeply attached, through profound respect rather than passion, to a young lady, Mlle. Jeanne Barral, who has been forced, through poverty, to obtain the admission, into the Salpêtrière Hospital, of her mother, subject to hystero-epilepsy, and becomes a ward-maid in that institution, so as to be near her beloved parent. Ignorant of the crooked ways of existence, she favours the courtship of Combette, a fashionable landscape-painter and a trifler. He proposes marriage to her, being himself in earnest at the moment of proposal. Mlle. Barral consults Vilandry the *interne*, being under the painful conviction that the daughter of a lunatic must have tendencies to develop lunacy in herself or in her children. She asks the *interne*, candidly, if she would be justified in marrying Combette. Torn with jealousy, and embittered by the knowledge that the landscape-painter is unworthy of the lady's affections, the virtuous *interne* remembers the solemn duty he has to discharge in telling the pure scientific truth in a consultation; and, in bitter agony of mind, informs her that, as the mother's insanity was due to the sudden loss of her husband in a duel, it was, therefore, acquired, and not transmissible; in short, Mlle. Barral is pronounced as justified in accepting the proposal. It is a pity that, being so conscientious, Vilandry did not find it also his duty to remind the lady of the true character of Combette; in fact, the young girl Mathilde, who is under her care suffering from hystero-epilepsy, was a victim of her lover's, her illness commencing from the moment Combette cynically cast her off. The landscape-painter, finding that he is admired by a rich young heiress, proposes to her, is accepted; and, when Mlle. Barral meets him next day, he politely says nothing, and walks away from her. Mathilde, in a fit of "uncontrollable impulse", *not* unpremeditated, tries to murder Mlle. Barral, and then slowly dies of hystero-epilepsy, and is buried the day before her deserter marries the heiress, who, in turn, deceives him. Mlle. Barral, disillusioned, calmly and respectfully refuses an offer made by the *interne* Vilandry, who, after the end of his *internat*, becomes, of course, a leading member of the profession. Decidedly, M. Claretie makes him a noble character, placing him far above his light-headed dressers and their friends. Vilandry and the heroine are gems of fiction, for which we may pardon much that is objectionable in the novel. Putting aside the love-episodes, the professional character of Vilandry is that of the average London house-surgeon, and all the praise for industry and self-denial which is bestowed on him might well be awarded to his real British homologues.

The less edifying features of the novel are all treated in a masterly way; a platonic couple of Russian *Skoptzys*, and the repudiation by the lady Moscovite of a sensual admirer, form an episode which the inimitable delicacy of expression, peculiar to the French language, renders just tolerable to a zealous student of psychology. As for the minute description of the young penitent's hystero-epilepsy, with all its revolting details, since British readers know full well how such details—with photographs—have been made public, and widely circulated, by a great French authority, we hardly think that all the blame can be laid on the author of this novel. Indeed, we hold that one of M. Claretie's best literary efforts is the way in which he implies a sly sense of scepticism concerning the practice of diagnosis by elicitation of a train of symptoms in hystero-epilepsy. We all see what is implied when an infamous old jade, with joint-disease from locomotor ataxy, proves insensible to the touch of any metal but gold, for which she has lived, and for which she has sold others, including Mathilde. No French novelist would attempt to realise, in earnest, so conventional a metaphor; it is the treatment, not the sentiment, that is here satirised. M. Claretie turns the subject into broad farce by making a student, Finet, after watching the tests in the Salpêtrière, go straight home and make *taches cerebrales* on the skin of his sweetheart's arm, ending this experiment by forcing her into a state of catalepsy, and leaving her in that condition for several hours whilst he goes to the play with a friend. We are significantly reminded that Finet's young lady "obeyed his strong will, like as a top spins round at the lash of its whip". There is a great deal of strong will in a physician going round his wards, and a corresponding absence of any will at all in an average hysterical patient; so that the absolute spontaneity of certain phenomena in cases of hystero-epilepsy, strongly urged by certain French authorities, must

appear as doubtful to us as to M. Claretie; nor are we surprised to find one of his characters exclaiming that "this sort of thing is mesmerism all over again".

THE Harveian Lectures this year will be given by Dr. Alfred Meadows, "On Menstruation and its Derangement."

IT is reported that the Emperor of Austria has had himself and his court revaccinated with animal lymph.

PROFESSOR C. A. EWALD has undertaken the editorship of the *Berliner Klinische Wochenschrift*, in the place of the late Dr. Waldenburg.

DR. HERMANN of St. Petersburg recommends physicians to employ pilocarpin as a remedy against uræmia.

THE Skuptschina of Servia passed on the 5th instant a new law enforcing vaccination, and have, moreover, under consideration a new sanitary law.

THE Women's State Christian Temperance Union is circulating among physicians a reprint of a paper which was read before the North of England Branch of the British Medical Association, entitled "The Power Medical Men Possess of Aiding in Temperance Reform".

ANOTHER death from trichinosis occurred in Hoboken, New Jersey, on March 28th. The deceased had been eating raw ham. Her husband has been suffering severely from symptoms of the same disease, but is recovering.

THE Pontypool Local Board have agreed to pay a fee of half-a-crown for each case of infectious disease reported by local practitioners to the medical officer of health. It would be well if, pending a general enactment on the subject, this practice were more widely adopted.

THE Sömmering quadrennial prize has been awarded to Professor Sachs of Würzburg, for his researches on the arrangement of the cells in the youngest parts of plants. The previous recipients have been Ehrenberg, Schwann, Bischoff, R. Wagner, Kölliker, J. Müller, Helmholtz, Carl Ludwig, A. de Bary, Th. von Siebold, and Voit.

THE subject of the food value and healthfulness of oleo-margarine is now being investigated by the American State Board of Health. Much excitement is being aroused by the testimony before the committee. Additional interest is caused by the fact which has recently been elicited, that artificial cheese, composed mostly of lard, is being made in large quantities.

WE understand that the Government have nominated a Royal Commission to inquire into the operation of the Medical Acts to regulate the registration and education of medical practitioners, and that the Commissioners named are: the Earl of Camperdown (chairman), the Bishop of Peterborough, the Right Honourable the Master of the Rolls, the Right Honourable G. Sclater-Booth, the Right Honourable Wm. Cogan, Professor Bryce, Professor Huxley, Sir William Jenner, Bart., Mr. Simon, Professor Turner, and Dr. Robert Macdonnell.

THE Swedish and Norwegian Governments have officially expressed to Mr. H. Burdett, lately House-Governor of the Seamen's Hospital, their sense of the increasing energy and noble activity which he had displayed, as Secretary of the Seamen's Hospital Society, during a series of years; and their warm and sincere thanks for all the trouble which he has taken in affording relief to Swedish and Norwegian sailors at the hospital, of whom large numbers have, during past years, been medically treated at the hospital, and restored to health by the skill of the medical officers.

WE understand that the office of Surgeon is vacant at the South Devon and East Cornwall Hospital, Plymouth, and that Mr. W. Paul Swain, F.R.C.S., is a candidate for the office. Mr. Swain is a surgeon whose reputation extends far beyond the locality in which he practises; and he is well-known, not only as a successful author, but as an accomplished surgeon, and one who possesses the confidence of his profession, and has attained a position of prominence in virtue of his ability and character. The candidature is one which will be endorsed, we believe, by the best wishes and warm recommendations of the profession, whose opinion in such a matter should have no small weight with the electors.

MEDICAL SOCIETY OF LONDON.

A CONVERSAZIONE will be held at the Society's rooms, 11, Chandos Street, Cavendish Square, on Monday, May 2nd, at 8.30 P.M., when the annual oration will be delivered by Mr. Arthur E. Durham.

HYGIENE AND PUBLIC HEALTH.

PROFESSOR CORFIELD will deliver the introductory lecture to his course on Public Health at University College, on Tuesday next, May 3rd, at 4 P.M. The course will be continued on succeeding Thursdays and Tuesdays at the same hour, and will be especially adapted for those who intend to present themselves for State Medicine examinations, with the view of becoming medical officers of health.

AN OFFICIAL VACCINATION TRACT.

WE observe that the little pamphlet to which we referred, a short time ago, as having been prepared by the National Health Society, on the subject of vaccination, has received the honour of revision and amplification by the Local Government Board, who have sanctioned the distribution, in the Poplar Union, of twenty thousand copies of it by thirty persons appointed by the local guardians for this purpose. It would be well that other boards of guardians in the metropolis should follow this excellent example. It cannot be doubted that a plain and brief statement of the truth about vaccination is much wanted for the benefit of that very numerous class of persons who are led to profess doubts as to its utility through the extremely energetic propaganda of the antivaccinationists. The pamphlet prepared by the National Health Society, distributed as it will be in Poplar and should be in every other metropolitan union, to every house in the district, will, it is to be hoped, prove an efficient antidote to pernicious literature of this kind. The Local Government Board have, in undertaking the revision and improvement of the pamphlet, practically acknowledged the usefulness of such a publication; and it cannot be doubted that at the present moment, when the public mind is strongly excited about the spread of small-pox, the real facts as to the prophylactic importance of vaccination ought to be as generally and widely known as possible. Under Section 28 of the Vaccination Act of 1867, all boards of guardians are empowered to spend money in circulating knowledge which shall promote vaccination; and metropolitan boards of guardians have the further advantage that they can reclaim from the Metropolitan Common Poor Fund all expenses incurred by them with this object. Looking to the dimensions that small-pox has already assumed, and to the probability of its wider extension, it is certainly the duty of every board of guardians to give the widest possible publicity to the actual facts on the very important subject of vaccination.

SMALL-POX IN LONDON.

THE fatal cases of small-pox in London, which had steadily increased from 43 to 77 in the five preceding weeks, further rose last week to 84, and exceeded the corrected average number in the corresponding weeks of the last ten years by 30; 39 were recorded in the Metropolitan Asylum Hospitals at Fulham, Homerton, Stockwell, and Deptford, 6 in the Highgate Small-pox Hospital, and 34 in private dwelling-houses. Of the 84 persons who died from small-pox within registration London, 32 had resided in the South, 24 in the East, 19 in the North, 5 in the West, and 3 in the Central groups of registration districts. The 84 fatal cases included 23 of children under five years of age, 24 of persons aged between five and twenty years, 26 of persons aged between twenty and forty years, and 11 of persons aged upwards of forty years. The

number of small-pox patients in the Metropolitan Asylums Hospitals, which had increased from 820 to 940 in the three previous weeks, further rose to 963 on Saturday last. The new cases of small-pox admitted to these hospitals, which had been 224 and 244 in the two previous weeks, were 227 last week. The Highgate Small-pox Hospital contained 95 patients on Saturday last, against 77 and 85 at the end of each of the two preceding weeks; 29 new cases were admitted to this hospital during the week.

UNIVERSITY COLLEGE, LIVERPOOL.

At a meeting of the Special Committee held on April 2nd, 1881, the following were selected the first Officers and Council of the College. *President:* The Right Hon. the Earl of Derby. *Vice-Presidents:* Christopher Bushell; W. Rathbone, M.P. *Treasurer:* Robert Gladstone. *Council:* Edward Lawrence; S. G. Rathbone; W. Crosfield; A. B. Forwood; Samuel Smith; J. A. Picton; A. T. Squarey; Reginald Harrison; Rev. G. Butler, M.A.; Rev. C. Beard, B.A.; Thomas Cope. The sum of £100,000 having been subscribed, a petition for a Royal Charter of Incorporation is in the course of preparation. The selection of a site for the new College, the appointment of professors, and the affiliation of the Liverpool School of Medicine with the College as its Medical Faculty, are matters which will be likely soon to occupy the attention of the Council. The Earl of Derby, as President of the College, took the chair at the first meeting of the Council, which was held on Saturday, the 23rd instant.

AN ANTIVACCINATOR IN TROUBLE.

At the Brighton Quarter Sessions, held this week, John Goble was convicted of a "common assault" on Dr. J. Harris Ross, one of the public vaccinators of the borough, whilst engaged in his official duties. The circumstances have been already referred to in the JOURNAL. Goble was fined £25, and ordered to enter into recognisances for £50, to keep the peace for twelve months; the Recorder said the sentence would have been much more severe had there been clearer evidence of intent to do serious injury. The man could not pay the money; but, as Dr. Ross pleaded in his favour, and the prosecution was not vindictive, the Recorder was reluctant to send him to prison, and allowed till next sessions for the payment of the fine.

THE INCREASE OF SMALL-POX.

In consequence of the increase of small-pox, the Asylums Board hospitals are all full, and cases are being rejected in large numbers daily. It is much to be desired that the Asylums Board or Local Government Board should take some steps to provide further accommodation during the prevalence of the epidemic.

THE TRICHINOSIS SCARE IN PARIS.

The ham fair which is annually held at Paris, in the neighbourhood of the Bastille, has lately closed. The result of the examination of the hams and sausages offered for sale during the three days of the fair is most reassuring for the Parisian public, and a convincing proof of the efficacy of the measures adopted by the Minister of the Interior to prevent trichinosed ham from becoming an article of commerce among the Parisian pork-butchers. In the 266,100 lbs. of ham sold at the fair, not one joint was seized. Moreover, not a single sausage was condemned. Trichinosis was conspicuous by its absence; but *en revanche* 4,500 lbs. of meat were destroyed, being unfit for human food.

FAMILY HISTORY IN LIFE-ASSURANCE.

The importance of obtaining detailed information as to family history in candidates for life-assurance is well exemplified in the following history, related by Dr. Jakins, in the *Australian Medical Journal*. V., a farmer, in easy circumstances, age between twenty and thirty years, presented himself for examination some time since. There was nothing to call forth comment in his personal history, nor to show any disease or imperfection after careful examination. He was 5 feet 8 inches in height; his chest measurement, on deep inspiration, was 37 inches; in deep expiration 33½ inches; no fault could be found with any of the viscera; the pulse 80, small and soft; complexion inclined to fair, with the healthy blush observed in cold weather; no signs of enlarged veins or capillaries. There was no consanguineous marriage to account for the family history. He was an intelligent man, and had been in the colony from his infancy. Of all his relatives on his father's side four out of five were affected with heart-disease; and on his mother's side probably three out of seven; in addition, two of these latter were affected with lunacy. In spite of the candidate being a member of an insurance company at ordinary rates, and otherwise never having been examined for assurance, Dr. Jakins had no option but to recommend his unconditional rejection.

THE PARKES MUSEUM.

Dr. Oscar Jennings has been good-naturedly endeavouring to inform our French colleagues, through the medical journals, that Mr. Mark Judge, of the Parkes Museum, will receive communications concerning the Medical and Sanitary Exhibition, to be held in August, at South Kensington. If the communications are numerous, some will, we fear, stand a chance of miscarrying, for, being variously printed as "Mr. Judge Parkes", and otherwise called out of his name, he appears now in the *Revue Médicale* as "Mr. Fudge Parkes, Museum Gorver Street".

CORNIL ON BLISTERS.

In a communication to the Société de Thérapeutique, published in the *Revue de Thérapeutique*, p. 152, M. Cornil states that, when cantharides is administered to an animal—for instance, to a rabbit—either by the mouth or by absorption through the skin, as when a blister is applied, poisoning is produced, characterised by cystitis, nephritis, and inflammatory lesions in the liver and in the lung. In fact, twenty minutes after the cantharides is injected, the following lesions are found in the cavity of a glomerule of the kidney. A large number of white globules are found between the envelope of Müller's capsule and the vascular bundle which composes the Malpighian glomerulus. In addition, a granular exudation is found in the uriniferous tubes, which fills and obliterates their calibre. At the end of an hour, the lesions are characterised by the proliferation of the cells, which, by mutual pressure, become irregularly flattened. There exists, therefore, a true catarrh of the uriniferous tubes. In the bladder, the disturbances are nearly of the same kind, but the lesions are superficial; the irritating principle of the cantharides has acted directly on the internal surface of the bladder. In the lung, the small bronchial tubes are filled with white pus-corpuscles; these lesions, which indicate inflammation of the mucous membrane, are found in all the parenchyma, and are the consequences of the irritating principle, the cantharidine carried into all the organs by the circulation. The same kind of lesion of its mucous membrane are found in the larynx and in the trachea. If a blister be left on sufficiently long, the same lesions are obtained. M. Cornil therefore thinks that large blisters applied to the chest, and left on from fifteen to twenty hours, are more injurious than useful. By this method, not only are cystitis and nephritis brought on, but inflammation of the bronchi and of the pulmonary parenchyma itself. He has, therefore, arrived at the conclusion that, in order that blisters should not be injurious, they should not be allowed to remain on more than from three to four hours.

RESECTION OF THE STOMACH.

During the recent meeting of the German Surgical Congress in Berlin, Dr. Mikulicz brought under notice the two cases of resection of the stomach which have already been mentioned in this JOURNAL as having been performed by Professor Billroth, and also a third case in the practice of the same surgeon. This, like the second, ended fatally; the result being due, in part, to the exhausted condition of the patient, and, in part, to the extensive adhesion of the stomach to adjacent parts. It was pointed out that the result here—as well as in the second case, which was complicated with extensive adhesions—indicated that excision of the stomach was not advisable when such were present, especially when the stomach was adherent to the pancreas. It appears that

Billroth was anticipated in the operation by Dr. Rydygier of Kulm, who, on November 16th, 1880, performed excision of the stomach on a man aged 69, who, however, was in too feeble a condition for the operation to be successful. This case was not published, and was not known to Dr. Billroth when he performed his first operation. Preparations from Dr. Billroth's and Dr. Rydygier's cases were shown at the meeting; and Dr. Mikulicz demonstrated the method of performing the operation. Another case has to be added to the list. On April 8th, Dr Wölfler, assistant to Professor Billroth, performed resection of a cancerous pylorus on a man aged 52. The case was regarded as favourable for the proceeding on account of the mobility of the tumour, which was apparently about the size of a hen's egg. The operation, which lasted two hours, was not followed by fever nor by vomiting, and the patient was able to take fluid food two days later. On the tenth day, he ate, with good appetite, a veal-steak; and, a fortnight after the operation, was in a most satisfactory condition. The wound in the abdominal wall had healed by first intention, and without any constitutional disturbance.

THE MEDICAL SERVICE IN THE FRENCH ARMY.

In our remarks on the changes taking place in the medical service of the French army which appeared in the JOURNAL of the 23rd instant, we were led into an error on one point, which we hasten to correct. The amendment on the article in the new Army Bill relating to the composition and grades of the army medical officers, proposed by Baron Larrey, and carried by a considerable majority in the Chamber of Deputies, was, that one *médecin-inspecteur* should have the rank of general of division, not all the *médecins-inspecteurs*. The *médecin-inspecteur* holding the rank of general of division will be distinguished from the *médecins-inspecteurs* having the lower rank of general of brigade by being styled *médecin-inspecteur-général*. His position, as regards his functions, will closely correspond with that of the Director-General of the Army Medical Department in the British service; but, as stated in our former remarks on the subject, so far as relative rank is concerned, he will have a higher grade in army hierarchy than the Director-General in the British service can ever attain.

SCOTLAND.

THE second professional examination in Edinburgh University has finished; ninety-two gentlemen have passed, of whom twelve passed with distinction.

THE MILK EPIDEMIC IN ABERDEEN.

IN our last issue, we gave an account of the symptoms of a new and peculiar disease which had occurred in Aberdeen, and was supposed to be connected with the milk-supply from a particular dairy—viz., the Old Mill Reformatory Dairy. The Board of Supervision under the Public Health Act ordered a public inquiry to be held in Aberdeen, in order to ascertain, if possible, the special cause of the malady, so that its recurrence in Aberdeen or elsewhere may be averted. The Commissioners appointed by the Lord Advocate were Mr. Andrew Rutherfurd, Advocate, Edinburgh, and Dr. H. D. Littlejohn, Officer of Health, Edinburgh. The first sitting of the Commissioners took place on Tuesday last. Several witnesses who had suffered from the disease were examined; after which, evidence was given by Dr. R. Beveridge, Dr. Archibald Reith, Professor Pirrie, Mr. T. Jamieson, and Professors Brazier, Ewart, and Stephenson.

CRICHTON ROYAL INSTITUTION, DUMFRIES.

IN the forty-first annual report of the Crichton Royal Institution and Southern Counties Asylum, which has just been issued, it is stated that during the past year 185 patients had been treated, of whom were discharged—recovered 11, 10 relieved, 1 not relieved, and 5 have died. On December 31st there were 158 patients on the books of the asylum—an increase of 12 on the preceding year. During the year 35 patients were admitted, fully the half of whom were during the last third of the year. Of the new patients, their conditions were, in 3 cases ascribed to intemperance, 3 to over-work, and 3 to anxiety; while 7 were recurrences of attacks, and 10 had no ascribable cause. One case was stated to have been the result of shock, induced by injury from railway accident. Twenty-three were unmarried, 12 married; and no widows or widowers were brought to the asylum. The report gives satisfactory evidence of the healthiness of the institution, and of the means of recreation provided for the inmates. It also contains, in the physician-superintendent's report, a paragraph showing in a striking manner the improved—one might almost say revolutionised—condition of such asylums, in the provisions now existing for the material and moral comfort of the inmates.

UNIVERSITY OF ABERDEEN MEDICAL GRADUATION.

THE ceremony of "capping" the students in medicine, who passed the requisite examinations at the April examination term, took place on April 22nd, in Marischal College. The degree of M.D. was conferred on twenty graduates; whilst twenty-six received the degrees of M.B. and C.M. Mr. Wm. Wilfrid Webb received his degrees with highest academical honours. The John Murray Medal and Scholarship was conferred on John Alexander McWilliam, as the most distinguished graduate of his year.

ST. ANDREW'S UNIVERSITY.

THE annual ceremony of graduation in St. Andrew's University took place on April 21st. Professor J. Bell Pettigrew presented for the degree of M.D. eleven graduates, on one of whom, an M.B., the degree was conferred *in absentiâ*, he being in Spain; three graduates for the degrees of M.B. and C.M.; and two for that of M.B. Degrees in Divinity and Arts were also conferred.

GLASGOW ROYAL INFIRMARY.

OWING to the appointment of Dr. Cameron to the post of visiting-surgeon to the Western Infirmary, Glasgow, a vacancy has been created in the surgical staff of the Royal Infirmary of that city. A meeting of the managers of that institution was held on the 25th inst., to consider applications for the vacancy, and the result was the election of Mr. Henry E. Clark, the senior assistant-surgeon. The appointment will be received with very general satisfaction, and the managers have acted very wisely in promoting the senior member of their out-patient staff. No doubt a vigorous contest will take place among the other members of the staff for the vacancy.

THE POPULATION OF GLASGOW.

THE result of the census for Glasgow has now been made known, and the grand total of the population for the city and suburbs is 675,299, showing an increase during the last ten years of 109,149, the grand total in 1871 being 566,150. For obtaining results indicative of progress, the city could scarcely have been numbered at a worse time, for the majority of the leading industries are depressed, and are unable to afford employment to the number of artisans at work when trade is more flourishing. In such circumstances it is gratifying to find that there has been such a decided increase during the past decade. This solution of the problem of the population will furnish the medical officers of health with reliable data for calculating the weekly death-rate.

A BOY POISONED WITH HEMLOCK.

A BOY named James Campbell, aged six years, died at Annan on Monday from the effects of eating hemlock roots, which he had taken in mistake for earth nuts; some of the boy's companions were also ill after eating similar roots, but have since recovered.

WATER-SUPPLY AT BATHGATE.

THE water-supply at Bridgend, Bathgate, which previously depended on that derived from an old pump-well, and which had been condemned by Mr. Tatlock, analytical chemist, as being utterly unfit for domestic use, has this week been put on a satisfactory footing by the admission of an abundant supply provided by the formation of a water-supply district.

HEALTH OF GLASGOW.

THE report of the medical officer for the fortnight ending April 16th, shows that there were 545 deaths registered in Glasgow, as compared with 529 in the preceding fortnight, being an increase of 16, and representing a death-rate of 23½, in place of 23, per 1,000. As compared with the corresponding fortnight of last year, the death-rate is the same, though its composition is different, there being 37 per cent. fewer deaths from zymotic diseases this year, but fully 9 per cent. more from diseases of the lungs. The number of deaths from pulmonary diseases was 237, representing a death-rate of 10 per 1,000 living, and constituting 44 per cent. of the total deaths. There were 10 deaths from fever, of which 8 were enteric and 2 typhus. The number of deaths from infectious diseases of children was 32, the same as in last fortnight—viz., 20 from whooping-cough, 7 from measles, and 5 from scarlet fever. The returns, accordingly, show an immunity from fatal infectious diseases, but a considerable fatality from diseases of the lungs.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending April 16th, it appears that the death-rate in the eight principal towns during the week was 22.1 per 1,000 of estimated population. This rate is 1.8 below that for the corresponding week of last year, and 1.4 below that for the previous week of the present year. The lowest mortality was recorded in Greenock—viz., 19.0 per 1,000; and the highest in Paisley—viz., 29.7 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 23.7 per 1,000, being 0.5 below that for last week. Acute diseases of the chest caused 144 deaths, being 19 less than the number for last week. The mean temperature was 44.4°, being 7.0° above that for the week immediately preceding, and exactly the same as for the corresponding week of last year.

IRELAND.

FROM the report of Dr. Cameron, Analyst for the County Dublin, for the past year, it appears that during that period 264 samples of food were analysed by him, of which number 44 were adulterated. Twenty-two persons were convicted for selling adulterated food, and fined in sums varying from £1 to £20.

HEALTH OF DUBLIN.

WE are glad to observe a fall in the death-rate of this city. The deaths registered in the week ending Saturday, the 16th instant, represent an annual mortality of 28.9 in every 1,000 of the population. This is the lowest rate registered as yet this year, the rates having previously ranged between 47.3 (fourth week) and 30.7 (fourteenth week). No new case of small-pox has been admitted into any of the Dublin hospitals during the last three weeks, and no case of the disease remained under treatment in the week ending on the 16th instant. Six deaths from typhus were registered during the same week, being two in excess of the average for the preceding five weeks. Thirty-six new cases of the disease were admitted into the principal hospitals during the week, being six over the admissions for the preceding week; and ninety-three remained under treatment on the 16th, being five under the number in hospital at the close of the previous week.

INCORRECT DISPENSING.—In the Birmingham county court, George Day Horton, a chemist, was sued by Thomas Proctor, for £50 for personal injury resulting from the improper making up of a prescription. Plaintiff, while suffering from gout, copied a prescription, the ingredients of which were two parts rhubarb and one part calcined magnesia, and sent it to the defendant to be made up. The entry in the defendant's book was rhubarb, calomel and magnesia. The Plaintiff took the powders, and was badly salivated. He incurred a surgeon's bill of twelve guineas. The jury returned a verdict for £15.

GENERAL COUNCIL
OF
MEDICAL EDUCATION AND REGISTRATION.

SECOND SESSION, 1881.

Tuesday, April 26th, 1881.

DR. ACLAND, President, took the chair at 2 P.M.

New Members.—Official notifications were read of the appointment, by the Queen in Council, of Dr. Alfred H. McClintock as a member of the Council for Ireland, in the place of Dr. A. Hudson; and of Mr. James Spence, as representative of the Royal College of Surgeons of Edinburgh, in the room of Dr. Andrew Wood. Dr. McClintock was introduced by Mr Macnamara, and Mr. Spence by Mr. Turner.

The President's Address.—The PRESIDENT addressed the Council as follows. The business for which it has been thought desirable to summon the Council for this its 32nd session, need not detain it long. In the same way that it was necessary that the Council should meet last February to make legal the issue of a correct *Dentists' Register*, and only thus to avoid inflicting hardship on members of the dental profession, possible injury to the public, or violation of the Dentists' Act, so now it has appeared to members of the Council and myself of urgency to consider without delay certain questions affecting the education and examinations of schools and colleges throughout the country.

In consequence of the funeral of the Earl of Beaconsfield, which takes place this afternoon, it might have been in accordance with public sentiment that our proceedings should have been this day deferred. But, seeing that the deceased statesman has left the most express desire that his obsequies should be conducted privately, and not in the metropolis, it has appeared more in harmony with his desire, and more agreeable to the Englishman's sense of steady duty, to proceed with the work and the arrangements of the day, undisturbed by any thoughts but those which hover about the close of a long life, that has largely influenced our nation and age. And let it be added in this Council, that it has good reason to express its gratitude for the steady and courteous manner in which, under circumstances of much difficulty, the Earl's government, through His Grace the Duke of Richmond and Gordon, laboured to carry through Parliament (and, on two occasions, successfully through the House of Lords) Bills for the settlement of vexed questions in regard to medical education and examination, the rights of colonial practitioners, and several other particulars. I need only refer to the Act for the Education and Registration of the Profession of Dentists, which, like every such initial measure, presented complications that could not be at once removed.

It is to be regretted that the time which seemed suitable to many has not been so to all. The Council will remember that the meeting in this Easter recess was much urged by Professor Haughton; a proposal to which reference will hereafter be made. It has, indeed, been pressed upon me, by more than one person whose opinion I value, that it is not desirable, pending the report of the Royal Commission which is shortly to meet, that the Council should continue the educational work already in hand, or initiate any other matters, however urgent. Had I acted on this opinion, I am satisfied I should have incurred, and justly, the displeasure of the Council.

It is true enough that for ten years the Council has been hampered, and the medical profession disturbed, by agitation which had no real bearing upon duties imposed on the Council by the Medical Act of 1858, except so far as to keep up a constant feeling of uncertainty as to the nature of the examining boards of the future. This circumstance made it impossible to bring to a successful termination questions which had long occupied the attention of the Council, and of the licensing bodies throughout the country. Neither this agitation, nor the expectation of a more permanent settlement of those questions through an investigation of the working of the Medical Acts by a Royal Commission, would now justify us in causing suspense or uncertainty as regards educational regulations in schools frequented by youths destined for the medical profession, to any greater extent than may be absolutely necessary.

It will be well for the Council to bear in mind on the present occasion the report which was presented by Dr. Storrar so far back as August of the year 1859, on the subject of general education. The principle which pervaded that report was that the superintendence of the general education of the medical profession should be left to the great national educational bodies, meaning thereby the universities of the United Kingdom. This principle was based upon the conviction, first, that intellectual fitness and a good general education was of primary importance in order to enable youths of average intelligence to

master the facts and laws of physical science, and of the principles and practice of medicine directly and indirectly connected with them; and, secondly, that in the then transitional state of education in Europe, and notably in Great Britain and Ireland, it was of consequence to the future culture and social status of the medical student that his education should not be inferior to, but as far as possible the same as, that of the educated classes of society. Upon the whole the Council has never, in the twenty-two years that have since elapsed, wavered in this opinion. It has persistently maintained, time after time, that a sound education in arts should of necessity precede the entrance on professional studies, and that the purely medical institutions should neither conduct, nor be judges of, the nature and extent of attainments in preliminary education. This opinion, however, did not and could not exempt the Council from the obligation to see that the conditions which its members, as representative professional men from every part of the country, held to be desirable, were fulfilled by the examining boards. Of these boards no fewer than seventy-three, besides the "abiturienten" examinations and "entrance examinations" on the Continent, are at this moment on the list recognised by the Council. It became accordingly, in the judgment of the Council, its duty to determine the subjects which should be compulsory in any arts examination for medical students. The Council issued last year a notice embodying its then conclusions, pointing out to the arts examining boards the subjects which they desire to be comprised in the preliminary education of a medical man, and without a knowledge of which students should not be allowed to enter on medical study. This list of subjects is to be in force at the end of the present year. It is the effect of this notice to which your attention has to be directed on the present occasion. There can be no doubt that the list is a good one, and that it implies a great advance in the educational arrangements of schools, and also in the requirements from the students. But you will have evidence brought before you that it is not easy, and perhaps not possible, to carry out the scheme in its entirety on so short a notice. The arrangements for examination now existing throughout the country are extensive and elaborate, and cannot at once be altered, even if it should be considered desirable that they should be altered. Nor can the Council compel the alterations. And further, it is to be admitted that there are various ways of forming a true and firm character in a youth, and of training him to habits of observation and accuracy. To specialise our young medical students into a class at a very early period, so as to remove them from the best devised methods of higher education, whatever that may be in the judgment of the educators of the nation, would in the end prove disastrous to the medical profession. The specialisation asserts itself in most men with sufficient force at a later period of life.

This subject is, to some extent, further complicated by the expressed wish of the Council that there should be a special examination in the rudiments of natural science, physical, chemical, and biological, before the student enters on the purely medical curricula. On this proposal there have been received, from the various medical licensing bodies, communications which form the subject of a special report from the committee appointed for that purpose, and therefore it would be out of place here to comment upon them in detail. But I cannot forbear from stating at once that several of the answers show the risks that would attend any instant attempt at coercive regulations in this matter.

The Council may have to consider whether it would be expedient to defer the exact requirement of the Council's list of subjects proposed for general education till after the report of the forthcoming Commission. This might be desirable in the true interests of the schools, for the purpose of securing the steadiness and uniformity in the examinations. The report of the Executive Committee, dealing with the letters from Cambridge that are presented to you to-day, suggests even more than this, as regards the local and other examinations of the two old Universities. But this does not meet the whole difficulties of the case. Other bodies besides these may send in similar applications; and it might be imprudent to guarantee the same confidence in all applying Boards. These and other considerations must make all wish that the Royal Commission may quickly, and with completeness, settle what changes, if any, are to be made in the examining boards of the kingdom; and to what extent it is desirable that the Central Council should be empowered to enforce detailed regulations on all local institutions.

Letters of importance from Mr. Tomes and others will be laid before you. In the construction of the *Dentists' Register* a difficulty arose with regard to the real fitness of many persons who professed to be in practice, and to possess a legal qualification as dentists. This became at once a question of legal interpretation of an existing Act, rather than one which this Council has at heart—namely, the education and professional character of registered dentists. When the Council met in February, for purposes connected with the Dentists' Act only, it decided in accordance with the legal opinions laid before them, giving their judgment upon the facts as furnished to them. One of the results at which the Council had previously arrived was, to exclude from the *Register* all titles other than those definitely stating a qualification in dentistry. It is not to be wondered at that persons such as Mr. Tomes, a Fellow of the Royal Society, and an eminent member of the College of Surgeons, and persons who are Fellows of the Royal College of Surgeons, should resent as a hardship, and even an injury, that a title so honourable as a Fellow of the College of Surgeons of England, implying without question surgical knowledge and education of real value for the purposes of the higher problems of dentistry, should not be entered in the *Dentists' Register*. On the legal advice we have, such knowledge and such title are considered not to be higher in respect of dentistry in the terms of the Act. If this be so, it is certainly a question for argument whether the Act should not be amended. I do not presume to offer the opinion that the Council would act illegally if it inserted such titles as higher titles, nor to say that a penalty would accrue if it did. The value of so-called higher titles has been made the subject of a question in the House of Commons, and will doubtless be considered at some future occasion. A motion will be brought before you on this subject so far as it affects the Dentists' Act.

Cases of alleged misconduct in a professional respect will be brought before you for decision in the course of the meeting. One of them, that of Dr. Levenston, asks to be heard by counsel; it has been of long standing, and should, for obvious reasons, if possible, be disposed of.

Since the lamented death of Dr. Andrew Wood, the Executive Committee has considered some of the arrangements according to which, from usage, the business of the Council has been hitherto conducted. Were it not for the appointment of the Royal Commission, it would be prepared to suggest changes which would tend to diminish expense and facilitate the work of the Council, both at its meetings and in the intervals of its business. Some of these have reference to the times of meeting of the Council and of the Executive Committee, to the constitution and duties of Standing Committees, and to the powers of committees generally—all matters already brought to your notice by Mr. Teale and by others. I do not venture to indicate what an experience, derived from the whole history of the Council, has taught in these directions. There are few here who must not have often deplored the loss of time and the abstraction from their real duties which Parliamentary agitation, apparently attractive to some minds, has caused within the last ten years. It has rendered a fixed time of meeting, whether for the Council or for the Executive Committee, virtually impossible. It has forced the Council to spend whole meetings in considering whether improvements could be made in machinery, when they would have endeavoured to work the machinery which Parliament had made, and it has practically had the effect, through long delay and by reason of deferred expectation, of throwing several institutions, charged with the medical education of the country, back upon themselves, and has checked mutual co-operation which ten years ago seemed not only possible, but certain. It will hereafter be a matter of astonishment that two Governments so powerful as those of Mr. Gladstone and Lord Beaconsfield should, after much labour and full mastery of the subject, have carried Bills in three successive years—1871, 1877, 1878—through the House of Lords, and should not have thought it well to risk opposition in the House of Commons to carefully consider Bills which gave increased powers, and rectified anomalies at home and in the colonies.

To one other subject only would I draw your attention—the visitation of the examinations that is now in operation. You need not be reminded of the valuable reports which were prepared on the condition of all the examinations throughout the kingdom in the years 1865-6, 1868, 1873-5, nor of the reports on the state and needs of education from the principal teachers in all departments of medical science and practice in the chief schools of the country (*Reports on Professional Education and Examination, 1869*). The Executive Committee, acting on your instructions, has made arrangements for the visitation this year of the Colleges of Physicians and of Surgeons in England, in Scotland, and in Ireland, respectively. The visitors are Mr. Teale, Crown nominee on the Council, Professor Gairdner of Glasgow, and Professor Stokes of Dublin. These gentlemen have undertaken that which the Committee could hardly venture to ask, to visit all those bodies in the course of the present year, and to state, in a full and careful educational report, the conclusions at which they arrive on the state of medical education, actual and comparative, according to the data which are obtained through their inspection. It would not be well here or now to speak of the qualifications of these eminent persons, of the debt which the Council and the public will owe to them, nor of the value which will be attached to their services. The comparison between

England, Scotland, and Ireland, made by the same visitors, will be far more instructive than a separate inspection by different visitors could have been. And the value will be further enhanced by reference to the opinions of the numerous teachers recorded in 1869, as showing the progress of ideas, the results of experience, and the nature and extent of alterations that are needed.

It is not possible to forecast what changes are yet needed in teaching so intricate a branch of knowledge as the science and practice of medicine. Pessimists, no doubt, love to dwell on failure; but those who know the high character of a large proportion of our modern medical students, the immense progress of medical science, whether in the prevention, or cure, or alleviation of disease, in the last twenty-five years, are not likely to despair of the future, or to doubt that the foundation has been laid for successful and united effort towards greater improvements and disinterested work for public good. These are shown in the progress of gained scientific truth by more logical method of thought, and by more widely diffused skill, by reason of better general education in the application of both to the needs of common life.

It remains for me only to add a few words in reference to the subject of "conjoint boards" or "State examinations", a subject which, at the present moment, is, as for ten years it has been, entirely unsettled. It is well known to the Council that a complete board, with all the regulations necessary for its management, has been long agreed to by all the medical authorities in England. But, as years passed by, and legislation failed, it became clear that, so long as no such combined or State examination existed in any form in Scotland or Ireland, the English Board was not likely to come into operation. The Medical Act of 1858 gave permissive powers of combination to the nineteen licensing bodies. It gave no compulsory powers to the Council. To the majority of this Council, therefore, there appears, without legislation, no prospect of change, however desirable. Under these circumstances, the Council has done, and is doing, what it can, by stimulating education and inspecting examinations, both of which have been much improved. In some respects, the examinations may be becoming too severe for many students, unless systematic and careful measures can be taken to secure in the weaker schools as good opportunities and as effective teaching as in the best. To ask this is to ask what may be impossible; therefore, at present, the examination-test, however imperfect an instrument, must be chiefly relied upon. Competition in schools, if the examining boards can be made thoroughly judicious for attaining the object in view—viz., sufficient practical professional skill—will simply mean a competition for ensuring the best education.

The Royal Commission will doubtless seek a solution of this problem with the least possible delay, and we may be sure will endeavour to leave the administration of its recommendations to the executive best adapted to the existing state of things and to the public interest. It would not become me to suggest any fresh action in new matters on the part of the Council, pending the labours of the Commission, which this Council has every reason to desire may be speedy, complete, and final. We have at this meeting to continue steadily, and it is hoped rapidly, the discharge of the necessary and appointed duties which we have in hand.

Mr. TURNER proposed, Mr. SIMON seconded, and it was resolved:

"That the President's address be entered on the minutes."

Committees.—A Business-Committee was appointed, to consist of Dr. Pitman (chairman), Dr. Aquilla Smith, and Dr. Haldane. A Finance-Committee was appointed, to consist of Dr. Quain (chairman), Dr. Pitman, Dr. Aquilla Smith, and Dr. Scott Orr. A Pharmacopœia-Committee was appointed, to consider and report at a future meeting of the Council on the preparation of the next edition of the work. The Committee to consist of the following members: Dr. Quain (chairman), Dr. Aquilla Smith, Sir William Gull, Dr. Pitman, Mr. Macnamara, Dr. Leet, Dr. Haldane, and Mr. Bradford. On the proposal of Sir WILLIAM GULL, seconded by Dr. PYLE, it was resolved: "That it be an instruction to the Pharmacopœia-Committee to report to the Council year by year as to Addenda."

Results of Examinations.—A table, showing the results of professional examinations for degrees, diplomas, and licences, granted in 1880 by the bodies named in Schedule [A] of the Medical Act, was presented, and was ordered to be entered on the minutes.

The following is a summary of the table: [I = First Examination; II = Second Examination; III = Third Examination; P = Passed; R = Rejected]. The figures after the designation of the degree or diploma denote the number of examinations.

Royal College of Physicians of London.—Licence: (3), I, R 10; P 47; II, R 16, P 19; III, R. 28, P 79; Membership (final), R 6, P 17.

Royal College of Surgeons of England.—Membership (2): I, R 310, P 567; II, R 228, P 390. Fellowship (2): I, R 43, P 47; II, R 20, P 24.

Apothecaries' Society of London.—Licence (2): I, R 58, P 134; II, R 53, P 235.

University of Oxford.—M.B. (2): I, R 6, P 12; II, R 2, P 7. M.D. (Essay): P 2.

University of Cambridge.—M.B. (4): I, R 23, P 63; II, R 16, P 32; III, Part 1, R 6, P 27; Part 2, R 2, P 26. M.D. (1): P 10.

University of Durham.—M.B. (2): I, R 19, P 30; II, R 5, P. 19; III, R 5, P 19. M.D. (Essay): P 4. M.C. (1): R 5, P 7. M.D. for Practitioners of fifteen years' standing: R 6, P 8.

University of London.—M.B. (3): I, R 102, P 105; II, R 38, P 61; III, R 21, P 39. M.D. (1): R 4, P 18. B.S. (1): R 1, P 8. M.S. (1): P 1.

Royal College of Physicians of Edinburgh.—Licence (2): I, R 2, P 4; II, R 53, P 138.

Royal College of Surgeons of Edinburgh.—Licence (2): I, R 3, P 10; II, R 10, P 35.

Faculty of Physicians and Surgeons of Glasgow.—Licence (2): I, R 30, P 35; II, R 19, P 43.

Royal Colleges of Physicians and Surgeons of Edinburgh.—Licence in Medicine and Surgery (2): I, R 78, P 89; II, R 131, P 132.

Royal College of Physicians of Edinburgh and Faculty of Physicians and Surgeons of Glasgow.—Licence in Medicine and Surgery (2): I, R 12, P 22; II, R 26, P 30.

University of Edinburgh.—M.B., also M.B. and M.C. (3): I, R 139, P 245; II, R 88, P 198; III, R 24, P 135. M.D. (thesis): R 1, P 29.

University of Aberdeen.—M.D. (by promotion): 25. M.B. and M.C. (3): I, R 30, P 52; II, R 41, P 47; III, R 22, P 50. M.B. and M.C. (Old) (3): I, R 32, P 12; II, R 24, P 30; III, R 19, P 76.

University of Glasgow.—M.B. and M.C. (New) (4): I, R 61, P 107; II, R 20, P 60; III, R 6, P 28; IV, P 8. M.D. (2): I, R 1, P 0; II, R 1, P 0. M.D. (thesis): P 14.

University of St. Andrew's.—M.B. and M.C. (3): I, P 1. M.D. (1): P 10.

King and Queen's College of Physicians in Ireland.—Licence in Medicine (2): I, R 1, P 8; II, R 14, P 105. Licence in Midwifery (1): R 8, P 78.

Royal College of Surgeons in Ireland.—Licence: I, R 101, P. 109; II, R 42, P 102; III, R 42, P 102. Licence in Midwifery: P 16. Fellowship: P 10.

Apothecaries' Hall of Ireland.—Licence (2): I, R 26, P 44; II, R 13, P 42.

University of Dublin.—M.B. (4): IV, R 8, P 22; at half M.B. examinations, Anatomy and Physiology, R 30, P 60; Botany and Materia Medica, R 11, P 40: Physics and Chemistry, R 8, P 39. M.C. (5): P 2. M.D. (thesis): P 13. B.C.: P 24. L.C.: P 1. L.M.: P 2.

Queen's University in Ireland.—M.D. (3): I, R 108, P 122; II, R 87, P 89; III, R 26, P 64.

Returns from the Medical Departments of the Army and Navy.—A return was presented from the Director-General of the Medical Department of the Army, showing the degrees, diplomas, and licences of the candidates for commissions who, on the 14th February, 1881, presented themselves for examination, showing the number that did and did not pass, distinguishing the qualifications, both medical and surgical, under the several licensing bodies. The following is a summary: Total number of candidates, 67; Failed to appear, 4; Found physically unfit, 0; Appeared for examination, 63; Passed, 45; Rejected, 18. A similar statement was received from the Director-General of the Medical Department of the Navy, regarding candidates who presented themselves on February 14th, 1881. The following is a summary: Total number of candidates, 12; Found physically unfit, 3; Rejected, 2; Successful, 7.

It was moved by Dr. PITMAN, seconded by Sir JAMES PAGET, and agreed to:

"That the returns from the Medical Departments of the Army and Navy be received and entered in the minutes, and that the thanks of the Medical Council be returned to the Directors-General for their courtesy in furnishing these returns."

Deficiencies in General Education.—A letter was read from Dr. J. M. Finny, Registrar of the King and Queen's College of Physicians in Ireland, stating that eight candidates for the licence in medicine showed deficiency in orthography; of these, six held the licence in surgery of the Royal College of Surgeons in Ireland, and two that of the Royal College of Surgeons of England. It was proposed by Sir WILLIAM GULL, seconded by Dr. AQUILLA SMITH, and resolved, in reference to the letter of Dr. Finny, "that this Council desire to be informed of the name of the board or boards before which the eight candidates showing deficiency in orthography had passed their preliminary examination".

Preliminary Examinations.—The following documents bearing on this subject were: 1. Letter from the Royal College of Surgeons of England, intimating the discontinuance of its Preliminary Examinations; 2. Three letters from the College of Preceptors, with a draft scheme of special preliminary examination to replace that of the College of Surgeons; 3. a report of the Executive Committee on the subject. The documents were ordered to be entered on the minutes.

Charge of Infamous Conduct.—The Council proceeded to investigate the case of Samuel Levenston, M.D., of Glasgow, a registered practitioner, who was charged with "infamous conduct in a professional respect" in having distributed in Glasgow sundry handbills of an objectionable character. Mr. OUVRY, the solicitor to the Council, read the notice which had been served on Dr. Levenston, and produced evidence in support of the charge. Dr. Levenston, who was present, was defended by Mr. C. H. Anderson, in reply to whose questions, Dr. Levenston admitted the fact of the distribution of the handbills and pamphlets produced, but alleged that he had been guided by proper motives. Mr. Anderson pleaded that, though the act was, strictly speaking, unprofessional and not to be defended, it was not "infamous" in the sense in which it was intended to be understood in the Medical Act. The further consideration of the case was postponed to the next day.

Times of Preliminary Examination.—A table showing the times at which examinations are held by the examining bodies in England whose examinations fulfil the conditions of the Medical Council as regards preliminary education, was presented, and was ordered to be entered on the minutes.

Swiss Medical Examination.—A letter from the Privy Council Office was read, accompanied by a pamphlet containing the *Règlement pour les Examens de Médecine Fédéraux*. It was moved by Dr. PITMAN, seconded by Dr. HUMPHRY, and agreed to:

"That the communication from the Privy Council Office be received and entered in the minutes, and that its consideration be referred to the following committee: Dr. Humphry; Dr. Haldane; Dr. McClintock."

Wednesday, April 27th.

Dr. ACLAND, President, took the chair at 2 P.M.

The Case of Samuel Levenston.—The Council, having deliberated in private on this case, decided that Samuel Levenston had been guilty of infamous conduct in a professional respect, and ordered his name to be removed from the *Register*.

Preliminary Examinations.—The Council resumed the consideration of the communication in regard to preliminary examinations, from the Royal College of Surgeons of England, submitted to the General Council by the Executive Committee. It was decided to communicate with the College of Preceptors and other public examining bodies, in order to ascertain whether their examinations in general knowledge could be held before the commencement of the winter and summer sessions, so as to be convenient for intending students of medicine; it being understood that the examinations were not to be special for medical students, but open to all. Letters were also read from the Universities of Oxford and Cambridge, and the Oxford and Cambridge School Examination Board, with reference to certain difficulties in carrying out the plan of examination in general knowledge, as laid down last year by the Council. It was resolved, that the examinations conducted by the universities be accepted, as hitherto; and that elementary mechanics, if not included in such examination, be made the subject of a future examination.

On Thursday, the Council further considered some questions relating to preliminary examination. The last two hours of the meeting were devoted to dental business. It was decided to allow the insertion of additional qualifications in the *Dentists' Register*.

HARTISMERE RURAL DISTRICT.—The mortality of this district during 1880 was much less than in the previous year, and Dr. Barnes reports the sanitary condition as in many respects more satisfactory. The birth and death rates were respectively 32.5 and 16.8 per 1,000. The mortality amongst infants and amongst children under five years of age was respectively 20.7 and 32.6 per cent. of the total deaths. Measles, whooping-cough, and scarlatina were all more or less prevalent in the district. Scarlatina continued, indeed, to be present throughout the year—103 cases in 37 houses in 10 parishes coming to Dr. Barnes's knowledge. Aggravated examples of carelessness in the spread of infection are reported by Dr. Barnes, who deplores the ignorance and fatalism of the lower orders with regard to scarlatina and allied disorders. Nuisance inspection and prevention seem to be well carried out in the district; a result to which Dr. Barnes's systematic inspection of the whole district has no doubt largely conduced.

MEDICAL REFORM AND MEDICAL EDUCATION.

ON Wednesday, April 6th, a meeting of the members of the Yorkshire Branch of the British Medical Association, and of the medical profession generally in that county, was held in the Philosophical Hall, Park Row, Leeds, "to consider and discuss the report on Medical Education recently issued at considerable cost by the Committee of the Council of the Yorkshire Branch to every member of the profession; and to pass resolutions thereon".

Mr. P. E. MIALL, President of the Branch, occupied the chair. He, together with Mr. C. G. Wheelhouse and Mr. Arthur Jackson, secretary of the Branch, had been the conveners of the meeting, at the instigation of the Committee of the Yorkshire Branch. There were also present:—Dr. Clifford Allbutt, Dr. Jacob, Dr. Barrs, Dr. Glaister, Dr. Hellier, Dr. Hartley, Dr. Churton, and Messss. Husband, Carter, Scattergood, Bradbury, McGill, W. Hall, Nunneley, Beardshaw, Flood, Chadwick, E. Atkinson, Pickles, Robson, E. Robinson, Wright, S. Hey, Horsfall, Oglesby, and Higgins, Leeds; Dr. de Bartolomé, Mr. A. Jackson, and Mr. Favell, Sheffield; Dr. Tibbits, Dr. Goyder, Mr. Hirst, Mr. Appleyard, and Mr. W. G. Burnie, Bradford; Wheelhouse, Jack, Leeds; Dr. Symes, Mr. Oakley, and Mr. Dolan, Halifax; Mr. Margetson, Dewsbury; Mr. Ball, York; Dr. Little, Ben Rhydding; Dr. Watt, Hovingham; Mr. Leak, Hemsworth; Mr. Ellis, Shipley; Mr. Sykes, Drighlington; Dr. Eastwood, Darlington; Mr. Lee, Heckmondwike; Messrs. Eason and Rhodes, Huddersfield; Mr. Lambert, Farsley; Mr. Macnamara, London; and many others, at least seventy in number.

The CHAIRMAN, in opening the proceedings, said all present would be aware that they were met to discuss and pass resolutions upon the subject of Medical Reform and Medical Education. The immediate cause of this meeting of the Yorkshire Branch was the issuing of that report which had been circulated among all the members of the profession, and which no doubt most of those present were familiar with; but if there were any gentlemen present who had not received copies, or who wished to have copies for the purpose of studying the report afterwards, they could have copies on application to the secretary. He had received two letters, explaining the writers' reasons for unavoidable non-attendance—one from Mr. Pridgin Teale, and the other from Mr. Jessop. Mr. Teale's letter stated that he could not be there on account of being engaged in Glasgow, in the work of the Medical Council. Mr. Jessop, in his note, gave his opinion somewhat at large in regard to the questions to come before this meeting, and at the proper time it would, he thought, be best to read the letter in full.

Dr. DE BARTOLOMÉ moved the first resolution. He said he thought he should best consult the convenience and promote the object of the meeting, as he certainly should his own feelings, by saying as little as possible in introducing the resolution entrusted to him. In bringing forward his resolution, it was only like breaking the ice. When they came to plunge into deep water, that would be the proper time each to air his individual opinions; but at the present moment he thought, so far as he was concerned, nothing more was required from him than to read his resolution. However, he would just say that he thought they were all agreed that medical education, as it at present stood, required considerable improvement—considerable alteration, at all events; and whether those alterations were to turn out real improvements would remain to be seen after they had been tried by the test of time and experience. But he would say again, this was not the proper stage of the proceedings to do more than to pave the way for gentlemen who had resolutions to introduce of far greater importance than was his, and for the expression of those gentlemen's views upon the matters which were to be discussed, with respect to which others also might think it desirable to express their views; and, if needful, he (Dr. de Bartolomé) should himself be glad to take part in the discussion. He moved "That this meeting views with cordial satisfaction the action taken by the parent Association, and by the Metropolitan Counties Branch, to endeavour to ascertain the feeling of the profession at large on the subject of medical reform; and pledges itself to aid such action as far as possible". This resolution could not but recommend itself to the whole meeting, for without such a resolution was passed there need be no further discussion, and the whole proceedings would drop through.

Dr. GOYDER, in seconding the resolution, said that as to the action necessary to be taken with reference to medical reform, he was quite satisfied that the present method of education did require reform; and he was also satisfied that there were many things besides education that required reforming; and he was no less willing to admit that there was

a great diversity of opinion as to what should be the nature of the changes requisite; but at the same time he was ready to pledge himself that in whatever direction it was determined on to go by the greater proportion of the profession, he should do as much as in him lay to assist those endeavours to bring about an efficient system of medical reform.

The resolution was carried.

Dr. CLIFFORD ALLBUTT moved "That this meeting approves of the report drawn up by the sub-committee on medical education, approved and signed by the Committee of Council, and of the curriculum of study therein shadowed forth; viewing more especially with favour the proposal that not less than four full years shall be devoted by the student to *bonâ fide* professional study". Dr. Allbutt said the resolution was so extremely important that he must apologise for venturing to express his views upon it freely, and he need not read all the resolution again in order to entreat the meeting to observe exactly that the points to come before them, not only in this resolution but in others which would follow afterwards, were points bearing on the curriculum of study; and one main point he held to be that four full years should be devoted by the student to *bonâ fide* professional study. To ask the approbation of the meeting to that, was practically asking them to support a great part, though not all of the work done by the sub-committee, of which he had the honour to be a member. He should not have ventured to come before them asking for any kind of recognition of their work; it would scarcely have been becoming of him, or of any member of that committee, to have looked for any such recognition of what they had done; but his (Dr. Allbutt's) object was the much more modest one of putting plainly before the meeting, if he could, the nature of some of the work that the sub-committee had had to do, some of the results arrived at, and some of the reasons on which the conclusions they had come to had been based. He need not tell them, however, under what circumstances it was that the sub-committee was formed; and still less was it needful that he should remind them of a letter which had appeared in the JOURNAL from Dr. Quain, complaining that the work done by the sub-committee had already been sufficiently well done before. Certainly it was quite true that this question of medical education was not new, and that it had been taken in hand by some of the medical corporations, and by three general medical councils; the subject had undergone inquiries by them, with nothing like successful results, and now it had practically and energetically been taken up by the British Medical Association. This meeting now had to decide how far they thought it was likely the attempt of the British Medical Association would succeed, after all the attempts of other bodies in the same direction had failed hitherto. Now, first, he would say a word or two with respect to corporations. To begin with, corporations never do anything in this world. [*Laughter.*] In this instance of medical education, they had failed practically and most completely. They had never done anything but stand up for their own privileges and monopolies, and, speaking generally, that was found to be the case with all corporations in the nature of those ancient guilds that yet survived. He was not, of course, alluding to or including in his denunciation municipal corporations—that would be too dangerous—[*laughter*]—but there were corporations, such as the medical profession had in view, belonging to a past state of things; and although their members might include many independent and noble exceptions, they were composed effectually of those whose sole object seemed to be the maintenance of exclusive interests and the preservation of monopolies. This being the case, the influence of such corporations could not but be inimical to all progress. But the result of the battle going on between one monopoly and another could not be far off, though for some time it might yet be that while the doctors were quarrelling the sick man went on being sick. Was it likely that any good could be derived from having at the head of their affairs so many rival corporations, each having mainly for its object to preserve and retain its privileges at the expense of all the others? Practitioners were getting quite sick of it; and what they had felt for long to be almost intolerable, now they were resolved to speak out against at once. As regarded the General Medical Council, it had certainly done a great deal in the way of extremely beautiful conversation. He had heard some persons speak of it as though it were a debating society, and no doubt it had at times laid itself open to that suspicion; and no doubt it had done a good deal in that way, in the hope that it might promote a higher and better state of civilisation—[*laughter*]—but so far as he (Dr. Allbutt) was concerned, the General Medical Council reminded him of those persons, who were to be met with in every family, whose peculiar gift it was to be able to form the best resolutions, so far as putting them in words went, and to be able to give advice to others of the family, but who themselves never succeeded in practising any of those good resolutions which they recommended. The General Medical Council could talk most wisely, and give admirable advice, but never found that they had it in their power to offer advice which was more highly appreciated by the profession generally, than the advice taken by a dutiful child from its grandmother. Unfortunately, however, the General Medical Council has not the prestige of venerable old age. It was the opinion of Dr. Quain, and the General Medical Council said so, that all that was necessary had been recommended before. That, however, was not quite the case. Moreover, if it were so, why had not what was now demanded been done? He (Dr. Allbutt) was not saying this in any spirit of party merely, for there were other organisations which had omitted to do necessary things for what appeared to themselves to be sufficiently good reasons. But the General Medical Council reminded him of an excellent and beautiful ship, manned by a crew whom they knew, and more admirable persons could not be desired, but it was after all simply a ship, if he may make another figure, without engines or other external force to propel it, the *aura popularis* never being allowed to blow into its sails. It was not an arena for conducting operations of an useful kind, so much as for airing the self-contained opinions respecting itself. It had not the whole profession at its back. Dr. Quain said, "How is it all these things have been talked over by the General Medical Council; and why is it nothing has been done?" Why, indeed? For the simple reason that the General Medical Council represented no one; most certainly it did not represent the mass of the profession; and he and others had always said that if the General Council were wholly and directly elected, or in a great part elected—though he should prefer that it was entirely elected—from the whole body of the profession, then they would soon see it become a great power. [*Applause.*] At present it must be confessed it had nothing at its back at all. And then they (the practitioners) came to their own organisations, the others having failed. It was the British Medical Association which first called attention to the failure of the General Council to do anything in the way of reform, and asked if it was not time something should be done; and the Yorkshire Branch took the matter up and made reports to the Committee of Council, and some of those who were elected upon that the subcommittee had thought over the matter a good deal, and done a good deal of work, in the hope of being able to bring before this meeting something very definite. Among other matters was this, and upon it they felt very strongly—for it had chiefly to do with the education, and not with the qualification: and what they all felt respecting the present system of medical education was, that it was of a kind which might perhaps best be described by the use of the nursery term "higgledy-piggledy". By that was meant that no student was engaged particularly on any particular thing, but was doing a little of everything all at once. Every one who had been a teacher must be aware of the general state of chaos in which the minds of those students were whom they were instructing. In the first place, they had not been educated preliminarily. They had not entered the medical school with a previous scientific training. They knew nothing of science, and very little of literature. He was willing to admit that this had recently been somewhat improved upon, but it wanted improving further. It must be acknowledged, that on first coming to medical work, all was strangely mixed up together. The first year's work might be said to be comparatively little else than looking about one and thinking over what one might have to do; and in that way a great deal of what should be the first year's work was thrown away, and thrown upon what should be exclusively the second year's work; and so on, the third year beginning with arrears from the second; the course of the education thus getting jumbled into a state of "higgledy-piggledy". Their object was to get rid of confusion, and this could only be done by requiring that four full years should be given to education. In the committee they had had many, he would not say heated, but warm discussions, one of the principal points in opposition being, that to require a curriculum of four years might in the cases of many students prove too costly. What was the meaning of that objection, that it would be too costly? Did it mean that it might lead to keeping men out of the profession? That he (Dr. Allbutt) thought could scarcely well be the case. He would not so much as let drop a hint that the profession had become overstocked; but he might, he thought, suggest the question whether the gates were not too much crowded; and he thought it might fairly be asked how far it would be justifiable to put the screw on a little, seeing that the number of students was always increasing. Another point of no little importance, and one which he thought Dr. Quain had entirely overlooked, was that the four years of study should be definitely divided; that there should be a first year for work as a commencement; that in the second year the work which had been begun in the first should be completed up to a certain point; and that no student should go to the third year's work until he had passed a suitable examination. It was the getting "plucked" (as

he was sorry to say a large number did) which led to so much overlapping and piling-up of heaps of old work that made the mess; and the point was this—whether it was not desirable that the work of the student should be so distinctly divided that no part of it should ever overlap any other part. Those who had left school would know how grievous it was when there was much to fetch up, and how desirable it is that the curriculum should be so distinctly divided that no step in the education should be thrown back upon that which was preliminary to it, such as that there should be no stoppage to the pursuit of clinical studies because of a deficiency of knowledge in chemistry, anatomy, and physiology. In conclusion, Dr. Allbutt said he was glad to see, in spite of their many engagements, that there was so large and influential a gathering of those from whom he hoped to have support for his resolution in favour of the course of study being divided into four distinct periods, requiring from each student four years' *bonâ fide* application to professional study. He felt sure that this four years of pupilage was a most important requirement. He did not believe that there would be any danger from it of unduly thinning the ranks of the profession, and still less did he see how they were to do without making such a division of the students' work that no part of the work should at any time overlap the other, this last being perhaps the most important practical point in the report of the subcommittee brought before the meeting. [*Applause.*]

Mr. MACNAMARA seconded the resolution. His object in coming from London had been to endeavour, as far as possible, to assure himself as to whether the profession in Yorkshire really took an interest in this work of medical education and medical reform. How easily people might be mistaken in judging of the feelings of those beyond their immediate cognisance was illustrated by the fact that recently, persons going about London had heard in the clubs and in society the probability mentioned that a general election was not far off, and calculations and conjectures were made as to the number of votes the Conservatives might gain. Very few of us had the slightest idea of what the real feeling of the country was. It struck him that, as there was to be a meeting of the profession in Leeds, this would be a good opportunity for ascertaining the opinion of those outside the sphere of his own daily associations; and with this view he had come there anxious to ascertain whether the profession beyond the metropolis took anything like a really lively and thorough interest in this great question. He thought the meeting he saw before him of gentlemen, all of whom, probably, were actively engaged in general practice, brought together from various parts of the county of York—of gentlemen who must have put themselves to considerable inconvenience to come there—showed that a very deep interest was felt in that part of the country in this important question. Indeed, he was convinced that unless a very decided stand was made by important meetings like this, very little advance would be made in the movement which it was intended to promote. If the profession left the duty of advocating medical reform to the Metropolis or to the General Medical Council, they would be leaning upon men who were not likely to afford them any support at all. The General Council had tried for a number of years to do something for the improvement of medical education; but it was very difficult for them to move in the matter. In the first place, it must be remembered that the members of Council were largely representatives of various corporations, and being the representatives of those corporations, they were bound to support them. And, over and above this, the power of the Council was not very great. Whatever powers they had, however, he did not think they had exercised them as they might have done; nor did he think they were likely with much effect to exert their influence for the advancement and improvement of medical education. The reason was this. After the system of apprenticeship had been broken through, there was a rebound in favour of technical teaching. Apprenticeship having been given up, it was considered that, in connection with medical education, technical teaching was all important; that was the idea which sprang up at once; and in the medical schools a large number of young professors were only too ready to set to work at this kind of teaching, which had been overstrained. In his opinion, technical teaching had been so largely employed, that really practical teaching had almost entirely disappeared. Teaching the practice of the profession had been, to a great extent, abandoned in not a few places for lectures and the dissecting-room. In Leeds, it appeared this was not the case, the students were well taken care of. They had to go through a regular course of case-taking, and had to serve clerkships, and dresserships, and so on; but that was not so in a large number of medical schools. Under existing circumstances, students were often at work for two or three years on anatomy and physiology before they passed their second examination, having been only six months really at work in the hospitals before gaining their licence to practise. Measures must now be taken to overcome the existing difficulties: measures which would not only alter the period of probation, but the conditions of the curriculum, so as to make the course of study a reality, and to attach to the practical work of those who sought to enter the profession, more importance than appeared to belong to it at the present time. [*Applause.*] What the kind of work should be was pointed out in the report they had all received, care being taken that students should not work at the practice of medicine and surgery in the metropolitan or provincial hospitals until they had completed their course of study in anatomy and physiology. As to the examinations, he felt sure that if they were to make any real advance in medical education, they must have a conjoint scheme for Scotland and Ireland, as well as England, and that it must be under the control of the General Medical Council. But if the General Medical Council was to be a Council of real importance, its members must be reduced in number, and they should be elected by the profession. [*Applause.*] He did not think it would be advisable or advantageous to have a council composed of a certain number of men who had been elected because they represented a corporation, and so many more members elected from the general body of practitioners. He thought it would be merely intensifying the party spirit already lurking there, to have a council chosen from two distinct bodies in that way. [*Hear, hear.*] Let the whole of the General Council be elected by the profession; and let men who had time, or would make time, to devote to the work, be elected to the Council—not men who could only attend occasionally, and then pass away, unmindful of more serious matters requiring their best attention. It would be of no use having a General Council of that kind. There was a vast deal of work to be done; the profession must elect a Council they have confidence in, and leave them to do the work required of them. Bearing in mind that alteration in medical education must start with alteration in the constitution of the General Medical Council, every one who had the interests of the profession at heart must insist that it was absolutely necessary to agitate for reform, and to press for such changes as to make it inevitable that improvement in medical education would follow; for that was, after all, the real, and in fact the great, object of medical reform. The first point was to change the constitution of the General Medical Council, and then they might hope to would get a conjoint board, and such a curriculum as that which had been referred to by Dr. Clifford Allbutt. [*Applause.*] He concluded by seconding the resolution.

Dr. LITTLE (Ben Rhydding) said he had listened with great pleasure to the speech of Dr. Allbutt, and he could not help saying that, on account of the thorough spirit in which medical reform was advocated in that speech, he had listened to it with more satisfaction than to the speech of any other medical man that he could remember. He (Dr. Little) had come to that meeting in order to recommend a simil rse of action to that which Dr. Allbutt had laid before them; but he should have trembled, had he been in Dr. Allbutt's position, and himself connected with these obsolete bodies and effete corporations, if he had felt that it was his duty, notwithstanding his friendly association with some of those corporations, to speak of them in the bold manner Dr. Allbutt had done. [*Applause.*] However, the main point was, that no real advance in medical education could ever be effected until they had a General Medical Council elected by the profession. It was well known that the medical corporations in the Medical Council only represented themselves; that they had no thought for individual practitioners; that they had only one thought, and that was for the corporation chest, when any question came before them touching upon fees and emoluments. He (Dr. Little) would say, distinctly and positively, that any change admitting only a few practitioners to be members of the Council would only lead to scenes of greater wrangling and disputation than they had witnessed in the past. [*Hear, hear.*] In case the Council consisted only partially of *bonâ fide* practitioners, there would hereafter be still more talk than there had hitherto been, and probably far less work done even than heretofore. Until the entire Medical Council was elected by the profession, no good would be done. It might be objected at once, that in that case the Council would be no better than a Trades Union. Now, that must be admitted to be a strong argument against it; and unless that objection could be answered satisfactorily, then the proposals for reform which had been made must fall to the ground. Now, that the General Medical Council, composed of men elected by the profession alone, would be a trades union, was a thing impossible; it could never come to pass. In the first place, Parliament would have a distinct power and control over anything their representatives in that Council might do; and, as a final court of appeal, anything wrong would be put right by Parliament; and with such a power as Parliament over it, any good work it might undertake or suggest would be encouraged, while anything attempted which would be injurious to the public would be put a stop to. [*Applause.*] Another

objection to the General Council being elected by the profession was this. Dr. Steavenson, in his pamphlet, said that, if the Council was to be made representative in that way, it would simply represent the medical journals. He (Dr. Little) respectfully differed from him. He had discussed this question with him at Cambridge; and, at that time, too, had differed from him *in toto*. Should it be found at any time that the General Council was so constituted as to represent only the *Lancet* and the *Medical Times*, would not the country practitioners unite and send up their own men to represent them, and so bring the weight of the provinces to bear upon the deliberations and action of that body? If they found that the weight of its influence gravitated towards London, and that the London papers had too much influence, would they not at once rise up in arms to put a stop to it, and not allow London to have all the say in such important matters? [*Hear, hear.*] Now, the next question was as to the study necessary for a man before he entered into the medical profession. He (Dr. Little) had strong views upon this matter. If a medical man was to take a proper position in society, and was to do his duty to the community, he must have a fair and general knowledge of literature before he was allowed to enter the profession. He felt very strongly upon this subject, because he had been with men, the greatest sorrow and trouble of whose lives had been their unavailing regrets that they had not been compelled at the beginning to go in for a thorough and complete preliminary education. At the very point where their prospects had been brightest, their further progress had been impeded by imperfect education. All the advantages of being able to hold their own in society had been lost to them because of the want of a good general education to begin with. Next, as to the preliminary examinations being carried on by corporations, he need not say to men who had passed through them what a farce they were; they afforded no genuine test whatever; and it was because of their insufficiency and shallowness that the profession was flooded with men who were ignorant of the elements of the English language and literature. Then, as to the time at which such subjects as inorganic chemistry and one or two kindred subjects should be admitted into the curriculum, he was strongly of opinion it should be done before a man began his anatomical studies. The study of chemistry must be carried on in the laboratory, and if a man had to devote himself to laboratory work at the same time that he was attending to hospital work and lectures, one or both would be imperfectly done. When the examination for the First M.B. at Cambridge came off, one-half the men at the time he was there were rejected, because they had not attached sufficient importance to practical work in the University laboratory. All such work as could possibly be done before a man began his study of anatomy should be completed before he began his four years of medical study. Mr. Macnamara had remarked that the study of anatomy could be done anywhere. He (Dr. Little) was not going to enter into a long record of his own difficulties in the study of anatomy; but, owing to family reverses, he was obliged to get up and go down to the College of Surgeons in Dublin by seven o'clock in the morning, in order to study anatomy before he went to his father's office; and in the evening, again, he was in Ledwich's dissecting-room and at work until a late hour, and with artificial light only; and he had no knowledge which he prized more than that which had been got in that way. The study of anatomy was of such importance that every facility should be given for it, and it should be thoroughly tested by written, *vivâ voce*, and practical examinations. He (Dr. Little) endorsed all the views which had been expressed about preventing a man passing through the wards of a hospital until he had studied anatomy. It was, it must be admitted, still the opinion of many that a man should begin all these studies at once; but that feeling was rapidly dying out. He (Dr. Little) held as a principle that until a man had for a couple of years spent many hours a day in studying anatomy as it should be studied, that man had no right to go into the wards of a hospital where there were cases under treatment. He did not think it was just to the patients that men working in a desultory way should be free to go in and out of the wards as they liked. As to a student having an examination at the end of the first year, he thought it was one of the most vital points in the report. Gentlemen present who were fathers, knew that when, for the first time, they sent their sons up to London, and placed them alone in lodgings, with all the temptations of London surrounding them, many of them had no incentive to study in the first year; but depend upon it, when they knew there must be an examination at the end of their first year, the great bulk of them would set to work in earnest as soon as they got there. If any man told him that two years was too long a time to be taken up with the study of anatomy, he could not but be astonished at it; or if four years was too long for a man's training before he could be said to have sufficiently studied the vast sciences of medicine and surgery, what were they to think of the joiner's or stonemason's apprentice, to whom was given seven years in which to learn what was much easier of acquirement? To his (Dr. Little's) mind, it was simply absurd to suppose that medical and surgical science could be learnt in less than four years. No good would be done, no real advancement made in the profession, until every student was made to pass an examination at every step. If the country practitioners were not true to themselves, but were content simply to rely upon what was done in London, they could not make a greater mistake. They must act for themselves in the country. Most of the great reforms which ever yet were passed came from the country; while, as to any beneficial measures that had their origin in London, they were so insignificant in number that they could be counted on the fingers of one hand. [*Applause.*]

Dr. EASTWOOD (Darlington) supported the resolution. After reading a passage from the report pointing out the absence for many years of any improvement in the course of studies necessary to the profession, asked how it was that such unquestionably was the case? Dr. Allbutt had suggested that there might be some objection to a four years' curriculum, because it would greatly add to a student's expenses; but let them compare the present system with the past, and they would find that when the apprenticeship system was in full force, and five years' pupilage was required from every one, with three years besides for the attendance at the medical school, and the pursuit of hospital studies, and the prosecution of anatomy and the other branches of a medical education; so that, formerly, it took no less than eight years before a young man could be qualified to practise, besides which, he had a premium to pay of £100, £200, or £300. Therefore, it might be contended that the cost of a medical education had decreased as compared with what it was in former days. That being so, there ought to be no grumbling at those who approved of this resolution. In his opinion, four years was scarcely enough; and, indeed, he thought five years was scarcely enough, not necessarily for attendance on lectures and hospital practice, but in carrying out another portion of this resolution which had been recommended by the subcommittee, namely, that a pupil should be six months—he (Dr. Eastwood) would prefer twelve months—with a general practitioner, raising the period of time to five years, though that would be three years less time than formerly was considered the period of a medical student's apprenticeship. He thought the term of pupilage proposed little enough, and that it might very well be extended.

Mr. MCGILL (Leeds), in supporting the resolution, urged the importance of not unnecessarily crowding the hospital wards by compelling students to attend by means of a roll-call. He thought it was bad, both for the students and the teachers; for the students, by compelling them to waste their time with teachers who could not teach; and for the teachers, by preventing them, by means of an absent class, from learning their own incompetence. At present, many examinations were conducted in a very perfunctory manner, and it was too much taken for granted that a pupil knew something, when, in reality, his preparation had been slurred over; and some examiners were too ready to pass such superficial and imperfect examination, because of the insufficiency of the fees. The large sums at present paid to the Medical Council might be used for the support of libraries and museums, and the students' fees should be devoted to the adequate payment of examiners, who would thus be enabled to give more time to the examinations.

The second resolution was here carried, with only two dissentients.

Mr. ELLIS (Shipley) said he had been called on to propose a resolution on apprenticeship. [*Laughter.*] There were those present who could say much more on the subject than it was in his power to do; but Mr. Jackson had said to him: "You need not be afraid, for nearly every man in the room will think differently upon it, and therefore you need not waste much argument in performing your task." [*Laughter.*] As a general practitioner, he could say unfeignedly that they owed a debt of gratitude to the British Medical Association for taking up this question. It seemed to him a grand thing that they, as a profession, should have decided that there should be some medical reform; but, in his opinion, if they wanted medical reform which would be worth anything, they must stick to something practical, and not go in for everything at once. [*Hear.*] Then, having once got in the thin end of the wedge, they could drive it home just as they liked. A great many people out of the profession scarcely had an idea that there was occasion for medical reform at all; and there was no town better than Leeds in which to have held a meeting on this question. Dr. Little had told them that they were not all obliged to go the way that London went, and to do the thing which London demanded; but he (Mr. Ellis) did not think that London now led the way so much as it used to do. When, in Leeds, they had such men as the Allbutts, and the Teales, and the Heys, they could enforce their opinions whenever they

liked; and, as they carried on this movement, they should impress upon the Legislature that the reform which they wanted was a real necessity; and, if they meant success to attend their efforts, they must go on as they had begun. The resolution he had to move was, "That it is desirable to obtain from this meeting, as representative of the profession at large, a distinct expression of opinion on the subject of apprenticeship or pupilage: 1. As to whether such apprenticeship or pupilage is necessary; 2. Of what duration it should be; 3. At what period of student life may it be most advantageously given." Fortunately for him (Mr. Ellis), he should be followed by Dr. Churton, who would be much better able than himself to go into the question of when these apprenticeships should come in. He could bear this testimony, however, that, of the five or six assistants he had had as a general practitioner, those who had regularly gone through an apprenticeship had been the best. [*Hear, hear.*] He did not exactly know how it was, but it seemed to him that if a man was brought up in the house of a general practitioner, there were a thousand and odd ways in which he could not have his own way, and which he should not want to have, were he desirous of becoming a steady-going practitioner. He had found with other assistants, who had not been apprentices, but who had gone straight from school to the hospitals, they thought they could do everything, and really knew how to do very little; and he had known some such assistants who could not tell the difference between scarlatina and measles. Having observed that by the terms of the resolution he was not required to enforce his opinions unduly, but simply to bring the subject forward, he would conclude by expressing a hope that the work begun that day would not be allowed to drop for want of co-operation by the whole of the profession in Yorkshire. [*Applause.*]

Dr. CHURTON (Leeds) seconded the third resolution, saying that Mr. Ellis and himself had had rather an amusing conference, of just one minute's duration, in the library, and they found that their views were entirely different upon one point; but, as the resolution only declared the desirability of getting a distinct expression of opinion on the subject of apprenticeship, there did not appear to be an absolute necessity that the mover and seconder should agree. All that he and Mr. Ellis said in common was, that it was desirable that the meeting should give a distinct expression of opinion. Mr. Ellis thought it would be better that the apprenticeship should precede the study at the medical school. He (Dr. Churton) felt very strongly, however, that it was desirable the apprenticeship should come at the end, and not at the beginning. He spoke both from personal experience and from observation. He had been a pupil for eighteen months of his career; and, although he passed the time very pleasantly, yet he could not help thinking it was wasted. He certainly learned something about drugs, and how to prescribe in simple cases, but only by unintelligently applying routine formulæ to certain groups of symptoms. He was, soon after, fortunate enough to get a valuable appointment at the old Leeds Infirmary. But, for a time, that was almost the ruin of him. He was thrown into active work before he had seen a single dissection, so that all the disadvantages of early pupilage continued. Before a man could understand the disorders of any machine, he must accurately know its parts, where they are, and what they do; otherwise, the most careful explanations would be lost upon him. If possible, no term should be used in an explanation which had not a distinct representation in the hearer's mind. But such representations could only be acquired through the senses; hence an early pupil could not understand anything that he had to see, or to do, or to listen to. It was true, as Mr. Ellis had remarked, that men who had seen no private practice often made poor assistants, and sometimes could not tell scarlatina from measles; but, if a student had been thoroughly trained in the hospital wards to recognise disorderly action in any of the organs, and to know what kinds of disorder were possible for each of them, he would, when a pupil at the end of his curriculum, carry to the practitioner, his teacher, so accurate a description of any case, that the name of it would be at once pronounceable. Six or twelve months' study of miscellaneous examples in private practice, or at a dispensary, would make such a pupil fit to rank as a competent assistant or practioner; for, whatever addenda from private practice required learning, he would be able to grasp at once. For he would have been already trained not only to observe accurately, but also to explain many things, and to try to explain everything; whereas an early pupil can of necessity be taught to observe very little, and to explain nothing—a habit of brain-action which it is exceedingly hard to alter.

Dr. TIBBITS (Bradford), speaking from his experience of the curriculum through which he himself passed, he was convinced that the recommendation sent down by the Metropolitan Counties Branch of the British Medical Association was one with which he was thoroughly in accord, excepting as to the apprenticeship. In that respect, he thought he agreed with what Dr. Churton had said, that the pupilage should come after the general professional education, and that it should be for twelve months, and not for six only. His own curriculum had extended over eight years, as Dr. Eastwood had stated his to have done. His three years' apprenticeship was passed with a medical man in the country—unfortunately, in many respects (fortunately, he was an extremely amiable man, and that was all he could say); but, unfortunately, those three years spent with him were, the greater part of them, entirely wasted. His duties consisted chiefly in making up and compounding pills, infusions, and anything else in common use by a medical man. He had sometimes been in the surgery from nine in the morning until nine at night, doing nothing but making pills. He had sat in his principal's carriage, and held the reins during a severe frost, and with a deep snow falling, while the gentleman was attending a confinement; so that he had been kept in that unpleasant position for three or four hours at a time. He knew not whether that had been the experience of other gentlemen under the old *régime;* but, if anything like it remained, the sooner it was done away with the better. When he went up to London, he knew nothing of the University of London; and, although he had taken out his physiology and anatomy lectures, he set to work at the classics, and, at the end of the first session, he managed to pass his matriculation. He always looked back upon those five years with regret that he had not made them six or seven, for he felt, when he left London, that he was incompletely educated.

Mr. S. HEY (Leeds) suggested that, in fixing the time best suited for the beginning of a medical education, a rather more advanced age should be recommended than that which had been usual for the beginning of medical studies, similar to what was the case with all those who went to the universities. He remembered his uncle, the second Mr. Hey, making the remark that, when he met gentlemen who had been well educated, and had stayed long enough at school to get acquainted with classical and mathematical studies, they could talk to and engage the attention of their patients afterwards much more easily than those could who had abandoned the drudgery of education at a much earlier period. His (Mr. Hey's) own opinion was, that the actual medical studies, and those bearing upon them, such as the scientific branches, should be deferred until the student had gained the age of eighteen. That was the case, he believed, with boys going to the great schools; and then began the best time for drilling them in subjects which would fit them for any station in life. He remembered that, when he left school, he was just beginning to enter most heartily into the work; and he remembered, when engaged with one of his last mathematical problems, he never worked so hard as he did then, and was never better satisfied with himself, having accomplished what no other boy in the school did. His mind was then beginning to take in matters, and to provide for itself, in a way he should never forget. He felt that he was leaving school too early, and his experience afterwards was very much like what had been stated; and he felt satisfied that, if he had remained at school two years longer, and if he had been allowed to go into those studies which were required at the universities, he would have been no worse off for not having entered the profession when he did. Was it not a fact that some of their best men had not entered the profession until later in life than most did? He looked upon this as not an unimportant consideration. Everyone present in his own mind must regret that he had left school too soon. When Dr. Churton was speaking, it struck him as to whether it was better for a man to see all he could see before he understood it. It was his (Mr. Hey's) belief that it was so. A former pupil of his, who was an acute observer, used to say, "Do not neglect, when you have the opportunity, to see all the practice you can; you may not understand how or why an operation is done, but see all that you have time to see"; and that was the case with himself (Mr. Hey) during the whole of his apprenticeship, but he had the special advantage of being with an infirmary surgeon. He attended the medical school the whole time, but at the same time hospital studies were going on. His point was this: that he gained a great deal by seeing a great deal which he did not understand; but, when he began to understand, the benefit of what he had seen did not forsake him afterwards. His pupil said: "Never pass anything you see without exercising your fingers upon it; without bringing your senses to bear upon it, for instance."

Dr. GOYDER (Bradford) said the object of pupilage was to induct a youth into the way in which ordinary practice was conducted; and pupilage was generally an advantage to the student, when he went as an assistant to a medical practitioner. It must be for the benefit of the whole profession that there should be pupilage; and any medical man who took an assistant, would find he was of very little use if he did not know what was the routine of the surgery. Assistants had come to him from Scotland, where no pupilage was required, and, instead of being of assistance to him, he had had to give the assistant the very help

which he (the assistant) should have been affording to him. He understood the report of the subcommittee to mean that a student should have his matriculation examination first, and that he should learn something of materia medica, and have an opportunity of mixing things, and of seeing operations, and of seeing how a medical man in active practice comported himself towards his patients; and pupilage was for this purpose: to try and induct the youth in the way in which he should act when he himself became a regular practitioner; it had not so much to do with the technical work of his professional studies.

The CHAIRMAN here read the following letter from Mr. Jessop. "No. 32, Park Square, Leeds, April 6th, 1881. Dear Mr. Miall,—As a teacher of twenty years' experience, I had hoped to have been present at, and to have taken part in, your meeting this afternoon; but, to my regret, I find myself unable. The two points on which I should have sought an opportunity of speaking are, first, the necessity of instituting an uniform and a higher standard of preliminary examination upon such general subjects as ought to be included in a liberal education; secondly, the desirableness of re-establishing, in a modified form, the old apprenticeship. Judging from what has appeared in the medical journals, and more especially from conversation with experienced and thoughtful practitioners, I hope and expect to find that your meeting will reflect the almost universal testimony in favour of these two reforms. A well-educated youth rarely fails to make the best use of his oppotunities when admitted as a medical student. The most plausible plea put forward in favour of maintaining a minimum requirement of general knowledge, viz., that a lower grade of medical men is needed for the poorer districts in our manufacturing towns, falls to the ground when put to the test of experience. In my acquaintance are dozens of highly-cultured medical men, who live contentedly and practise successfully amongst none but the working classes. I have never heard that excess of education has prevented curates and others engaged in religious teaching from gaining the confidence of working populations; and the best of them prefer, at least in their earlier years, narrow streets and dark alleys to terraces, squares, and mansions. There will be no difference of opinion, I imagine, as to the complete failure of the modern system by which all apprenticeship has been abandoned. Dispute will rather turn upon the period at which the student may most advantageously enter upon his residence with a practitioner, and upon the duration of such residence. Of one thing I feel convinced, viz., the dissecting-room and the laboratory are the right places in which a student should commence his career. Whether a break should be enforced in the middle of his curriculum—after he has satisfied his examiners as to his proficiency in anatomy, physiology, and organic chemistry—for the purpose of entering a practitioner's consulting-room, or whether this very necessary part of his education shall be placed at the end of his attendance upon lectures and hospital practice, I do not feel able so completely to satisfy myself, though, upon the whole, I incline to think the disadvantages of the middle period are the least. From twelve to eighteen months would seem to me sufficient, and not too much time, to spend as a house-pupil. In the hope that you will have an influential and successful meeting, I am, very faithfully yours, T. R. JESSOP."

Dr. CHURTON explained that he had not intended to suggest that a pupil should pay a large sum merely to become a sort of pupil-assistant. He must be taught private practice as definitely as he is taught hospital practice or military practice, on similar terms, and without incurring any serious responsibility. Practical men, confronted with the task, would quickly devise a scheme of training in private practice as efficient as that which now existed for teaching hospital practice in well-organised schools.

Mr. MACNAMARA remarked that the recommendation put forward in the report of the subcommittee was to the effect that a student, having passed his professional examination, should not receive a licence to practise until he had either served six months with a general practitioner, or, what was equivalent to it, gone through a general practitioner's work.

Mr. C. G. WHEELHOUSE said Mr. Hanks (of Snaith) must be regarded as a typical general practitioner, and, knowing that he was well acquainted with the work of a country practice, and knowing that he had experience both of assistants and pupils, he (Mr. Wheelhouse) wrote to him, asking him if he would give them his opinion on the question of apprenticeship. Mr. Hanks wrote: "After an experience of nearly fifty years, I am of opinion that an apprenticeship of three, certainly of two, years, is desirable at the commencement of the curriculum of a medical education. The advantages are obvious. First, a young man, placed with one who will superintend his conduct, will be less likely 'to go wrong', on proceeding to a medical school to complete his education, than if sent there at an earlier age, and consequently totally inexperienced. Secondly, he goes to the school with a certain amount of medical knowledge, and, therefore, more likely to profit from the instruction he will receive. Thirdly, he acquires during his apprenticeship a knowledge of the routine of practice, and is thereby more likely to be financially successful than without this advantage."

The CHAIRMAN said he would put the three clauses of Mr. Ellis's resolution separately. The first was, "That, in the opinion of this meeting, an apprenticeship is necessary." This was carried almost unanimously.

The CHAIRMAN was about to put next to the vote: "Of what duration should the apprenticeship or pupilage be?" when a member said there was a considerable amount of obscurity as to the words "apprenticeship" and "pupilage". It was very important that it should be clearly made out what they were meant to convey, before the meeting came to any conclusion respecting the duration of it. Was it meant that it was simply the introduction of the crude medical student to medical matters before he entered the hospital, in order that the peculiar position he was to meet with in the hospital might be made easier? In such a case as that, six months with a general practitioner might do, where he might learn what drugs were, and how to put on a bandage, or pull a tooth, and other ordinary matters appertaining to a surgery. That would materially assist him in understanding what he was likely to meet with in the wards of a hospital. Next: Was a medical student, after he had passed his hospital practice, to learn anatomy, physiology, and surgery; and then, before he got his qualification, to have a year or eighteen months with a general practitioner, or in some other place, where he might learn the routine of a practice before he got his qualification?

Dr. LITTLE said he must most earnestly protest, after the experience he had with assistants, against a man being allowed to become a pupil until he had been through the hospital. He had been in practice for twelve years in the country; and, before that, he was assistant with several medical men; and he had seen assistants, who were totally ignorant of the simplest symptoms of disease, sent out to visit and prescribe for cases which were at death's door. He protested, in the name of the public and on behalf of suffering humanity, against such a state of things being permitted any longer.

Dr. ALLBUTT pointed out, that, in the apprenticeship of a medical student, there were three stages. The first was the introduction to the student's life, and that they might perhaps fitly designate the pill-boy stage. Then there was the hospital work and lectures, with some "coaching" in private houses, with which they had nothing now to do. The third stage was when the man was completely equipped for general practice, but which he should essay under the eye of some one, and for a certain period.

Dr. CHURTON suggested that recommendation No. 6 of the Subcommittee should be adopted, as expressing the views of the meeting.

Mr. MACNAMARA said, that to do so would leave it an open question to a certain extent. It might occur that a medical student found it convenient to take a two months' summer vacation. The recommendation did not specify when exactly the apprenticeship or pupilage must be; but it merely said the pupil must study six months with a general practitioner. In the case of the army surgeons, they were not considered entitled to take up their work in the regiment until they had made themselves acquainted with regimental duties; and, in the same way, an ordinary medical student could not know what the work of a general practitioner was before he had acquired that knowlege under the care of a general practitioner.

It was then resolved (two votes only being given against it) that No. 6 recommendation in the report be adopted.

Mr. WHEELHOUSE proposed the last resolution. He said, whatever might have been their differences of opinion as to the best mode of dealing with some of the points which had gone before, he had now to introduce a proposition upon which he thought the meeting would be unanimous. He had to ask them to express an opinion that it was desirable to close eighteen out of the nineteen doors by which men were now able to enter the profession—[*applause*]—and to ask that there should be, for each division of the kingdom, a complete qualification for registration and to practise after examination by the conjoint authorities of the kingdom. He thought there could be no question that it was absolutely a disadvantage to the profession that a man should be able to seek entrance to it first by one door; and, if he failed there, to try another; after that a third; and so on through the whole nineteen, it might be, until at last he was able to pass a successful examination somewhere. It could not but be to the disadvantage of the profession that there were nineteen bodies competing for the admission of practitioners into it; and when they came to consider that, of those nineteen bodies, none, or very few, gave what could be called a complete examination, the evil became a very much more crying one indeed. [*Applause.*]

At present, by virtue of the authority possessed by some of these examining bodies, if a man passed an examination in some subjects, such as midwifery, chemistry, materia medica, and forensic medicine, without having passed at all in anatomy and surgery, he was considered entitled to have his name placed on the *Register;* and, being on the *Register*, he was entitled to practise in any branch of the profession. He (Mr. Wheelhouse) thought there would be no want of harmony in the opinion he hoped would be expressed by this meeting that it was altogether wrong that this should be the case; and that, therefore, until they had secured the advantage of having a conjoint examination of a full and complete character to admit to the profession, they were working altogether on the wrong side of the hedge. It would be said, in some quarters, that this would reduce the standard of qualification to a dead level, and that there would be no distinctive grades, as at present. He was confident that such never could and never would be the case. The members of their profession were not so unambitious as that. There were men who would rise to the top of the tree in spite of everything, and would rely for doing it on their own exertions; and whatever dignities and decorations there were, let them be given to those who worked for and deserved them. But let it be insisted upon that those who entered the profession were thoroughly educated; and that there should be but one door only and one code for each division of the United Kingdom, whereby those who desired to do so might enter the profession. [*Applause.*] Having entered by that door, let them seek for decorations and distinctions where they liked; and let them raise themselves from the lower to the higher grades of the profession, accordingly as their will or inclination led them. They had heard at this meeting that the question had been asked, If you raise the standard of medical education higher than it is, how are you to provide the men who are to work among the labouring population? He (Mr. Wheelhouse) had had conversations with many of his professional brethren on this point; and, like Dr. Allbutt and Mr. Jessop, he knew that there were many men of high culture who were content to work in the humbler walks of life, and that they were fulfilling their vocation there as well as if they were enjoying a more distinguished practice and had acquired a more elevated position. If they admitted all men by the same door, and required from all alike the same preparation for admission, then the prizes and honours of the profession would be won by men who had had no fairer start in the race than their contemporaries. [*Applause.*] He proposed: "That this meeting desires to express its opinion that no legislation can be satisfactory which does not provide for a conjoint and complete examination at the same cost for each division of the kingdom, as the final qualification for registration and to practise."

Mr. DOLAN (Halifax) seconded the motion. He said it was lamentable to think that fifty-three years ago this question was discussed by French surgeons, and yet the profession in England had now to go over almost the very same ground on this same question of medical reform and medical qualification. A reference to their old journals would show that for fifty years this proposal for conjoint examination had been discussed and advocated. Evidence had been given in 1848 which would show that there was nothing new in what the British Medical Association was bringing forward to-day; and it was in that sense that they could reply to Dr. Quain, when he said they were bringing forward nothing new. In 1848, Mr. Bottomley was examined before a Committee of the House of Commons; and he (Mr. Dolan) would read a few of the answers and questions. "Do you approve of the registration in classes? To a certain extent.—Supposing classes to be adopted, how many do you consider necessary? Two, physicians and surgeons.—Do you consider that both physicians and surgeons should be educated in all the departments of medical knowledge? I do.—And, having proved his competency in all, that then the practitioner might select in what department he would practise? Certainly.—Is it your opinion that a physician should be fully educated in what is called surgery? Certainly.—And that the surgeon should be educated in all the departments of knowledge called medicine? Most undoubtedly; they are indivisible. . . .—Before what body or board would you have medical practtiioners examined? I should like to see a board composed of physicians and surgeons." Now Mr. Bottomley was a representative general practitioner in his time; and they at the present day were seeking to obtain, through the influence and operation of the British Medical Association, what Mr. Bottomley foresaw it would come to—"a conjoint and complete examination for the whole kingdom". Mr. Wheelhouse's resolution followed as a corollary on the former propositions, and he hoped it would be passed quite unanimously.

Mr. ROBSON (Leeds) said those who had the interests of medical reform at heart must see the necessity of abolishing all examining authorities but one; and that that one body, which alone was to grant diplomas in the future, should be one which would not make its examinations too high, to give a reasonable chance to all men. It seemed to him (Mr. Robson) that at present there was an utter mixture—that the thing was too "mixed up" in every way. Under the present system of qualification, the public could not distinguish the good from the bad, the genuine practitioner from the pretender, except by reference; and some of those who were no better than quacks were esteemed often as the most honourable. Some of the existing corporations would venture to give a diploma of high standard, so that a man could write "F.R.C.S." after his name, leaving the public at a loss to conjecture whether it was a London or an Edinburgh degree; and not knowing that in Edinburgh he could purchase the right to do so on payment of £50, and after having been proposed and carried. He found a case, very analogous to this, in the report issued by their committee. A man, "plucked" in London, went to Edinburgh, where he was "plucked", too; then he went to Glasgow, and passed; and, within twelve months from that time, he took the degree of F.R.C.S. at Edinburgh. That a thing of that kind should occur was positively disgraceful. [*Applause.*] It was a sin that such a wrong as that could happen. Edinburgh was not alone to blame; for some of the northern universities did the same. Some gentlemen, when they had attained the age of forty, were entitled, after a nominal examination and the payment of fifty guineas, to receive from some of those venerable seats of learning a diploma, which entitled them at once to affix "M.D." to their names on their door-plates. Not only in going in for a diploma was this the case, but, in some shape or another, the same sort of thing entered into the preliminary examinations also. He knew something of such an instance. A gentleman in business failed. On finding that he could not succeed in trade, he thought he would turn his attention to the medical profession. He tried to pass the preliminary at the College of Surgeons in London, and failed. He then went to Glasgow; and, out of eight subjects, he (Mr. Robson) thought, he succeeded in passing in two, or, at all events, they were placed to his credit. In six months afterwards, he succeeded in passing in four subjects; and, at his fourth attempt, he succeeded in getting through the remainder. Now, that such a thing could occur in the United Kingdom was a grievous wrong. It was something those engaged in teaching were made aware of every day. Supposing they had a man thrown on their hands in a school of that kind, what could they make of him? What was the worst of it, he brought down the average of the school's success. It was an exceptional case which he had adduced, but there were many of them. There were test examinations; but it was very well known that, if a man did not get through it, they could not retain his papers, and he went on attending his lectures. That man could go up three or four times hard-running, having, when he failed in one place, gone to another, until at last he obtained a diploma, by means of which he was allowed to practise among the lower classes, and it might be, not unfrequently, among the higher classes. The use of a conjoint board would be, that it would not be possible to pass over a sufficient preliminary examination. There at present was the loophole. There must be some arrangement with respect to the preliminary examination—so that there would be no danger of having any but educated men in the profession; for it was a real necessity that a medical man should be well educated. If the conjoint board would not take up that portion of the curriculum, what was to be done? He hoped some gentlemen would favour the meeting with their views on that point.

The fourth resolution was then carried unanimously.

Mr. WHEELHOUSE moved, and Mr. MACNAMARA seconded, a vote of thanks to the chairman; and the proceedings terminated.

ROYAL COLLEGE OF PHYSICIANS.

AT the ordinary meeting of the College, held on Thursday, April 28th, the following members of the College were elected Fellows: James Lewis Siordet, M.B., Mentone; John Wale Hicks, M.D., Cambridge; John Baptiste Potter, M.D., George Street, Hanover Square; James Watt Black, M.D., Clarges Street; Francis de Havilland Hall, M.D., Queen Anne Street; William Ewart, M.B., Curzon Street; David B. Lees, M.D., Thurloe Houses; Francis C. Turner, M.D., Finsbury Square, E.C.; Joseph Ewart, M.D., Brighton.

It was decided, after some discussion, that the first Bradshaw Lecture should be given, according to the terms of the bequest, in August of this year. This lectureship is endowed by the will of Mrs. Bradshaw, in commemoration of her deceased husband, Dr. Bradshaw. The amount of the legacy is £1,000, invested in Consols.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—The next ordinary meeting of this Branch will be held at the Grand Pump Room Hotel, Bath, on Thursday, May 12th, at 7.15 P.M.; Alex. Waugh, Esq., President.—R. S. FOWLER, E. MARKHAM SKERRITT, Honorary Secretaries.—Bath, April 1881.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The annual meeting of this District will take place at Canterbury, on Thursday, May 12th, at the County Hospital, at 3 P.M.; Mr. W. Knight Treves, F.R.C.S., in the chair. The following communications have been promised. 1. Dr. Tyson: A Case, with Remarks on Treatment. 2. Mr. A. Long: A Case of Hæmoptysis. 3. Mr. Rigden: Craniotomy during forty-three years' experience. 4. Mr. Wacher: A Specimen of Ruptured Uterus. 5. Mr. Whitehead Reid: A Specimen of Ruptured Duodenum, from Kick of a Horse.—T. WHITEHEAD REID, Honorary Secretary, 34, St. George's Place, Canterbury.—April 27th, 1881.

LANCASHIRE AND CHESHIRE BRANCH.—A joint meeting of this Branch with the Staffordshire Branch will be held at Crewe on Wednesday, May 11th. Through the kindness of Mr. Atkinson, lunch will be provided at the place of meeting from 1 to 2 o'clock. The meeting will take place at 2 P.M. At 3.30 P.M., a special train will convey members to the works of the railway company, and the whole of these interesting works, including the Bessemer process, will be viewed. Dinner at the Royal Hotel, at 5.30; tickets 7s. 6d., exclusive of wine. The following communications have been promised. Mr. Banks: On Radical Cure of Hernia, complicated with Undescended Testicle. Dr. Ashby: The Diagnosis of some Forms of Scarlatina.—A. DAVIDSON, Honorary Secretary, 2, Gambier Terrace, Liverpool.—April 26th, 1881.

SOUTHERN BRANCH.—The ordinary meeting will be held at the George Hotel, Portsmouth, on Wednesday, May 4th, at 4.15 P.M. Agenda: 1. Election of President and Statement of Accounts. 2. Pathological Specimens: G. R. Snowden, Esq. 3. Remarks on Tinea Circinatus: Dr. W. H. Axford. Gentlemen who are desirous of introducing patients, exhibiting pathological specimens, or making communications, are requested to signify their intention at once to the Honorary Secretary. Dinner will be provided at 6.30 P.M. Charge 5s., exclusive of wine, etc.—J. WARD COUSINS, Honorary Secretary.

BORDER COUNTIES BRANCH.—The spring meeting will be held at Penrith, on Wednesday, May 25th. Gentlemen who intend to read papers are requested to communicate with one of the Honorary Secretaries. JOHN SMITH, M.D., Dumfries; J. KENDALL BURT, M.B., Kendal.

NORTH OF IRELAND BRANCH.—The annual meeting of this Branch will be held in the Belfast Royal Hospital, on Thursday, May 26th, at 4 P.M. The members will dine together at 7 P.M. Members intending to read papers or send communications will kindly intimate their intention to JOHN MOORE, M.D., Honorary Secretary, 2, Carlisle Terrace.—April 26th, 1881.

WEST SOMERSET BRANCH: SPRING MEETING.

The spring meeting of this Branch was held at the Railway Hotel, Taunton, on Thursday, March 17th, at 4 P.M.; JOHN MEREDITH, M.D., President, in the chair. Thirteen members were present.

Papers.—The following were read:

1. On Two Cases of Recovery from Tetanus. By G. W. Rigden, Esq.

2. The three following interesting cases were communicated by Mr. Engledue Prideaux of Wellington:

a. A Fatal Case of Embolism of a Cerebral Artery, suddenly occurring fourteen days after confinement.

b. A case in which the patient made a good recovery from Double Amputation of both Feet, after Mortification.

c. A Fatal Case of Penetrating Wound of the Orbit and Extensive Injury to the Brain, in which a slight external wound only was apparent, and no serious symptoms manifested themselves for several days afterwards.

3. On the Treatment of Advanced Pulmonary Consumption. This paper, by Dr. Cordwent of Milverton, in his absence, was read by the Honorary Secretary.

Votes of Thanks.—The warm thanks of the meeting were voted to the authors of the above papers.

Dinner.—Dinner was served at half-past five o'clock.

Question.—After dinner, the Chairman introduced the question previously settled by the Council for discussion, and of which due notice had been given, viz., The Treatment of Neuralgia. Gentlemen around the table having stated their various plans of treatment, and written answers from Mr. Alford and from Mr. W. H. Walter, who were unavoidably absent, having been read by Dr. Kelly, a well-sustained and instructive discussion was brought to a close at eight o'clock.

FINANCIAL STATEMENT FOR THE YEAR ENDING DECEMBER 31ST, 1880.

Revenue Account for the Year ending December 31st, 1880.

Dr.]	£ s. d.	£ s. d.
Editor		500 0 0
Sub-Editor		187 10 0
Contributors		1,313 12 5
JOURNAL:-		
Printing	2,557 7 0	
Paper	2,694 3 2	
Postage	1,048 9 11	
Address Bands	94 17 0	
		6,394 17 1
Wood Engraving		53 9 10
Reporting		92 18 3
Journal Expenses:—		
Editor's Postage	21 12 10	
Postage of Journal Slips	14 5 0	
	35 17 10	
Boy's Wages	31 5 0	
Newspapers	13 11 3	
Parliamentary Papers	2 10 0	
Sub-Editor's Expenses, Telegrams, etc.	7 15 10	
Sundries	3 15 0	
		94 14 11
Editor's Clerk		75 0 0
Scientific Grants, 1880-81		300 0 0
Committees		56 17 1
Auditors' Fee		63 0 0
General Secretary		500 0 0
Rent		313 15 0
Taxes	82 5 10	
Fire Insurance	10 0 0	
		92 5 10
Miscellaneous Printing:—		
Printing in connection with Committees, Advertisements, Association Printing, Journal and Editor's Printing	212 13 2	
Printing at Annual Meeting	91 18 0	
		304 11 2
Paper for Proofs and Reprints, and Printing		99 11 9
Salaries and Wages		637 8 0
Postage		231 15 10
Sundry Office Expenses:		
Printing Office	1 8 6	
Advertising	0 8 2	
Travelling Expenses and Telegrams	17 16 4	
Carriage on Journals abroad	8 4 5	
Engraving in connection with Advertisements	4 2 2	
Commission	0 3 6	
Journals bought in	4 14 6	
Section Expenses at Annual Meeting	8 13 9	
Travelling Expenses of Clerks	6 0 9	
Sundries and Petty Cash	102 18 2	
Copying and Assistance	126 11 6	
Cleaning Offices	44 18 0	
		334 19 9
Stationery:		
Account Books, Ledger, Pens, Ink, Paper, etc.	41 10 5	
Journal Binding Covers, Reading Covers, Stitching and Binding Reprints	80 8 1	
		121 18 6
Medal Wyon		31 7 6
Coals and Gas		41 6 2
Repairs and Alterations		51 17 11
Bank Charges		9 0 3
Law Charges		86 18 8
Plant Depreciation Fund		150 0 0
Premises Redemption Fund		100 0 0
Furniture and Fittings		55 0 6
		12,346 16 5
Subscriptions, losses from death, etc.		481 13 7
Advertisements, Discounts, Allowances, etc.		650 6 9
Balance carried to Balance-Sheet, being profit for the year 1880		3,217 6 1
		£16,705 2 10

Cr.]	£ s. d.	£ s. d.
Subscriptions		8,900 14 4
Ditto former years		61 12 6
Advertisements		6,203 3 0
Sundry sales of Journal		770 5 0
Ditto Reprints, etc.		117 3 9
One year's Interest on £5,[illegible] 3s. 6d. Consols	150 2 4	
Ditto on £1,000 London and North Western Railway 5 per cent. Debenture Stock	20 0 0	
Half-year on ditto, £1,900 ditto	19 10 0	
Interest on Deposit Account	3 0 2	
		211 12 6
Scientific Grants		67 3 10
Discount on Printing and Paper Account		251 10 10
Sale of Waste		11 13 6
Cheques unpresented		14 3 7
		£16,705 2 10

Balance Sheet, 31st December, 1880.

LIABILITIES.

Dr.]	£ s. d.	£ s. d.
Contributions		432 0 6
Furniture		2 12 6
Subscriptions paid in advance		443 14 6
Advertisements paid in advance		112 2 5
Plant and Type		60 12 5
Stationery		21 8 2
New Premises		40 3 11
Wood Fund		25 0 0
Due to Branches		5 3 6
Scientific Grants		55 0 0
Copying and Assistance		3 16 2
Miscellaneous Printing :—		
Printing at Annual Meeting	20 14 5	
Sundries	17 11 0	
		93 5 5
Engraving		27 0 0
Coals and Gas		6 6 0
Reserve Fund for depreciation of Plant (Dec. 31st, 1879)	250 0 0	
Added for 1880	150 0 0	
		400 0 0
Redemption of cost of altering new Premises (Dec. 31st, 1879)	125 0 0	
Added for 1880	100 0 0	
		225 0 0
		1,943 12 6
Balance of excess of Assets over Liabilities on January 1st, 1880	8,530 14 7	
Balance from Revenue Account, being profit for the year 1880	3,217 6 1	
Total excess of Assets over Liabilities		11,748 0 8
		£13,697 13 2

ASSETS.

Cr.]	£ s. d.	£ s. d.
Subscriptions: amount due		493 3 3
Advertisements: amount due		1,740 9 0
Sundry Sales: amount due		96 7 11
Postage on Journals		22 16 9
Stewart and Middlemore Funds, amount due for Legal Charges paid for Trust Deeds		17 18 6
Interest due on £2,000 London and North Western Railway 4 per cent. Debenture Stock	39 0 0	
Ditto on Consols, £5,132 0s. 6d.	74 14 9	
		113 14 9
New Premises, at cost		1,157 11 11
Furniture and Fittings		443 12 2
Plant and Type, at cost		928 11 10
London and North-Western Railway 4 per cent. Debenture Stock, £2,000 at cost		2,231 7 0
Consols (£5,132 0s. 6d.), at cost		4,907 10 0
		12,234 3 1
Cash in hand :—		
At London and Westminster Bank	1,406 19 5	
At Office	6 10 8	
		1,413 10 1
		£13,697 13 2

STEWART FUND.

£400 invested in 4 per Cent. Caledonian Railway Debenture Stock, in the name of the British Medical Association.

Dr.]—1880.	£ s. d.
To balance brought forward	27 18 0
Interest, one year, on £400	15 12 8
	£43 10 8

Cr.]—1880.	£ s. d.	£ s. d.
By legal charges for trust deed		9 0 0
Balance carried forward, viz.:		
At Bank	£43 10 8	
Less due to Association for above charges	9 0 0	
		34 10 8
		£43 10 8

HASTINGS MEMORIAL FUND.

Dr.]—1880.	£ s. d.
To amount transferred from receipts and payments	539 13 4
Interest, six months, due on £477	9 6 0
	£548 19 4

Cr.]—1880.	£ s. d.
By purchase of £477 London and North Western Railway 4 per cent. Debenture Stock	539 13 4
Balance	9 6 0
	£548 19 4

MIDDLEMORE FUND.

£500 invested in 4 per Cent. North British Railway Debenture Stock, in the name of the British Medical Association.

Dr.]—1880.	£ s. d.
To balance	23 5 1
Interest, one year, on £500 4 per cent. North British Railway Debenture Stock	19 10 10
	£42 15 11

Cr.]—1880.	£ s. d.	£ s. d.
By legal charges for trust deed		8 18 6
Balance carried forward, viz.:		
At Bank	£42 15 11	
Less due to Association for above charges	8 18 6	
		33 17 5
		£42 15 11

We have examined the foregoing accounts with the books and vouchers of the Association, and find the same to be correct.

April 9th, 1881. PRICE, WATERHOUSE, & Co.

PROCEEDINGS OF THE COMMITTEE OF COUNCIL.

AT a meeting of the Committee of Council, held at the Offices of the Association, 161a, Strand, on Wednesday, April 13th, 1881: Present, Dr. ALFRED CARPENTER, President of the Council, in the Chair, Professor G. M. Humphry, F.R.S., President, Mr. B. Barrow, President-elect, Dr. W. F. Wade, Treasurer, Dr. Clifford Allbutt, F.R.S., Dr. L. Borchardt, Dr. T. W. Barron, Mr. Alfred Baker, Dr. M. M. de Bartolomé, Dr. C. Chadwick, Dr. J. Ward Cousins, Dr. W. A. Elliston, Dr. R. W. Falconer, Mr. Edward L. Fenn, Dr. B. Foster, Dr. E. Long Fox, Dr. John H. Gibson, Dr. W. C. Grigg, Dr. C. Holman, Dr. J. R. Humphreys, Mr. A. Jackson, Dr. D. J. Leech, Dr. E. Malins, Mr. F. Mason, Mr. F. E. Manby, Mr. C. Macnamara, Mr. R. H. B. Nicholson, Mr. H. Power, Dr. G. H. Philipson, Dr. C. Parsons, Mr. H. Stear, Dr. A. P. Stewart, Mr. C. G. Wheelhouse, and Dr. E. Waters.

The minutes of the last meeting were read and found correct.

Read letters of apology for non-attendance from Dr. Alfred Sheen and Dr. Duffey.

Read letter from Dr. Strange, Worcester, with resolution of the Worcester and Hereford Branch, passed on Friday, the 8th, of which the following is a copy, viz.:

That the President of the Council be informed that satisfactory progress is being made with regard to the meeting of the Association in Worcester in 1882, and that 114 gentlemen having joined in the invitation to be given to the Association, a formal invitation will accordingly be sent to the Council in August next.

Read letter from Mr. Harding and copies of resolutions.

Moved by Mr. Nicholson, seconded by Dr. Holman, and

Resolved: That the President of the Council, Dr. Arthur Ransome, and the Chairman of the Parliamentary Bills Committee, be appointed to attend the deputation to the Local Government Board on the Registration of Disease, on behalf of the Association.

Resolved: That the 118 candidates whose names appear on the circular convening the meeting be elected members of the Association.

The President of the Council reported that, since the last meeting of the Committee of Council, proceedings had been taken against the Association for libel, for an article which had appeared in the JOURNAL of October 9th, 1880; that, instead of calling upon the members of the Committee of Council to attend a special meeting, he had called a special meeting of the Journal and Finance Committee to take steps to defend the action; that the Journal and Finance Committee had instructed him to send copies of the resolutions then passed to each member of the Committee of Council, asking each to signify his dissent if he disapproved of the course taken. To this application, only one negative reply was received, and that gentleman supported the course taken. He had not, therefore, specially convened the Committee of Council at an inconvenient season.

Resolved: That the minutes of the Journal and Finance Committee of the special meeting of February 9th, and the ordinary meeting of to-day's date, be received and approved, and the recommendations carried into effect.

Resolved: That the best thanks of this Committee be given to the Treasurer, Dr. Wade, for his ready and admirable services at the recent action against the Association at Cork for Libel.

The Treasurer, Dr. Wade, presented the financial statement for the year ending December 31st, 1880.

Resolved: That the financial statement for the year ending December 31st, 1880, as audited by Messrs. Price, Waterhouse, and Co., be received, adopted, and, in accordance with By-law 33, published in the JOURNAL.

Resolved: That the minutes of the Habitual Drunkards Committee of the 25th March last be approved, and the recommendations carried into effect.

Professor Humphry (Chairman of the Committee) then brought up the report of the Committee on the subject of Collective Investigation, of which the following is a copy, viz.:

REPORT OF THE COLLECTIVE INVESTIGATION COMMITTEE.

In presenting their report to the Committee of Council, the members of this Committee are aware that, though the contemplated work is one of much importance, which may be productive of very valuable results—one which is worthy of the British Medical Association, and which ought to be undertaken by it—yet it is one which will require great and continuous effort to carry it on in an efficient and satisfactory manner. To combine a number of men in the systematic and careful observation and record of facts is difficult under any circumstances, and especially so in the case of medical men, whose irregular and harassing avocations necessarily disincline them to enter upon and continue a labour of this kind.

It is obvious that success will much depend upon the energy, perseverance, ability, and judgment of the Secretary to the Committee which is proposed. The work that will devolve upon him will be laborious; and, though it will no doubt, to some extent, bring its own reward, the Committee feel that the Association could not expect that such a task should be undertaken gratuitously.

The Committee further feel that it may be desirable to make some remuneration to those persons who shall be found to have given the time and attention which is requisite to make careful observations, and record them well; and they think it will be agreed that a portion of the funds of the Association can scarcely be better employed than in inducing the individual members of the Association to contribute their share to the advancement of medical science by a careful and systematic observation and record of the facts which come under their notice.

The Committee accordingly have agreed to propose the following resolutions.

1. That a Committee of seven be appointed annually at the Michaelmas quarterly meeting by the Committee of Council, to arrange, superintend, and direct the work of combined observation, and be named the "Combined Observation Committee". That the Committee have power to add to their number.

2. That the Committee meet at such times and places as they think fit, and report at least once in each year to the Committee of Council; and that their report be presented at the annual meeting of the Association.

3. That the Committee shall have power to appoint a secretary, who shall be paid (£200 annually) from the funds of the Association, and who shall act under the direction of the Committee, and shall hold office during their pleasure.

4. That the secretary shall attend such Branch meetings of the Association as may be desirable for the purpose of explaining the nature and objects of the investigations, and of interesting and directing the members of the Association in the work.

5. That the travelling and other necessary expenses of the secretary, to the amount of not more than £100 in any year, having been submitted to and approved by the "Combined Observation Committee", shall be paid out of the funds of the Association.

6. That communications to the members of the Association, and others, for the purposes of the investigation, shall be made through the JOURNAL, or from the offices of the Association, in accordance with the usual regulations.

7. That the Branches of the Association be invited to appoint registrars who may assist in the work, and that such registrars shall, together with the "Combined Observation Committee", form a "General Committee" to determine from time to time the subjects for investigation, and the manner in which such investigations shall be conducted.

The following have been suggested as likely to form suitable subjects for combined observation. They are merely mentioned to indicate the kind of work which is contemplated. It would rest with the General Committee to consider their suitability, or to select others. 1. Records of the medical life-history of patients, including the sequelæ of various diseases. 2. Records of the relationship of certain specified diseases—as cancer, tubercle, syphilitic degeneration, osteo-arthritis, chorea, etc.—to any other diseases. 3. Observations respecting epidemic diseases in given districts. 4. The incubation period of contagious diseases; and the duration of contagion. 5. The origin of contagious diseases. 6. The collection of evidence as to the effects of certain remedies. 7. The geographical distribution of diseases. 8. Anthropometrical observations, especially in relation to disease. 9. The hereditary influence of race, climate, occupation, food, etc., in the production of diathesis, or of tendencies to certain diseases.

(Signed) G. M. HUMPHRY,
Chairman of the Committee appointed to consider the Question of Collective Investigation.

Resolved: That the report of the Committee appointed to consider the subject of Collective Investigation be received and adopted, and placed before the annual meeting in August next.

Resolved: That the minutes of the Arrangement Committee of to-day's date be approved, and the recommendations carried into effect.

Mr. Arthur Jackson and Dr. Grigg gave notice of alteration of by-law, of which the following is a copy:

NOTICE OF ALTERATION OF BY-LAW.—P. 15.—ELECTION OF MEMBERS.

1.—In fifth line, add, after "Committee of Council", "if he do not reside in the district of any Branch, in which case his name must be brought before, and approved by, the Council of that Branch".

This alteration will be moved at the annual meeting by Mr. Arthur Jackson, and seconded by Dr. Grigg.

Resolved: That the President of the Council, the Treasurer, and Dr. Chadwick be appointed the Subcommittee to draw up the annual report.

Resolved: That the seal of the Association be affixed to the transfers for £1,780 Midland Railway 4 per. cent. debenture stock, being the investment of £2,000 ordered at the last meeting of the Committee of Council.

The seal was then affixed to the transfers, and the seal relocked in the presence of the Committee of Council.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE fifth ordinary meeting of the session was held at the Bristol Museum and Library on Thursday evening, April 7th; ALEXANDER WAUGH, Esq., President, in the chair.

New Members.—The following gentlemen were elected members of the Association and of the Branch: Messrs. H. G. Edwards and M. F. Bush, Bristol.

Papers.—The following communications were read:

1. A Case of Pregnancy complicated with Hydatid Mass; by J. Hinton, Esq. In the discussion which ensued, the following gentlemen took part; Dr. Davey, Dr. Swayne, Mr. Mason, Dr. S. Smith, Dr. Laurence, Mr. Ewens, Dr. Markham Skerritt, and the President.

2. Two Fatal Cases of Injury to the Spine; by F. R. Cross, M.B. Dr. Davey, Mr. Atchley, Dr. E. L. Fox, Dr. S. Smith, and Mr. Greig Smith joined in the discussion which followed on this paper.

CORRESPONDENCE.

CONSULTATIONS WITH HOMŒOPATHS.

SIR,—On this subject there exists evidently strong difference of opinion, and the matter needs threshing out. You say in your leader, "For such a discussion these pages are open". I unhesitatingly range myself with Dr. Markham. The rule not to meet homœopaths in consultation is a just and proper one, in my opinion, deserving to be maintained on its merits. While it exists it ought to be obeyed.

I think it much to be regretted, in every way, that Dr. Quain acted as he did. Holding this opinion without reserve, nevertheless, I think the blame—if blame there be, as I hold—should not be made to rest on him solely. He did what every man placed in dilemma does, viz., he took advice. He went to the President of his College, and consulted him. Now, the President was an outsider in the matter, and in no way subjected to pressure. Having asked the advice of the President, Dr. Quain could scarcely act against it, if any doubt remained in his mind. I think, then, that it was most unfortunate that the President gave the counsel he did. If a man takes upon himself the responsibility of giving advice *in his official capacity*, he must accept the consequences—viz., the criticism the results of his advice may provoke. Consequently, I venture to think the ex-President even more to blame than Dr. Quain.

A distinction must be made, too, betwixt the responsibility incurred by Sir George Burrows and Sir James Risdon Bennett in the advice they gave, as "accessories before the fact"; and that pertaining to the opinions expressed by Sir Thomas Watson and Sir James Paget, after the step was taken, who are only "accessories after the fact". With the first two lies the weight of responsibility as to the advice they gave; and these stand alongside Dr. Quain at the bar of the opinion of the profession at large on this subject of meeting avowed homœopaths in consultation. The Fellows of the College of Physicians expressed their opinion as distinctly as they could in the election of Sir Wm. Jenner as President, by an overwhelming majority.

Whatever the opinion and ultimate decision of the profession on this subject, the homœopaths at present are jubilant and exultant, to judge from their letters to the *Times*. They see, or think they see, some advantage to accrue to themselves from this matter. Further, they vaunt their superiority over the regular medical man, in that they know all he does, and all that they have learned from Hahnemann to boot. Like true privateers, they hoist either flag that suits their purpose with their patients. If the general practitioner resists the temptation to add an acquaintance with homœopathy to his medical attainments, by which he could acquire a number of lucrative patients, surely he ought to have the support of the consultants! He ought to have some return for his self-denial on moral grounds. Hitherto it has been the practice of consultants to decline to meet homœopaths. Whether these persons are honest as to their faith in the doctrines of Hahnemann, or are unscrupulous men who set their sails according to the wind, is immaterial to us. If the latter, I do not see that it improves their position. Since this recent avowal of their faith and practice, it becomes, in my opinion, doubly necessary to settle definitely the position of orthodox medicine towards homœopaths, as speedily and with as little delay as may be; and such, I venture to think, is the feeling throughout the profession.

The profession at large must have a recognised rule for guidance in the matter. If the present rule is to stand, two questions present themselves for consideration. 1. Is the social position of the patient to be held a sufficient plea for the temporary abrogation of this recognised rule? 2. Is the statement of a person professing to practice homœopathy, that the patient has been treated according to the ways of scientific medicine as to the remedial agents employed and their doses, to be regarded as sufficient to permit a regular physician to meet that homœopathic practitioner in consultation—in that particular case?

These two matters must be settled one way or the other, if the present rule has to stand. Or is it the general feeling of the profession that the rule be rescinded altogether?

The question should be settled one way or the other, quickly and decisively, not only as regards the profession, which must have some rule on the subject, but also for the benefit of the laity who choose to play at being "homœopathists". If persons choose to have a homœopath to attend to them when ailing little, and then to call in the services of a regular orthodox medical practitioner as soon as anything serious looms up, they ought to know whether they can retain their ordinary attendant under these circumstances; or they must be prepared to give him up. Lord Beaconsfield must surely have known the rule of the profession on the matter. Even the most distinguished persons should be made to know what they must be prepared to do when the emergency comes. If they deliberately make their choice; they, too, must take the consequences. The profession owes a duty to itself; and I am one of those who hold that it would consult its dignity and its true interests all the better if it made the outside world recognise that it has its rules, which know no difference in persons; and that these rules cannot be abrogated for anyone. If the profession would only make a bold stand, the laity would soon see that they must yield. Does any dispassionate person think that either the profession or Sir Wm. Jenner has suffered detriment by the upright, manly way in which he has behaved in this matter? He was loyal to his profession, as well as to his Queen.—I remain, yours obediently,

J. MILNER FOTHERGILL.

London, April 25th, 1881.

SIR,—In common, I am sure, with the great majority of your readers, I endorse every word of your leader on the subject of Dr. Quain's meeting Dr. Kidd in consultation. Yet there are one or two considerations which have occurred to me that may be worth stating now, when the relations of the orthodox school and homœopathists are under discussion.

First, I am humbly of opinion that Dr. Quain erred, in so far that he did not proceed *at once* to meet Dr. Kidd in consultation. Dr. Kidd, I understand, is a duly registered practitioner; and it is surely the duty of every consultant to meet such, and *then* to consider whether he ought to give advice or take responsibility. We ought to place as much confidence in our leading men as to allow them to judge for themselves, and not tie them down by a hard-and-fast rule, when all that can be alleged is mere suspicion. The medical profession has to stand well with the general public, which is always ready to denounce combination, or any approach to trade-unionism. Especially ought we to be careful to show that we put the saving of human life above the considerations of etiquette and class feeling.

But is it not time to reconsider the decision of the profession on the relations of regular medicine to homœopathy? Fifteen years ago, I took part in ousting a man, whom I respected, from his post as a hospital physician, because he became a homœopath. I think now that I and others, wiser than myself, were wrong. At any rate, I feel sure we would not do the same thing again. "Tempora mutantur, nos et mutamur in illis." The recent correspondence in the public prints practically shows that homœopathy is not now what it was then. I am sure we shall stand better with the public if we open our ranks to admit every man who has taken a medical degree, and who is morally honest and honourable. It is a blunder to make martyrs. Undoubtedly, those men brought their ostracism on themselves, by their intemperate abuse of others. I scorn such epithets as "allopath", and so on; but I think it wiser not to resent such language. In the long run, we shall thus better maintain the character our noble profession has always borne, of being ready to admit truth, from whatever quarter it may come, and to embrace it in the readiest and heartiest manner.—I am, etc.,

WILLIAM BRUCE.

Dingwall, April 1881.

SIR,—The remark of Dr. Markham, in the JOURNAL of April 23rd, "that homœopathy has already begun to shout *Io! Triumphe!*" will scarcely be verified if Dr. Kidd's notes are considered.

It may be assumed that Dr. Kidd treated the late Earl of Beaconsfield according to the method that he believed best for the welfare of his august patient. That method was, according to his own showing, not homœopathic. Dr. Kidd promised in writing, before Dr. Quain came to see the patient, that "every direction and prescription of yours will be faithfully carried out by me". This is not the usual promise before consultation. It proves at once, and most conclusively, that Dr. Kidd had more faith in Dr. Quain's method than in homœopathy. This is a logical inference, and one that nothing can set aside. Dr. Kidd's promise at once set aside the slightest idea that he would interfere in the treatment in any way. Instead of *Io! Triumphe!* the letter of Dr. Kidd, of March 29th, is the death-blow of homœopathy. It is confessed by one who has been one of its most eminent exponents not to be worthy of trust in such a case as that of the late noble Earl. What recantation could be more complete than the letter of Dr. Kidd, promising, before he knew what Dr. Quain would do, to carry out "every direction and prescription". His faith in Dr. Quain was more than is usually asked before consultation, even in consulting with our most esteemed consultants.

I well remember the late Professor Syme, in lecturing on the duties of medical men, said that there were three duties to be held specially in view—1st, to our patients; 2nd, to our professional brethren; and 3rd, to ourselves. If Dr. Quain had consulted with Dr. Kidd before the letter of March 29th, there would have been no justification for him. After that letter, he was bound to do all he could to carry out the aim of our glorious profession, in attempting to save life and alleviate human misery.

One question I would ask: Is an ordinary practitioner justified in refusing aid in a dangerous case of labour, where an homœopathist professed is in attendance? The occasion has not arisen to me; but it is one that might present itself to any of us, and in circumstances precluding getting previous advice. I need not say that I have not the least particle of sympathy with homœopathy; and, as I said, I have the strongest belief that Dr. Kidd has given the death-blow to the system he formerly professed.—Your obedient servant,

A MEMBER.

NAVAL MEDICAL WARRANT.

SIR,—I notice in your number of the 23rd inst., a letter on the naval medical warrant, deprecatory as well as apologetic in both matter and tone. This letter is deprecatory against any opinion being offered on the Order in Council, which has been gazetted, until the Admiralty Circular, giving effect to it, has been issued, when all persons but the writer look on the Order in Council as a conclusive authority. In apologetic tone, the letter states that your previous notation, that the Order in Council "does away with competitive examination for entry", is not the case. Now, with others, I have searched for the recognition of that principle, but do not find it even alluded to in the Order in Council, although it was admitted in that of the army; and all have concluded that it has been intentionally omitted, which appears tantamount to its abolition. If not so, it will be an agreeable surprise, for it is too evident that its past results cannot have been satisfactory to the authorities.

The writer states, "No new rank is introduced, as all fleet-surgeons rank with and as brigade-surgeons, and receive the same pay and retirement". This passage contains three distinct assertions, neither of which appears correct; 1st, as to rank, in which brigade-surgeons rank with lieutenant-colonels, while fleet-surgeons rank with commanders, after, or junior to, lieutenant-colonels. 2nd, as to pay: brigade-surgeons (who may be such after fourteen years' service) draw, on promotion, 30s. a day, and 33s. after five years' service; while fleet-surgeons will draw 27s. a day on promotion, 30s. after four years', and 33s. after eight years' full pay in the rank, which may take ten years to make up, owing to compulsory half-pay periods. 3rd, as to retirement-pay: brigade-surgeons get 27s. 6d. a day after twenty years' entire service, and 30s. after thirty years, with no loss of time on half-pay, while fleet-surgeons must content themselves on 20s. a day after twenty years, 22s. 6d, after twenty-four; 25s. after twenty-seven, and 30s. after thirty years' service, counting compulsory half-pay at one-third of full-pay time.

Now, admitting that errors of omission may be rectified in the Admiralty Circular, how, I will ask, can those of commission, where money is concerned, be altered?

The facts are, that all brigade-surgeons being selected, promotion must come earlier to them than twenty years; and that fleet-surgeons, having only six selections, the majority of them must have served twenty years, or twenty-two, or more, through compulsory half-pay, before they reach that rank. I may say that the editor of the *United Service Gazette* gave the true bearings of this question last week.

The two ranks admit of contrast, but not of comparison; and I can

assure you that most of us regard the Order in Council in this respect—"a mockery, a delusion, and a snare".

Thanking you for all you have done to benefit both services,—I am, yours faithfully, A FLEET SURGEON.

Portsmouth, April 25th, 1881.

SIR,—A letter signed R. N., in last week's JOURNAL, has some judicious remarks and suggestions concerning the new Naval Order in Council, which as I think, deserve further elucidation on one head, by adducing the whole course of events respecting it; and, with your permission, I shall endeavour to give a summary of them *ab initio*.

The great addition to the British army in India, consequent on the Sepoy Mutiny, gave a greatly extended field for its medical staff, with many very lucrative appointments for the administrative grades, so that these grew out of all proportion to the ratios existing in the navy, which was undergoing diminution about the same time, creating great discontent among the senior surgeons, by their very contracted relative chances of promotion to administrative grades of rank. This acted on the sources of candidates, and soon the supply did not equal the demand. Orders in Council and Admiralty circulars followed each other in quick succession without any effect up to 1875.

The official wisdom of that day failed to perceive that, while no young men were entering the service, the ancient staff was growing older, and increasing the crush at the head of the column, which it refused to relieve by establishing an outlet half-way up, allowing officers to retire on the half-pay earned on completion of twenty years' full-pay service.

Then it was that the bright idea occurred of relieving the pressure by decapitation of the column, and forcing all ranks to retire at the same age, viz., sixty, at which inspector-generals, deputy inspector-generals, and fleet-surgeons were to quit the scene of active service; although the very opposite policy of making different stages of age for compulsory retirement of inspector-generals, director-generals, and fleet-surgeons, must have produced the desired end. This was carried out in the most arbitrary manner, without the slightest regard to the rights of those in the upper ranks, granted by previous Orders in Council. The principle acted on was, "It shall be just as I think fit, and without compensation". Mr. Childers was the First Lord of the Admiralty, who, in 1870, confirmed the right of service to sixty-five years of age, leaving his Order in Council open to the option of every officer whose interests were concerned. Remonstrances were all in vain. After the Order in Council of February 4th, 1875, was issued, and which was stranger than all, so absolute was the motor will, and so blind to the very pretence of regularity, that the Order in Council by which those rights of service to sixty-five years was confirmed in 1870, was not declared annulled.

To "pole-axe" and "pole-axing" were then applied terms, and they still continue to be used as synonymous of Admiralty sense of justice, in 1875, to its faithful older medical servants; and now the illegality of these conservative proceedings is avowed by annulling the said Order in Council, "except as regards officers retired before April 1st, 1881", who were arbitrarily dealt with, without that formal cancellation.

In the following year, 1876, the same measure was carried out for the army, with this great difference, that the warrant contained a compensatory clause, by which the retired pay of the displaced officers was raised to about £40 to £50 per annum above that fixed for their navy compeers of the first grade.

This palpable wrong remains untouched by this new Order in Council, and that serves to show how badly naval medical officers have been treated in comparison with those of the army. The voice of the profession might place the facts, which naval history may repeat as usual, with us, so as to obliterate them, by doing justice, so long hoped for by the aggrieved officers, which might be done by present authorities in their forthcoming Admiralty circular.—I am, sir, yours faithfully,

AN OLD MEMBER OF THE BRITISH MEDICAL ASSOCIATION.

ROYAL MATERNITY HOSPITAL, EDINBURGH.—Dr. Keiller succeeds Dr. Augus Macdonald, as medical officer on duty at the Royal Maternity Hospital, Edinburgh, during the next three months, while Mr. G. W. W. Ashdown, M.B., and Mr. Alexander Bowie, L.R.C.P.S.E., succeed Mr. A. P. L. Wells, M.B., and Mr. J. W. B. Hodsom, L.R.C.P., as resident house surgeons.

VACCINATION GRANT.—The Government extra grant for excellence in vaccination has been (for the fifth time) awarded recently to Mr. W. A. Sumner, Public Vaccinator and Instructor in Vaccination for Marylebone. The amount of the grant was £134 15s.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

INCREASE OF SALARY.

A MEETING of the Mallow Dispensary Committee was held last week, to consider an application of Dr. Creagh, Medical Officer of Mallow Dispensary District, for an increase in his salary from £100 to £120 per annum. Dr. Creagh pointed out that he was the only medical officer in the various dispensary districts of the union whose salary was £100, the medical officers of the Doneraile, Ballyclough, Buttevant, Kilshannig, and Rahan Dispensary Districts having each £120; while he, the medical officer of the most important district in the union had the lowest salary. Further, he had more work to do than the other medical officers; the visiting tickets during 1880 showing the highest number, as compared with the other districts. The committee were satisfied that Dr. Creagh was deserving of the increase to £120 per annum; and they unanimously recommended that the guardians should give the increase asked for, so as to make the salary equal with those of the other medical officers of the union.

A MODERATE REQUEST.

WE learn that the guardians of the parish of Birmingham have made application to the Local Government Board, asking that the latter should give them the power to cancel the appointments of their medical officers when the guardians are so minded. Seeing that permanence of appointment was decided on by a distinct vote of the House of Commons, and the Local Government Board is only the exponent of the will of Parliament, this attempt of the guardians of this large parish to assume their arbitrary control over their medical officers is remarkable for its moderation and propriety.

RELIEVING OFFICERS AND MEDICAL OFFICERS.

SIR,—Have I any redress for the following grievance? I am a district medical officer of the Wells Union. There are five parishes in my district; most of the inhabitants of these parishes are farm-labourers. In these parts there are several large clubs; I myself have three or four. A case like the following often happens. I refuse to take a labourer and his family into my club, because, perhaps, they have not paid their fee for the last year. "Very well", he says, "if you will not take me, I shall apply to the parish if any of my family or myself are taken ill". If he has only one child, and that child is taken ill, although the father may be receiving at the time ten or fourteen shillings a week, and perhaps the wife also earning a few shillings at the factory, yet the relieving officer will give him an order for me to attend. Servants who are getting good wages, and who want a bottle or two of medicine, can always get an order. If, however, the wife is about to be confined, then he is most loath to grant an order, and tries to get them to go into the workhouse, or else have a midwife.

Has the relieving officer any right to grant orders to servants who are not laid by, or to farm-labourers, etc., when I am quite willing to take any account they may owe me by small weekly or fortnightly instalments? The system thus carried on only encourages pauperism. Able-bodied men will not join a club, if, when any of their family or themselves fall poorly, they can have the parish doctor simply for the asking.—Yours very faithfully, ARTHUR CLARKE.

Street, Somerset, April 12th, 1881.

*** The grievance complained of by our correspondent is one that very commonly crops up in the practice of the district Poor law medical officer, and it is somewhat difficult to suggest the remedy. There can be no doubt that relieving officers do very frequently exceed their power in the granting or withholding medical relief orders, giving them freely when it involves no expense to the guardians, and refusing them when it does. Unfortunately, these officials get the ear of the board in these matters, and it is of very little use to make an appeal to this latter unless the medical officer can secure a majority. We would advise that, in every such case, an order for extras should be given; if refused, careful note should be taken of the same; continue to do this, and after a sufficient number of cases have been accumulated, lay the facts before the guardians. There is, however, an alternative plan, and that is probably the wisest; viz., to calmly put up with the injustice. It is better to work amicably with a relieving officer, if it be possible.

MILITARY AND NAVAL MEDICAL SERVICES.

THE NAVAL MEDICAL SERVICE.

THE *United Service Gazette* of April 23rd writes: "There is an assumption of the BRITISH MEDICAL JOURNAL which we regret not being in a position to question; for, if it be well founded, then the superiority of stamp of the army staff will be assured for a generation at least. It is that the new Warrant has 'done away with the competitive examination on entry'. If this be really the case—and we cannot satisfy ourselves that it is not so, since there is no provision for it in its clauses, although there may be nothing in the omission beyond the keeping open a door through which to introduce, if need be, gatherings from everywhere or anywhere—should this ultimatum of the

naval executive not be warmly received by the profession to which it is directed? Yet, in the name of the seamen of the navy, we must protest against a plan which would prove most pernicious to their chances of recovery from sickness or from wounds."

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted licentiates on April 28th.

Barns, John Gay, 9, Falmouth Road, S.E.
Davies, David Samuel, 2, Queen Square, Bristol.
Duncan, William Archdeckne, M.D., Brussels, Croydon.
Evans, Arthur Owen, St. George's Hospital, S.W.
Fenton, Herbert Alfred Hill, 1, Cumberland Street, S.W.
Havell, Charles Graham, St. Mary's Hospital, W.
Heaven, John Cookesley, 145, Kennington Road, S.E.
Hoskin, Theophilus, Stratford-on-Avon.
Houlgrave, Augustine, 40, Reedworth Street, S.E.
Little, Ernest Muirhead, 18, Park Street, W.
Marsh, Thomas Alfred Perry, Bristol.
Marsh, William Aspinall, Hindley, Wigan.
Mattice, Richard Iram, M.D. McGill, 17, Horton Road, E.
Mudge, Thomas Henry Tracey, St. Bartholomew's Hospital, E.C.
Newmarch, Bernard James, 35, Doughty St, W.C.
Ozanne, Frederic Newell, St. George's Hospital, S.W.
Penny, William John, King's College Hospital, W.C.
Phipps, Edgar Vivian Ayre, St. Luke's Hospital, E.C.
Smith, Ernest Sutton, 7, Fitzroy Road, N.W.
Taylor, Henry Herbert, 4, Morden Terrace, S.E.

The following gentlemen were admitted members on April 28th.

Bradshaw, James Dixon, M.B., Hyde Park Place.
Haynes, Frederick Harry, M.D. Leamington.
McAlister, Donald, M.B., Cambridge.
Meeres, Edward Evan, M.D., Plymouth.
Moritz, Siegmund, M.D., Cheetham, Manchester.
Nall, Samuel, M.B., Whaley Bridge, Stockport.
Taylor, Seymour, M.B., St. Thomas's Hospital.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College, at a meeting of the Court of Examiners on the 21st instant.

Messrs. Frederick N. Pedley, Camden Road; Leopold Burroughs, Lee, Kent; Percy Warner, Fareham, Hants; William P. Morgan, Dowlais, Glamorganshire; Arthur L. Copner, Bedford; John W. Veatman, Kilburn; Courthope S. Bontein, Victoria Park, E.; Francis W. E. Kinnier, Sherborne; Ernest V. Robinson, Sydney Place, S.W.; Edwin F. White, Putney; Henry O. Treves, Nether-Stowey; Charles d'A. Collings, Guernsey; Henry V. Knaggs, Camden Road; William H. J. Sellers, Preston; Warwick G. McLennan, Devonport; Ernest E. King, Saffron Walden; and Charles Rooke, Melbourne, Australia.

Six candidates were rejected.

The following gentlemen passed their primary or anatomical and physiological examination on the 25th instant.

Messrs. Ernest F. Neve, Frederick Ashwell, Francis W. N. Haultain, John M. Whyte, William A. Giles, Alfred J. Neale, and Charles H. Bourne, students of the Edinburgh School; Thomas J. Walker, and Herbert Fitton, of the Leeds School; Alfred B. Taplin, of the Liverpool School; Louis Verrey, of the Leipsic School; Walter F. Chappell, of the Toronto School; Elliot W. Welchman, of the Birmingham School; George F. Gutheridge, of the University College, St. Mary's, and Edinburgh Schools; Vernon J. Greenhough, of the Cambridge and Edinburgh Schools; and Arthur H. W. Clemond, of the Liverpool and Edinburgh Schools.

Eight candidates were rejected.

The following gentlemen passed on the 26th instant.

Messrs. William C. Woods, Arthur C. Keep, Alfred P. Hillier, John B. Nash, Harold F. Watkins, and Herbert J. Gilbert, of the Edinburgh School; Alfred B. Bake, Bernard Blower, and Joseph Walker, of the Liverpool School; William A. Jones, and Harding H. Tomkins, of the Bristol School; Edward D. Vinrace, and Charles Arblaster, of the Birmingham School; Oliver Sunderland, and Albert E. Tunstall, of the Glasgow School; Harold G. Hathaway, of St. Bartholomew's Hospital; William E. Bennett, of the Leeds School; Thomas P. Beddoes, of the Cambridge School; Alfred W. Hunton, of the Manchester School; and Frederic Maude, of the Aberdeen School.

Four candidates were rejected.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 21st, 1881.

Griffiths, Ernest Edward, Heber Villa, Kingston Hill, S.W.
Heron, Alexander Woodburn, Lorne House, Westcroft Road, N.W.
Robinson, Alfred, West Cross, Swansea.
Roe, Robert Bradley, Melbury Osmond, Dorset.
Thomas, George Trevor Harley, 26, Gloucester Street, Warwick Square, S.W.
Williams, John Frederick, Casham, Hants.

The following gentleman also on the same day passed his Primary Professional Examination.

Teevan, Henry, Middlesex Hospital.

At the Preliminary Examination in Arts, held at the Hall of the Society, on the 22nd and 23rd of April, one hundred and forty-nine candidates presented themselves, of whom ninety-seven were rejected, and the following fifty-two passed and received certificates of proficiency in general education.

George F. Aldous, George R. Anderson, Frederick Barker, Mark A. Barr, Edwin A. Barton, William H. Booth, W. H. C. Candler, H. H. Corbett, A. T. Croucher, Albert W. Daggs, P. J. Dennysson, G. F. W. Ewens, C. E. S. Fleming, William Hall, C. R. Harper, Edward J. Hawkes, A. W. Hayles, Edward Howard, D. L. Hubbard, James A. Hutton, L. P. Jackson, Alfred F. J. W. Jones, James Jones, Lion V. O. de Lassasie, K. W. J. Mackenzie, James F. Magill, S. Mellor, Colin D. Morris, Ellen Theodore Murphy, William Murphy, C. E. Oldacres, W. J. Oliver, Arthur J. Owen, N. A. Partridge, H. H. St. J. Pickstock, J. B. B. Protheroe, S. W. Read, Joseph A. Rogers, W. R. Scoging, Edmund Symons Smith, Henry Sandford Smith, H. A. Spencer, P. C. H. Strickland, Horace L. Swete, C. Terry, Lucy Alice Vick, L. Whitehead, Alexander Whyte, Lionel H. Williams, T. Gill Williams, Arthur E. Wilson, and Richard Trood.

UNIVERSITY OF EDINBURGH.—The following gentlemen have recently passed the first professional examination for medical degrees.

G. R. Ayshford, E. H. Bannister, John Barrie, G. B. Batton, Alexander Bisset, Ernest Black, J. A. Blair, T. M. Blumenreich, J. N. F. J. Boissière, H. R. Bramwell, G. T. Broatch, R. N. Buist, A. J. A. Campbell, J. G. Cassels, James M. Caw, R. L. Clark, John Cunninghame, A. E. Curtis, Richard Davidson, William Davies, William O. Dow, William Dutton, T. E. Dyson, H. S. Fairbank, W. C. Faulkner, J. E. A. Ferguson, Francisco Fernandes, W. H. Francis, Arthur Fuller, W. G. Galletly, F. W. A. Godfrey, G. B. Goodall, J. A. Haggart, F. W. G. Hall, J. H. Helm, John Henderson, G. V. Hewland, J. M. Hodgson, John Hoyle, John Hutson, E. M. Inglis, R. W. Jamie, J. S. Jones, D. K. Keith, Jas. Kerr, F. H. Knaggs, James Lamrock, A. E. G. Langschmidt, J. A. Lestrade, H. S. Lloyd, J. S. M'Cracken, George Mackay, J. S. M'Laren, Andrew M'Lennan, Jas. M'Leod, Jas. Macpherson, Adam Macvie, Alex. Menzies, W. J. van der Merwe, Gustave Michael, George Miller, R. S. Miller, David Milligan, S. C. Mitchell, G. P. Nicolet, Joseph Nielson, John Noble, F. B. O'Flaherty, A. M. Paterson, C. E. Paterson, R. J. Paton, A. W. G. Price, O. R. Pughe-Owen, A. S. Purves, Wm. Richards, W. G. Roberts, J. B. Robinson, Chisholm Ross, A. J. T. Roux, H. D. Rowan, C. F. D. Shaw, Herbert Schelmerdine, L. G. Smith, S. H. A. Stephenson, W. M. Sturrock, G. P. Taylor, George Thomson, C. G. Thorp, John Tomlinson, S. C. Townsend, C. G. Traill, E. M. Tyrrell, Edmund Vaudrey, T. W. E. Waddington, Joseph A. Wake, N. H. Walker, John Walther, E. H. Warner, Algernon Westlake, J. B. Wilkinson, John Williamson, S. H. Wilson, T. N. Wilson, A. J. Wood, George B. Wood, G. A. H. Woodforde, W. S. R. Woodforde, J. W. Wyncoll, Peter Yates, J. H. Zapero.

At the graduation ceremonial on April 20th, the following degrees were conferred.

Doctor of Laws (Honorary): A. W. Williamson, Professor of Chemistry in University College, London.
Bachelor of Medicine and Master of Surgery: Robert Scot Skirving, Scotland.
Bachelor of Medicine: Robert Wilkie Smith, Scotland.
Bachelor of Science (Department of Public Health): Robert C. Smith, M.D., Ardwick; James Anderson, M.D., M.C., Ulverston.

MEDICAL VACANCIES.

THE following vacancies are announced :—

BIRKENHEAD BOROUGH HOSPITAL—Senior House-Surgeon. Salary, £100 per annum. Applications by May 2nd.

BIRMINGHAM PROVIDENT DISPENSARIES: Hockley Branch—Surgeon. Applications by May 4th.

DURHAM COUNTY HOSPITAL—House-Surgeon. Salary, £100 per annum. Applications by May 2nd.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST—Resident Clinical Assistants. Applications by May 7th.

MIDDLESEX HOSPITAL, W.—Ophthalmic Surgeon. Applications by April 30th

MULLINGAR DISTRICT LUNATIC ASYLUM—Visiting and Consulting Physician. Candidates should lodge their testimonials with the resident medical superintendent. Election on the 12th proximo.

RATHDOWN UNION—Medical Officer for Bray portion of Bray and Rathmichael Dispensary District. Salary, £110 per annum, with £29 10s. as Medical Officer of Health, registration and vaccination fees. Election on May 2nd.

SHERBURN HOSPITAL, near Durham—Medical Officer of Ancient Foundation. Salary £250. Applications by May 20th.

SOUTH DEVON AND EAST CORNWALL HOSPITAL—Surgeon. Election to take place on May 4th.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck Street, Cavendish Square—Obstetric Physician. Applications by May 22nd.

STONEBRIDGE DISPENSARY—House-Surgeon. Salary, £130. Applications by May 21st.

SUNDERLAND INFIRMARY—Two House-Surgeons. Applications by May 4th.

THE BROWN ANIMAL SANATORY INSTITUTION—Professor-Superintendent. Salary, £300. Applications by May 21st.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY—Senior House-Surgeon and Provident Medical Officer. Salary, £100 per annum. Applications to be sent in by Monday, May 30th.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY, Torquay—Junior House-Surgeon and Dispenser. Salary £90. Applications by June 6th.

TOTTENHAM TRAINING HOSPITAL—House-Surgeon (single). Salary £150 per annum. Applications by April 30th.

UNIVERSITY COLLEGE, London—Professorship of Ophthalmic Medicine and Surgery. Applications by May 10th.

WANDSWORTH PROVIDENT DISPENSARY—Medical Officer. Applications by May 12th.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY AND FEVER HOSPITAL—House-Surgeon. Salary, £150 per annum. Applications before May 1st.

MEDICAL APPOINTMENTS.

ATKIN, Charles, L.R.C.P., M.R.C.S., appointed House-Surgeon to the Liverpool Eye and Ear Infirmary, *vice* J. Rose, L.R.C.P., M.R.C.S., resigned.

HAMILTON, Alex., F.R.C.S.Ed., L.R.C.P.E., appointed Honorary Surgeon to the Chester General Infirmary, *vice* W. A. C. Reade, M.R.C.S., etc., resigned.

PUBLIC HEALTH MEDICAL APPOINTMENTS.

FRASER, Donald A., M.R.C.S., appointed Medical Officer of Health to the Urban Local Board, District of Burnham, Somerset.

PARADISE, Thos. D., M.R.C.S.E., appointed Public Vaccinator to the Leigh District of the Leigh Union, *vice* James Brideoake, M.R.C.S., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

BURNEY.—On April 21st, at Greenwich Infirmary, the wife of Walter Charles Skardon Burney, of a son.

MARRIAGES.

ADDY-KNOWLES.—On the 23rd instant, at St. Augustine's, Pendlebury, by the Rev. Dr. Dewes, assisted by the Rev. Dr. Browne, Boughton Addy, M.D.Lond., M.R.C.S.Eng., Eccles Old Road, Pendleton, Manchester, to Jane Agnes, eldest daughter of Andrew Knowles, High Bank, Pendlebury.

HOWSE—MARSHALL.—On the 27th instant, at Effra Road Chapel, Brixton, by the Rev. E. S. Howse, B.A., of Altrincham, Henry Greenway Howse, M.S., of 19, St. Thomas's Street, S.E., to Alice Elinor, youngest daughter of the Rev. T. L. Marshall, of 6, Church Road, Brixton Rise, S.W.

ROBINSON—FAWCETT.—On the 21st inst, at St. Nicholas' Church, Newcastle-on-Tyne, by the Rev. Canon Martin, M.A., assisted by the Rev. J. A. Sharrock, M.A., Arthur H. Robinson, M.D., M.R.C.S., of Hull, to Isabel Kate, eldest daughter of J. Fawcett, Esq., of Newcastle.

DEATHS.

DAVIES.—On the 13th March, at Nice, Albert Davies, M.D., M.R.C.S.E., L.S.A., of Maidstone, late Physician West Kent General Hospital, Physician to Ely Dispensary, and several years Surgeon to Works, Great Western Railway, Swindon. Aged 72 years.

LYSTER.—On April 20th, at his residence, 72, Devonshire Road, Prince's Park, Liverpool, aged 46, C. E. Lyster, M.D., F.R.C.S.I.

AN amateur concert in aid of the funds of the Society for Providing Nurses for the Sick Poor, Belfast, will be given on the 29th instant.

DR. CHARLES A. CAMERON has been appointed Analyst to Blackrock Township, Co. Dublin, at a salary of £15 per annum.

DR. G. SCHWALBE, Professor of Anatomy in the University of Jena, has been appointed professor in the University of Konigsberg. Dr. C. A. Ewald, *privat-docent* in the University of Berlin, has been appointed an extraordinary professor in the same institution.

CENTENARIANS.—A woman is reported to have died in Strasburg at the age of 102.—Herr A. L. Dicksten, a teacher of religion in Heringen, celebrated his 107th birthday last month. He is said to still possess great freshness of intellect.

A STRANGE SUICIDE.—A suicide attended by curious circumstances has recently been committed in Paris. A Monsieur Monnot, finding life a burden to him because his wife persistently separated herself from him, taking refuge in a convent, decided, on his side, to take refuge in death. He accordingly made a "will", in which he left to the Conseil Municipal (Corporation of Paris) all that portion of his property, in pursuance with French law, he could will away from his family, in the event of his son or wife not observing all the conditions laid down in his last will and testament, which directs that his body shall be utilised to advance science, and especially stipulates that his cranium and brain be forwarded to the Anthropological Laboratory. The President of the Corporation of Paris received a copy of the will, from which the above is an abstract, accompanied by a letter stating that the writer and testator would have ceased to breathe before the President would read them. An *employé* belonging to the Conseil Municipal was immediately sent to the address given, where he was informed that Monsieur was dead. The next morning, the funeral took place in the usual manner, notwithstanding the clause in the will of the deceased in which he claimed a civil burial as his right, he having committed suicide. The will is deposited at the office of the French law-court which resembles our Doctors' Commons, with the difference that all legal documents are lodged there. Writs have been served on the widow and son of M. Monnot, and the curious Parisian public wait the result.

HEALTH OF FOREIGN CITIES.—The recent health and sanitary condition of various foreign cities are indicated by the following facts, derived from a table in the Registrar-General's last weekly return. In the three largest Indian cities, the death-rate averaged 35.6 per 1,000, and was equal to 27.5 in Calcutta, 34.1 in Bombay, and 46.6 in Madras; fevers were again very fatal in Calcutta and Bombay; cholera caused 46 deaths in Calcutta, and small-pox 72 in Madras, the latter number showing a further increase upon those returned in recent weeks. In Alexandria, the rate was equal to 32.0, and 3 more fatal cases of small-pox were recorded. According to the most recent weekly returns, the average annual death-rate in eighteen European cities was equal to 32.2 per 1,000, and showed a marked excess upon the average rate in the twenty large English towns last week, which was only 22.0. In St. Petersburg, the rate was no less than 63.0; and the fatal cases of typhus and typhoid fever, which had been 82, 103, and 109 in the three preceding weeks, further rose to 121 last week. In three other northern cities—Stockholm, Copenhagen, and Christiania—the death-rate did not average more than 26.9; the highest rate was 34.8 in Stockholm, where the 109 deaths included 3 fatal cases of diphtheria. The usual returns from Paris and Brussels are not published; the rate in Geneva was 25.0. In the three Dutch towns—Amsterdam, Rotterdam, and the Hague—the rates were, respectively, 25.3, 25.3, and 25.6; fever (typhus and typhoid) caused 2 deaths in Amsterdam. The Registrar-General's list included seven German and Austrian towns, in which the death-rate averaged 29.9, and ranged from 23.2 and 25.4 in Hamburg and Berlin, to 34.8 and 37.8 in Breslau and Buda-Pesth. Small-pox caused 23 deaths in Vienna, 12 in Buda-Pesth, and 2 in Munich; and diphtheria showed fatal prevalence in Berlin. In three Italian cities, the average rate was 30.4, and still higher than in the German cities: the rate was 25.4 in Venice, 30.8 in Turin, and 32.5 in Rome. Diphtheria and typhoid fever were fatally prevalent in Turin, and scarlet fever caused 7 deaths in Rome. The usual return from New York was not published; in Brooklyn, Philadelphia, and Baltimore, the rate averaged 23.3, and was respectively 23.1, 22.8, and 25.1 per 1,000; the recent census numbers have been used as the basis for these rates. Diphtheria caused 22 deaths in Brooklyn, and 41 fatal cases of small-pox, as well as 10 of typhoid fever, were returned in Baltimore; the deaths from small-pox were within two of those recorded in the previous week.

PUBLIC HEALTH.—The annual rate of mortality last week, being the sixteenth week of this year, in twenty of the largest English towns, averaged 22.0 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Hull 17, Portsmouth 17, Norwich 17, Salford 17, Bradford 17, Oldham 18, Brighton 19, Leicester 19, Bristol 19, Birmingham 19, Leeds 20, Sunderland 21, Manchester 21, Sheffield 21, London 22, Nottingham 22, Wolverhampton 25, Liverpool 27, Plymouth 28, and Newcastle-on-Tyne 29. The general fatality of measles, scarlet fever, and whooping-cough was considerably below the average for the season. The 22 deaths referred to diphtheria in the twenty towns included 10 in London, 7 in Portsmouth, and 2 in Plymouth; diphtheria has shown prevalence in Portsmouth for some months, but the fatal cases last week exceeded the numbers returned in any recent week. The highest death-rates from fever were recorded in Portsmouth and Bristol. Small-pox caused 88 more deaths in London and its outer ring of suburban districts, one in Liverpool, and not one in any of the eighteen other large provincial towns. In London, 2,397 births and 1,600 deaths were registered. The deaths were 68 below the average, and the annual death-rate was 22.5. During the past three weeks of the current quarter, the metropolitan death-rate averaged 22.4 per 1,000, against 26.4 and 21.2 in the corresponding periods of 1879 and 1880. The 1,600 deaths included 84 from small-pox, 59 from measles, 24 from scarlet fever, 10 from diphtheria, 42 from whooping-cough, one from typhus fever, 12 from enteric fever, 4 from ill-defined forms of continued fever, 13 from diarrhœa, 2 from dysentery, and not one from simple cholera; thus, 251 deaths were referred to these diseases, being 2 below the average. The deaths referred to diseases of the respiratory organs, which had slowly and steadily increased in the five previous weeks from 345 to 395, declined last week to 338, and were 38 below the average; 211 were attributed to bronchitis and 89 to pneumonia. Different forms of violence caused 75 deaths; 65 were the result of negligence or accident, among which were 22 from fractures and contusions, 7 from burns and scalds, 9 from drowning, 2 from poison, and 16 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 43.5°, and 4.5° below the average. The mean degree of humidity of the air was 69, complete saturation being represented by 100; the air was, therefore, dry. The general direction of the wind was northerly, and the horizontal movement of the air averaged 14.1 miles per hour, which was 2.0 above the average. Rain fell on two days of the week, to the aggregate amount of 0.11 of an inch. The duration of registered bright sunshine in the week was equal to 29 per cent. of its possible duration. The recorded amount of ozone exceeded the average on Monday, Tuesday, and Saturday.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th. 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Odontological Society of Great Britain, 8 P.M. Mr. Arthur Kinsey: The German Lip Method of Teaching Deaf Mutes to Speak. Mr. Sewill will open a discussion on "Is the Chemical Theory of Caries proved?" Casual communications from Messrs. Sewill, Hilditch, Harding, Lyons, etc.

TUESDAY.—Pathological Society of London, 8.30 P.M. Drs. A. and B. G. Morison: Specimen illustrating Molluscum Contagiosum. Sir J. Fayrer: Two Cases of Liver-Abscess following Dysentery. Dr. Dickinson: Dysentery, with Abscess of Liver. Dr. Edmunds: External Hydrocephalus. Dr. Ord: Specimens of Calculi, etc. Mr. Carrington: 1. Fractured Cervical Spine; 2. Probable Fracture of Spine. Dr. Abercrombie: Extrarenal Sarcomatous Growth. Dr. Turner: Two Cases of Intestinal Obstruction. Dr. Day: Sarcoma of Kidney. Dr. Burnet: Heart with Calcareous Plates. Mr. Boyce Barrow: Heart with Stenosis of Tricuspid Valve. Mr. Shattock: Atresia of Aortic Aperture in an Infant (card); and other card specimens.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Specimens will be exhibited. The President: Case of Phlegmasia Dolens, with Lymphatic Varix. Dr. Galabin: A Case of Extra-Uterine, associated with Intra-Uterine Fœtation, in which Abdominal Section was performed. Mr. George Rigden: Statistics of Midwifery in Private Practice.—Epidemiological Society of London, 7 P.M., Council Meeting. 8 P.M., Mr. John Spear: On the Woolsorters' Disease, or Anthrax Fever.

THURSDAY.—Harveian Society of London, 8.30 P.M. Dr. John Williams: A Case of Ovariotomy during Labour. Mr. James R. Lane: Experiences of Antiseptic Surgery.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

HOMŒOPATHY.

DR. DYCE BROWN, M.A., M.D., writes to us, admitting that, in the present total divergence of medical opinion from the "homœopathic" theory and practice, consultation is useless; but he asks space in our columns for the discussion of "the truth of homœopathy in theory", as it is clear that if he succeeded in converting physicians to that doctrine, consultations would be fruitful and permissible. His view is logical; but we are, nevertheless, obliged to decline renewing any discussion on "the truth of homœopathy", being of opinion that, in respect to it, as Galen long since said, what is true is not new, and what is new is not true. That the physiological action of several medicines differs according to the dose and manner of administration is an old truth—as old as Hippocrates—of which the whole class of narcotics and stimulants offer familiar illustrations, of which more recently introduced drugs afford great examples; but from this to "homœopathy" is so far away, that we cannot undertake to assist in building the bridge which many so-called homœopathists are anxious to construct out of such materials.

J. W. M.—Croup does not appear in any of the local Acts which have been passed with reference to this question, and we should be inclined to doubt the practical utility of information with regard to it. Diphtheria stands on a different footing, and information as to all cases of it ought certainly to reach the sanitary authority.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following were the questions submitted to the one hundred and eighty-five candidates at the primary or anatomical and physiological examination for the diploma of membership of the Royal College of Surgeons, on the 22nd instant, when they were required to answer four, and not more than that number, out of the six questions. *Anatomy.*—1. Describe the Upper Third of the Femur. 2. Describe the Temporo-Maxillary Articulation, and the movements of which the Lower Jaw is capable. Mention the Muscles by which these movements are respectively effected. 3. Give the Dissection necessary to expose fully the Adductor Pollicis in the Palm of the Hand. 4. What Structures are in relation with the several portions of the Duodenum? 5. Describe the course and relations of each Phrenic Nerve. 6. Describe the Azygos Veins. Give the course, relations, and tributaries of each. *Physiology.*—1. State the changes which take place in the various Food-Stuffs while in the Mouth and Stomach. 2. Describe the minute structure of the Iris. What are its functions? Describe its innervation, and give the central connections of the Nerves supplying it. 3. Describe the structure of the smallest Arteries and the Capillaries, and the movement of the blood through them. 4. How is the act of Vomiting accomplished? By what nerve-mechanisms is it regulated? 5. State and explain the Phenomena observed after Unilateral Section of the Spinal Cord, *e.g.*, in the dorsal region. 6. What are the changes which take place in the Blood while passing through the Capillaries of the Lungs and those of Muscle?

DR. J. S. MUIR.—However improper such conduct, the Medical Council has no power to deal with it; nor has any other established medical body. It will probably bring its own punishment.

THE VALUE OF VACCINATION.

CERTAIN letters which have recently appeared in the daily papers throw an instructive light on the prophylactic value of vaccination under circumstances of great exposure to the infection of small-pox. Dr. F. Chance of Sydenham Hill, writing to the *Times*, states that, eight or nine years ago, when small-pox was very prevalent in London, an intimate friend of his was appointed surgeon to a large sailing merchant-vessel, then about to set sail for New York. Upon going on board for the first time, a very few days before her departure, the surgeon was astounded to find that the captain, in flagrant violation of all regulations, had had his son (a boy of twelve or fourteen years of age), who was suffering from confluent small-pox, and whom he was unwilling to leave behind alone in London, secretly conveyed on board the vessel. The surgeon, unwilling to denounce the captain, procured all the vaccine-lymph that he could, and revaccinated with it himself and as many of the crew as it sufficed for. Unfortunately, however, about a third or a quarter of the crew, who numbered about twenty-one men, remained unvaccinated. The boy died within two or three days of their setting sail. Of the revaccinated, two-thirds or three-fourths of the whole number, not a single one had caught the disease. But of those who, from no choice of their own, had remained unvaccinated, all, or all but one or two, caught the disease, and three died. The crew did not know the nature of the boy's illness until after some among themselves had fallen ill, the secret being kept until after the vessel had set sail.

A correspondent writing, also, to the *Daily Chronicle*, says that, some years ago, he passed through a most severe epidemic of small-pox on board-ship, his duty bringing him into the closest contact with every case that occurred; and he attributes his entire immunity from the disease to his thorough vaccination and revaccination.

VOLUNTEER SURGEONS.—In the letter of Mr. R. M. Mann in last week's JOURNAL, p. 664, column 2, third line of first paragraph, for "surgeons-major" read "surgeons".

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

HYPODERMIC SYRINGES.

SIR,—Seeing letters upon the above subject in the last two issues of the JOURNAL, I should like to offer a suggestion, if you will kindly grant me space. Mr. Jones, it appears, breaks the points of his needles against the bottle, owing to imperfect vision; as a remedy for this state of things, Mr. Hall recommends him to use a bottle with a mouth so small as only to admit the needle, but sufficiently deep to prevent the point from touching the bottom. It appears to me that the remedy is worse than the disease; for surely a man suffering from defective sight would break quite as many points in endeavouring to insert the needle into so small an orifice. The true remedy is obvious. I would recommend Mr. Jones, when about to operate, to procure that ubiquitous article, a common teaspoon; and, having poured some of the solution into its bowl, fill the syringe from it before applying the needle; supposing the instrument to be full, apply the needle by screwing it on or otherwise, as the case may be; then, turning it with the point upwards, gently **press upon the piston to expel all air, and the machine is fit for use.** By adopting this method, I am confident Mr. Jones will break no needle-points, and he will find it quite as convenient as the somewhat clumsy mode of filling from the bottle.—I am, sir, yours truly, — — A. G. YOUNG, M.B.

Mountmorris, April 16th, 1881.

SIR,—Your correspondent, Thomas Jones, will find the bayonet-pointed hypodermic syringe far more serviceable than the ordinary kind. The point is made of steel; the opening is at the side; the points of those of the ordinary make are very thin, made of soft metal, and soon give way; the steel ones are rather more costly.—I am, etc., S. H.

THE IRISH LUNACY BILL.

SIR,—Permit me to call the attention of my hospital brethren to the new monopoly with which Mr. Litton's Lunacy Bill proposes to invest dispensary doctors. Under it, these gentlemen, and none other, are to inspect out-door lunatics. For the last few years, one monopoly after another has been grasped by dispensary medical men, until they have almost shut us out of all access to practice. Is it too much to suggest to hospital men to see to this?—I am, etc., T. LAFFAN.

Cashel, April 19th, 1881.

A MEMBER, who writes on the subject of consultations, has omitted to supply his name.

COLONEL TOTTENHAM'S MOTION AND IRISH LUNATIC ASYLUMS.

SIR,—I have waited weeks and weeks for some attempt at reply to my letter of the above heading. I thought my arguments unanswerable, but I did not think that they would remain without some attempt being made to answer them. I would now suggest two things to Poor-law men: 1. To work their local M.P.'s to bring about a fusion of the two services; 2. That candidates for asylums should send copies of these letters to those officials who have the asylum-patronage at their disposal whenever vacancies occur.—I am, etc., THOMAS LAFFAN.

Cashel, April 19th, 1881.

SIR,—Will any of your readers who happen to be mental experts inform me whether they consider the following a natural or morbid phenomenon; viz., without any apparent connecting link, the association of airs or melodies with the memory of individuals.—Yours truly, CORPUS SANUM.

LEUCODERMA.

SIR,—In the JOURNAL of the 2nd April, Mr. Balmanno Squire asks this question: "Do piebald negroes or Hindoos ever cease to be piebald?" Having been in practice in the West Indies for over fifteen years, I venture to send an answer to the query: I think not.

Leucoderma, sometimes called white leprosy, is very common among Hindoos, and also the negroes, although this is questioned by Mr. Jonathan Hutchinson in his *Lectures on Clinical Surgery* (p. 33); the neck, front of chest, and the arms being the parts most frequently affected. I have hardly ever seen it in persons under thirty or forty years of age; and I believe that, once it appears, it remains as long as the patient lives; at least, I can call to mind a dozen cases who have had leucoderma for more than ten years, as well as others who have died with it. It has to be distinguished from the eruption of nerve-lepra, and both have been mistaken for a whitish pigmentary alteration common among the negroes and coloured creoles, known as latta, or leuta, which is curable by tonics and alteratives. In the *Leprosy Report of the Royal College of Physicians* (p. 18), Dr. Steventon of Montserrat erroneously refers to leuta as an early stage of the so-called anæsthetic, or the non-tuberculated lepra, with which disease it has, of course, no connection. It has occurred to me that the cases of leucoderma said to have disappeared may have been merely latta, a mistake not at all unlikely to happen.—I am, etc., JOHN D. HILLIS, F.R.C.S.I., M.K.Q.C.P., Medical Superintendent General Leper Asylum, British Guiana, West Indies.

Providence, Carlow, April 12th, 1881.

DR. A. WALLACE.—The drugs shall receive consideration before long.

PURTON SULPHATED AND BROMO-IODATED MINERAL WATER.

ACCORDING to the analyses of this water, it is relatively rich in iodine of sodium, bromide of magnesium, sulphate of soda, and sulphate of magnesia, and as such has an attested value as an alterative and depurant, especially useful in scrofulous chronic skin diseases, erratic gout and rheumatism, and other chronic disorders of the stomach, liver, and skin. It is well spoken of by Althaus, Sir Ranald Martin, Dr. Marcet, and others.

SIR,—It may amuse you, or some of your readers, to know that the anagram of "Medical Reform" is "Mere mad frolic".—Yours, M. DE B.

THE CLIMATE OF GLENGARIFF.

WE have received, from the proprietors of the Eccles Hotel, a small box of spring flowers, grown in the open air, a pleasing testimony to the mildness of Glengariff, and its suitability to those who require a warm and equable climate. Dr. Noel Gueneau de Mussy, Dr. Alfred Hudson, Sir John Forbes, and many other eminent physicians, have borne testimony to the mildness of the climate, to the sheltered position and equable temperature of Glengariff as a health resort, and its suitability to invalids suffering from pulmonary complaints. The scenery is of singular beauty; and the hotel well known for its cleanliness, comfort, and superior appointments, at this season of the year. We are by no means unwilling to say a word for a delightful health-resort in the sister isle, where the east wind may be set at defiance.

THE ACTION OF PANCREATINE UPON FAT.

SIR,—In the JOURNAL for November 27th, 1880, Dr. Dobell expresses astonishment at Dr. Roberts for casting a doubt upon the alleged power of the pancreas to emulsify fats. After admitting the uselessness of the pancreatic essences, extracts, and liquors for this purpose, he states that the "pancreatine powder of Savory and Moore, practically powdered pancreas", does possess this power. In the course of a series of investigations I have made from time to time into the alleged actions of various remedies advertised as aids to the digestive processes, I have attempted to obtain an emulsion of fat by using Savory and Moore's pancreatine powder in the manner directed in Dr. Dobell's paper already quoted; but I have, after repeated trials, entirely failed to verify his statements.—I am, etc.,

ROBERT SAUNDBY, M.D.

91, New Hall Street, Birmingham, April 2nd, 1881.

DENTAL EXAMINER.—The Committee on Examinations in Anatomy and Physiology of the Royal College of Surgeons will meet on Monday next, the 2nd proximo, to consider and report to the Council on the applications and nominations of "persons skilled in dental Surgery", Mr. S. J. A. Salter, F.R.S., having resigned.

DR. ASHWORTH (Barrow).—A short communication will be published.

INVETERATE SNEEZING.

SIR,—Would any gentleman advise me on the following somewhat obscure case? A young lady, aged about 24, suffers from paroxysms of sneezing, lasting from a few minutes to as long as two hours. She is greatly prostrated by them, and her health suffers considerably. They commenced about two years ago, when in the East Indies. The only point she can remember about their starting was the fact of her giving music-lessons to another young lady, who suffered from the same complaint, only much more slightly. The latter appears to have got rid of the complaint just as the former commenced to suffer. I have tried a great many remedies, but with only partial success. What line of treatment would be most likely to effect a permanent cure?—I am, etc., A MEMBER.

A MEMBER OF THE BRITISH MEDICAL ASSOCIATION.—The crematory furnace built by the council and members of the Cremation Society of England, stands upon an acre of ground in St. John's parish, Woking. The ground has been inclosed, and planted; but the mortuary chapel has not yet been built, owing to want of further funds. The furnace is complete, but is not open to the public, pending the result of present arrangements with the Government. Plans of this English and other foreign crematories, prepared by the Honorary Secretary, Mr. Wm. Eassie, C.E., 11, Argyll Street, London, W., will be found in the *Transactions* of the Society, published by Messrs. Smith, Elder, and Co., 15, Waterloo Place, London, S.W.

ERRATUM.—In the JOURNAL of April 16th, page 593, column 2, line 10 from bottom, for "trephined" read "re-opened".

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. J. W. Langmore, London; Dr. Laffan, Cashel; Dr. Murrell, London; Mr. C. H. Phillips, Hanley; Mr. Thornton, London: Dr. W. R. Thomas, Sheffield; Dr. Roper, London; Mr. E. Willoughby, London; Mr. G. Mahomed, Bournemouth; Mr. W. J. C. Miller, London; Messrs. F. Edwards and Son, London; Mr. W. H. Watson, Bolton; Messrs. F. Newbery and Son, London; Dr. T. M. Dolan, Halifax; Dr. D. Browne, London; Mr. T. P. Harvey, St. Leonard's-on-Sea; Mr. A. Hirschwald, Berlin; Dr. Sawyer, Birmingham; Mr. G. Eastes, London; Mr. S. B. Mason, Pontypool; Mr. W. G. Vassie, London; Dr. W. Kelly, Taunton; Dr. Donkin, London; Dr. H. M. Sackwell, Oxford; Mr. A. F. McGill, Leeds; Dr. A. Davidson, Liverpool; Dr. Godson, London; Dr. R. Sinclair, Dundee; Our Dublin Correspondent; Mr. Shirley Murphy, London; Mr. G. P. Field, London; Dr. T. M. Lownds, Egham; Mr. J. Ewens, Bristol; Mr. T. B. Green, Sedbergh; Dr. F. J. Sandford, Market Drayton; Mr. R. S. Fowler, Bath; Our Edinburgh Correspondent; Mr. T. Leeds, Balham; Mr. T. Jones, London; Mr. P. H. Banks, Leicester; Mr. Hamilton Mitchell, Londonderry; Mr. Francis Vacher, Birkenhead; Dr. W. H. Barlow, Manchester; Mr. R. W. Egan, Dublin; Dr. Churton, Leeds; Mr. Jenkin Lloyd, Denbigh; Dr. G. H. Dabbs, Shanklin; Dr. Glascott, Manchester; Mr. R. Manners Mann, Manchester; Dr. W. Boyd Mushet, New Brighton; A Member; Mr. David Skinner, Victoria; Mr. Joseph Lewis, Birmingham; Dr. W. M. Campbell, Liverpool; Dr. J. Milner Fothergill, London; Mr. Henry Brown, Northallerton; Rus; Mr. R. Harrison, Liverpool; A Member of the Metropolitan Counties Branch of the British Medical Association; Mr. C. G. Wheelhouse, Leeds; Mr. T. W. Reid, Canterbury; Dr. Brett, Watford; Our Aberdeen Correspondent; Mr. H. C. Clark, Glasgow; Mr. John Horsfall, Leeds; Dr. Corfield, London; Messrs. Fletcher and Fletcher, London; Mr. Lennox Browne, London; Dr. John Mitchell, Barnard Castle; Mr. W. Arnison Slater, London: Mr. A. Hamilton, Chester; Mr. J. Henry Ashworth, Lincoln; Dr. A. H. Robinson, Hull; etc.

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THE LUMLEIAN LECTURES
ON
BRIGHT'S DISEASE.

Delivered before the College of Physicians.

By REGINALD SOUTHEY, M.D.Oxon., F.R.C.P.,
Physician and Lecturer on Clinical and Forensic Medicine at St. Bartholomew's Hospital.

Lecture III.—Part II.

The Hypertrophy of the Heart in Bright's Disease.

Bamberger's statistics show that hypertrophy of the heart was encountered by him in 344 out of 807 cases of primary Bright's disease, or in 42.6 per cent. He does not tell us that he excluded amyloid cases from the category; and, from his figures alone and our own experience, we should infer that the proportional occurrence of this complication would have appeared higher if he had done so.

The special form of the hypertrophy, and its incidence and relative occurrence in different stages or forms of the disease, are shown by the following table.

Form of Bright's Disease.	Excentric Hypertrophy of whole Heart.	Excentric Hypertrophy of Left Ventricle.	Simple Hypertrophy of whole Heart.	Simple Hypertrophy of Left Ventricle.	Dilatation of whole Heart.	Dilatation of Left Ventricle.	Totals.
Acute.....	3	4	2	2	4	0	15
Chronic....	51	33	3	24	5	1	122
Atrophic....	88	65	6	33	7	2	207
Totals ..	142	107	11	63	16	3	344

It will be perceived that, in 41 per cent. of the entire cases of excentric hypertrophy, both sides of the heart were affected; but Bamberger informs us that in 48 out of these 142—one-third, that is, of the cases—notable emphysema of the lungs existed to help to explain it. Excentric hypertrophy of the left ventricle alone befel 31 per cent. of all the cases. Why both sides of the heart should undergo muscular hypertrophy, when it is pleaded that the left ventricle only has an extra task to fulfil, is not at first very apparent. Pulmonary obstacle doubtless is the chief explanation of hypertrophy of the right heart; and emphysema and bronchitis and pleuritic mischief are the commonest incidents to the history of Bright's disease. More than this, however, may be said upon the subject. My own experience teaches me that the cases in which the renal disease has lasted longest, and has been longest maintained at a period of standstill at comparative health, are those in which both sides of the heart have been most hypertrophied; and I am, therefore, inclined to explain the occurrence upon gradual establishment of the hypernutritive changes in the heart's structure, which would affect both sets of chambers pretty uniformly. The theories which have been broached to explain this hypertrophy offer no inconsiderable interest.

Dr. Bright's Theory.—The altered state of the blood (he means its impurification, not its hydræmia) exerts an unwonted stimulus upon the muscle of the heart; and it also offers an obstacle to the easy transit of the blood through the smaller blood-vessels, and therefore compels greater exertion upon the left ventricle to effect its circulation. Nothing, apparently, could be clearer than this explanation; but it fails to grapple with many of the facts of which later observations upon the disease have informed us.

This hypertrophy of the heart, as Bright correctly noticed, especially occurred with the contracted and indurated kidney. Later observations have proved that, in this particular form, excess of water passes through the system; and the task of urinary depuration is effected in a method unusual to what it occurs in healthy bodies; the kidneys requiring flushing through with much more than normal water, to enable them to carry off the requisite solids and effete materials. Still they do so; for the blood is maintained pure as in health. So long as the heart works well, what remains of the kidney fulfils the whole task; and not merely is there no diminution of the excretion of urea *per diem* according to the individual's mean average allowance, estimated by weight and nutriment, but what occurs is that actually sometimes the excretion is in excess of what is normal. Dr. Grainger Stewart, at page 218 of his work, in his chapter on Atrophic Kidney, relates such a case. "The amount of urea excreted", he writes, "was nearly as high as the maximum of the tables given by Dr. Parkes." The same fact is well brought out by Bartels's observations; so that, when no maintained impurity of the blood can be assumed to have existed, to have stimulated the heart or obstructed the passage of the blood through the vessels, the greatest amount of hypertrophy is found to exist. Further, against the theory of impurity of the blood, which must be vouchsafed to exist in other forms of Bright's disease indisputably associated with an impure blood, stands the fact that, in many other acute and chronic diseases besides Bright's disease, the blood is very impure, or maintained abnormal, and yet these do not bring about hypertrophy of the heart.

Traube's Theory.—Traube offered a double explanation. First, he attributed the hypertrophy to obstruction of the peripheral circulation at one spot—the kidneys themselves—and excess of water in the blood. He urges the impermeability and destruction of so many blood-vessels as takes place in renal disease as the obstacle offered to the blood-passage; and that, like the shutting of a sluice-gate upon a stream, this obstruction must lead to increased pressure upon the channels and banks above it, and especially to the accumulation of excess of water in the blood, since this cannot run off. According to him, the order of events runs thus: obstructed circulation, increased arterial tension, supplemented or not by abnormal hydræmia, lead to dilatation and hypertrophy of the heart. He places, as Bartels writes, "the consequences of renal contraction in the same category with the results which valvular deficiency of the mitral valve and certain diseases of the lung indisputably exert upon the right chamber of the heart."

We cannot enter at this time and in this place into the relative merits of the objectors, upon one score or another, to Traube's theory. It has received and deserved ample discussion at the hands of Bamberger and von Buhl most recently; and by Campana, Erichson, Ewald, Gull and Sutton, Lebert, Rosenstein, Schrötter, and Senator, in the last few years.

The matter is summed up by Bamberger (*loc. cit.*, p. 1554) with great justice. He writes that in its totality it is untenable on three grounds. 1. This hypertrophy by no means accompanies the kidney which presents greatest destruction of its vascular channels, to the exclusion of all other forms of Bright's disease. 2. It occurs when there can be no question of any obstacle to the amount of the circulation through the kidney; for injection-fluids pass readily enough, as in the small contracted kidney they undoubtedly do. 3. Mere obstruction to the passage of the blood will not suffice to explain it, either situated at the Malpighian tufts, because this is quickly remedied by collateral blood-direction in the kidney itself through the arteriolæ rectæ; or placed anywhere else in the body by tying an artery, because of the ample room offered to collateral blood-flux. Cutting off a limb, which is surely suppression of a large vascular area, will not produce it; and, as Rosenstein showed, a dog, one of whose kidneys was removed, presented, many months afterwards, no hypertrophy of the heart. 4. Traube's theory, if it throw any light upon the hypertrophy of the left heart, throws none upon the hypertrophy of the right heart that frequently accompanies it.

Dr. G. Johnson's Theory, in his early writings, was very much the same as Bright's—impurity of the blood; but later on he referred the hypertrophy of the heart to the alterations that were brought about throughout the arterioles generally; their stopcock action stimulated by the noxious fluid in the blood; their hypertrophy; and the greater and greater resistance which they come to offer to the passage of the blood. (*Med.-Chir. Trans.*, vol. li, 1858, p. 60.) According to him, a noxious quality of blood is so disagreeable to the capillaries, that they, through the nervous system, urge the arterioles to forbid its passage. Incapable of saying "No" themselves to it, they bid the regulators of the blood-supply—the arterioles—resist it; and this resistance stirs or works up the left ventricle to pump with redoubled vigour. Let us, however, quote Dr. Johnson's own words. At p. 61, he writes: "In proportion to the destruction of the renal gland-cells, and the consequent diminution of the secretory power of the kidney, there is less demand for blood to be acted upon by the gland; the small arteries consequently contract upon their contents so as to maintain the balance between the blood-supply and the diminished secretory action of the kidney. This continued overaction of the small arteries in antagonism to the heart results in hypertrophy of their muscular walls." Again, p. 65: "Action and reaction are equal; force must be met by an equivalent amount of force; and we shall probably find that the greater the hypertrophy of the left ventricle of the heart, the greater and the more general is the hypertrophy of the arterial walls in various tissues and organs throughout the body." At p. 62, he states:

"Although the muscular walls of the arteries are hypertrophied in the advanced stages of all forms of Bright's disease, the purest specimens of hypertrophy are found in the small granular kidneys." And here, as he truly remarks, there is least impediment to the circulation through the kidney itself.

His theory, then, places the cause of the hypertrophy of the heart in the hypertrophy and resistance offered by the general systemic arteries, not by those of the kidney alone. But, as may be seen by reference to what we have already quoted in discussing the hypertrophy of the coats of the arterioles, Dr. Johnson had already constituted the hypertrophy of the heart the cause of the hypertrophy of the arterioles. But surely it is more likely, or at least as likely, that the hypertrophy of the heart is provoked by increase of blood-tension independently of spasm of the arterioles; and that the alteration in these small arteries is, as it obviously is in aortic regurgitant disease, secondary to the hypertrophy of the heart; and, as Bamberger justly objects, it fails to throw any light on the hypertrophy of the right heart.

Von Buhl's theory (*Mittheilungen aus der Pathol. Institut. in München*, 1878) is that the affection of the heart is due to an inflammatory process taking place in the heart, and stimulating it to overaction. He thinks that the granular kidney and the hypertrophy of the heart occur coincidently, but wholly independently of each other, and own some common source of origin, and that this is some subacute wide-spread inflammatory action. He found evidence of such past inflammatory changes in the endocardium or the valves, in the heart's muscular substance, and in the pericardium, in 65.7 per cent. of all cases of granular atrophy of the kidney. He also found relative constriction of the aorta, or an abnormal ratio between the circumference of the aorta and the length of the left ventricle, which he regarded an accessory stimulator of the hypertrophy of the heart. But then he leaves wholly unexplained a great many cases of hypertrophy of the heart, in which he can find no traces of past inflammatory action, and refers them to fatty degeneration.

Sir W. W. Gull and Dr. Sutton's theory refers the hypertrophy of the heart to a change in the blood-vessels of the heart itself, similar to that which they observed and described as occurring in various parts of the body, their arterio-capillary fibrosis; a change which, occurring in the kidney, led to granular atrophy; in the dura mater, brain, and spinal cord, to various manifestations of sclerosis. Their publication appeared before that of Von Buhl, and perhaps suggested in some measure the lines of his inquiries and the opinions at which he arrived. It certainly serves to explain the occasional hypertrophy of both sides of the heart, and many of the wide-spread pathological lesions, bronchitic, pneumonic, hepatic, and cerebro-spinal symptoms and complications sometimes manifested. Further, that a wide-spread increase of nuclear interstitial tissue in the capillary meshwork is one of the most manifest pathological changes that occur in chronic Bright's disease, and especially in the very chronic forms of atrophied kidney, we can entirely confirm by our own experience, and prove by abundant microscopical specimens in our possession. But, at the same time, we are bound to state our conviction that the muscular hypertrophy of the arterioles is an equally well-established fact, which Gull and Sutton cannot be supposed to have either overlooked or denied, and is a matter wholly independent of the thickening of the capillaries and of the external tunic of the artery, which it usually, but not invariably, attends. Why it was not more prominently alluded to by them, we cannot tell. But we have seen marked thickening of the capillary walls in the kidney when little or no noticeable hypertrophy of the muscular coat of the arterioles existed in chronic renal disease, and believe it, therefore, to be the most important factor in the production of the increased blood-pressure and hypertrophy of the heart; in saying which it must be observed that we hold Ewald's views, and had done so for some time, quite independently of having read them. Ewald thus propounds his opinion in Virchow's *Archiv*, Band lxxi, p. 453. 1. In point of events (and in causation), he believes in the existence of the kidney-affection; 2. The blood-deterioration ensues; 3. The altered blood, he says, offers an obstacle to the capillary circulation everywhere. And we may digress for a moment to dilate upon the nature of this obstacle more than Ewald does. The impure blood fails to favour the circulation as purer blood would and does; the nutritional changes, which doubtless are in health a blood-moving force, take place less easily and less perfectly when the capillaries are thickened and their walls hypertrophied from chronic inflammation, first in the kidney itself, later on, however, through the capillaries in various parts of the body in which the current would run sluggishly—because the blood is impure—if it were not driven onwards by greater pressure *à tergo* by the heart; and still, as life is prolonged, the capillaries far and wide suffer in their nutrition, and thicken interstitially as the blood becomes more impure (just as they do in any passive hyperæmia), until, as Ewald continues, the fourth stage is reached, when the general arterial tension is increased and maintained by a compensative hypertrophy of the left heart; next, and sixthly, he says the right heart becomes hypertrophied; and, seventhly, the arterioles generally; all in the same endeavour striving to push the blood forwards through the capillaries.

Without feeling so sure as he is upon the later events, which are of minor importance so long as the great primary ones are placed rightly, we may pause to dwell a moment here to insist upon what Bartels and Cohnheim have ably advocated, the truly compensative, not degenerative, nature of the hypertrophy of the heart and muscular wall of the artery. The best evidence of this is to be derived from observation: first, of the pulse when its tension is at its best marked, when, as Galabin describes it by a sphygmographic tracing, the pulse-wave is bold, and high-peaked, and square-topped, like a heavy Atlantic swell after a storm, an event which takes place before the walls of the artery are much hypertrophied. This secondary hypertrophy of the arterial walls has corresponded, in our experience, with the surely sooner or later commencing cardiac degeneration. This stage of increased blood-tension is that during which the heart is vigorous, and when, in the granular atrophy, the patient passes excess of urinary water, and urea enough for ordinary purposes, with albumen in small quantity occasionally, and always most after overexertion. In cases of chronic hæmorrhagic nephritis, we find the same hypertrophy, and a pulse of high tension, but not so high; here, too, the albumen varies in amount with the blood-pressure, and is less, just as the urine is more copious, when this is maintained high.

Ewald found that in every case of interstitial nephritis (kidney-cirrhosis), the arteries were hypertrophied as well as the heart; that, in the mixed forms of kidney-disease—interstitial and parenchymatous (or, as we should prefer to call them, more chronic forms of hæmorrhagic nephritis, mottled kidneys becoming granular, etc.), two-thirds of the cases presented hypertrophy of the heart and of the walls of the vessels, while one-third presented hypertrophy of the heart only; whereas, in the pure parenchymatous cases—*i. e.*, the most acute forms of nephritis (those with smallest discharge of urine and greatest dropsy, and shortest course), the heart was only found hypertrophied to the extent of about thirty-three per cent., and the arterioles were not affected at all.

Bamberger's theory is that an increased quantity of blood or heavier column of fluid in the systemic circulation, caused by a perpetually maintained excess of water in the blood, and itself due to the kidney-disease, is the source of increased blood-pressure. This increased blood-pressure must have one of three results—dropsy, dilatation of the heart, or hypertrophy. The argument stands thus: normally, as after drinking, the passage of excess of water into the blood raises the blood-tension in the systemic vessels; when, presto! open fly the flood-gates of the kidneys, and out flows the excess of water; but if its passage outwards be partially obstructed, the pressure must tell backwards everywhere upon the systemic capillaries, and will show itself earliest and most of all by anasarca in those parts where the capillaries are least supported by muscular fibres and the connective tissue is loosest; such local anasarca temporarily relieves the circulatory channels.

Now, if the individual be in a state of bad or impaired general nutrition, or of lax fibre, or the subject of other tissue-wasting disease, like phthisis, the heart and blood-channels yield to the increased pressure forced upon them, and dilate; whereas, if the subject be otherwise vigorous, and his digestion well maintained, and the increased strain not too suddenly forced upon his vascular system, hypertrophy of the muscular walls of the heart and of the arterioles follows. Next, a *circulus vitiosus* is reached by habit; the heart and blood-vessels have had their channels enlarged; they hold more than was their wont; neither can they ever go back again to normal dimensions. The water-balance in the system is conformed to a different standard, in which the blood always presents a larger than normal water-content. Thirst is habitual; there are an abnormal absorption, an abnormal maintenance, and an abnormal excretion of water. Increased pressure in the arterial, and increased quantity of fluid in the general circulatory channels, soon shows itself, however, in the veins also, by dilatation of these; and at length by dilatation and hypertrophy of the right side of the heart, as well as of the left.

As we have already said, simple dilatation of the heart only can ensue in the presence of bad general nutrition, or of local difficulties in the condition of the heart itself, such as degeneration of its coronary arteries, damaged valves, adherent pericardium. But, apart from these, and an amyloid state of the blood-vessels, which facilitates, as Bartels says, anasarca, and so obviates blood-pressure, the natural consequence of an increase in the blood-mass is, for the channels to dilate, and the heart to hypertrophy and dilate, exhibiting excentric or simple hypertrophy.

Now, in granular contracting kidney, as Virchow and Thoma have more recently shown, certain remarkable alterations in the circulation through the kidney itself take place in the course and progress of the disease; and I may quote myself, for the fact is one I stated years ago, in 1865. First, as the blood's passage through so many Malpighian tufts is impeded by their wasting and gradual extinction, the topmost cortical layers become less vascular, the vasa ascendentia dwindle at their tops, and the direct branches to the arteriolæ rectæ enlarge, by collateral blood-flux; and further, in many instances, especially in those larger Malpighian bodies, those placed nearest to the vasa recta, the vas afferens, can be seen passing straight on into the vas efferens, without capillarising in the glomerule at all, and the circumtubular networks here become dilated and highly blood-filled. This is the stage in which the heart is highly hypertrophied, and is a well-nourished muscle, with no trace of degeneration attaching to it; when the kidney is red and highly vascular, the blood-passage through it is short, the blood-current swift; and when the secretion of urine is very little abnormal, except in quantity, which is notably increased, and in specific gravity, which is preternaturally low. This is the stage of thirst and polyuria.

But, later on, the blood-mass sinks again, the kidneys' power of excretion gains upon the body's faculty of absorbing, or the blood's power of maintaining, so much water; then, as the blood-pressure subsides, the dilating cause disappears, the dilatation of the heart's cavities diminishes, but the hypertrophy does not stand still, it only becomes more concentric.

Then if we follow the life-history of the case of granular kidney further, we find that the impurity of the blood increases as the discharge of urine diminishes, the capillary obstacles from impeded nutritional peripheral interchanges increase, the friction is greater, and the heart has a harder and harder burden cast upon it, while its own nutrition is inadequately provided for; it degenerates, becomes unequal to drive the blood on, and the end comes quickly by uræmic symptoms or lung-œdema, or apoplexy.

Bamberger's theory is, as he admits, a modified Traube's theory; and it must be allowed to be the only one, except Von Buhl's and Gull and Sutton's, which at all faces the facts, and endeavours to explain the hypertrophy of both sides of the heart.

This historical sketch and critical review must end; and we must pronounce a judgment upon the evidence before us. The witnesses have been heard; the way in which they gave their evidence has been commented on with a bold hand; I trust, however, never with an impertinent one.

Bright's disease remains for us, at present, a good term under which to group together and study several very important clinical phenomena intimately connected with, and dependent on, some variously marked forms of inflammatory degenerations of the kidney, all of which still possess something in common. The symptoms entailed are mainly the consequence of a local disease.

We are unable to accept Gull and Sutton's idea, that interstitial atrophic kidney is a form so separate by its histology, or by the order of its secondary events, or by the intrinsic nature of its complications, as to justify us in constituting it a wholly distinct disease.

Arterio-capillary fibrosis appears to us a change wholly apart from senile degeneration, and from atheroma; it is a most real change, separate from the muscular hypertrophy which usually accompanies it, and involving the entire thickness of the capillaries and the walls of the small arterioles. Essentially, it is a chronic irritative or inflammatory change; it is the cause, perhaps, wholly of one form of renal degeneration; but it occurs in more or less degree in all. It is a change far more widely spread throughout the body than was at first suspected; it has a most important bearing upon those so-called accidents, secondary serous inflammations, liver-cirrhosis, lung-œdema, pneumonia, meningitis, cerebral and spinal complications, which were thought formerly to be due to the irritament of an impure blood. Its recognition is a great step in advance, and one which will, in due time, be appreciated; but it is still probably a part only of the whole truth, which subtends the wide subject of chronic inflammation. But we still reserve our opinion that Bright's disease is a real entity, and that, while granular atrophy may be a consequence of this in its most gradual and complete degree, it is the renal disease which gives the characteristic features to the wide-spread general phenomena.

Bright's disease may be primary or secondary, acute or chronic; its consequences are best followed by recollecting what the functions of the kidneys are, and what their non-fulfilment must effect. These are, primarily, to maintain the blood at a proper specific gravity, by removing excess of water and excess of salts from it, as well as special nitrogenous excreta. The duty of the kidney is to regulate the quantity, as well as the quality, of the blood—a matter sometimes lost sight of. If the blood-fluid be allowed, at any time, to swell like a flood, either dropsy, the transudation of its more watery part, must take place, or the blood-channels must dilate. If excess of salts accumulate in the blood, the specific gravity or weight of the blood-column must rise, and increase the friction through the capillaries; it comes, then, to strain first the channels in which it is confined, the chambers of the heart, and the blood-vessels, and to tax unduly the pump-power of the heart, and the muscular walls of the arteries. If nitrogenous excreta cannot escape by the kidneys, they accumulate in the blood, or must make a way out for themselves by vicarious channels; maintained in the blood, they interfere with the chemical nutritive changes, perhaps effect that general lowering of the body-temperature which is characteristic of the uræmic state; making their passage out by the intestines, skin, or serous membranes, they surely, sooner or later, provoke inflammatory changes. Just in so far as Bright's disease is held to comprehend all these phenomena of suddenly or gradually abrogated renal functions, we hold it to be an useful name.

But as to treatment, we fancy we hear some exclaim, Are you going to tell us nothing? In very truth, we can compress no more into our time. The treatment of disease is wisely pursued by those only who possess an accurate knowledge of it; and to an increase of this our entire efforts have been directed. It remains only for me to thank my audience for their attention.

ABSTRACT OF A CLINICAL LECTURE
ON
TWO CASES OF APEX-PNEUMONIA.

Delivered at the Middlesex Hospital.

By R. DOUGLAS POWELL, M.D., F.R.C.P.,
Physician to the Hospital and to the Brompton Consumption Hospital.

THERE have been recently, in the Hertford ward, two cases of acute pneumonia of the upper lobe of the lung, one terminating in recovery, the other in death. In this respect, the cases were typical, for in a large proportion of cases of apex-pneumonia in the adult, a fatal result ensues. Again, in one of the cases, delirium tremens was present as a complication; and in the other case, there was a decided history of alcoholic intemperance. In these respects, again, the cases were typical; for intemperance is the frequent precursor of apex-pneumonia.

CASE I.—An ex-soldier, aged 35, of very intemperate habits and bad character, marked on the left chest with a D, was admitted on December 30th, with the symptoms of an acute febrile disorder of undetermined kind. He had been feeling ill about a week; and five days before admission, had had several rigors, followed by cough, pain in the side, and vomiting of a greenish fluid. On admission, his temperature was 101.2°, pulse 120, respiration somewhat accelerated. He could give no further account of himself, save that he had, some years ago, had jungle fever and dysentery in India, and had lately been subject to chronic rheumatism. No definite physical signs could be discovered. The chest was symmetrical, with generally increased resonance; a few bronchial *râles* were apparent over the right base. The heart's apex was somewhat unduly covered, and its sounds muffled by intervening lung. There was no abdominal tenderness or enlargement. The tongue was coated with a white dryish fur; the breath offensive; and bowels confined. Towards the latter part of the day, the patient complained of chilliness, and the temperature rose to 105.2°; the pulse being quick and full, regular, and not compressible. The cough was now troublesome, and productive of a small quantity of sticky rust-coloured sputa. Cold compresses were applied to the chest, and a simple saline expectorant ordered. During the next day, the temperature, taken every four hours, ranged between 105° and 103°.

On January 1st (seventh day of illness), the sputa were more abundant and more stained; and in the upper scapular region in the right side, some fine crepitant *râles* were heard during inspiration, and some imperfect percussion dulness could be here elicited. Later in the day, the breath-sounds became tubular in character over this area, and similar inspiratory crepitus was audible below the clavicle, but there was here no dulness on percussion. The temperature through this day had ranged lower—between 103° and 101°—and the pulse 108.

On January 2nd, the temperature fell to 98.6°, rising towards mid-day to 101.4°; pulse 92.

On the 3rd, there was marked percussion-dulness, both in front and behind, over the upper third of the right lung, with tubular breath-

sounds and crepitant *râles*, not limited to inspiration. The patient had not slept well since admission; the features were peculiarly haggard and careworn, and towards mid-day he showed decided symptoms of commencing delirium tremens—suspicious that food and medicine contained poison, and of people being under the bed, etc. Five grains of calomel were administered with some difficulty, and an ounce of brandy was ordered every hour for three hours, to be continued in half-ounce doses every hour. Evening temperature 103°.

During the next three days, the temperature ranged between 103° and 100°; the pulse 88 to 100; respirations about 40; the cough remained troublesome; the expectoration becoming more purulent and less rusty. Delirium of the same character continued.

On the 5th, the dulness above the third rib had much diminished, and coarse subcrepitant *râles* accompanied imperfect bronchial breathing. The dulness had extended, however, below the third rib to the base and into the axilla, with pneumonie crepitus. The tongue was dry and cracked. Delirium was persistent.

On the 6th, the dulness over the lower right front was absolute. A draught of bromide of potassium and chloral procured sleep; and next day the patient was better. Temperature 100°, 98°, and 101°; pulse 72 to 84, regular. The percussion-note above the nipple was more pulmonary in quality; while, below nipple, it was high-pitched, somewhat tympanitic, with returning breath-sound and coarse crepitation.

On the 9th, the temperature was 98° to 100°; the tongue was moist, but coated. The patient was quiet, and taking eggs beaten up, milk, and beef-tea in small quantities. He was still delirious, but much less so. The brandy was changed for four pints of stout.

January 11th. Temperature 98.2°; pulse 84. The temperature still went up a little towards the evening. Iron and quinine mixture was ordered, and cod-liver oil twice a day. The patient was rational, and slept well. The chest-signs were almost clear.

On the 12th and 13th, it was observed that crepitant sounds had returned in the right supraspinous region, the cough became more troublesome, and the expectoration tinged with blood; and on the 15th, there was a return of dulness below the right nipple, with high-pitched prolonged expiration. Some subcrepitant *râles*, and a few bronchial sounds, were scattered over the right front. *The temperature, nevertheless, did not rise, and the pulse remained quiet as before*, and, accordingly, the oil and steel medicines were continued, with the addition of twenty minims of liquor ergotæ to each dose of the mixture. The stout was diminished to two pints. On the 15th, some epispastic solution was applied below the right nipple. From this time, the temperature remained normal, the pulmonary signs cleared, and the patient improved. He was discharged on February 3rd, the beer having been gradually reduced to *nil*.

REMARKS.—1. The first point for remark in this case is the stormy onset of the disease, with rigors and high temperature preceding local signs by several days. In fact, auscultatory signs were not detected until the eighth day from the rigors, and had not developed sufficiently for confident diagnosis (save for the coexistence of characteristic sputa) until the following day. It took two or three days more for the local phenomena to become fully developed; and, meanwhile, the severity of the pyrexia had passed, and resolution was already commencing at the part first affected. This is only an exaggerated degree of what is typical of the pyrexia of pneumonia. The fever precedes the local signs, lasts through the stage of active hyperæmia, and terminates with that of exudation. With the complete consolidation of the affected lung, the disease—pneumonia—is at an end; but the patient has yet to get rid of the products of that disease—exuded lymph and corpuscles—occupying the recesses of his lung. This is accomplished mainly by a process of rapid fatty degeneration and emulsification of the exudation, which is subsequently in part expectorated as "purulent" sputa, but in greater part absorbed by the lymphatics of the alveoli. During this process of secondary liquefaction and reabsorption, we get fine bubbling sounds, varying greatly in amount in different cases (redux crepitation), with increasing penetration of air; the signs of resolution usually first appearing at the portion of lung first attacked. In some cases there may be remarked, whilst resolution is in full progress, a secondary rise of temperature, of undulatory hectic type, accompanied by daily chills. These secondary febrile symptoms, which may alarm the inexperienced, and always need attention, are, I believe, due to the absorption of inflammatory products—a process of reparative pathology of a very suggestive kind; and in cases in which I have seen them, complete recovery has ensued. The occurrence of this secondary fever in certain cases of pneumonia has escaped general attention, although Dr. Parkes, in a clinical lecture on Acute Pneumonia, published in the *Medical Times and Gazette* for February 1860, observes that the blood may become contaminated by the softening exudation "to such an extent as to lead to a renewal or increase of the fever, etc." I need not point out the necessity of complete rest being strictly enjoined during so critical a process.

2. In this case, the pneumonia was complicated by delirium tremens. On the other hand, as pointed out by Dr. Anstie, delirium tremens is frequently complicated by pneumonia of a most insidious and fatal kind. In all cases of such delirium, then, look well to the lungs, and examine not only the bases, but the apices also.

3. This man recovered. His good heart (in the physiological sense) and steady pulse carried him through. Apex-pneumonia occurring, as it commonly does, in drunkards, is, nevertheless, a very fatal disease, terminating often in gangrene or in suppuration of the lung. Note that the pulse was not hurried by the free administration of alcoholic stimulants.

4. We observed, during the convalescence of this patient, fleeting signs of fresh congestion about the diseased lung, and at one point a renewal of the consolidation; these signs being accompanied by increased cough, and even stained sputa, but *unattended by any accession of temperature or increased rapidity of pulse*. We attributed these signs—I believe correctly—to want of tone of the small vessels: a common result of past inflammation in all tissues. The thermometer and pulse here guided us in treatment, and corrected, as they often do correct, the otherwise misleading discoveries of the stethoscope. In this condition, recumbency must still be insisted upon; but iron, with ergot or digitalis, are indicated rather than a continuance of expectorants or salines. It would be easy, with careless or improper treatment, to allow such signs to pass on to those of permanent catarrhal changes and phthisis.

Case II.—This patient, when admitted on the fifth day of disease, was almost moribund, with muttering delirium, venous mottling of the surface, rapid pulse and breathing, and dry typhoid tongue. The physical signs of pneumonia—dulness, tubular breath-sound, and crepitation—were well marked over the upper half of the right lung. The temperature ranged from 105° to 106°; and he died early the next morning. The *post mortem* examination showed characteristic grey hepatisation, limited to the upper half of the right lung, with general hyperæmia and œdema of both lungs. The kidneys were not sound, and some urine removed from the bladder was found to contain albumen. The man had been a free drinker.

1. Some sections I have here from the lung show the disease to be identical with ordinary basicpneumonia in this case, as presumably it was in the former. Apex-pneumonia, however, not uncommonly supervenes upon some already existing, although unobserved, disease at that part. In such cases, there is usually a history of preceding cough, and perhaps hæmoptysis. In the course of phthisis, croupous or exudative pneumonia not unfrequently complicates the catarrhal alveolitis, which is more characteristic of that disease, and we thus get a mixed product and modified clinical phenomena.

2. On observing in the dead-house, and in these sections, the hepatised lung practically impermeable to air, and on recalling the distinctness with which the tubular breath-sounds were heard during life, it may occur to some of you that the usually received explanation of bronchial breathing can hardly be accepted as valid. It is impossible to conceive any audible to-and-fro current of air to have been present in bronchial channels whose territory is so completely blocked. Ever since the time of Laennec, some auscultators have held that many of the sounds heard over the chest are but conducted from the glottis. I shall hope later to refer again to this point; but—to put it briefly—I believe that all morbid breath-sounds, excluding *râles*, and with a few exceptions, are conducted glottic breath-sounds. I only now wish you to contrast in your minds the two facts present in this case, viz., the bronchial breath-sound, and the stuffed lung.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—The directors of the society held their usual quarterly meeting on Wednesday, April 13th, at 5 P.M. Dr. Pitman, V.P., was in the chair. Applications for relief were read from fifty-nine widows, fourteen orphans, and four recipients of grants from the Copeland Fund. A sum of £1,250 was recommended to be distributed at the next quarterly court, should the visitors report favourably on the cases. There were no fresh candidates for membership or for relief. The death of one member was reported. It was resolved to advertise once a quarter in the medical journals, with the desire of making the society better known. Dr. Semple, Dr. Self, Dr. Cumberbatch, Dr. Augustus Brown, Mr. Spencer Watson, and Mr. Vally, were the members selected to fill the annual vacancies in the directorship. The annual general meeting was fixed to be held on May 18th, at 5 P.M.

ABSTRACT OF LECTURES ON THE ANATOMY, PHYSIOLOGY, AND ZOOLOGY OF THE CETACEA.

Delivered at the Royal College of Surgeons of England.

By W. H. FLOWER, F.R.S., LL.D.,
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Lecture III.

The largest of all known whales is *Balænoptera Sibbaldii*, which attains the great size of about eighty feet. This is probably the extreme length to which it grows, though greatly exaggerated accounts of its length are often given by travellers and others; but, in those cases, the measurements invariably turn out to have been made only approximately, being frequently estimated in relation to surrounding objects, or in relation to the size of the ship, in instances where the animal has been captured. The exaggerated accounts regarding size holds good not only of this animal, but of many, and indeed all, the large whales. It is a curious fact that in recent times whales have continued to increase in size; none of the extinct species are so large as those which now inhabit the seas. In this respect, they form a marked contrast to many other animals—such, for example, as the amphibia, reptilia, sloths, and birds—the extinct forms of some of which are of enormous size compared with that of those still inhabiting the globe.

The conformation of the parts of the skull about the olfactory region, in *Balænoptera rostrata* and in all the whalebone-whales, is markedly different from what is found in the toothed whales. In the former, there is an immense mass of very cancellous bone, situated between the nasal passage and the brain-cavity, in the centre of which is a distinct olfactory plate; from this a canal extends to the brain-cavity for the passage of the olfactory nerve from the brain to the surface of the plate. This arrangement is absent in the toothed whales. The whalebone-whales are probably able to smell the air they breathe, as it passes into their lungs; though, on account of the olfactory apparatus being feebly developed in these animals, they probably appreciate odours to a less extent than man and many other animals. The cervical region is very short, and there is little or no movement between the individual vertebræ, which may be entirely or partially ankylosed. The bodies of the vertebræ are very thin. The odontoid bone is absent or rudimentary. In the *Balænoptera*, the vertebræ are separate; the atlas is simple, with a small spine. The axis has no odontoid projecting upwards from its body, though the flat smooth portion on the upper surface, to which the check ligaments are attached, is essentially a rudimentary odontoid, as Professor Macalister of Dublin has been able to show from a study of the development of the bone. It has a distinct centre of ossification, and is at an early period separate from the centrum, but soon becomes ankylosed to it. The ossification of the transverse processes takes place from the body outwards. Each transverse process consists of two separate branches in the first instance—the parapophysis and the diapophysis. These are united only at their distal extremities, leaving a large foramen in all but the seventh cervical vertebra, and are directed outwards and backwards. Between these processes, and protected by them, are large plexuses containing arterial blood, which fill up the foramen, and evidently serve as stores for an extra quantity of blood. The dorsal vertebræ are eleven in number in this species, and are simple in character. The lumbar and caudal regions pass gradually into one another; there is no sacrum interposed between them; the anterior caudal vertebræ are distinguished from the posterior lumbar only by the former having chevron bones on their under surfaces for the attachment of the muscles which move the tail. The chevron bones are united to the posterior part of the under surface of one caudal vertebra and the anterior part of the under surface of the following vertebra, except the first, which is only attached to the first caudal vertebra. In the space between the two halves of each chevron bone is situated the caudal plexus, which, like those in the neck, contains arterial blood. The total number of vertebræ in the *Balænoptera rostrata* is about forty-eight or fifty; of these, seven are cervical, eleven dorsal, twelve lumbar, and eighteen or twenty caudal. The heads of the ribs never reach the bodies of the vertebræ in this or any of the whalebone-whales; they are only connected with the bodies of the vertebræ by fibrous tissue. The attachment is, therefore, loose, and permits a considerable amount of free movement to take place; as a consequence, the animal has the power of expanding its chest to a great extent. The sternum is always rudimentary or of small size, and of the form of a Latin cross. All the ribs are free or floating, connected together by a band of fibrous tissue, except the first, which articulates directly to the transverse portion of the sternum without the interposition of a sternal rib. The anterior extremity is one of the most curiously modified parts of the body. The animal possesses no power of grasping with it, or of moving it below the shoulder-joint. The whole organ is reduced to the form of a paddle or oar of a boat. The scapula is flat and broad, without a spine; the acromion is a flat process, which rises from the outer surface of the scapula, and projects beyond its anterior border. The coracoid process projects immediately above the glenoid cavity, and is also flattened laterally. The epiphyses forming the posterior border of the scapula unites very late in life, and frequently remains separate altogether. The humerus is very short, and has no bicipital groove; its upper extremity is rounded, while its radial and ulnar surfaces are flat and hollowed out. The elbow-joint is motionless, and has no synovial membrane; frequently, the radius, ulna, and lower end of the humerus, in old animals, are ankylosed. The bones of the forearm are placed side by side; there is no power of pronation and supination. At the distal end of the forearm are two spongy bones, which extend transversely across the wrist, and correspond to the ends of the radius and ulna, but which are never united to those bones except in old animals; in young ones, they exist only as plates of cartilage, with small nodules of bone in their centre. The carpus consists of a plate of cartilage, in which are six bony nodules representing the carpal bones. In the first row there are four bones, and in the second two. It retains an embryonic condition during the whole life of the animal. There is no true synovial joint, nor any motion at the wrist. The digits are composed of alternate rods of bone and cartilage, without any joints between them. There is no trace of a thumb in this or any other *Balænoptera*, though it is present in the *Balæna*, and other genera. The number of phalanges is greater in the whale than in any other mammal: in the second finger, there are three phalanges; on the third, seven; on the fourth, six; and on the fifth, three. The muscles of the back of the hand are well marked, and the tendons passing over it from the forearm are comparatively strong, though functionless, to a great extent from there being no motion of the limb below the shoulder-joint.

THE IMMEDIATE SUTURE OF DIVIDED NERVES.

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It has been abundantly proved, both by operations upon man and by experiments on animals, that nerve-trunks unite readily after division. The treatment of neuralgia, for example, by nerve-section has been frustrated in numberless instances by reunion of the nerve and complete restoration of its function. So readily, indeed, do nerves unite, that, to ensure permanent relief from neuralgia, it is requisite to cut out a long portion of the nerve, so as effectually to prevent reunion. "After a long and large experience," writes Weir Mitchell (*Brain*, vol. i, p. 293), "I find that the capacity of nerves to remake their lost parts is almost invincible, and is the true cause of many of our failures to attain permanently the object in view—the relief of pain."

Under other conditions, when a nerve-trunk has been severed in a wound, and has been loosened from neighbouring tissues, so as to admit of wide separation of its ends, it is the exception rather than the rule to meet with reunion. Happy exceptions are the two cases recorded by Paget in his *Surgical Pathology* (p. 211), to show that nerves may "coalesce by immediate union with an exceedingly small amount of new substance formed between them". A boy had his radial and median nerves divided by a circular saw about an inch above the wrist; and, although "no particular pains were taken to hold the ends of the divided median nerve in contact", the arm being merely kept at rest with the wrist bent, returning sensation began to be observed about the tenth day, and in a month the nerve had nearly recovered its conducting power. The second case is that of a lad who had his hand nearly cut off at the wrist-joint by the knife of a chaff-cutting machine; and, although a small portion of integument, the ulnar vessels and nerve, and the flexor carpi ulnaris muscle, were the only structures uninjured, yet the parts were brought into apposition; and, in about ten days to a fortnight after the injury, sensation began

to return; and "finally the sensation of the hand and fingers, and most of their movements, were perfectly restored". It is probable that, in both these cases, the wounds were clean cut, and that there was little or no retraction of the nerves—circumstances conducing in great measure to the correct apposition of the ends, and to their early union. In jagged and lacerated wounds, where the soft parts are separated and torn from one another, it is unlikely that the ends of divided nerves can be brought, without special means, into their relative and accurate positions. And so it is, that the usual history of divided nerves in lacerated wounds has been one which has not told us of repair and of restored function, but rather of abolished function, neuralgiæ, and the many disturbances of nutrition to which such nerve-lesions give rise. These trophic derangements, which have shed so much light on nervous physiology, have been fully investigated and described by different observers: by Mr. Hutchinson, in the *London Hospital Reports*, vol. iii, 1866; by Dr. Weir Mitchell, in his well-known work on the *Injuries of Nerves;* and by Létiévant, in his masterly and exhaustive *Traité des Sections Nerveuses*.

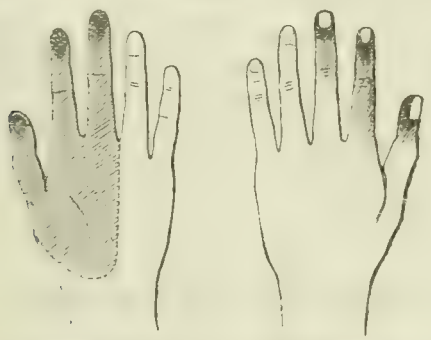
Operations to restore the continuity of divided nerves have from time to time been practised by various surgeons; by some with signal success, as in the more recent cases, to which I shall refer; by others without satisfactory result. Létiévant (*op. cit.*, p. 96) records an unsuccessful case of secondary suture of the radial nerve; and Tillaux (*Affections Chirurg. des Nerfs*) records failures by Nélaton and Verneuil. In the twelfth volume of the Clinical Society's *Transactions* (1879), Mr. Hulke relates a successful case of secondary nerve-suture. The ulnar nerve had been divided in a deep ragged cut across the inner side and front of the elbow. The wound suppurated, and closed slowly; and the man was left with anæsthesia in the tract of the nerve, wasting of the forearm and arm, increasing powerlessness, and severe neuralgia at and radiating from the site of the wound. Fifteen weeks after the injury, Mr. Hulke cut down upon the nerve; and, although the ends were widely apart, and it was necessary to make fresh transverse sections of both ends, he was able to bring them together, fastening them with four fine silk stitches passed through the sheath. Sensation began to return about three weeks after the operation; it rapidly improved; and, when heard of five months afterwards, the man had long been working as a smith at a forge. Early in the present year, Mr. Hulke brought another case before the same Society (*Lancet*, vol. i, 1880, p. 288). "A patient, in washing bottles, cut his forearm, severing the median nerve and artery above the wrist. The artery was secured by torsion; and as, on the following day, when Mr. Hulke first saw the case, immediate union appeared to be taking place, he hoped that the divided ends of the nerve would unite. But suppuration followed, and cicatrisation was not completed till five weeks after the injury. The anæsthesia of the fingers supplied by the median nerve persisted." The wound was then laid open, and the same procedure carried out as in the other case. About four weeks after the operation, sensibility had returned to nearly all the parts supplied by the nerve, "except the terminal phalanges of the index and middle fingers". Von Langenbeck has had a like result in a case of secondary suture (*Berliner Klinishe Wochenschrift*, No. 8, 1880) of the musculo-spinal nerve eighty-two days after its destruction in the arm by a contused sloughing wound. Contrary to the usual course in such cases, voluntary motion began to be restored before that of sensation; but both appear finally to have been regained.* In recording his first case before the Clinical Society, Mr. Hulke remarked that "the propriety of immediately joining with sutures a severed nerve-trunk exposed in a fresh wound is so obvious, that it has probably been done oftener than is known from published cases"; and Paget (*op. cit.*, p. 213) draws this lesson from the two cases to which reference has been made, that "we may, with good hope of great advantage, always endeavour to bring into contact and immediately unite the ends of divided nerves; and we need not in all such cases anticipate a long-continued suspension of the sensation and other functions of the part the nerves supplied". Medical literature affords but scanty record of cases where immediate suture has been practised: and it is far richer in the history of cases where divided nerves have been left to take their chance, and, with all their evil though interesting consequences, to become involved in the cicatrices of wounds. In his address in Surgery before this Association at Sheffield, Mr. Favell related successful cases of secondary suture of the sciatic and median nerves, and he went on to say (BRITISH MEDICAL JOURNAL, vol. ii, 1876, p. 181): "Two other cases I have records of, in which the divided ends of the nerves were brought together by suture immediately after the accident. In one case the median nerve, and in the other the ulnar nerve, were entirely divided. Both cases were boys of fourteen years of age. In one month from the occurrence of the accident, both boys were discharged with their wounds healed, and sensation was perfect in each instance". I do not know that these cases have been subsequently published in greater detail; and the record of them is therefore insufficient, in that no mention is made of regained motor power—a matter of no small importance in estimating the restoration of the functions of a nerve. Létiévant (*op. cit.*, p. 70) in 1869 performed primary suture of the ulnar nerve, divided in a severe glass-wound just above the wrist, but without success; and he also records a case of suture of the median nerve by Laugier in 1864, within twenty-four hours of the injury. Sensation seems to have returned in this case with astonishing speed, for gross impressions could be felt within a few hours of the operation. Doubt must, however, be thrown upon the accuracy of this observation; for even on the eighth day the perception of finer impressions was uncertain, and there was analgesia in the median tract. Suffice it to say that, in the end, the function of the nerve was restored. To these cases I have now the opportunity of adding two others; one under my own care; and a second and earlier case, for the following notes of which I have to thank my colleague, Mr. Pye.

A lad, aged 14, caught his arm in a printing-machine on August 1st, 1877, and received a lacerated wound behind and on either side of the left elbow-joint, exposing the internal and anterior aspects of the capsule of the joint with the brachial artery, tearing the tendon of the triceps, and chipping off part of the internal condyle of the humerus. The median nerve was torn completely across. The ends of the nerve were brought together, as nearly as possible, by catgut sutures, passed through the substance of the nerve, and through its sheath. The wound was lightly dressed with carbolic acid, and the arm was placed on an angular splint. From August 1st to August 8th, the motor and sensory paralysis appeared complete in the hand and in the muscles of the forearm supplied by the nerve. Then there began some pricking and tingling of the forefinger, soon followed by commencing power of flexion. The return of sensation, once started, returned rapidly, and was nearly complete by the end of the month. The ball of the thumb and the radial side of the middle finger remained insensitive throughout. The return of muscular power was fairly good, but was more difficult to estimate, in consequence of the cicatrisation of the wound. It seemed, however, to be slower than that of sensation.

This is my own case: James A., aged 19, was admitted into St. Mary's Hospital on September 8th, 1879, blanched and collapsed from loss of blood caused by a wound of the right arm, received in falling through a skylight. The wound was extensive and lacerated, situated about two inches above the bend of the elbow, and it extended downwards and inwards towards the internal condyle, severing the biceps muscle, the brachial and other smaller arteries, and the median nerve. The vessels having been secured, the ends of the nerve, found separated an inch and a half, were drawn into contact by two catgut sutures passed through the sheath at opposite sides. The wound was dressed by Lister's method, and the arm was placed on an angular splint. It is unnecessary to follow in detail the history of the wound, which healed by first intention, and without more discharge by the drainage-tube from the deeper parts than was to be expected from the extent and severity of the injury to soft tissues. It was manifest, when the man had rallied, that there was complete anæsthesia in the regions of the median distribution, with entire loss of motor power. From day to day, the fingers were carefully tested, both as to sensation of touch and of pain; and, on September 17th, he first spoke of occasional tingling in the index and middle fingers. On September 18th, the tingling continued, and a touch was perceived on the ulnar side of the middle finger, though referred to the radial side of the ring finger. On September 19th, his fingers were sensitive to pinching, which made them feel hot, though not to the finest touch of a pin. On September 22nd, he was just able to localise the touch of a pin on the palmar aspect of the middle finger, and pricking the pulp of it produced a shooting sensation up the arm. Sensation had so far improved on September 24th, that he was able to recognise the touch of a pin, at once, on the thumb, and, after a momentary pause, on the index and middle fingers, though he usually referred a touch on the ulnar side of the index to the radial side of the middle finger. Like errors in localisation continued in these two fingers, although the facility of perceiving tactile impressions gradually improved; and, on September 29th, it is noted that much finer touches were felt with greater readiness. The sensation of the middle finger was, throughout, better than that of the index, and that of the thumb better than either. On October 2nd, he stated that his fingers—that is, the fore and middle—felt sometimes as if he were bending them, though, on testing, he was found to have no

* Successful cases, unknown to me when this paper was read, of secondary nerve-suture have been recorded by Mr. Holden and Mr. Savory in vol. xxvi of *St. Bartholomew's Hospital Reports*; and I have recently performed secondary suture, with varying degrees of success, of ulnar nerves, four months and six months after division. These two cases will be published when the histories are complete.

power of flexion. He could not flex the last phalanx of the thumb, nor oppose it to the fingers. By October 9th, tactile impressions were invariably felt, though feebly, and not without errors in localisation. The sense of heat, however, seemed absent, for, too anxious to experiment upon himself, he touched the bar of the fire, and raised a blister on the dorsum of the last phalanx of the index finger. The sore thus caused was nearly a month in healing, but it healed perfectly, and has remained healed up to this time, affording evidence of the absence of trophic disturbance in the part. Early in October, he regained some power of flexing the index and middle fingers, but none over the last phalanx of the thumb. He was discharged on October 14th, with the instruction to begin movements of the arm, hitherto kept almost entirely in the flexed position. On December 22nd, he was examined by Mr. Pepper, who made the following note. "*Sensation:* Perfect on back of hand and fingers, except on fore and middle fingers beyond the middle joint, when it becomes almost *nil*. On palmar aspect, sensation impaired in whole of middle finger, and in the forefinger up to the distal joint. Over the pulp of the forefinger, there is complete loss of sensation. Sensation over the palmar aspect of the thumb is perfect. *Motion:* Forearm in position of slight flexion, the cicatrix preventing complete extension. Flexion at elbow good; pronation and supination checked by cicatrix. Flexion of wrist normal; also that of ring and middle fingers. Forefinger flexed only at proximal joint. Thumb cannot be opposed completely to any of the fingers. No power of flexion at distal joint, and partial loss at proximal joint of thumb. Extension of wrist and digits normal. He can lift and carry a pail of water, and use the reins in driving." Still further improvement was noted on July 19th, 1880, when he was last seen. As far as movements were concerned, I failed to detect any but the very slightest difference in the two arms and hands; and his own statement was that, in this respect, the limb was as good as ever. The forefinger alone seemed a little stiff or sluggish in flexion at the distal joint. There was no area of absolute anæsthesia, though, throughout the whole median distribution of the hand (*vide* drawing), on both palmar and dorsal surfaces,



Palmar Surface. Dorsal Surface.

Anæsthesia varying with amount of shading.

sensation to touch was described by the man as less acute than at other parts. Occasional errors in localisation were noted: thus a touch on the back of the second phalanx of the middle finger was referred to the tip, and touches on the sides of the last phalanx of the forefinger were also referred to its extremity, and he was never certain whether this phalanx was being touched on the dorsal or palmar surface. Sensation was certainly most dull over the terminal phalanges of the fore and middle fingers, and, to a lesser degree, over the last phalanx of the thumb. Owing to this reason, he had some difficulty in picking up a pin. He was not quite sure when he had got hold of it, though, when he had, he gripped it firmly between the thumb and forefinger. Sensation of pain, as tested by pin-pricks, seemed to me rather more marked on the injured than on the sound hand, and he said that very hot water pained his forefinger. The fore and middle fingers were decidedly colder than the others. I could find no area of "over-sensitiveness of subcuticular tissues, as shown by pain on pinching and pressure"; a phenomenon discovered by Dr. Weir Mitchell in two cases where section of the median had been practised, and which he has described in a paper "On some of the Lessons of Neurotomy" (*Brain*, vol. I, p. 297, *et seq.*).

It is obvious from this history that, for all practical purposes, the function of the median nerve has been restored, and that the usefulness of the limb has been retained without any of those trophic disturbances which are often so incessant and so distressing. It enforces this lesson: that, in all lacerated wounds in the neighbourhood of important nerves, it should be the routine practice of the surgeon not only to stay hæmorrhage by securing the ends of divided vessels, but also to search for, and carefully draw together, the ends of divided nerves. It must, however, be admitted, that restoration of the nerve's function has not been entirely perfect—perfect, that is, to an extent wherein sensation might have reached the state in which it presumably was before the injury. An explanation of this deficiency may perhaps be found in the impossibility of bringing the nerve-ends into such precise apposition as shall ensure the contact and union of each individual fibre with the fibre originally belonging to it. As Paget (*op. cit.*, p. 211) writes of his first case: "The imperfection of the recovery is just what one might expect in such a mode of union. One might anticipate that some of the fibres in one of its portions would fail to be united to any in the other portions; and the parts supplied by these filaments would necessarily remain insensible. So again, we might expect that some of the fibres in one portion would unite with some in the other, with which they were not before continuous, and which supplied parts alien from those to which themselves were destined; in all such dislocations of filaments, there would be confused or transferred sensations; but, amongst all the fibres, some would again combine in the same continuity in which they had naturally existed; and in these cases, the function would be at once fully restored." It is difficult to conceive that, by any chance short of miraculous, any nerve-fibre can ever, after division in a nerve-trunk, become once more accurately continuous; but, whatever be the right explanation of the defective restoration of sensibility, it is perhaps a question whether, in any case of sutural or natural union of divided nerve, there can be, until after the lapse of a very considerable time, an entirely perfect return of sensation, as revealed by finest tests in the sensory distribution of the nerve. In the case which I have related, improvement has been gradual and slow, and there is reason to believe that the improvement has not yet ceased.*

Nerve-suture has been practised so seldom, and indeed the opportunity for it are comparatively so few, that we cannot speak with certainty as to the best material wherewith to tie the ends together. Silver, silk, and catgut have each been used. Von Langenbeck, in the paper already mentioned, writes strongly in favour of catgut, as less likely to cause irritation, to interfere with early union, or to do harm by being passed through the trunk of the nerve itself. Gluck (Virchow's *Arch.*, Band 72) found catgut to be the best material in making his experiments on the reunion of nerves; and Bakowiecki likewise (*Gazette Médicale de Paris*, vol. vii, p. 532), as the result of experiments on various animals, advocates catgut as not productive of suppuration, and because of its disappearance in the wound. He further advises that the suture should pass only through the neurilemma. It seems clear that such a method must be preferable; and, judging from the ease with which the ends of the nerve were brought together in my own case, it will probably be found unnecessary, I think, to pass the suture through the nerve-trunk, a procedure requisite only in the suture of nerves much smaller than the median; or when the nerve-sheath is too delicate to admit of the traction which, in secondary suture may be needed to draw the separated ends together.

Of infinitely greater importance than the mode of suture is the avoidance of suppuration in the wound. Suppuration "interfered with and terminated the early efforts at repair" in a case of divided median which is recorded by Weir Mitchell (*op. cit.*, p. 85); and the same remark would seem to apply to the cases of Mr. Hulke. The failure in Létiévant's case of primary suture of the ulnar nerve was obviously due to profuse suppuration, and to the disturbance of parts by secondary hæmorrhage. To the absence of suppuration, Von Langenbeck attributes, in great measure, the success which attended his operation, and I have no doubt that the same cause contributed in no small degree to the success of my own. Suppuration, and the method of repair accompanying it, can only tend to disturb the earliest efforts towards union, and ultimately involve the nerve-ends in an irregular and painful cicatrix, with the resulting neuralgiæ and trophic derangements which together make a useless limb. If the mode of dressing which is known by Mr. Lister's name can with certainty ensure that wounds shall heal without suppuration—and there must be few who doubt it can—then it will play an essential part in the restoration of nerve-continuity, whether suture has been required to bring the separated ends together, or they have lain in contact without extraneous aid.

* In January of the present year, the man came to me, complaining that he had had to give up his work because he had so much pain when he plunged his hand in cold water. With this exception, the limb, as far as motion and ordinary sensation were concerned, was as useful as ever it was. The exception, however, is important; and it would be interesting to know something more of the after-history of cases in which the restoration of nerve-function and continuity has been described as perfect.

THERAPEUTIC MEMORANDA.

ARUM MACULATUM.

In the BRITISH MEDICAL JOURNAL of April 23rd, there is recorded a case of poisoning by the common arum—arum maculatum. This plant has several popular names, the best-known being "lords and ladies", "cows and calves", "the parson in the pulpit", "wake-robin", and "cuckoo-pint". In former times it was also known as "alron", "janus", "barba-aron", "calves'-foot", "ramp", "starch-wort", "cuckow-pintle", and "priests' pintle". The word "arum" is probably a corruption of "aron", a word of Egyptian origin. Pliny calls it both *aris* and *aron*.

The plant, although somewhat rare in Scotland, is common enough all over England, and abounds in moist hedgerows and shady woods, usually flowering in May. It is a general favourite, and in many parts of the country is regarded by the peasants with a feeling akin to reverence, probably from a fact referred to by Mrs. Hemans, in her well-known lines:

"Beneath the cross it grew,
And in the vase-like hollow of its leaf,
Catching from that dread shower of agony
A few mysterious drops, transmitted thus
Unto the groves and hills their healing stains
A heritage, for storm or vernal winds
Never to waft away."

In Germany there is a curious superstition, that when a young man goes to a dance, if he will put a piece of arum in his shoe, saying,

"I place you in my shoe:
Let all young girls be drawn to you",

he will secure for himself all the most eligible partners in the room. The root, washed and dried, forms the *salep* of the older cookery books, and, under the name of "Portland sago", was formerly used for adulterating arrowroot. In some countries, the tuberous roots of many of the arum are dried and eaten, either raw or roasted. Dioscorides says that the leaves, dried and boiled, form an excellent food; and Wedelius supposes this to have been the herb on which, under the name of *chara*, the soldiers of Cæsar subsisted when encamped at Dyrrachium.

It appears to have been highly esteemed by the older writers on medicine: it was used both externally and internally, and was considered invaluable in stimulating digestion and improving the circulation. Culpepper says: "A drachm of the powder of the dried root taken with twice so much sugar in the form of a licking electuary, or the green root, doth wonderfully help those that are pursy and short-winded, as also those that have a cough; it breaketh, digesteth, and riddeth away phlegm from the stomach, chest, and lungs; the milk wherein the root hath been boiled is effectual also for the same purpose.....Taken with sheep's milk, it healeth the inward ulcers of the bowels; the distilled water thereof is effectual to all the purposes aforesaid. A spoonful taken at a time healeth the itch; and an ounce or more taken at a time for some days together doth help the rupture". It was the active ingredient in the vaunted "Portland Powder", a so-called specific for gout. It is still occasionally sold in Paris as a cosmetic, under the name of *Poudre de Cypre*. The *London Pharmacopœia* of 1788 orders a conserve in the proportion of half-a-pound of the fresh root to a pound and a half of double-refined sugar, beat together in a mortar. "The dose is a drachm for adults, and it is a good form for the exhibition of the medicine."

Its physiological action was investigated by Marzel, who found that in dogs the fresh root acted as a powerful irritant poison. There are a few cases of poisoning by arum recorded in the older works on toxicology, but not many. One of the best will be found in Bulliard's *Histoire des Plantes Vénéneuses de la France*. Another good case will be found in the BRITISH MEDICAL JOURNAL of June 22nd, 1861.

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DELIRIUM IN ACUTE RHEUMATISM AFTER SALICYLATE OF SODA.

In the JOURNAL for January 29th, 1881, p. 150, five cases of "delirium in acute rheumatism after salicylate of soda" are recorded. In all the cases, there are grounds for suspecting excessive drinking habits; and, in four of the cases, direct evidence. Nos. 2 and 3 confessed to drinking habitually three or four pints of beer daily; No. 4 that she had been "for some years in the habit of drinking to excess"; and the wife of No. 5 said "her husband drank too much". The last three cases showed signs of mental excitement on admission to the hospital; and Case No. 3 only took three fifteen-grain doses of salicylate of soda at intervals of three hours. In the following case, delirium (tremens?) came on in an attack of rheumatic fever treated with alkalies; and the delirium and high temperature disappeared under the use of salicylate of soda, with occasional doses of chloral and potassium-bromide.

Mr. J., a strong muscular man, always enjoyed good health; always lived freely, but had lately been drinking more than usual. Three days ago, he got wet, and had since had pain in the joints. He had (July 27th, 1877) severe joint-pain, especially in the knees. Temperature 100.6°. I ordered belladonna liniment and cotton-wool to the painful joints; and a mixture of bicarbonate and nitrate of potash. On July 28th he had had a restless night. His cough was troublesome. He was ordered to take a cough-mixture occasionally, and to continue the bicarbonate of potash. Temperature 101.5°. On July 29th, he was still restless; the knee-joints were rather easier. Temperature 102.2°. On the 30th, he had "had a very bad night"; saw things about the room, and could hardly be kept in bed. He was ordered a draught of chloral fifteen grains, bromide of potassium twenty grains, and an ounce and a half of water, to be taken at bedtime, and repeated in four or six hours, if necessary. On July 31st, he had some sleep, but was still restless. Tongue foul; bowels confined. He was ordered to have a calomel and colocynth pill. Temperature 103°. The chloral medicine was continued. On August 3rd, the temperature was 104.4°. His cough was troublesome; he was restless and delirious. A cardiac murmur was heard at the base. There was no albuminuria. I ordered salicylate of soda, twenty grains every two hours; a blister over the region of the heart; and the chloral and bromide of potassium to be continued. Next day, he had perspired profusely. On the 6th, the salicylate was ordered to be given every four hours. He now slept fairly well without the chloral draught. On August 9th, the temperature was 99°. The salicylate was discontinued, and twenty minims of tincture of perchloride of iron was given three times a day. On August 12th, he had had a relapse; his temperature was 101.3°. The wrists and hips were painful. Salicylate of soda was given every four hours. On August 17th, almost all pain had gone; the temperature was normal. A tonic was ordered. He continued to improve, and recovered without any heart-affection.

REMARKS.—In this case, the delirium came on at about the same period of the attack, as it did in the five cases referred to above. Although the chloral and bromide moderated the delirium, and procured some little sleep, yet the temperature continued to rise, and the delirium and restlessness went on until salicylate of soda was given. Then there was a daily decline of about a degree in the temperature, and a corresponding improvement in the other symptoms. This gentleman took over a thousand grains of salicylate of soda in six days without any toxic symptoms; and, after three days, again took over seven hundred grains in six days.

C. H. WATTS PARKINSON, M.R.C.S., etc., Wimborne-Minster.

OBSTETRIC MEMORANDA.

BAD CASE OF NEGLECTED SHOULDER-PRESENTATION, TREATED BY REMOVAL OF ARM THROUGH SLEEVE OF SKIN AND VERSION.

On the 12th of April, I was sent for to a woman in labour, six miles distant, having received no previous notice.

I found that the woman had been in labour, with her fourth child, for two days, and that the liquor amnii had come away twelve hours before my arrival. She was exhausted with pains, constantly sick, and with weak, rapid pulse. On making a vaginal examination, I found the left hand of the child protruding, the vagina hot, rather dry, and tender. The child lay in the dorso-posterior position, with its head in the left iliac fossa, and the left shoulder firmly wedged into the brim of the pelvis. Turning was quite impossible, and it was obviously hopeless to look for spontaneous version or evolution.

I brought down the arm a little further, and made an incision through the skin opposite the elbow, dissected it up with my fingers, and then tore through the muscles between the scapula and the sternum, ribs, and spine, but, after repeated attempts, failed to break the clavicle with my finger. As I had no crotchet with me, I was obliged to leave the case for the present, and send home for one. Soon after the messenger had gone, I began looking about for a substitute for the crotchet, and at last took a hook from the kitchen range. With the small end of this I had no difficulty in breaking the clavicle. The arm then came away easily through the sleeve of skin, with scapula attached. I was then able to turn without evisceration, and the case terminated in the ordinary way.

T. BEAUFOY GREEN, Sedbergh.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.

Two Cases under the care of Mr. SPENCER WATSON.

CASE I: *A Case of Rodent Ulcer between the Inner Canthus and the Bridge of the Nose.*—A woman of cyanotic aspect, aged 55, had had a pimple and subsequent sore at the inner canthus for sixteen years. The ulcer, on admission, was of the size of a threepenny-piece, and occupied the integument of the commissure of the lids, and the region of the nose immediately adjacent. The mucous lining of the inner canthus was not involved. The sore had no healthy granulations, but presented a greyish unhealthy smooth surface; its edges were very slightly raised above the surrounding skin, which was very little discoloured. There were no enlarged lymphatic glands, either in the neighbourhood of the eye or under the jaw. The eyeball was much congested, and constantly watering. The patient's general health was very feeble, her breath being short and laboured; she was said to have disease of the heart.

On January 7th, 1881, ether was administered, and the ulcer excised by an incision carried round it at a distance of about one inch from the edge, and passing rather deeply into the cellular tissue beneath it. The commissure of the lids and a small portion of the mucous membrane was removed with the sore. Sutures were applied, and Richardson's styptic colloid used as a dressing.

On January 10th, the crust became detached, in consequence of the oozing of blood beneath it.

The wound healed by granulation; and, on February 15th, it is noted that "there is now a scarcely perceptible scar, the lids having, by contraction of the cicatrix, been drawn back into their natural positions. There is a slight overflow of tears, which is due to the obstruction of the canaliculi resulting from the wound. The canaliculus was slit open a few days ago, and a new channel into the lacrymal sac secured".

REMARKS.—The result is very much better than would have been expected, considering the long period during which the disease had been going on. Caustics had been very freely applied before admission to the hospital, but there had been no improvement in the condition of the ulcer. At the patient's age, there seemed every probability of the disease spreading, and the excision of the part was therefore necessary. The small size of the ulcer is really in these cases an element of danger, because it gives an apparent insignificance to the disease, and so leads to temporising measures which often only aggravate it, and always do harm by taking the place of more radical treatment.

CASE II: *A Case of Primary Syphilitic Ulcer of the Lower Eyelid.*—A man, about twenty-six years of age, applied with an ulcer of the size of a sixpence on the left lower eyelid. It had a greyish, unhealthy surface, and hard round prominent edges. Between the finger and thumb, it gave the impression of a piece of cartilage. It had commenced as a mere abrasion, and had lasted several weeks, in spite of treatment. There was a slight enlargement of the glands near the left ear. No history could be obtained throwing any light on the mode in which he had been inoculated, but the aspect of the sore was so peculiar and characteristic, that the patient was at once put upon a mercurial course. In a week or ten days, his gums became tender, and, at the same time, the ulcer began to assume a healing tendency. In about three weeks, it was entirely healed. At present, there is no evidence that any secondary eruption has made its appearance.

POPLAR AND STEPNEY SICK ASYLUM.

CASE OF FRACTURE OF THE BASE OF THE CRANIUM.

(By R. W. GOLDIE, M.B., Medical Superintendent.)

THE following case seems to be worthy of record as a very forcible and instructive example of the amount of injury a man's cranium may receive during life without giving, for some considerable time, any evidence whatsoever by which to detect it.

J. N., aged 66, was admitted into the Asylum on November 19th, 1880, said to be suffering from "debility". On examining him, I came to the conclusion that he suffered from cardiac disease; and he was treated accordingly. Two or three days after admission, perceiving his manner to be strange, and his answers to questions to be somewhat incoherent, I deemed it prudent to send for his friends, with a view to ascertain something about his past history. Seven days after entry into Asylum, *i. e.*, on November 26th, at 5 P.M., the nurses in charge of the ward in which he was placed, missing him from bed, went in search of him in the lavatory; not finding him there, they examined the windows, and, discovering that one had been pushed up about three feet, naturally concluded he had got through this. Instantly proceeding to the spot under the window, they found him, not lying on the flags maimed and bruised, as was anticipated—from the distance he had fallen, viz., twenty-five feet—but inside the door of the dust-shoot which is placed at this point. He walked up the steps leading from the dust-shoot, assisted by two men, and was then carried to his bed. Accompanied by my two colleagues, I was immediately in attendance at his bedside; and, after a careful examination, could only discover a couple of jagged wounds, each about one inch long, over the right parietal protuberance. Having examined the skull with the probe and fingers through the wounds, we failed to find any evidence of fracture. The end of the left thumb was crushed, the nail being almost detached. There were two or three slight abrasions on the right leg. He was quite sensible, and had something to drink. One hour and a half after the fall, he was seen again, and found eating food. From this time up to within a few hours of his death (which occurred at 5.45 A.M. on December 2nd), nothing transpired in the conduct of the man, nor were there any signs or symptoms—such as discharge from the ears, alteration of pupil, increase of temperature—to suggest the serious nature of the injury he had received. On the evening of December 1st, he became restless, then comatose, and died on the 2nd.

At the *post mortem* examination, by coroner's request, performed forty-eight hours after death by my colleague Mr. Hitch, and in my presence, the following appearances were noted. There was nothing to remark externally, save the injuries already described. There was a good deal of congestion observed in the scalp, around the region of the two cuts already mentioned. On removing the vault of the cranium, blood was found effused between it and the dura mater at the point of injury, likewise in smaller quantity at the opposite point. A fracture was found to run from the right parietal protuberance through the squamous portion of the temporal, across the suture, and through the foramen ovale in the great wing of the sphenoid; next across the body of the sphenoid, completely detaching the dorsum sellæ, leaving it connected to the tentorium alone: then through the inferior petrosal and lateral sinuses to a point opposite, a little anterior to the one from which it started, and on the same plane. The brain was quite healthy. The heart was small; one aortic valve was diseased; and the aorta was unusually large. Pleuritic adhesions of old standing existed, mostly on the left side. The lungs were normal. The stomach, bowels, spleen, pancreas, and bladder were healthy. The liver weighed fifty ounces, and, together with the peritoneum, was infiltrated with malignant growth. Both kidneys were pale, and in the right was a cyst.

A SCARCITY OF DOCTORS.—In an American official report, recently published, we note that a somewhat unusual want is recorded in Maracaibo, capital of sovereign state of Zulia (Venezuela). In that capital, we read, doctors are both scarce and dear, and a great want of competent medical men is experienced. Further, we observe that, as the doctors of Maracaibo fail to make themselves acquainted with the constant improvements and discoveries made by the medical faculty, they are grossly behind their time, and employ methods which had been rejected in other countries; bleeding, for example, is still the order of the day. A young physician of modern education, disposed to attend properly to his work, would, it is said, do very well in Maracaibo. In justice, however, to the doctors there, the fact must be noted that the population had done little towards their support, taking their services on the prevailing credit system, and frequently never paying at all. As they received so few of the fees due to them, the local medical men were compelled to raise their terms to those who paid, and thus an excessively high standard of compensation has been established, which prevents a poor person from ever having recourse to a member of faculty. The people, therefore, frequently consult some old medicine women, who are supposed to possess secret remedies. Amongst the different kinds of sickness prevailing in Maracaibo may be noted gastric fever, dysentery, malarial fevers, scarlatina, etc. Small-pox and cholera are entirely unknown there, according to the statement of an English physician, of over twenty years' standing in that town. Leprosy, the bane of hot countries, is found there in its most hideous aspect, notwithstanding the efforts of the Government to isolate those affected with this terrible disease on a distant island. These sanitary measures, however, have proved incomplete, and do not extend to more than one-third of the number affected, the remainder having succeeded in hiding themselves in the suburbs of the town and in the adjoining country.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, APRIL 26TH, 1881.

ANDREW WHYTE BARCLAY, M.D., F.R.C.P., President, in the Chair.

AN UNUSUAL CASE OF WARTY GROWTHS ON THE FACE. BY GEORGE THIN, M.D.

THE paper described the case of a young unmarried woman, twenty-one years of age, whose face had, during the course of three years, become covered with a great number of dark brown, smooth, flat, papular growths, averaging about the twelfth of an inch in diameter. On some parts of the face, these growths were so thickly set, that they had coalesced into small patches. The whole face was covered, but the scalp and neck were free. The growths began on the chin, and gradually showed themselves on the upper part of the face. With the exception of the backs of the hands, on which they had begun to appear after they had existed two years on the face, no other parts of the body were affected. They produced no symptoms, and the skin surrounding them was healthy. Their number was so great, that the face was nearly as much disfigured as if it were the seat of an extensive small-pox eruption. Microscopical examination of one of the growths showed that the affection had its seat in the epidermis, and might be considered as a rare variety of warts. The papillæ were much elongated, and the interpapillary epidermic projections correspondingly deepened and wide. The papillæ contained a considerable number of exudation-cells; there was very slight cell-exudation in the superficial vessels immediately under the epidermis, and the connective tissue of the cutis was healthy. Some features in the case suggested an increase in the number of the growths by a process of auto-inoculation. None of the growths had disappeared, and they had resisted a variety of local and general treatment.

SECOND COMMUNICATION ON ARTIFICIAL RESPIRATION IN STILL-BORN CHILDREN: THE EXPANSIBILITY OF VARIOUS PARTS OF THE LUNGS. AN EXPERIMENTAL INQUIRY.

BY FRANCIS HENRY CHAMPNEYS, M.B., F.L.S.

The question dealt with was, "Which part of the lungs of a child, which had been subjected to various methods of manipulation with the view of artificial respiration, was most frequently expanded, and which most frequently unexpanded?" An answer was attempted by careful study of the lungs of children thus manipulated, who had never, however, breathed. The material was furnished by twenty-six fœtuses, the results of the experiments having already been laid before the Society. Of these, twelve only could be utilised for the present inquiry; all those in which direct inflation had been used being necessarily excluded. A table was given, in which the first column referred to the number of the experiment; the second, to the methods of manipulation employed; the third, to the amount of air charged; the fourth, to the conditions of the thorax, as shown by dissection. An analysis was given of thirty-six cases selected from Schmitt's 101 cases, and of sixteen cases selected from Zerg's nineteen cases. The results of this analysis were stated as follows. In children which had died, soon after birth—1. The right lung was usually better expanded than the left; 2. The anterior surfaces than the posterior; 3. The lower lobes were the parts most often unexpanded; 4. The right middle lobe was usually well expanded; 5. The part of the left lung corresponding to the right middle lobe was often better expanded than the rest of the left lung. When the right middle lobe, on the other hand, was ill expanded, the corresponding part of the left lung was often unexpanded also. In children who had breathed naturally, the bases were often unexpanded; this seemed to correspond with the fact that the characteristic of feeble breathing in infants was feeble descent of the abdominal viscera, betokening feeble descent of the diaphragm. The author concluded from his experiments that, in children which had been manipulated by the various efficient methods of artificial respiration, the following effects are produced. 1. The right lung is more usually expanded than the left; 2. The anterior surface than the posterior; 3. The apices of the upper lobes are often unexpanded; 4. The anterior inferior borders the same; 5. One of the places of selection for atelectasis is a strip running vertically along the angles of the ribs on each side of the spine; 6. The patches of expansion or atelectasis, when considerable, are not confined to lobes nor bounded by fissures; 7. The last circumstance is not due to obstruction of the bronchi; 8. The spots of predilection for expansion or atelectasis underlie the regions of greatest and least movement of the chest-walls.

Dr. DOUGLAS POWELL asked how the occurrence of pneumothorax in some of the cases was explained. He understood that, in each case, several methods had been used; and it was not clear to which of these the pneumothorax was due. The part of the lung which expanded corresponded closely with the attachments of the muscles which exercised traction. He did not understand why the apex of the lung was not expanded; it might be due to the motions of the scaleni and platysma, and perhaps also to the traction downwards exerted by the diaphragm. He regarded the paper as one of much practical value.—Dr. REGINALD THOMPSON said that there were one or two practical points for consideration: the effect of disease in expanding certain portions of the lung; and the production of emphysema and pneumothorax on one side. A wound in the trachea, as in tracheotomy, might be followed by emphysema. Two cases of the kind were mentioned in Wilks' and Moxon's *Pathology*. It had occurred to him that rupture from the mediastinum into the pleura might take place. He thought that he had heard of a case of pneumothorax of one side, with a passage from the lung of the opposite side. Another point was, in regard to forcible manipulation, that the expansion took place under peculiar circumstances. Acute distension of the lung (sometimes called emphysema) was apt to mask the real condition; it might come on in one or two hours in cases of acute œdema of the lung with rapid effusion into the pleura. In such cases, the tracts of lung most capable of expansion became much distended, and gave a resonant note on percussion, but not that of true emphysema.—Mr. SAVORY said it would be interesting to know how far the results of the experiments were due to the intrinsic qualities of the lung itself, and how far to causes external to the lung. What would be the effect of removing the lungs and inflating them through the trachea? Again, it was known that all parts of the human lung were not alike; the cells varied in diameter in different parts. What relation was there between the resistance to pressure and the degree of elaboration of the lung?—Dr. ROPER said that it was difficult to understand why pneumothorax should occur in the experiments. The expansion of the lung might be interfered with by thick plugs of mucus. It must be remembered that the fœtal lung was in a very different condition from that of the adult.—Dr. BERNARD O'CONNOR had found in still-born children that, after slight inflation, air passed into the anterior part of the lung. Possibly the position of the body—lying on the back—and the gravitation to the posterior part, might have something to do with this.—Mr. BOYCE BARROW suggested that emphysema and pneumothorax might be produced by expiration. He had found superficial emphysema of the lungs in an overlaid child.—The PRESIDENT asked in what respect the condition of the lung in Dr. Champneys' experiments differed from that produced by insufflation.—Dr. CHAMPNEYS said that he had tried several methods, on account of the scarcity of the material at his disposal; but he had no doubt that the pneumothorax was produced by Schultze's method, which produced a considerable jerk. Rupture through the lung into the opposite pleura did not occur in his experiments; but perhaps it might take place if the lung were adherent. The inflation of the lungs removed from the body, as suggested by Mr. Savory, would be the subject of another series of experiments. It was as easy to expand the lung of a child which had not breathed as that of one which had breathed; but a few breaths greatly modified the resistance of the lung, the opening of the air-channels and the influx of blood producing a great effect.

Syphilitic Disease of Tongue.—Mr. CLEMENT LUCAS showed a case of desquamative syphilis of the tongue in an infant.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.

MARCH 30TH, 1881.

Idiopathic Anæmia.—Dr. WITHERS MOORE read a case of idiopathic anæmia occurring in a woman of middle age. The salient points were, the profound anæmia and prostration; the state of hyperpyrexia, the temperature reaching 106°; the relief afforded to the one by small doses of arsenic (three minims of Fowler's solution thrice daily); and to the other by large doses of quinine (twenty grains); and, lastly, the complete recovery.

Hemiplegia with Unilateral Anasarca and Hyperæsthesia.—Dr. TREUTLER read notes of this case, which occurred in a child aged 5½, after an attack of scarlatina. There was ptosis of the right eyelid, with dilated sluggish pupil and strabismus of the right eye, followed by œdema, entirely confined to the right side of the body, except the face, which was free from œdema from the first. Subsequently, loss of power occurred on the right side, with marked inequality of the temperature, there being a difference of from 1.2° to 1.8° Fahr. between the two sides, the right side having a temperature as high as 104.6°. The urine contained some albumen towards the end of the case. The child died comatose. No *post mortem* examination was obtained. Dr. Treutler thought the unusual nature of the symptoms due mainly to a

lesion, situated probably in the upper portion of the spinal cord, and excluded cerebral affection, chiefly because of the absence of mental aberration throughout the case.

Gunshot Wound of the Eye.—Dr. TREUTLER gave the particulars of a case of gunshot wound of the eye in a young man.

Embolic Infarctions in several Organs of the Body, following Extensive Valvular Disease of the Heart.—Dr. E. F. FUSSELL selected, as topics for discussion, two cases from his clinical records at the Sussex County Hospital, exemplifying one *modus operandi* in the fatal effects of repeated attacks of rheumatic fever. CASE I. E. H., aged 26, single, a cook, was admitted on April 1st, 1880, and died on August 22nd. She had had rheumatic fever three times; the last attack was ten years ago. She had been treated at St. Thomas's and the Canterbury hospitals for the same complaint. On admission, she was pale and sallow-looking. The catamenia were irregular and scanty. A loud systolic *bruit* was heard at the base; the area of cardiac dulness was not increased. The urine contained no albumen. Her wrists and ankles were red and swollen. The joint-affection soon subsided. She had frequent attacks of pain on the right side, where crepitation was occasionally heard; and at times she had pain, more or less severe, over the cardiac region, which was so mitigated by dry cupping, that she frequently expressed a desire to have the glasses applied. There was no undue impulse of the heart's action. For a long period, she was confined to bed with no other acute symptoms; but her temperature was always high, generally 101° or 102°. Six weeks after admission, her urine was first found to contain blood and albumen: this continued until death. Four weeks before her decease, she was attacked with left hemiplegia, and never regained the use of the arm and leg, and during this time she had several convulsive fits of an epileptic character, and was frequently delirious two weeks before death; at other times, she was in a semiconscious condition. After death, evident signs of meningitis were found at the base of the brain. No tubercle was visible. In the middle of the right hemisphere, towards the posterior part, there was a large blood-clot, about the size of an orange. The lower lobe of the right lung was in great part consolidated. On the posterior surface of its upper part was a wedge-shaped, firm, caseous mass, of the size of a walnut. The pericardium was adherent. The mitral valve was extensively diseased, covered with large coarse vegetations. The left auricular appendix was filled with old breaking-down blood-clot. At the upper and posterior part of the right lobe of the liver, the lobules were mapped out by caseous margins. The spleen was much enlarged, and contained several large caseous masses. Towards the upper part of the right kidney, abutting on the convex margin, there was a caseous wedge. CASE II. H. C., aged 20, wood-chopper, was admitted on November 22nd, 1880, and died on January 4th, 1881, with left hemiplegia, which came on suddenly the day before, as he was going to his work in the morning. He had had rheumatic fever four times; the last attack sixteen months ago, when he was treated in the Sussex County Hospital, and had leeches applied to the cardiac region. A systolic *bruit* was heard at the apex and base. There was no cardiac impulse. The temperature was always high. He had no shivering. No albumen was found in the urine. He was always drowsy, but seldom delirious; hazy, and not able to speak distinctly. He had no convulsive attacks; and he remained much in the state described till his death. After death, about the middle of the right hemisphere, there was found a softened mass of brain-substance, of the size of a crown-piece in cross section, an inch in depth, very readily washed away by a gentle stream of water. The other parts were quite healthy. There were no tubercular deposits in either lung. The pericardium was adherent. The left ventricle was much thickened and enlarged. There were large irregular growths on the mitral valve, and vegetations on the aortic valves; the orifice was contracted, and the valves incompetent. The spleen was much enlarged, with numerous infarcts. A small infarct was found in the left kidney. Dr. Fussell remarked that, in the cases narrated above, the diagnosis was relatively easy, because the history and objective symptoms in the one, and the record of former heart-attacks in the other, tended to draw attention to the state of the valves of that organ. In both, the condition of the heart appeared to be the starting-point of the last fatal illness; the febrile conditions being the result partly of the acute heart-affections, and partly of the embolic infarcts. The appearance of blood and albumen in the urine of the woman, combined with her other symptoms, enabled a diagnosis to be made without difficulty. But when there was no joint-affection, and nothing to lead one to suspect mischief in the heart, diagnostic acumen might be either quite baffled, or it might stray in a wrong direction. We may determine the symptoms as due to pyæmia, or even to enteric fever. Such embarrassment was well exemplified in the remarkable case of the late Dr. Ray of Dulwich (BRITISH MEDICAL JOURNAL, March 1868), who had had a loud but obscure cardiac *bruit* for some years. In his last illness, he was seen by Sir William Gull and Dr. Wilks. The ambiguous symptoms becoming more urgent, Mr. Hilton was called in consultation, and, from the existence of hæmorrhoids and some slight ulceration, conjectured a suppurative phlebitis of the portal veins to be the malady. At the necropsy, a large quantity of softened fibrine, about the size of a walnut, was found on the mitral valve. The spleen and kidneys showed fibrinous plugs—embolic infarcts. That these deposits caused for the most part merely an obstruction, but occasionally suppuration and sloughing, might be due solely to the constitution of the individual; or, as stated by some observers, to the presence or absence of minute organisms.

Ethical Committee.—Dr. TREUTLER, after describing a case of gunshot wound of the eye in a young man, read the correspondence which ensued between himself and the employer of the lad, in consequence of the employer having removed the patient from his care without any previous communication with him. After some pointed remarks on the necessity of a better understanding and of greater unanimity of action between members of the medical profession, the following resolutions were adopted *nem. con.*: 1. Proposed by Dr. TREUTLER, and seconded by Mr. R. GRAVELY, "That, in the opinion of this meeting, it is highly desirable that an Ethical Committee for the South-Eastern Branch be established, such Committee to consist of the President and two Vice-Presidents of the Branch for the time being, the Secretary of the Branch, and the Secretary for the district in which the question for the consideration of the Committee arises—the functions of this Committee to be (*a*) to act as an authority in all matters of difference or under dispute which the President may deem it necessary or desirable to refer to them; (*b*) To frame a series of recommendations to serve as a guide to the relations of members of the Branch, with a view to ensuring mutual good understanding, and so avoiding appeals to the Ethical Committee." 2. Proposed by Dr. TREUTLER, and seconded by Dr. MACQUEEN: "That a copy of this resolution be sent to the Council of the Branch, with a request that they will consider the matter and report thereon at the next annual meeting of the Branch."

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, APRIL 6TH, 1881.

WALTER WHITEHEAD, Esq., Vice-President, in the Chair.

Case of Hypospadias.—Dr. LLOYD ROBERTS showed a case of congenital malformation of the external genital organs. The infant had a rudimentary penis with hypospadias, which seemed to be due to arrested development, as the testes occupied the situation of the labia majora in a female. The corpora spongiosa were not united, and there was a perinæal sulcus, which strongly resembled a rudimentary vagina. The infant was five weeks old, and apparently in good health.

Pseudo-colloid Ovarian Tumour.—Dr. LLOYD ROBERTS exhibited a large ovarian tumour, weighing 34 lbs., which he had removed from a woman aged 48, and detailed the history of the case as follows. The patient was the mother of fourteen children, the first having been born twenty-six years ago; the age of the youngest was four. The patient enjoyed good health up to six months ago, when anasarca of the lower extremities set in, in consequence of the increase of size in the abdominal tumour, which she first noticed two years and a half ago. About nine weeks before admission, the anasarca was so great, that tapping was deemed necessary, and nine quarts of bloody serum were removed from the abdomen, the size of which was not much diminished, but one cyst seemed to be emptied. The abdomen was very large, dulness existing all over its surface, and halfway above the umbilicus. The girth at the umbilicus was 48½ inches; from ensiform cartilage to umbilicus, 12½ inches; from pubes to umbilicus, 12 inches; from right anterior superior spine of ilium to umbilicus, 14½ inches; from left anterior superior spine to umbilicus, 14½ inches. The incision for removal had to be extended two inches above the umbilicus. The tumour and its contents weighed 34 lbs. There was a large quantity of ascitic fluid, necessitating the use of a drainage-tube; there were no adhesions. The peritoneum was very thick, and studded with nodules. Twelve sutures were introduced. The diagnosis of ascitic fluid from the cystic fluid in the case was difficult, as the ascites was in front of the tumour, and the bowel behind the tumour, so that no tympanitic sound could be elicited.

Small Ovarian Cyst.—Dr. LLOYD ROBERTS also showed a small cyst of the ovary, weighing, with its contents, about 5 lbs., which he had removed from a patient aged 21. He remembers it as being the smallest tumour he had ever removed; an incision of three inches in length was required for its removal. The abdominal muscles (although the patient was profoundly under the influence of methylene) were very rigid during the whole time of the operation, which was done antiseptically. No drainage-tube was thought necessary; the sutures were removed on the fourth day, and the patient was making an excellent recovery.

Primary Cancer in Lymphatic Glands.—Dr. DRESCHFELD showed two specimens of primary cancer of the lymphatic glands of the neck, one of an epithelial character, and the other carcinomatous, making some interesting remarks as to their mode of origin. He also reviewed at some length the leading theories as to the development of cancer in gland-structure,

Cases of Favus and Alopecia Universalis.—Dr. LEECH showed a youth, aged 18, with favus, from which he had suffered from the earliest time of life he could remember. His mother stated that he had it before he was twelve months old. A favus was very rarely met with in Manchester or the surrounding districts. He also showed a case of alopecia universalis. Every few months, a few hairs appeared on the tip of the nose and in the middle of the cheek, but soon fell off. With this exception, he had had no hair on any part of the body for four years. In another case of alopecia exhibited, patches of baldness in the scalp of a boy, aged 8, were accompanied by an unusual development of hair at the side of the face, and very low down on the forehead.

Living Example of Lymphatic Disease.—Mr. WALTER WHITEHEAD showed a female patient, aged 15, suffering from lymphatic œdema and giant-growth of her left leg. The symmetry of the two legs had been maintained up to the age of twelve, when she commenced working in a factory as a "half-timer". She then noticed for the first time that the left leg gradually became larger. The swelling increased during the day, but subsided very considerably during the night. The development became more marked, when she extended the hours of attendance at the mill. No accident nor injury could be remembered, and there was an entire absence of pain from the commencement. There had never been any inflammation nor hyperplastic changes in the integuments, nor any impairment of sensibility or muscular power in the limb. At the age of fourteen, a lymphatic fistula opened above the inner condyle, and periodically discharged about a pint of fluid in the twenty-four hours. The leg ultimately acquired an increase of about three inches more than the right, measuring from ankle to hip; from patella to malleolus, it exceeded the right by one inch; and the foot was three-quarters of an inch longer than its fellow. Elevation of the leg and continued elastic pressure caused all the swelling to disappear; to return, however, when these measures were relaxed. The skin of the leg was uniformly pale, firm, and elastic, with the exception of a small area just above the outer malleolus, where there were slight hardness of skin, superficial œdema, and pitting. There was no manifest impediment to the venous circulation, or apparent glandular induration. From the foregoing, he regarded the case as one of those where probably some congenital structural defects in the lymphatic trunks remain indefinitely passive in the absence of any immoderate influence, but which, when overtaxed mechanically, break down. He believed that it was one of a class recognised under the generic term elephantiasis, but characterised by the deep rather than the superficial lymphatics being at fault, and where the lymphatic trunks were in a condition of dilatation, and with incompetent valves; and where, probably, there was also a consecutive dilated condition of the lymph-spaces.

Sarcoma Testis.—Dr. HELME showed a sarcomatous tumour of the right testis, more than 20 lbs. in weight, which he had removed *post mortem*. The patient was seventy-one years of age, and had first noticed the growth about fourteen months previously. The left testis was unaffected, and lying on the surface of the tumour. No secondary infiltrations were made out. Death occurred from exhaustion. Dr. Dreschfeld kindly made a microscopic examination of the growth, which showed round and spindle cells in a fibrous stroma.

Characteristics of the Chest-Movements in Chronic and Acute Cases of Phthisis, and their bearing upon Prognosis.—Dr. RANSOME read a paper on this subject. Diagrams were exhibited, showing the extent of movement in the forward and upward directions of the clavicles and third ribs in the two groups of cases. The larger extent of both forward and upward motion in the chronic cases, and the freedom of motion of the ribs over quiescent cavities, was pointed out, and the attempts at compensation by other parts of the chest-wall were found to have a favourable significance, especially when they took place in the forward direction, and were thus due to freedom from underlying restraint.

REMOVAL OF RETAINED PLACENTA.—In cases of early abortion, retention of the placenta is very common, and, if it be not removed, serious trouble may sometimes occur. Dr. Reiler, in the *Pittsburgh Medical Journal*, recommends the following method of removal. He places the patient on the left side, and introduces Sims's speculum. He then seizes the posterior lip of the os with a vulsellum-forceps, and brings it into view. He then separates the placental attachment with a curette, seizes the mass with a pair of toothed forceps, and, by rotation and gentle traction, withdraws it entire.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS IN IRELAND.

WEDNESDAY, APRIL 6TH, 1881.

W. G. SMITH, M.D., Vice-President, in the Chair.

Notes on the Treatment of Diseases of the Skin.—The Vice-President, DR. WALTER SMITH, read a paper on calomel fumigation in skin diseases, and on the treatment of acne. Some years ago, Mr. F. B. Kane devised and figured a simple apparatus by which the fumes of sublimed calomel could be readily directed to any desired spot (*Dublin Journal of Medical Science*, November 1874). Since the publication of Mr. Kane's paper, Dr. Smith had frequently employed calomel locally by this method, and he had been struck with the rapid and satisfactory results of its operation. The tube he used was made of hard chemical glass, was ten inches in length, half an inch in diameter, and tapered towards one extremity, where the bore of the tube was about a line in diameter. A bulb was blown upon the tube nearly five inches from the small end, and at the other extremity was placed a cork, through which passed a piece of glass tubing. The calomel was volatilised by a small spirit-lamp suspended by wire-hooks below the bulb. The lamp consisted of a small metal box, loosely packed with fragments of asbestos; and a roll of wire-gauze with a little bit of asbestos served as an incombustible wick. The calomel fumes were propelled by means of an India-rubber hand-ball, the tubing of which was attached to the small piece of glass tube. Since a continuous stream of air was not required, it was not necessary to make use of the double balls of Richardson's spray-apparatus. Dr. Smith detailed a number of cases in illustration of the efficacy of this simple plan of treatment. The fumigation was painless, even where directed on the most sensitive surfaces, was easy of application, not only to the skin, but to the tongue, tonsils, etc., and interior of the mouth and nose, and yielded curative results exceptionally rapid and gratifying. It appeared to Dr. Smith, that fumigation by calomel was especially useful in the same class of cases in which iodoform often proved itself valuable; and the fine coating of freshly sublimed calomel would sometimes succeed in cases where iodoform caused irritation or had failed to do good. He had used the fumigation freely in many cases of syphilitic sores on the lips, cheeks, gums, tongue, palate, tonsils, etc., and had not met with any unpleasant results, nor had he witnessed salivation in a single instance. In a case of non-specific eczema of the septum narium and nostrils in a gentleman, whose bowels were naturally moved twice a day, one fumigation into the cavity of the nose occasioned some nausea and looseness of the bowels. In the second part of his paper, Dr. Smith, discussed the local treatment of acne, more particularly the inflammatory variety. From a practical point of view, cases of acne fell into three groups:—1. Those in which retention of sebum (comedo) was a prominent feature; 2. Those in which an inflammatory process predominated; 3. Those in which vascular congestion required to be specially dealt with.—Dr. Smith took for illustration, as a common type of case, one presenting a number of pimples, some finely papular, some indolently tubercular, and others suppurating at the apex. If there were much pus, the first step would be to gently but freely open, with a small but very sharp knife, the little abscesses of acne. Any troublesome bleeding was readily checked by stuffing the cavity with a pellet of absorbent cotton. With the sluggish, copper-coloured tubercles, the object was to promote absorption of the products of inflammation, and to stimulate to healthy action, without producing a caustic effect, lest scarring should result. For this purpose, the author used to employ the acid nitrate of mercury, but he had abandoned it in favour of carbolic acid. This agent was an excellent stimulant and pus-destroyer, without being powerfully caustic. It tended to numb the part to which it was applied, in virtue of its local anæsthetic quality, and hence it caused less pain than the mercurial salts, and, when carefully used, it frequently effected rapid absorption of the unsightly acne pimples without leaving a permanent mark. Dr. Smith usually applied it by means of a glass rod or stick with rounded point dropped into the liquefied acid, and had beside him a piece of blotting paper to sop up any accidental excess of the acid that might fall on the skin. It was important not to overdo it; and immediately after the application it was advisable to cover each carbolised spot with a film of flexible collodion. This not only protected from atmospheric irritation, but also formed a colloid compound with the carbolic acid, and so minimised its irritant action. The patient was directed not to wash off or forcibly remove this varnish (which scarcely showed on the face), and to apply a suitable lotion or ointment twice or thrice a day. The number of repetitions of the carbolic application depended upon the nature of the case; but, even in aggravated cases, two or three applications would sometimes suffice to remove the most disfiguring portion of the disease. To expedite the cure, it was often serviceable to dust the face at night with precipitated sulphur, by means

of a puff, washing it off in the morning with the lotion. If the skin was irritable or inflamed, nothing proved so soothing to the skin and grateful to the patient as washing the face with rice-milk, prepared by boiling, a teaspoonful of ground rice in half a pint of new milk.—DR. FITZPATRICK (who had taken the chair while the Vice-President was reading his paper) held that acne was a constitutional disease, nearly related to strumous affections. It therefore needed much care and constitutional treatment in its early stages.—DR. FINNY would not attach much importance to constitutional treatment in acne, except in young people, to whom the natural aperient waters might be given. Acid nitrate of mercury was his favourite application. Cod-liver oil and arsenic were useful in bromic acne. Local bleeding was of use in vascular acne.—DR. HENRY KENNEDY made a few remarks; and DR. HARVEY bore testimony to the perfect nature of the cure in one of the obstinate cases of acne mentioned by Dr. Smith, and to the usefulness of Mr. Kane's calomel fumigator.—DR. SMITH briefly replied.

Diphtheria in Londonderry.—In the absence of the author, the Honorary Secretary, Dr. A. N. Montgomery, read a paper by DR. WALTER BERNARD on diphtheria in Londonderry. The occurrence of diphtheritic paralysis was an *experimentum crucis* for the existence of diphtheria. The number of cases might be estimated approximately, if for every case of paralysis at least 12 cases of diphtheria were reckoned. That diphtheria occurred in Londonderry Dr. Bernard had no doubt whatever, and he had reason to believe that it was more common there than in Dublin. In illustration of these remarks, the author detailed two cases of diphtheritic paralysis which had been treated by him, during the past five months. These cases fully bore out the observations made by Dr. Hughlings Jackson, that diphtheritic paralysis differed from all other kinds of paralysis with which we were acquainted, in seeming to have a great preference for the branches of nerves passing through the ganglia of the sympathetic. Only the branches of the third and facial which passed through the lenticular and Meckel's ganglia were paralysed. Hearing was not affected, as far as could be ascertained, in either of these cases, nor was there any paralytic affection of the extremities. In a third case given in the paper, the diagnosis of diphtheria was also unquestionable. —DR. ROBERT MCDONNELL had seen the second case mentioned by Dr. Bernard in his paper, and had no doubt as to the accuracy of the diagnosis. He drew attention to the early date (three days after the disappearance of the membrane) at which the paralysis had occurred. After a few words from DRS. BRODIE, DR. FINNY alluded to the failure of correlation between the severity of diphtheria and the occurrence of diphtheritic paralysis. There could be no doubt that the paralytic symptoms were due to blood-poisoning.—The discussion was continued by DR. DOYLE and H. KENNEDY; and DR. FOOT expressed an opinion that a diagnosis of diphtheria was sometimes too hastily and erroneously made. Of true diphtheria, the clinical and pathological features were well marked and not to be mistaken.

WEST HERTS MEDICAL ASSOCIATION.—The sixty-sixth half-yearly meeting of this society was held at Watford, on the 20th April, Dr. Hood, the president, in the chair. Dr. A. Clark read an interesting paper on the treatment of diphtheria, being the continuation of a paper that he had read to the Society an a previous occasion. In the discussion that followed, most of the members took part; and Dr. Steel exhibited a calculus that he had extracted from a man aged 18. It had also been exhibited to the Pathological Society, and was considered peculiar, as it consisted of cystine, but had a well-marked ring of oxalate of lime in the middle of the stone. Dr. Paxon also exhibited part of the index finger, which had been torn off by machinery, and which had drawn out with it twelve inches of tendon. The man made a good recovery. Dr. F. H. Berry exhibited the suprarenal capsules from a patient who had lately died of Addison's disease. The boy was 18 years of age, deeply bronzed, had been in and out of the infirmary several times with no definite symptoms except weakness, and, during the last illness, obstinate vomiting. He died suddenly. The suprarenal capsules were both affected, filled with tubercular masses, and gritty to the feel. Dr. A. T. Brett brought a boy on whom he had performed tracheotomy for diphtheria; he was six years old. Drs. Hobson and Paxon promised to read cases at the next meeting in October. Dr. Iles was elected treasurer, and Dr. A. T. Brett continued honorary secretary.

PRESENTATION.—Dr. Carlyle has been presented with a gold watch, his wife with a tea-service, and Miss Anderson (his sister-in-law) with a writing-desk, on their leaving Buxburn for Greenock. The watch bears the following inscription: "Presented to John Carlyle, Esq., M.D., as a mark of esteem, from a wide circle of friends. April 30th, 1881."

REVIEWS AND NOTICES.

A GERMAN-ENGLISH DICTIONARY OF WORDS AND TERMS USED IN MEDICINE AND ITS COGNATE SCIENCES. By FANCOURT BARNES, M.D.Aberd., M.R.C.P.Lond. Pp. 300. London: H. K. Lewis. 1881.

THE task of compiling a dictionary is a most formidable one, and the difficulty is increased when it is an object to compress the work into as small compass as possible, yet without missing terms used in such a widely extended science as that of medicine. Another difficulty besetting the task, especially inherent in the German language, is the number of new words and terms that are constantly being coined by almost every author; which, from the extreme flexibility of the language, can be done most readily, much to the perplexity of an ever-increasing number of English-speaking persons who, from the importance of the works constantly appearing in German, are compelled to study that language. The majority of technical medical words are not given in ordinary dictionaries; hence it is imperative for those who are not adepts at the language to have recourse to two lexicons; this implies a considerable expenditure of time, which in some cases amounts to waste. The possession of a small index containing technical words, which can be rapidly found, is a great boon in such persons; and, until recently, no such index existed. About a year ago, a work of this kind was published in America by Dr. Cutter, which has been found very serviceable as far as it goes; but several words constantly met with are omitted. It is with much pleasure, therefore, that we welcome Dr. FANCOURT BARNES's work. After careful perusal of the book, and testing it pretty thoroughly, we are gratified to find that almost all the words sought for were present; only a few, principally rather uncommon terms, which we can hardly blame the author for omitting, were wanting. The basis of the work seems to be Palmer's *Pentaglot Dictionary*, the fountain from which Dr. Cutter would also appear to have drunk in compiling his small work, although in his preface he acknowledges no authors. In Palmer's excellent work, it is quite admissible that all the compounds of a simple root-noun should be given; yet, in a work such as that by Dr. Barnes, we think it would have been better if those compound words, the meaning of which is apparent to anyone when once the meaning of the root is known, had been omitted altogether. Again, several words are simply translated literally, whereas it might have been better to state their English equivalents. For example, "Unterschenkelknochen" is translated as "bone of the leg". Would it not have been better to have added "tibia", if not to have given that alone as the meaning of the word? Several words are translated by giving their Latin names. To this we do not object, if the Latin term is a well-known one; but, in some instances, this is not the case; for instance, the meaning given to the word "Bauchblatt", which means peritoneum, is "lamina ventralis", a term which we cannot find in the standard works on anatomy. It is also a question whether words spelt exactly the same, or nearly the same, in both English and German, should have been included. To our mind, they should not; though, in an English-German dictionary, there can be little doubt as to the propriety of their being given.

The work will be found to be an extremely useful one, and all praise is due to Dr. Fancourt Barnes for having undertaken its compilation. It is not without its defects, however; and we trust that, when a second edition becomes necessary, the author will carefully revise the whole book, and remedy its deficiencies. His task will not so much consist in adding as in striking out words, and revising the meanings of those it already contains.

MALARIA. By E. G. RUSSELL, M.B., B.Sc.Lond., Surgeon Bengal Medical Service, Civil Surgeon, Kamruss, Assam. Calcutta: Thacker and Co.

FOR many years the author of this treatise was quartered in Lower Assam, notoriously one of the most malarial regions in the world, and has thus been in an exceptionally favourable position for the study of malaria, and the diseases to which it gives rise. Dr. RUSSELL's book was printed before the investigations of Klebs and Tommasi-Crudeli were known to him. The author refers to this in his preface, and adds his belief "that their experiments seem conclusively to demonstrate what was before a merely hypothetical supposition—viz., that the active poison of malaria is *de facto* a lowly organised growth". In this confident opinion we cannot concur. The investigations of Klebs and Tommasi-Crudeli are most interesting, and worthy of the careful inquiry to which they are sure to be subjected by independent experts; but the theory is far from being proved. Anyone who has studied this obscure question

knows the great variety of conditions and soils where this poison is found. Granting that the lowly organism, to which the name of bacillus malariæ has been given, exists in the soils examined by Klebs and Tommasi-Crudeli, and has been found in the organs of those who have died of malarial fevers, is this bacillus malariæ to be found in some of the arid soils in the tropics, and elsewhere, notoriously fertile in malarial fevers? This much seems certain; up to this date it has been searched for in vain in the malaria-producing soil of Lower Bengal. We know that the fever-producing rotten granite of Hong Kong, and other places, is permeated by a fungus; but is it the bacillus malariæ? The question appears to us not to be in a more advanced stage of proof than the well-known theory of Dr. Salisbury of Ohio, who maintains that agues are not produced by any poison of telluric origin, but by the introduction into the system of cells and spores, emanating from certain plants called Palmellæ, which are of the lowest vegetable organisms. Dr. Salisbury gave the name of "ague-plants" to them, and like Klebs and Tommasi-Crudeli, demonstrated their presence in the organs of men affected with malarial fevers. It has always been thought a sufficient answer to Dr. Salisbury's theory, that such fevers prevail in regions where his "ague-plants" have no existence. It remains to be demonstrated that the theory of Klebs and Tommasi-Crudeli is not open to the same objection.

The first chapter contains a summary of the best-known and least-disputed facts on the subject of malaria. The author is at pains to insist on what we believe to be a fact, that water is often the vehicle by which the malarial poison reaches the system, and that it is often charged with malaria at points distant from the places where it comes to the surface and is used. Thus, it happens that soils are often reputed malarious, when, in reality, the unhealthiness is due to the fact just stated. Dr. Russell devotes a chapter to the lesions of the stomach and liver, due to malaria. Stomach and duodenal lesions from this cause are more dwelt on by Italian than English authors. They are carefully noted by our author, who insists much on the diagnostic value of the symptoms to which they give rise during life—the gastric tenderness, the vomiting, and sense of oppression in the same region, in malarial fevers, as opposed to the right iliac tenderness in enteric fever. In his third chapter, Dr. Russell goes into the anatomical structure and the physiology of the spleen in much detail, introductory to his observations on splenic enlargements, temporary and chronic. The author has a habit of repeating statements, often in the same words, and on the same page. This is done with frequency in this chapter; we can only account for it on the supposition that he had not an opportunity of correcting the proofs as the work was passing through the press. These quite unnecessary repetitions should be carefully eliminated in another edition. In his fifth chapter, Dr. Russell deals with the question of periodicity, as applied to malarial fevers. He thinks the term too much restricted to such affections, on the ground that in many other diseases there is some pyrexial periodicity, instancing the evening rise of temperature in enteric fever. Admitting all this, we think Dr. Russell need not quarrel with the term periodic, applied to a disease presenting the clock-like regularity of a quotidian, tertian, or quartan ague, when its "periodicity" is not interfered with by the use of remedies which break the regularity of the paroxysms. We agree with our author in all he says as to the difficulty of diagnosing enteric fever, complicated by malaria, in hot and malarious climates, and know that enteric fever in past years in India was often mistaken for an adynamic form of malarial remittent. We believe that there is a hybrid form of fever, to which the term typho-malarial has been applied, closely allied to enteric fever *plus* a malarial element, and that the symptoms and lesions are indicative of both poisons. No one can doubt this, who has had much to do with invalids from hot climates, and has had an opportunity of seeing how the malaria in their systems modifies the symptoms and progress of other affections from which they may be suffering. The late Surgeon-major Porter even noticed a tendency to periodicity in the secondary hæmorrhage following operations in the surgical wards at Netley.

The second part of Dr. Russell's work is devoted to a detailed description of thirty-nine cases of injuries of the spleen, which cannot fail to be of great interest and importance to Indian medico-legal experts; cases of this kind are constantly under investigation in the criminal courts of that country.

We cannot conclude this notice of Dr. Russell's labours without a word of praise for the admirable way in which his book has been "got up", and which reflects the highest credit on the Calcutta publisher and printer. There is a copious table of contents, which greatly facilitates reference.

DR. ANDREW FERGUS has been appointed a member of Committee of the University of Glasgow, in room of the late Dr. J. G. Wilson.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

TENERIFFE WINE.

OUR attention has lately been drawn, by a well-known physician, to samples of a wine at one time much used in this country, under the name of Vidonia, or Teneriffe, grown on the volcanic soil of Teneriffe, and possessing qualities of Madeira. The samples from bulk which have been furnished to us suggest the advisability of attention being turned to this wine, as one which presents all the advantages of sherry or Madeira, for private or hospital use; while the price at which it is procurable offers much better value for money than that at which Madeira or sherry can at present be sold. Teneriffe wine was at one time largely in use in the Royal Navy, and to some extent achieved a high reputation in private use, especially where the finer qualities of the wine were used, and when the valuable aid of age was given to improve and refine its flavour. A few connoisseurs still possess some old Vidonia; and we know a few samples in private use which attain the highest qualities of a Madeira; and fine old Vidonia is not only very scarce, but commands fancy prices. The wine now furnished to us in samples from the bulk, by Messrs. Sinclair, Hamilton, and Co., 17, St. Helen's Place, E.C., can be laid down at something like 18s. per dozen; and at this price it is, in our opinion, equal to a Madeira twice the cost. Hence, in looking into the matter, we feel justified in calling especially the attention of hospital authorities to a wine which many will probably be glad to taste for themselves.

FLETCHER'S CONCENTRATED LIQUORS.

MESSRS. FLETCHER AND FLETCHER, North London Chemical Works, Holloway, have sent us samples of their concentrated liquors for chemical syrups. These liquors, which have now been extensively employed, have many advantages in dispensing, as they are available for the immediate production of any corresponding syrup. When any particular syrup is required, the dispenser has only to add to the proper proportion of Fletcher's concentrated liquor, a certain volume of simple syrup, in order to obtain the necessary combination. This is very useful for medical men who prefer to dispense their own medicines, as it often happens that, chemical syrups being only prescribed at distant intervals, the physician finds, to his annoyance, that the supply of syrup on which he relies has become discoloured or thick. Again, by the use of these liquors, the prescriber can vary the strength of the dose at pleasure, by adding a larger or smaller quantity of the liquor to the syrup. Among the most useful of the liquors are those of hypophosphates of lime, bromide and hyperphosphate of iron, potash and soda, and compound phosphates of iron, quinine, strychnine, etc. Liquor ferri phosphatis compositus, added to a little simple syrup, makes chemical food of considerable strength. Among the specialities of Messrs. Fletcher and Fletcher are their syrups of the hydrobromates, first recommended by Dr. Fothergill, in the BRITISH MEDICAL JOURNAL of July 8th, 1876.

LIVERMORE'S INDIA-RUBBER FLESH-GLOVE AND RUBBER.

THIS new bath-glove is by far the best that has come under our notice. It is much more pleasant in use than either a bath-brush or horsehair-glove, or the ordinary India-rubber discs which are in common use. The surface is granulated, and sufficiently rough to retain the soap well, and to stimulate, without any risk of unduly irritating, the skin. It is very ingenious and well made, and will be likely to supersede bath-gloves which have hitherto been in use.

PREVENTION OF ESCAPE OF SEWER-GAS.

WE lately called attention to an extremely ingenious and simple apparatus for affixing to closets, drain-pipes, urinals, etc., which has the great advantage of charging the water-trap or closet-pan with antiseptic fluid each time the closet is used, securing, at the same time, an antiseptic flushing pipe, and sealing the outlets with an antiseptic fluid, thus supplementing any structural arrangement for preventing the entrance of sewer-gas into the house. While mentioning this antiseptic apparatus (see BRITISH MEDICAL JOURNAL, April 2nd), of which we have had favourable experience, we omitted to mention that it is made by the Antiseptic Apparatus Manufacturing Company, 27, Harrow Road, Paddington. We now make this communication, as we have had many inquiries in consequence of the omission.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MAY 7TH, 1881.

MR. DODSON ON SANITARY LEGISLATION.

Mr. DODSON is too earnest and practical a statesman to allow us to suppose that the answer which he gave to the representative deputation which waited upon him on Tuesday, April 26th, was intended to be in any sense final or complete. Unintentionally, we are inclined to think, but yet most unsatisfactorily, he allowed himself to expend so much time upon one detail of the subject that, practically, he gave no answer at all upon that which was the main object of the deputation. This deputation was, in many respects, one which it must have rejoiced the heart of a practical statesman and real sanitarian to receive. With some considerable retrospect, now, of the history of the Local Government Board, and holding in view what it has done since it was distinctly authorised by Parliament to combine health functions with its Poor-law duties, we can say with conviction that never before has any minister received a deputation in which civic authority and professional knowledge were so happily combined. For once, thanks to the energy and intelligence of Dr. Dudfield, the whole of the vestries of London were represented before the President of the Local Government Board, in a deputation which combined the representatives of the medical profession as a whole, through the British Medical Association, and of the lawyers, sanatarians, and lay public represented by the Social Science Association and the National Health Society. Those who teach, those who act, and those who pay were combined to represent to Mr. Dodson the necessity of an act of legislation which is far from difficult or complex. For years it has been the function of our Association, and latterly the especial part of the Parliamentary Bills Committee, to throw into a distinctly practical and legislative shape, and to put before the Local Government Board in well-worded clauses, a provision for the notification of infectious disease.

There may be recognised three obstacles to carrying out such a measure. One would be that the public objected to the measure, or did not recognise its advantage; another, that the local governing authorities were not alive to its necessity, and could not be trusted to carry it out; and the third, that the medical profession, on whose goodwill the clauses of such a measure must considerably depend, were indifferent or hostile. When on former occasions Mr. Ernest Hart, as chairman of the Parliamentary Bills Committee of the British Medical Association, has presented to Mr. Sclater-Booth and to Mr. Dodson, reviews of the thirteen local Acts by which the notification of disease is carried into effect in thirteen different places, and has laid before them a clause destined to generalise the practice, the answer has been that the principle was undoubtedly a good one, the measure undoubtedly useful as a protection to the public health, but that the public themselves had not yet asked for it to any great extent, and that the local authorities could not be trusted to carry it out with any zeal, or to consent to have it imposed upon them. This stage being past, and all the elements which the most practical statesmanship could require being present, it might have been expected that the President of the Local Government Board would, at least, show some signs of satisfaction that a measure so important to the public health had been so rapidly ripened, and public opinion so successfully matured. Mr. Dodson's mind, however, appeared to be preoccupied with the question of the kind of infectious hospitals required, of the place for infectious hospitals, and of the size of infectious hospitals. This is a very important accessory question; but it is no doubt that his mind, and those of some of his trusty advisers, must have been considerably exercised through the troublesome prejudices and mischievous opposition which is being made against the infectious hospitals provided by the Metropolitan Asylums Board. Mr. Dodson chose to treat this quite subsidiary part of the question in the metropolis as the whole question. Of course, neither he nor any other reasonable man could contend for a moment that it is not an enormous advantage to have an active and accurate notification of the beginnings of disease, whatever be the difficulty of providing, in times of epidemic such as at present, adequate hospital accommodation.

In the first place, the mere completeness, activity, and perfection of the notification of infectious disease (a thing which, at present, does not at all exist in the metropolis) would tend very largely to lessen the need for hospital accommodation, and so partly assist to cut that gordian knot. But, in the next place, whatever be the difficulties of the authorities in respect to their hospital accommodation, it is clear that they would be lessened, and not increased, by the efficiency of any preliminary steps which could assist in making known the first *foci* of disease, and in giving information which would help the medical officers and the local authorities to oppose the first outbreaks, and to check the spread of disease from the first cases. London is not in the position of a city which refuses, through its authorities, to provide hospitals; it has provided hospitals; it has met with difficulties in providing them, but these difficulties are far from insuperable. That Mr. Dodson should, on this occasion, because these difficulties in respect to hospitals for infectious diseases now exist, ignore the whole principle of notification, and should have declined to make any promises, and have failed to recognise the importance of the notification of infectious diseases, is as difficult to understand as it would be if a deputation of inhabitants were to wait upon him concerning the importance of telegraphic communication for the notification of fires, and he declined to discuss the subject until he had perfectly satisfied himself as to which was the best form of fire-engine, and until all defects in existing fire-engines had been completely remedied. Mr. Dodson has lost a great opportunity; for once the vestries had concurred in an act of intelligent zeal; they had done what local authorities have been rarely found to do; they had taken a new departure, and advanced a step in sanitary organisation. Never was a more complete snubbing administered; never was the main object of a deputation more calmly put aside; never was what should have been and was in itself an important demonstration, converted by a minister, knowingly or unknowingly, intentionally or unintentionally, into a mere local fizzle. Either Mr. Dodson was badly coached, or he had failed to appreciate the point of the representations made. Larger issues were put before him in the hope that he would not only appreciate the object of the deputation, but would also be prepared to discuss its relationship to the general health-legislation of the country. It was taken for granted, in the observations of the Chairman of the Parliamentary Bills Committee, that Mr. Dodson would at once have recognised the importance of taking steps to ascertain in what manner the notification of infectious disease could best be carried out; and it was further suggested that this would be a proper opportunity for considering this question in relation to the general health-law of the country, especially in relation to those districts throughout England, which are many, where infectious hospital-accommodation is not provided at all, and to other places where considerable powers have been taken by local Acts in excess of those which the Public Health Act provides, at the same time that the necessary supplementary provisions have not been supplied. But not only did Mr. Dodson not touch the subject, but he never came near it; he never got beyond his own little trouble of the Metropolitan Asylums Hospitals.

The only lesson which seems fairly derivable from this deputation is, that, until a minister is put at the head of the Local Government

Board who will really take the trouble seriously to study the questions of public health which he has to determine, and to receive deputations with instructed intelligence, as well as average good-will, it is almost hopeless to get anything done. For all that appears to the contrary, Mr. Dodson was thoroughly unable to sift the collateral twaddle which is incidental to speeches on such occasions, from the real point of what was presented to him in the resolutions and report handed in; and the result was, that he gave a verbal reply which was no answer, and that this great effort of all the vestries and of the various associations was treated as if it were aimless, pointless, and unmeaning. They were put off with a reference to difficulties of a purely collateral nature; and the great object of the deputation was left practically untouched and unnoticed. Nothing could be more disheartening; and rarely has a public department made a more unfortunate appearance before a deputation, or left a more painful impression of inability to grasp, or unwillingness to deal with, the matters presented. This is the more to be regretted, that no one doubts that, if Mr. Dodson will take the trouble to read the reports which have from time to time been forwarded to him, or to avail himself of the information on the subject which exists in his department, he possesses more than enough practical ability to deal with the whole matter in a statesmanlike manner.

Mr. Dodson is new to sanitation, and questions of public health may appear to him uninteresting; he can hardly, however, consider them unimportant, and it is earnestly to be hoped he may review the responsibilities of his position as the present health-minister of the country, and so far study this momentous, and not very difficult, matter, as to put himself in a position to deal with it more satisfactorily than his unfortunate speech to this deputation at present warrants us in expecting. It must be felt by the supporters of the Liberal Government as a great reproach, that health-subjects are dealt with in this extremely perfunctory and unsatisfactory manner by the head of a great department.

THE GENERAL MEDICAL COUNCIL.

THE General Medical Council held last week a session of five days' duration. This has been one of the shortest of the ordinary annual sessions since the institution of the Council in 1858. With two exceptions, all the members attended. The Rev. Dr. Haughton, representative of the University of Dublin, was detained by his official duties as Senior Lecturer in Trinity College; and Dr. Rolleston, representative of the University of Oxford, was, we regret to learn, disabled by illness.

The topics brought before the Council were few. Among the most important of them was the preliminary education and examination of intending students of medicine. It will be remembered that, last year, the Council revised its recommendations as to the subjects of general education of which a knowledge should be required; and reiterated the desire which it had for many years expressed, that the preliminary examination should be left in the hands of the universities and other bodies concerned in education, in place of being conducted by, or under the superintendence of, the medical licensing boards. In accordance with this desire of the Council, the Royal College of Surgeons of England has decided on the discontinuance of the examinations hitherto held under its direction by the College of Preceptors, and on merely requiring from candidates for its diplomas evidence of having been placed on the *Students' Register* by the Medical Council—a necessary condition of which is the fact of having passed one of the preliminary examinations recognised by the Council. A similar course has for many years been followed by the Colleges of Physicians in London and Dublin. In consequence of the decision of the Royal College of Surgeons, the College of Preceptors made a communication to the Council, offering to hold, at times most convenient to students about to enter on professional studies, examinations comprising all the subjects required by the Council, according to a scheme which was submitted. Inasmuch as a very large proportion of English medical students had been accustomed to undergo the preliminary examinations at the Royal College of Surgeons, the manner in which the void created by the discontinuance of these examinations—which were held in March and September, the times most convenient for students—should be filled, was a subject for serious consideration. In discussing the matter, the Council reiterated a formerly expressed opinion—of the justice of which there can be no doubt—that the general education of a student of medicine should not be of a special character, but such as every gentleman should possess, and that the examination should be such as any well-trained schoolboy ought to be able to pass. To several members, it appeared that the proposal of the College of Preceptors went too far in the direction of specialisation; although it was explained that it was not intended that other persons than medical students should be excluded from the examinations. Ultimately, the Council did not formally adopt the proposal of the College of Preceptors, but decided on entering into negotiation with that body and the universities, in order to ascertain whether their examinations, which are now held at or about Midsummer and Christmas, can, at least in part, be held at times more suited to the wants of medical students. At a subsequent stage, it was resolved to recognise, under certain conditions, the second class examinations of the College of Preceptors, in addition to those of the first class, which are already on the list approved by the Council.

In connection with the revised recommendations of the Council regarding preliminary examinations, communications were read from the Universities of Oxford and Cambridge, pointing out that their examinations did not strictly fulfil all the conditions laid down in the recommendations; especially in regard to History and Geography, Dictation, and English Literature. It was decided that the examinations in general education conducted by the universities should continue to be recognised; but that, if they did not comprise "the Elementary Mechanics of Solids and Fluids", a knowledge of these subjects should be required at a subsequent examination.

Another question in connection with the preliminary examinations, which was considered by the Council, was the exemption, from certain of the recommendations, of natives of India who came to this country to follow or complete their course of medical study, and to obtain degrees or diplomas. It appeared that several Indian students had applied to the Executive Committee for registration, having passed their matriculation examinations at the universities of their country, but having been examined in Sanscrit or some other language in place of Latin, which is required by the recommendations of the Council. In such cases, it has been the practice of the Scottish Branch Council to require the candidate to undergo an examination in Latin within a reasonable time; while the Executive Committee, in a report presented to the Council, stated that they had acceded to the request for exemption from Latin made by such students. The Council decided to give authority to the Branch Councils and (in cases of expediency and urgency) the Executive Committee, to allow in certain cases exemptions from the strict letter of the recommendations of the Council.

During the session of 1880, the Council expressed the opinion that "it is desirable that intending candidates for the medical profession should, before they enter on the purely medical curriculum, have been instructed and examined in the Rudiments of Natural Science—Physical, Chemical, and Biological; and that, in proportion as this can be done, the present medical curriculum and the present professional examinations should be lightened of all such matters". A committee was appointed to communicate on the subject with the licensing bodies, and to report to the Council. This Committee, of which Dr. Haldane was chairman, accordingly drew up a series of queries which were submitted to all the bodies concerned. Replies were received from all except two—several of the answers only arriving while the Council was sitting. The Committee, towards the end of the session, presented a report summarising the opinions of the universities and corporations, and offering certain recommendations for the consideration of the Council. After a debate on the question whether the discussion on the recommendations should take place at once or be postponed to

next year, the Council decided to request the licensing bodies to take into consideration the possibility of holding such preliminary scientific examinations as were suggested.

A proposal, made by Mr. Macnamara, that the Council should recommend the holding of yearly examinations which the student should be required to pass before proceeding with other departments of medical study, was rejected; the proposer and seconder (Dr. McClintock) alone voting for it.

The Council exercised its judicial function in the case of Samuel Levenston, a graduate of Medicine of the University of Glasgow, who was charged with the circulation in Glasgow and the neighbourhood of pamphlets and handbills of an improper character. Dr. Levenston appeared in answer to the summons issued, and was ably defended by counsel. In his examination, the fact of the distribution of the documents was admitted; but the plea was raised that, although such conduct was highly unprofessional and improper, it was nevertheless not, in the words of the Medical Act, "infamous in a professional respect". The Council, however, decided that Levenston had been guilty of such conduct, and ordered that his name should be erased from the *Medical Register*.

The Report of the Finance Committee showed that the income of the General and Branch Councils in 1880 was £6,871 19s., and the expenditure £5,303 18s.; the excess of income over expenditure being £1,568 1s. In no previous year during the last seven years, has there been so great a surplus; indeed, in four of the years, there were deficiencies, amounting in 1874 to £878; in 1875 to £820; in 1877 to £649; and in 1878 to £116; whilst the surplus years were 1876, with £374, and 1879, with £961. On the other hand, the balance-sheet of the Dental Registration Fund showed a less satisfactory state of affairs; the income for the year amounting to only £616 7s. 3d., and the expenditure to £1,808 10s. 7d.; leaving a deficiency of £1,192 3s. 4d. to be met from the capital fund, and reducing the balance in hand from £10,489 at the beginning of the year to £9,296 at the end of the year. The treasurers calculated that there will probably be an annual future excess of expenditure over income, in the matter of Dental Registration, amounting to about £800.

Some business connected with the Dentists' Act was transacted. An application by thirty registered dentists, that their titles as surgeons should be placed on the *Dentists' Register*, was, after some debate, assented to. This determination of the Council is at variance with previous proceedings; and, while much may, no doubt, be said in favour of allowing the more extensively educated dentists to make known the fact that they are also duly qualified surgeons, a question may be raised as to the strict legality of the action taken by the Council. A few doubtful cases of registration were considered, and dealt with according to their merits.

The visitation of examinations has been resumed, and is being conducted for the Council by Mr. Teale of Leeds, Professor Gairdner of Glasgow, and Professor Stokes of Dublin. No report has been presented this year; but it may be expected, from the known competency of the writers, that in another year much valuable information will be laid before the Council and the profession.

ARMY-SURGEONS AND THE LATE BATTLES AGAINST THE TRANSVAAL BOERS.

We have received from time to time, while the war was in progress, reports of the admirable conduct and distinguished bravery of the army medical officers who accompanied the troops in the recent military operations on the Natal frontier against the Transvaal Boers. The number of surgeons who lost their lives, and of those who were wounded, in the various actions that took place, sufficiently testified to the fact that there was no lack of courageous devotion to duty on the part of the officers of the medical service. We are gratified in receiving equally satisfactory accounts of the excellent manner in which the hospitals in front have been conducted, and the wounded patients in them attended to. A communication recently received from Fort Amiel, near Newcastle, mentions that there have been very few deaths among the large number of wounded that were brought there from the last action at Majuba Hill, as well as from the previous actions in the neighbourhood; while some men suffering from wounds of the severest kind, including several gunshot fractures of the thigh and penetrating wounds of the lungs, are now making favourable progress toward complete recovery.

A leading article, purporting to be what may be called a review of the medical campaign during the operations against the Boers, has appeared in one of the last numbers that has reached this country of the *Natal Witness*, an influential newspaper published at Pietermaritzburg. The article is too long to be repeated; but we are tempted to make a short extract from it, not merely on account of the remarks being so creditable, as they are, to all concerned, but because they cannot fail to afford satisfaction to many persons in this country who have had relatives or friends among the wounded in the distant colony of Natal, by showing how thoroughly their necessities have been looked after, both in the field itself, and in the hospitals where they have been afterwards placed for care and treatment.

"If a retrospective contemplation of the war now brought to a close is not wholly a pleasant one", says the article in question, "there is one feature, at all events, which we can regard with unmixed satisfaction. The treatment of our wounded men on the field and in hospital by our army surgeons would appear, by general assent, to have never been surpassed. At the action of Lange's Nek, the dressing-station for the wounded had been fixed near to the guns; but, as the 58th Regiment advanced, and the men were falling rapidly, Drs. Ring and McGann moved up behind the advancing column, and, on its retirement, remained, amidst a hail of bullets, attending to the wounded. The native bearers on this occasion—and on this occasion only—also did their duty, bravely bringing in the wounded on stretchers to the field-hospital. At the final disaster, at Majuba Hill, the officers of the medical service remained faithful to their duties, even unto death. Dr. Cornish was shot, as, with a piper of the 92nd Highlanders, he was carrying a wounded man on a stretcher that had been abandoned by its bearers. Dr. Landon, always keen for duty in the field, and taking a special pride in his Army Hospital Corps, met his fate at the final rush of the Boers, as, with a few of his men, he was engaged seeing to the wounded on the ridges. The ruling passion strong in death, he called Dr. Babington's attention, shortly before he expired, to the meritorious conduct of his men; and well he might. Private Farmer, Army Hospital Corps, with both his arms broken and in splints, wandered about that dreadful hill all night, aiding the wounded as best he could. We hear that Sir Evelyn Wood has recommended this man for a Victoria Cross. It is conduct that would certainly commend itself to that gallant soldier. With such deeds to record, and the excellent provision made to meet the demand of about three hundred and fifty grievously wounded men—before, too, reinforcements of medical men and material could arrive from England—Surgeon-General Holloway has every cause to be proud of his department. The strain on it, under such exceptional circumstances, has doubtless been great; but it has been met. Dr. Holloway wisely availed himself of the liberality of the several societies hurriedly formed at Durban, in this city, and at Newcastle, to succour the wounded; and by them every comfort and luxury not supplied by Government, that kindness could suggest, has been freely contributed."

THE MILK-EPIDEMIC IN ABERDEEN.

The outbreak of a new disease is always a matter of great importance, both for the patient and the physician. That a new form of disease has recently appeared in Aberdeen seems quite certain; and that it was connected in some way or other with the milk-supply seems also certain, from a consideration of the following facts. Near the town of Aberdeen, there is a reformatory school, called the Old Mill, where over one hundred and fifty boys are carefully looked after, with a view to the cure of their moral obliquities, and where they may learn an honest trade likely to be useful to them in after-life. The reformatory

is managed by a board of directors, of high integrity and acknowledged business capacity. Attached to the school is an extensive dairy, where over forty cows are kept. A large and profitable trade in milk is carried on with the best families in the town, as the directors of the institution have spared no expense to render their milk a high-class and wholesome article. But the best laid plans of men "gang aft agee". The milk was supplied to over one hundred families, comprising more than three hundred persons. About the beginning of April, and apparently without the slightest warning, the milk seems to have suddenly become a poison, in place of a wholesome food. Within a few days, ninety families who received their milk from the reformatory were affected with what appeals to be a new disease. Over three hundred persons were attacked, and only twenty of the families supplied with milk escaped. No case of the disease was found in any family that did not receive its milk-supply from the Old Mill. The person was attacked with severe rigors, which might last several hours, or even for a day; this was followed by marked febrile symptoms. The tonsils were slightly enlarged, but there was no false membrane; and a marked feature was the swelling of the lymphatic glands of the neck and those above the clavicle. The prostration was extreme. The febrile symptoms passed off in a few days; but in a great many cases there was a sudden relapse, and the relapse was often more severe than the primary attack. Sometimes three or four relapses occurred, and the patients were in all cases left extremely weak. In a few cases, the attack was slight; but it proved fatal in three cases where the patients were old and frail, and unable to recover from the prostration. A peculiarity is, that only a few of the officials of the reformatory were affected; while the boys seem almost entirely to have escaped. The boys got skimmed milk, whilst the officials were supplied with sweet milk. The supply of milk was ordered to be stopped, and the spread of the disease stopped as suddenly as it began.

The Lord Advocate appointed Mr. Andrew Rutherford, advocate, and Dr. H. D. Littlejohn of Edinburgh, to act as Commissioners under the Public Health (Scotland) Act, to investigate publicly the circumstances of the case. The gist of the evidence obtained by the Commission has already been reported in our columns. It seems undoubted that the epidemic was clearly attributable to the milk; but the question comes to be this: Was the milk *per se*, as it came from the cows, a perfectly innocuous fluid; and, if so, how did it come to produce the poisonous symptoms above described? Was it tampered with in any way by the addition of some ingredient before it reached the consumer? The evidence clearly showed that the water-supply to the dairy-farm was not satisfactory; for all the water for the cows came from a large and practically uncovered cistern, which was placed in the byre where thirty cows were kept. The water, on being analysed, was shown to be bad; but still that is not sufficient to show how the disease originated. It was not shown that this water was added to the milk, though some of the milk-pans may have been washed with it. The Commissioners had to investigate the matter after the disease had disappeared; after the cistern had been washed out; and, in fact, after many of the conditions on which the epidemic depended had become altered. It was only by chance that a specimen of the milk supplied to one of the customers was kept. That milk contained organisms which seem to to be entirely new to science; but it will require further experimentation on animals to show that these organisms can produce a similar disease. But, as far as the evidence goes, one cannot say how these organisms came into the milk. A *post mortem* examination was made on the body of one person who died from the disease; but no organisms were found either in the blood or in any of the tissues. No organisms were found in the blood of patients suffering from the disease. Reviewing the whole circumstances of the case, it cannot be said that the result of the investigation is so satisfactory as could have been wished.

THE first Blue-book ever printed in the colony of Lagos has been presented to Lord Kimberley. In it the Lieutenant-Governor reports that "Lagos is not only not so unhealthy as it has been credited with being, but that, by strict and unremitting attention to sanitary improvements, the mortality of Europeans from climatic causes may be greatly diminished".

THE fatal cases of small-pox in London, which had steadily increased in the six preceding weeks from 43 to 84, were 70 last week, of whom 29 had resided in the South, 17 in the North, 11 in the East, 7 in the West, and 6 in the Central groups of registration districts.

THE small-pox epidemic is stated to be on the increase in Maidstone, there being no fewer than twenty cases, the largest number known for many years. The sanitary authorities are exerting themselves to isolate the cases; and, the infectious hospital being inadequate, a tent has been erected on the outskirts of the town for the reception of some of the patients.

AT a recent meeting of the Kensington Vestry, Dr. Dudfield, the medical officer of health, read a report which stated that there had been fifty-two cases of small-pox in the parish in the past four weeks. Nine cases were kept at home for want of accommodation. The report also stated that two hundred cases in the metropolis were waiting to be admitted into some hospital, there being real danger involved in treating them at home.

DR. DANFORD THOMAS, sole medical candidate for the coronership of Central Middlesex, is, we are glad to hear, making satisfactory progress in his canvass. Medical men will not omit to remember on this occasion that it is of the greatest importance that the coronership of Central Middlesex should be retained as an appointment in the possession of the medical profession. It is an important office, highly paid; and such offices are few in the profession. Dr. Thomas has been well trained for the appointment by his experience as deputy-coroner, and will certainly fill it with credit. No effort will, we hope, be wanting from the medical men in the district to support the medical candidate.

HARVEIAN SOCIETY OF LONDON.

As this is the fiftieth anniversary of the Harveian Society, the Council propose to hold the annual *conversazione*, in June next, on a larger scale than usual, if possible at the South Kensington Museum. A committee has been appointed to carry out the arrangements, consisting of the President, Mr. Henry Power, Dr. J. E. Pollock, Dr. Farquharson, M.P., and the Honorary Secretaries.

INTERNATIONAL MEDICAL CONGRESS.

By the change in the presidency of the College of Physicians, Sir W. Jenner becomes *ex officio* Chairman of the General Committee of the Congress, a post the duties of which have, up to the present time, been ably discharged by the Chairman of the Executive Committee, Sir Risdon Bennett. Owing to a deficiency in space for the accommodation of the sections, dependent on the fact that the honours examinations of the London University will necessitate a portion of the buildings in Burlington Gardens being reserved, the Executive Committee have had to look for fresh meeting places; and these have been generously placed at their disposal by the authorities of the Royal School of Mines in Jermyn Street, and the Royal Institution in Albemarle Street; the use of the admirable theatres of both these buildings having been granted. Two hundred and fifty foreign medical men have, up to this time, definitely announced their intention to attend. Abstracts of papers are rapidly arriving for translation into the three official languages of the Congress; these will be regarded as strictly private communications until the opening of the Congress, when they will be published in connection with the programme already in circulation. Unless the abstracts are sent in early, the translation and printing of them become a sheer impracticability. The Committee have been much gratified by the receipt of fifty guineas, a liberal donation, from another corporate body, the Faculty of Physicians and Surgeons of Glasgow, this raising the sum now received from such sources to

£235, a very satisfactory proof of the favour and sympathy with which the Congress is regarded in the three kingdoms. The London Medical Corporations intend to show all the hospitality in their power; the College of Physicians have most liberally placed their house at the disposal of the Reception Committee for a head-quarters during the meeting, its central position making it especially desirable for such a purpose. The College of Surgeons will entertain the whole Congress at a *conversazione* at the Hunterian Museum; and the Society of Apothecaries purpose giving a dinner to a number of members in their Hall at Blackfriars. The Executive Committee are particularly anxious to make known to the profession that a register now lies at the College of Physicians, in the charge of Mr. Gurner, where members can inscribe their names and pay their membership subscriptions. The inscription of names in this book is particularly to be wished, since it will very much diminish the press of members who will need to be enrolled on the opening day of the Congress. At the College of Physicians, also, forms are provided, to permit those desirous of offering hospitality to enter their own names and the names of the guests they wish to invite. An inspection of this book will prevent numerous invitations from being sent to the same person for the same date, and will thus tend to distribute private hospitality more widely and evenly.

CHARGE AGAINST A DRUGGIST.

At Bridgwater, on Monday, April 25th, Mr. William Henry Griffith, chemist and druggist, was charged with that, on March 16th, the guardians of the Bridgwater Union demanded of him a certain drug—a solution of sulphate of quinine; and that he unlawfully sold to the said guardians, and to their prejudice, a certain drug which was not of the nature, substance, and quality of the drug demanded. Mr. Cook, the Town Clerk, who appeared as the prosecutor, opened the case with a recital of the provisions of the Sale of Food and Drugs Act; and the following facts were elicited. The defendant had entered into a contract with the board of guardians for the supply of drugs, one of such articles to be so supplied being quinine. On March 16th, Mr. Weller, one of the district medical officers, residing at Westonzoyland, sent to Mr. Parsons, the medical officer, the following prescription: "Sulphate of quinine, 20 grains; dilute sulphuric acid, 25 drops; water made up to 10 ounces." On the receipt of this, Mr. Parsons placed himself in communication with the inspector of nuisances; and the prescription, intended for a woman under Mr. Weller's care, who had been suffering for some time from intermittent fever, was taken to the defendant to be made up. The prescription, as made up by Mr. Griffith, was taken possession of by the inspector of nuisances, divided into three parts; and one part, consisting of three ounces, was sent to Mr. Stoddart, public analyst, for analysis. Mr. Stoddart's certificate, dated March 24th, states: "I am of opinion that it contains only .64 grain of quinine instead of 2 grains in each fluid-ounce." Mr. Barham, who appeared for the defence, contended that the purchase was made by the board of guardians, and not by Mr. Parker; and that, as the Act contemplated that the proceedings should be taken by the person who made the purchase, the Act had not been complied with. There had been no proof that Mr. Parsons, upon whose instructions Mr. Parker had acted, had any authority from the board of guardians to institute these proceedings. Mr. Cook contended that Mr. Parker acted throughout as the agent of the board of guardians, and that there had been a strict and literal compliance with the provisions of the Act. The magistrates fined Mr. Griffith £10 and costs. Mr. Barham applied for a case to the Court above, and the application was acceded to.

THE QUEEN'S HOSPITAL, BIRMINGHAM.

After an active service extending over nearly a quarter of a century, and marked by an earnest devotion to clinical work, Mr. Sampson Gamgee has resigned the office of Surgeon to the Queen's Hospital, having determined to confine himself exclusively to his private practice, and to take a well-earned rest from his public professional labours. At a largely attended and specially convened meeting of the committee of the hospital, held on April 29th, the following resolution was unanimously carried: "That, in consideration of the long-continued services of Mr. Gamgee as one of the honorary surgeons, and of the important part taken by him in the erection of the out-patient department in 1873, and in the initiation of the Hospital Saturday collection, this committee recommends to the governors that he should be appointed consulting surgeon to the hospital." The chairman of the hospital committee, and Dr. Hunt, chairman of the medical committee, were appointed a deputation to convey to Mr. Gamgee the views of their colleagues. Mr. Gamgee's brilliant contributions to surgical literature are well known to the profession; but many of our readers are possibly unaware that the Hospital Saturday movement, which has since been copied in many towns in the United Kingdom and in the colonies, was first planned and worked to a successful issue in Birmingham by Mr. Sampson Gamgee. We understand that Mr. William Thomas, Mr. Bennett May, and Mr. Jordan Lloyd, all Fellows of the College of Surgeons, are already in the field as candidates for the vacancies arising from Mr. Gamgee's resignation.

THE ISOLATION OF SMALL-POX PATIENTS.

At a meeting of the Metropolitan Poor Law Guardians' Association, held recently, at the offices of the Lambeth Guardians, Mr. Albert Pell, M.P., presiding, Mr. J. H. Rutherglen, clerk to the Kensington Guardians, who was formerly one of the chief officers of the Metropolitan Asylums Board, read an important paper on "The legal and other difficulties at present existing to the isolation and treatment of cases of small-pox and fever among the poor of the metropolis". Mr. Rutherglen gave an exhaustive review of the state of London before the passing of the Act of 1867 which called the Metropolitan Asylums' Board into existence. He pointed out that the only hospitals in London specially for infectious disease before 1867 were the London Fever Hospital in the Liverpool Road, and the Highgate Fever Hospital; but that in 1866 power was given to the nuisance authorities of the metropolis to make necessary provision, which, however, had been very sparingly used. He then traced the policy of the Metropolitan Asylums Board in dealing with the small-pox epidemic in 1871-72, when some 16,000 persons were treated in the asylums, out of an estimated number of 50,000 persons attacked. Mr. Rutherglen then dwelt upon the logical effects of the late decision in the House of Lords in respect to the Hampstead Asylum, and remarked that it was the duty of the Government to take steps to save the metropolis from the horrors which would fall upon it if injunctions were to be obtained to close the small-pox and fever asylums. This proceeding for injunctions against the other fever and small-pox asylums would be likely to follow the case of Hampstead, and he warned the guardians that they would have to face this difficulty in regard to the proposed "district" asylums. He remarked upon this point that the Guardians of Kensington proceeded to prepare a hospital in the present emergency, taking it that the persons who were expressing their willingness for a "district" hospital were sincere; but no sooner was the intention of the guardians known than an alarm was raised, meetings were held, and even the vestry joined in the petition against the opening of a supplementary hospital. Everybody considered the hospital necessary, but they wanted it elsewhere. He pointed out by facts that the existing hospitals of the Asylums Board had not been productive of any evils; the opposition to these had mainly arisen from sentiment; and he remarked that the objections which had been taken to the Metropolitan Asylums Board hospitals would be taken against district small-pox asylums wherever they were attempted to be set up in the crowded parts of the metropolis. Such places would be an unmitigated nuisance in the present, and would be productive of great evil in the future. He moved a resolution expressing the opinion that the present system of dealing with infectious diseases in the metropolis was the best which could be adopted, calling upon the Government to give effect to the Act of 1867, by strengthening the hands of the Metropolitan Asylums Board—the same Bill to contain a provision for enforcing the compulsory notification

of infectious disease, and giving power for the removal of persons to asylums (when they could not be treated properly in their homes) and for the non-pauperisation of persons treated in the asylums. Mr. Edgcombe, a Kensington guardian, seconded the motion, remarking upon the great straits in which the local authorities of London were now placed by having no available hospital accommodation for these cases. He said that nurses could not be obtained to attend upon the people in their own homes. Mr. Pell, M.P., also dwelt at length upon the enormous difficulties which had been cast upon the metropolis in this matter. He fully recognised the necessity of steps being taken to obtain an amendment of the law. The motion was carried, and it was agreed to send a copy to the Local Government Board.

CALF-LYMPH FOR THE METROPOLIS.

WITH the hesitation that seems to clog all their movements, the Local Government Board have not yet "completed their arrangements" for the supply of animal lymph, as promised by Mr. Dodson now nearly twelve months ago; and meanwhile small-pox continues to rage in the metropolis virtually unchecked. With all the small-pox hospitals full, and with divided counsels amongst the thirty boards of guardians who administer vaccination in the metropolis, it will be scarcely surprising if we have a repetition of the lamentable epidemic of 1871. In ordinary non-epidemic times, there are, of course, cogent reasons why vaccination should be systematically performed at stated periods, and at no other. But why, in the midst of an epidemic, when every day, and perhaps every hour, is of importance, it should be necessary to wait till the next weekly vaccinating-day comes round before applicants for the operation can be satisfied, is an official puzzle which it would be hopeless to attempt to understand. A great deal is said about the necessity of "keeping up the stock of lymph", and of the consequent importance of having vaccination performed regularly; but it is impossible to ignore the far superior, as well as prior, claims of instant protection of susceptible persons. Here it is that the lack of a plentiful supply of animal lymph, which shall make the vaccinator independent of serial vaccinations, becomes most apparent. A vaccinator having only children's arms as sources of lymph, must needs be limited in the supply he is able to obtain; but there ought to be practically no limit to the amount of animal lymph, which is much more efficacious and protective than ordinary human lymph, that could be obtained, under reasonably active arrangements, for vaccinating calves and distributing the lymph they yield. The Local Government Board are regarding with inexplicable passivity the extension of small-pox in the metropolis; and it would be well if some considerable pressure could be brought to bear upon them, to induce them to contemplate the present situation with something of the gravity of the helpless outside public.

THE EFFICIENCY OF RE-VACCINATION.

NOW that the public mind is getting seriously exercised about the extension of small-pox in the metropolis, it is well that the very great protection from attack by that disease—amounting almost to absolute immunity—afforded by re-vaccination should be properly understood. Each recurring epidemic brings back the same story of re-vaccinated persons escaping attack whilst their neighbours and relatives, less perfectly protected, are seized by the disease. But the protective value of re-vaccination is most strikingly shown by the immunity from small-pox enjoyed by particular classes of persons, such as soldiers, sailors, policemen, customs officers, postmen, hospital nurses, and others who are re-vaccinated as a condition of their employment. We have on former occasions given the statistical facts as to the protective influence of re-vaccination on certain of these classes, who can, as stated by the Local Government Board in the vaccination tract to which we referred last week, "live in cities intensely affected by small-pox, without themselves suffering to any appreciable degree from the disease"; and an important corroboration of these results is now afforded by a report just furnished by the chief medical officer of the General Post Office, Dr. Walter Lewis. This report relates to an average number of 10,504 persons permanently employed in the postal service in London, all of whom have been required to undergo re-vaccination on admission to the service, unless that operation had been performed within seven years previously. Among those persons, during the ten years 1870-79, there was not a single fatal case of small-pox, and in only ten instances were there non-fatal attacks, all of which were of a very slight character. In the Telegraph Department, where the enforcement of revaccination has not been carried out with quite the same completeness, twelve cases occurred in the same period, among a staff averaging 1,458 in number. Eight of these attacks were of persons who had not been revaccinated, and one proved fatal. The remaining four were of revaccinated persons, who all perfectly recovered without pitting. This experience goes to confirm the belief that revaccinated persons enjoy absolute immunity from severe attacks of small-pox, and that their risk of catching the disease at all, even in its most modified form, is infinitesimal. If this fact were steadily borne in mind by all heads of families, and if revaccination were made the rule, rather than the exception, as soon as the age of puberty is reached, without waiting for the panic of an epidemic, small-pox would have many fewer victims than at present.

THE EXPORTATION OF SMALL-POX.

NOT only has small-pox been exported from the metropolis to a multitude of places in Kent, Surrey, Hertfordshire, and the other home counties, but it has been transported much further into the provinces. In his last weekly report on the health of Bristol, Mr. Davies recorded a case of small-pox in the city, brought from London; which, as Mr. Davies said in characteristic language, has, "through the division of authority, litigation, and general blundering, become the radiating centre of this disease for the whole country".

TREATMENT OF ERECTILE TUMOURS BY VACCINATION.

M. CONSTANTIN PAUL communicated to the Société Médicale des Hôpitaux the case of a child who had had four large erectile tumours occupying a fourth of the cranium surface, and in whom he obtained a complete cure by vaccination. He spread vaccine over the surface of the tumour, and then made scarifications. A large quantity of vaccine is required, and therefore calf-lymph must be used.

LONDON UNIVERSITY.

A REPORT will be laid before the next meeting of Convocation on the question of holding a preliminary scientific examination twice annually. The subcommittee recommend "that the preliminary scientific (M.B.) examination be held twice in the year—viz., in March and August; and that it be optional for candidates to take up all four subjects at once, or two such subjects, at a time to be previously specified by them". This recommendation should, in our opinion, be adopted; and we would strongly urge medical graduates of the University to attend and to support it. Every one who is at all cognisant of the present state of facts must deplore the very limited extent to which the University of London fulfils its functions as a graduating institution in relation to the medical profession. We have more than once pointed out the extremely limited number of graduates of London who are now practising medicine; and the proportion tends rather to become smaller than greater. If the University of London is to fulfil its function as a medical body, steps should be taken, in more than one way, to increase the facilities for graduating. That which is now proposed will not go very far in this direction, but it will at least remove some preliminary difficulties, by increasing the opportunities for candidates to present themselves for examination, and by lessening the expense and waste of time which has hitherto been incidental to the successful or unsuccessful who passed through all the stages of examination. The proposal is a very moderate one, and is an arrangement not affecting in any way the strictness of the examination; as to which, many of those who support this resolution will differ from ourselves. It is one, therefore, which all who wish to see the University of London more closely united to the medical profession should be willing to support; and we hope that a large attendance of graduates will assist to carry it through convocation.

SHAM UNIVERSITIES.

AFTER eight months of litigation in the courts, the State Government of Pennsylvania secured, on March 15th, a decree of ouster in the *quo warranto* proceedings against the Philadelphia University of Medicine and Surgery. This result was brought about by agreement of counsel on both sides, the following papers having been filed in the Court office. "And now, March 15th, 1881, the defendants served . . . . . say that they disclaim any intention in the future to exercise any corporate right; and that they consent that a decree of ouster may be entered as of this date, without costs; the commonwealth expressly recognising all diplomas granted in accordance with the terms of said charter, and validating all past acts, the decree prohibiting only the exercise of any future corporate act." This medical college was known as "Dean Miller's".

THE PHILADELPHIA DIPLOMAS.

IT is reported from America that Dr. John Buchanan, one of the principal actors in the proceedings connected with the "bogus" medical diplomas of the Philadelphia University, who is at present undergoing a sentence of imprisonment for a share in those fraudulent transactions, has surrendered to the State authorities all his books, letters, and papers connected with the sale of diplomas. Among them is a list of the diplomas sold to foreigners, and it is said that the correspondence includes letters from about five thousand persons who wished to obtain diplomas. It further appears that three professors of the University joined in signing five hundred diplomas, five dollars being paid each time for a signature. The Spanish Consul in Philadelphia is charged with having certified the authenticity of some of the diplomas sent abroad, receiving a fee of 350 dollars for this friendly help. Altogether it is estimated that nearly ten thousand persons are more or less compromised by Buchanan's revelations. As a result of the *exposé*, the charters of the Livingstone Medical University of Charleston, Virginia, and of the New England University of Arts and Sciences, of Boston, have been repealed.

TYPHOID FEVER AT TOTNES.

DR. FRANKLIN PARSONS has presented to the Local Government Board his report on the serious prevalence of typhoid fever which occurred at Totnes and in its vicinity last year. He has not been able to trace the causation of the outbreak very clearly; but he seems to regard it as due partly to the scarcity of water, in consequence of which the sewers and water-closets were insufficiently flushed, and people resorted for their drinking-water to wells yielding water of bad or inferior quality; and partly to the disturbance of old accumulations of foul matters during the excavations for the new sewers. He finds the sanitary administration of the town to have been imperfect in a number of respects, especially as regards the removal of nuisance. Of late, however, a large number of notices have been issued for the repression of nuisances found during a house-to-house visitation, though the Town Council have not taken any legal proceedings against those who disregarded the notices.

FEBRIFUGES IN MALARIAL FEVER.

IN a medical report on the health of the 3rd Indian Regiment of Native Infantry during 1879, Surgeon T. E. Worgan gives some interesting observations on the results of his treatment of malarial fevers with various febrifuges, the large amount of that disease amongst the troops offering a favourable opportunity for testing the value of drugs. Quinine being a costly drug, few cases were treated primarily by it, and only such cases as were of formidable character; the fact that recurrences took place is not, therefore, to be wondered at. Carbolic acid, a drug which does not appear to have attracted great attention as an antiperiodic and antipyretic, yielded most encouraging results. That these results would have been still better, Surgeon Worgan is convinced, had he employed the drug from the first in the manner which experience subsequently pointed out. The doses to be effectual must be full and frequent; ten minims of the carbolic crystals to the ounce of water, and one and a half ounce of this mixture repeated six times during the day. No bad results were ever noticed under this treatment; no vomiting or dyspepsia, though slight relaxation of the bowels was occasionally experienced. If the smallest fulness or hardness of the pulse were noticeable, an ounce of this mixture, combined with a diaphoretic, was administered a similar number of times, the diaphoresis compelling absorption by diminishing the tension of the vessels. This plan was pursued whether the patient was in the paroxysm or entirely free from it, if the pulse seemed to indicate its advisability. Eighty-five injections of quinine were performed, but seldom as a primary treatment. The doses varied from ten to forty minims, more than twelve minims never being injected in one place. Three cases of abscess occurred, and chronic localised thickening of the cellular tissue invariably resulted. In one case, four grains in one spot produced a slough within four hours. Since these cases, even though assisted by the internal administration of "alkaloids", only a show a proportion of about 33 per cent. of absolute success, and considering the pain and disagreeable results which may follow, Dr. Worgan does not think this measure will hold a very prominent position as a treatment, except in those severe forms of malarial fever where the stomach resents quinine, and rectal administration is objectionable. The cinchona alkaloids answered well in the milder forms of fever. Much of their failure is due to their nauseant properties, the dose being frequently vomited up five minutes after administration. That this property is less marked when administered as a draught than as a pill, seems certain. Another peculiarity in their action appears to depend on exposure to air, and their age. As each new tin waned, the dose had to be increased, to be again diminished on the opening of a fresh tin. Arsenic was frequently used as secondary to other drugs, and as such the results were satisfactory; seven drops, well diluted, did not appear to cause any inconvenience, though given when food could not have been present in the stomach. Salicine was administered in a few cases in which pyrexia was a marked symptom, with the effect of reducing the temperature, but exerting no appreciable influence over the recurrences.

THE HEALTH OF MADRAS.

FROM the recently issued administration report of the Madras Municipality, it appears that the year 1879 was the healthiest in that city since 1872, the number of deaths registered being only 13,803, while the average of the ten previous years (excluding 1877 as being abnormal) was 14,061. The only drawback was the prevalence of small-pox and fevers, the deaths from which exceeded the average by 1,222. Fevers prevailed at a much higher rate than small-pox; but it is curious that they rose and fell inversely, small-pox declining when fevers were on the ascendant, and *vice versâ*. There was a large diminution in deaths from bowel-complaints as compared with those of the preceding year, the numbers being 1,757 and 4,542 severally. Cholera, too, declined from 85 in 1878 to only 35 in 1879. The healthiest time of the year was from February to July, when the deaths were 1,150 below the monthly average, the other months having exceeded it. It is remarkable that almost the same number of deaths occurred among the two sexes; but, in proportion to the population, the mortality was greater among the males. Of the 13,803 deaths, only 906, or a little more than 6.5 per cent., occurred in the hospitals, from which it appears that those institutions are not yet sufficiently appreciated. The Hindoos and Mahommedans are, owing to religious and caste prejudices, averse to becoming inmates of hospitals, and, with rare exceptions, object also to European medical treatment, even in their own houses; this, to a great extent, accounts for the much higher death-rates among them than among the other classes. As in the preceding years, the mortality among children was excessive. Of the 13,803 deaths, 6,728 occurred among children under 12 years, or very nearly half the number. High as the proportion had been in 1878, viz., 44.09, it rose higher still in 1879, till it reached 48.74 per cent. The mortality among boys was somewhat in excess, the numbers being 3,449 boys and 3,279 girls, which is about 20 deaths among

boys to 19 among girls. Of the 2,068 above the age of 60 years, 805 attained the age of 70, 686 lived to 80, and 442 to 90. Women appear to be more tenacious of life than men; as out of 15 who died aged 99 years, 11 were females.

POISONING CASES.

SEVERAL cases of poisoning by belladonna-liniment have recently occurred. In one of these, in which a wineglassful (℥ij. ℥ij.) had been swallowed, recovery took place on the administration of the physiological antidotes, pilocarpine and tincture of opium. Of the former, one-fifth of a grain was subcutaneously injected every fifteen minutes until four-fifths of a grain had been used. It did not cause the least perspiration. These accidents seem, the *Pharmaceutical Journal* suggests, to point to the necessity of adding, in a future edition of the *Pharmacopœia*, some well-known powerfully odorous substance to the liniment, or of adopting some other means of readily distinguishing it from other medicines. Two cases have recently been recorded in the United States, in which respectively the infusion and the oil of tansy have proved poisonous. In the one case, in which an infusion of half an ounce of the dry herb was taken, the patient died in twenty-six hours. In the other, in which half a drachm of the volatile oil had been taken, an emetic was sufficient to cause recovery.

THE ANTISEPTIC TREATMENT OF DIPHTHERIA.

DR. WEISE (*Berlin. Klin. Wochenschrift*, 1881, No. 4) advocates the adoption of the following measures in the treatment of diphtheria. He prescribes a solution of salicylic acid, consisting of one part of salicylic acid and twenty-five parts each of rectified spirit and glycerine. This although a strong solution, is quite free from danger. The spirit, he explains, is used because, in former cases, benefit was derived from the local application of brandy to the throat; and the glycerine is added to obtain a less irritating solution. If the patient can gargle, the author employs a 1 in 300 salicylic acid gargle. Should the attack be very severe, he prefers a solution of benzoate of soda, 1 in 40, or even stronger. Coincidently with this treatment, he gives Hungarian wines. He pays particular attention to maintaining the patient's strength, and orders nourishment to be taken constantly, in the form in which it can be most readily assimilated. He speaks highly of Rosenthal's extract of meat mixed with yolk of egg, but gives solid food if it can be borne. His directions are somewhat as follows. At one o'clock, paint or gargle the throat with the salicylic acid solution; at half-past one, give a teaspoonful of Hungarian wine; at two, the benzoate of soda; at half-past three, a teaspoonful of Hungarian wine; and, during the next half-hour, more gargling with salicylate acid; the treatment being continued night and day without intermission, except that at night the intervals may be an hour, instead of half an hour. If possible, he employs a special apparatus of his own—a combination of tongue-depressor and spray. This, by reaching the back of the tongue, admits of a thorough examination with the simultaneous application of the antiseptic. In a few seconds, the whole throat can be washed out with the salicylic acid solution; and this is very necessary in preventing the spread of the disease. Moreover, by this method, bleeding may be speedily arrested. Sometimes he employs a 5 per cent. solution of carbolic acid as a spray.

TREPANATION OF THE ILIUM IN A CASE OF PELVIC ABSCESS.

THE patient, a tailor, aged 24, had disease of the lumbar vertebræ, a cold abscess starting from which had burrowed into the left hip-joint, and invaded the whole pelvis (*Deutsch. Zeitchr. für Chir.*, Band xii). An opening above Poupart's ligament not affording sufficient drainage, Dr. G. Fischer trephined the ilium at its upper and posterior part, and afterwards established a transverse drain across the pelvis. The patient died twenty-five days later from exhaustion, due to prolonged suppuration and progressive pulmonary tuberculosis. The necropsy showed that stagnation of pus had not taken place in any part of the pelvis; and hence Fischer considers that he has established the justifiability of trephining the ilium to obtain a counter-opening in cases of pelvic abscess.

TREATMENT OF DIABETES MELLITUS BY SALTS OF AMMONIA.

THE treatment of diabetes mellitus with chloride or citrate of ammonia (recommended by Adamkiewicz, and said by him to reduce the sugar in one case as much as one ounce and four-fifths daily) has been repeated, but without satisfactory result (*Zeitschr. für Klin. Med.*, Band i, Heft 3, p. 610), by Guttmann, in the case of a phthisical patient passing 6.4 per cent. of sugar in the urine. During the six days previous, the patient passed, on an average, 152 ounces of urine daily, containing 9 ounces of sugar; while during the five days that the ammonium chloride (two and a half drachms daily) was taken, the average daily amount of urine passed was 223 ounces, containing 14½ ounces of sugar; *i.e.*, 5½ ounces more sugar were excreted daily than before. In two further trials of five and three days each with the chloride and citrate of ammonia, the amount of sugar diminished only slightly—half to three-quarters of an ounce a day.

RESECTION OF LARGE TRUNK-VEINS.

PILZER opposes strongly (*Deutsch. Zeitschr. für Chir.*, Band xiv, Heft 21) the prejudice against ligature of large veins, citing recently recorded cases to prove that the fear of pyæmia in such cases is groundless. He gives in detail six cases from the Heidelberg surgical clinic. In all six, malignant disease was present; and the internal jugular vein was resected in four cases, both internal jugulars in another, and the femoral vein in the sixth. All the cases recovered. Resection of the vein is much to be preferred to the dissection of it out of the tumour, with the great risk of recurrence of the tumour from fragments left on the vein.

SCOTLAND.

UNIVERSITY OF EDINBURGH.

DR. GREENFIELD, the newly elected Professor of Pathology, was formally inducted into his chair on Monday by the Senatus Academicus. Dr. Greenfield will conduct the class of Practical Pathology this summer, but will not act as a professor of Clinical Medicine till next winter. The summer session has commenced, and the classes promise to be large. The only class which has not yet commenced is that of Botany, which has been deferred till the beginning of next week, in order that the class may be able to meet in the new class-room, which will be ready for occupation then. It will be remembered that the old class-room was so inadequate that the class had to meet in two sections, which not only necessitated double lecturing on the part of Professor Dickson, but also entailed much inconvenience on students, owing to the Botanic Gardens, in which the class-room is situated, being so far from the University. The clinical examinations in medicine and surgery began on Monday and Tuesday. Nearly two hundred names have been entered for the final examination; but it should be remembered that only one final examination is held in the course of the year. The class of Natural History will again be conducted by Professor Alleyne Nicholson, as Sir Wyville Thomson does not yet think it would be judicious to resume teaching after his prolonged indisposition.

EDINBURGH MEDICAL SCHOOL.

THE medical classes in the Extramural School, Edinburgh, opened on Monday and Tuesday. There are no additions to the lecturers previously at work, except in the case of Practical Pathology, taught by Mr. D. J. Hamilton, M.B.; and Medical Anatomy and Physical Diagnosis, by G. A. Gibson, M.B., D.Sc.

RUSTICATION OF STUDENTS.

A WARNING of a serious nature has been given to students this week—at least to those students whose conduct is as unfair to their fellow-competitors as it is dishonouring to themselves—by the action of the Senatus Academicus of Edinburgh University, in rusticating for one year two students who availed themselves of notes at examinations. One of them, we specially regret, was in the medical examinations.

STEWART INSTITUTION FOR IMBECILE CHILDREN.

THE annual meeting of the subscribers to this estimable charity was held lately, presided over by Lord James Butler. From the annual report, it appears that the subscriptions for the past year amounted to £853 9s., being a decrease of £24 16s. as compared with 1879; an amount so trifling when the period of depression through which the country has been passing is considered, that it may well be regarded as proving the interest taken in the institution, and as affording most favourable evidence of its usefulness, and of the recognition by its supporters of the benefits it confers on the sad and afflicted beings to whose care it is specially devoted. During the year a handsome legacy was bequeathed the institution by Mr. R. J. O. Vandeleur; and as one of the conditions of the bequest was that the testator's name should be associated with some portion of the building, the committee have named one of the wards the "Vandeleur Ward", and intend to have a tablet placed in the wall, bearing a suitable inscription commemorating the generous gift. In order to effect a settlement of the contractor's account, the banking account was largely overdrawn; and the amount due on the 31st December, 1880, came to £6,194 1s. 5d. The department for the idiotic and imbeciles is calculated to accommodate 80 children, but the committee regret that their financial resources do not enable them at present to admit more than three-fourths of this number; and when it is remembered that according to the census of 1871 there were upwards of 7,000 imbeciles and idiots in Ireland, and that at each half-yearly election from thirty to forty applicants fail to get admission for want of funds, the necessity for a cordial and generous support to the charity is shown. By the Poor Afflicted Persons' Relief Act, passed in 1878, power is given to guardians of workhouses, with the consent of the local government board, to contribute 5s. weekly towards the maintenance of imbecile children in suitable institutions. This is a matter of great importance, as tending to facilitate the election of many candidates who might otherwise remain long unsuccessful. The yearly payment of £13 carries 260 votes with it, and several children are now in the institution whose admission was greatly aided by this payment from the unions of the respective districts in which they resided. The medical superintendent's report stated that, at the commencement of the year, there were in the institution 51 children—21 boys and 30 girls; 8 were admitted during the year, and 9 were discharged, leaving a total of 50. There were no deaths during the past year. Of the 50 inmates, 6 are wholly dependent on assistance, 7 can assist themselves in a limited way, 16 can be taught to follow simple instructions, 21 are capable of learning a trade, etc. The report and statement of accounts having been adopted, the proceedings shortly afterwards terminated.

THE ALLEGED MURDER AT MERRYFLATTS ASYLUM.

THE above case has just been tried at the recent Circuit Court in Glasgow, and presents some features of interest and importance. The facts of the case are briefly these. A male patient, aged 25, was admitted to the Merryflatts Asylum in November last, in a weakly condition, and with impaired mental faculties, the effects of excessive drink. After admission, he was attacked by acute mania, which lasted several days, during which he was very violent, excitable, and quarrelsome, as well as dangerous to himself and others, making several attempts to commit violence on the other patients. One morning, the medical officer found that the patient was suffering from a fractured rib; but, as he could obtain no information about how it was caused, he formed the opinion that the injury occurred in a struggle with the attendants, or perhaps by a fall in the course of a struggle. The patient died; and a *post mortem* examination revealed the fact that, although the body bore no external marks of violence, on each side six ribs were broken, and there had been no attempt at repair. In consequence of inquiries set on foot, two night-warders, Littlejohn and Gall, were arrested and committed for trial, on the charge of having repeatedly assaulted the deceased, by holding him down on the bed, and by coming down with the hinder parts of their bodies several times on his chest and abdomen, did internally and mortally injure him that he died. The jury did not convict the prisoners of the capital charge of murder, or even of culpable homicide, but they found them guilty of assault; and the judge sentenced them to three months' imprisonment each. The chief point of interest about the case is that, leaving aside the medical evidence of what was found at the *post mortem* examination, the prosecution mainly depended on the evidence of a recent inmate of the asylum, who lay in a bed near the deceased, and who gave his evidence pretty clearly and collectedly, describing very graphically the "bumping" process by which the ribs had been broken and the patient reduced to a state of quietude. Notwithstanding the mental weakness from which this witness was suffering at the time, and though it was stated by the medical officer of the asylum that he was subject to "illusions of sight", yet the court admitted his evidence. It is this fact that renders the case one of novelty and of importance; for it is a rare occurrence to hear of a man giving evidence which is received in court as to facts occurring at a time when he was regarded as insane.

HEALTH OF EDINBURGH.

DURING last week, only one death occurred in Edinburgh from fever. Of nine deaths due to zymotic diseases, four were caused by whooping-cough. The mortality was at the rate of 18 per 1,000. In Glasgow, the mortality was 22 per 1,000.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending April 23rd, it appears that the death-rate in the eight principal towns during the week was 20.9 per 1,000 of estimated population. This rate is 4.0 below that for the corresponding week of last year, and 1.2 below that for the previous week of the present year. The lowest mortality was recorded in Leith, viz., 12.1 per 1,000, and the highest in Perth, viz., 29.2 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.3 per 1,000, being 0.6 above that for last week. There was a slight increase in the number of deaths from measles in Glasgow, and from scarlet fever and whooping-cough in Edinburgh. Acute diseases of the chest caused 135 deaths, being 9 less than the number recorded last week. The mean temperature was 42.4, being 2.0 below that for the week immediately preceding, and 1.7 below that for the corresponding week of last year.

REMOVAL OF THE LARYNX.

THE operation for removal of the whole larynx was performed on April 30th, by Dr. Foulis, at the Glasgow Training Home for Nurses. The patient was a man about fifty-five years of age, and the operation was done for malignant disease of the larynx. So far, he is progressing favourably; and no doubt the case will eventually be fully reported.

NEW FEVER HOSPITAL FOR GOVAN.

IT has been decided to erect a new fever hospital in this suburb of Glasgow. The present temporary hospital has accommodation for twenty beds, but the plans for the new building are to be prepared in such a way as to afford room for double that number. The site secured for the hospital is at Shieldhall, some distance to the west of the burgh of Govan.

THE PROPOSED SOUTHERN HOSPITAL FOR GLASGOW.

THE movement which was set on foot as far back as May 1878 by the Glasgow Southern Medical Society for the establishment and erection of a public hospital for the south side of Glasgow and surrounding neighbourhood, seems to be making satisfactory progress. The committee appointed to carry on the project, recently issued a circular to the different employers of labour on the south side of the city, and to all those likely to be interested in the matter; and the result of this step was very encouraging, and many promises of support were received. With the object of still further helping on the work, a public meeting was held on April 29th, under the chairmanship of the Lord Provost of Glasgow, when the necessity for such an institution was unanimously admitted, and a committee was appointed for the purpose of arranging for a site, obtaining subscriptions, and preparing a constitution and

rules for the management of the hospital, to be hereafter submitted for approval to a meeting of those who may agree to subscribe to the funds thereof. It is proposed that the hospital shall contain 120 beds, and it is hoped that it will be completed in a couple of years hence, should circumstances prove favourable. Promises of sums of money, from £1,000 downwards, have been already received towards the £30,000 which it is thought will be necessary for the erection and equipment of the institution. As the different speeches made at the meeting show that there is need for a southern hospital, and that the movement has originated in no spirit of opposition to the existing infirmaries, but rather to relieve the pressure on them, it is to be hoped the public will give a generous response to the committee's appeal for the necessary funds.

ABERDEEN ROYAL INFIRMARY.

At a meeting of the Committee of Management of the Aberdeen Royal Infirmary, held on April 27th, Dr. Rabertson was appointed house-physician, and Dr. G. Shirres house-surgeon, of the institution for one year. This is the first time that graduates in medicine have been appointed to fill these positions—the change from appointing students in their last year of study having been agreed to at a recent meeting of the Infirmary Court.

IRELAND.

HEALTH OF BELFAST.

From the report of Dr. Browne, medical superintendent officer of health, for the past month, it appears that the number of zymotic diseases reported by the medical officers of health as having occurred in their several dispensary districts was unusually small, eighteen cases only having been returned between the 1st and 30th April. During the four weeks ending April 23rd, 509 births were registered, and 420 deaths, showing a natural increase of 149 for the month, and being equal to an average death-rate of 24.4 per 1000 on the estimated population. Phthisis caused 75 deaths, and other diseases of the respiratory organs 105, making a total of 180 from affections of the lungs. The deaths of children under one year of age amounted to 88, and of persons at and above sixty, to 63. The inclemency of the weather during the month of April will readily account for the number of deaths among the very young and the aged, and the great fatality from diseases of the lungs, which show again the heavy death-rate of nearly 11 per 1000 out of the entire mortality; while the rate for all the zymotic diseases was only 1.9.

CORK UNION.

At a meeting of the Cork Board of Guardians last week, a resolution was proposed that, in consequence of the present depression, a reduction of 20 per cent. should take place in the salaries of all officers in the union over £100 a year. A guardian suggested that the medical officers and the chaplains should be excluded from the proposed resolution, and an amendment to that effect was handed in, but lost. Ultimately, a resolution was adopted that a committee should be appointed to investigate the salaries of the medical officers and the entire expenditure of the establishment, with a view to retrenchment.

CARLOW COUNTY INFIRMARY.

During the past year, 270 patients were admitted to the infirmary, which, with 22 remaining on January 1st, 1880, made a total of 292 under treatment in this institution. Of these, 225 were discharged cured, 30 relieved, 8 died, 12 were incurable; and 30 remained in the hospital on the 1st of last January. One hundred and forty-three operations were performed during the year. The income amounted to £648 4s. 2d., which included a Grand Jury presentment of £550; and the expenditure to £595 1s. 6d., leaving a balance of £53 2s. 8d. to the credit of the hospital.

FEVER IN WATERFORD.

The fever hospital attached to the workhouse is, we learn, at present very crowded, more especially the accommodation for females; and, should patients continue to come as rapidly as during the past few weeks, some additional arrangements must be made for their accommodation. There have been about forty admissions during the month of April, while four deaths have taken place within the last few days. Mr. Hamilton, an inspector of the Local Government Board, states that, on a visit to the hospital on April 18th, he found twenty-six patients suffering from the worst type of fever he had seen for a long period; and the Local Government Board have requested the guardians to provide increased accommodation and attendance for the patients. The guardians have appointed a committee to inquire into the matter.

FEES FOR LUNACY CERTIFICATES.

At a meeting of the guardians of Lisburn Union held last week, an application was presented by Dr. Fulton of Saintfield, for a sum of two guineas due to him for an examination of a female who was alleged to be a dangerous lunatic. One of the guardians considered that no fee should be given, as it was part of the duty of the dispensary medical officer to certify in these cases without additional payment. Others believed that one guinea would be ample remuneration; but ultimately, after considerable discussion, as it was shown that the application for two guineas was accompanied by the recommendation of two magistrates who had ordered the examination to be made, it was agreed to pay the amount applied for. We may add that, by Section 14 of the Lunatic Asylums Act, it is laid down that it is lawful for any two justices of the peace, who had ordered such an examination to be made, to make an order upon the guardians of the union for the reasonable remuneration of the medical officer who certifies, the sum allowed, with all expenses, not to exceed £2.

Health of Foreign Cities.—The recent health and sanitary condition of various foreign cities may be inferred from the following facts, derived from a table in the Registrar-General's last weekly return. The annual death-rate was equal to 34.8 in Calcutta, and 32.8 in Bombay, fevers causing 74 and 113 deaths respectively in those two cities; cholera caused 59 deaths in Calcutta, showing a further increase upon the numbers in recent weeks. In Alexandria, the rate was 34.9, and whooping-cough caused 8 deaths. According to the most recent weekly returns, the average annual death-rate in twenty European cities was equal to 30.7 per 1,000, and showed a marked excess upon the average rate in the twenty large English towns last week, which did not exceed 21.2. In St. Petersburg, the rate was no less than 59.5; and the fatal cases of typhus and typhoid fever were 122, against numbers increasing steadily from 82 to 121 in the four preceding weeks. In three other northern cities—Stockholm, Copenhagen, and Christiania—the death-rate did not average more than 25.4, although it was equal to 29.0 in Stockholm; the excess in the latter town does not, however, appear to have been due to zymotic fatality. The Paris rate was equal to 29.6, showing a further decline from the rates in recent weeks; 57 deaths, however, were referred to diphtheria and croup, 27 to typhoid fever, and 21 to small-pox. The deaths in Brussels, including 4 from typhus and typhoid fevers, were equal to a rate of 26.4; while the rate in Geneva did not exceed 22.0. In Amsterdam, Rotterdam, and the Hague, the rates were, respectively, 22.5, 25.9, and 20.3. The Registrar-General's list included seven German and Austrian cities, in which the death-rate averaged 29.6, and ranged from 23.8 and 24.6 in Dresden and Berlin, to 40.8 and 40.9 in Buda-Pesth and Munich. Small-pox caused 21 deaths in Vienna, and 11 in Buda-Pesth; typhus fever 6 in Hamburg; and diphtheria showed fatality in Berlin, Dresden, and Munich. In three Italian cities the average rate was 25,9, showing a further decline from the rates in recent weeks; the rate was 22.8 in Venice, 25.1 in Turin, and 27.8 in Rome. The fatality of small-pox in Rome, and of typhoid fever in Turin, showed a decline. In four of the largest American cities, the death-rate averaged 27.1: it was equal to 30.7 in New York, and 26.4 in Philadelphia; while it did not exceed 22.3 and 23.6 in Brooklyn and Baltimore. All these American rates are based upon the population numbers enumerated in 1880. The fatal cases of small-pox in Philadelphia, which had been 43 and 41 in the two preceding weeks, further declined to 36 in the week under notice.

GENERAL COUNCIL
OF
MEDICAL EDUCATION AND REGISTRATION.

SECOND SESSION, 1881.

Wednesday, April 27th.

DR. ACLAND, President, took the chair at 2 P.M.

Erasure of a Name from the Medical Register.—The Council deliberated with closed doors on the case of Samuel Levenston, M.D., of Glasgow, and adopted the following resolutions:

(a) "That Samuel Levenston, M.D., is judged, after due inquiry, to have been guilty of infamous conduct in a professional respect."

(b) "That as it has been proved to the satisfacton of the General Medical Council that Samuel Levenston has been guilty of infamous conduct in a professional respect, the Council does, by this order in writing, direct his name to be erased from the *Medical Register*, and gives orders to the Registrar to erase his name accordingly."

The Royal College of Surgeons and Preliminary Examinations.—The Council resumed the consideration of a communication in regard to preliminary examinations, from the Royal College of Surgeons of England, with the report thereon, submitted to the General Council by the Executive Committee. The communication referred to was a letter to the Registrar from the secretary of the College of Surgeons, stating that the Council had decided on the discontinuance of the preliminary examinations; and also that the Council of the College desired that it "be intimated that the giving up of the College preliminary examinations renders it in the highest degree desirable that the General Medical Council should, so far as may be possible, require that examinations recognised in lieu of the College examinations should be held at such times and places as may best suit the convenience of candidates who desire to enter the medical profession". Communications were also read from the College of Preceptors, by whom the preliminary examinations had been conducted on behalf of the College of Surgeons, proposing a scheme of preliminary examinations for medical students, to be held in March and September. The following report on these communications was presented by the Executive Committee.

"In regard to the letters received from the Royal College of Surgeons of England and from the College of Preceptors, the Executive Committee reports to the General Council as follows. The examinations in general preliminary education under the authority of the Royal College of Surgeons, previously to 1875, were held in June and December. Since that time, they have been held in March and September, because those months were found to be more suitable to the medical student, as they immediately precede the summer and winter sessions; and the convenience of this arrangement has been proved by the great number of candidates who have resorted to them. It is, therefore, important that preliminary examinations, suitable and accessible to intending medical students, should be held in those months. After the present year, the 'registration examination for medical students' by the University of Durham, and the 'examination in arts' by the Apothecaries' Society of London, will be the only examinations in England which take place in those months. If the often repeated recommendation of the Medical Council, that the preliminary examination of medical students should be conducted by the National Educational and Examining Bodies, is to be carried out in England, it is essential that examinations suitable for intending medical students should be conducted at times convenient to them. The Committee would gladly have been able to report that the University local examinations and the Oxford and Cambridge Schools examinations are able to supply the deficiency. Those examinations are held in May, June, July, and December, which are the months most suitable to the several schools; and they will probably be more and more resorted to as avenues to registration by medical students; but the times at which they are at present held are inconvenient to many medical students. The letter from the secretary to the College of Preceptors indicates that that body is willing to institute an examination similar to that which it has conducted under the authority of the College of Surgeons, and, by means of local centres, to render it more accessible to most medical students. The Committee, therefore, recommends that the Council should delegate to the Executive Committee to make arrangements with bodies willing to institute preliminary examinations suitable for medical students."

Dr. HUMPHRY, having read the foregoing report, said that the letter from the College of Surgeons was a very important one. Most of the medical students of England had resorted to the preliminary examinations of the College. In giving up the superintendence of the preliminary examinations, the College also relinquished the emoluments derivable therefrom. In doing this, it acted in accordance with the recommendations of the Council, notwithstanding that it had been said that the corporate bodies did not attend to them. At the same time, the Council of the College pointed out that it was desirable to have examinations at convenient times and places for persons about to enter the medical profession. Most of the examinations in the subjects of general education were not held at the most convenient times. The only examinations in September were those of the Society of Apothecaries, and of the University of Durham; and it was not likely that the arrangements of the University examinations would be altered. It was not impossible that the regulations of the Oxford and Cambridge Schools examinations might be modified after some time. The standard of those examinations was at present too high; but it had been proposed to institute a lower form of examination, and this proposal might be carried out. Then there was the proposal of the College of Preceptors, to hold a special examination for medical students, but without the superintendence of the College of Surgeons. The Executive Committee had felt that, before accepting this proposal, it would be well to consider whether some arrangement might not be made for a supervision of the examinations by the Medical Council, or at least for returns of the candidates passed and rejected. It might be well to delegate to the Executive Committee the power to make arrangements with such bodies as were willing to examine persons intending to become students of medicine. He moved:

"That the Executive Committee be requested to communicate with the universities of the United Kingdom, and with the College of Preceptors, with a view to provide that such of their examinations as most nearly correspond to the minimum requirements of the Medical Council in respect of preliminary education, and are open to all classes of candidates, should be held, or in part held, at times which may be generally convenient to medical students intending to enter on their professional curriculum in the winter or summer sessions."

Mr. SIMON seconded the motion.

Sir WILLIAM GULL referred to the importance of having a sufficient test of the fitness of persons to enter the medical profession. There was some loss in the abandonment of the control of the examinations by the College of Surgeons. They ought not to be entirely given over to other bodies without consideration; and if the Council could not supervise all the examinations, it might endeavour to improve some of them.

Mr. SIMON thought that the Council would be well pleased to delegate to the Executive Committee a great deal of work in this matter. He pointed out that the object was not that there should be any special general education for medical students, but that the examination should be such as any properly educated schoolboy ought to be able to pass. The policy of the Council had been to get the examinations conducted by the national educational bodies, but not with any special view to the medical profession. The College of Preceptors might arrange to hold its ordinary examinations at times convenient for medical students.

Dr. QUAIN said that the Council appeared to be working in a circle. The medical boards were giving up the preliminary examinations, in compliance with the desire of the Council; and now some of the members appeared to regret this. He did not approve of holding a special examination for medical students.

Dr. STORRAR said that the importance of a good general education had been recognised by the Council more than twenty years ago, and there had been a great struggle to establish a system of preliminary examination. It had been the opinion of the Council that the examination should not be special, but suitable for any student. The questions which arose were, what were the subjects in which examinations should be held, and what were the objects to be gained in the selection of the subjects. Latin was recognised as indispensable: it was useful not only in its relations to the English and the Romance languages, but as a means of mental discipline. The committee which was first appointed to consider the subject had recommended that the preliminary examination should not be special, and that it should be conducted by the general educational bodies; but it was necessary, in the absence of other means of examination, to recognise examinations held by the corporate bodies in Scotland and Ireland. He could not too strongly express his satisfaction that the College of Surgeons had given up the examinations, and he wished that other licensing bodies would follow the example.

Sir JAMES PAGET said that all that the College of Preceptors meant was, that their proposed examinations should include all the subjects required by the Medical Council, and should be held at the times most convenient for medical students: not that they should be specially intended for them.

Dr. STORRAR regretted that the Council had last year increased the

number of subjects of examination. He would have preferred selecting two or three subjects for the strictly preliminary examination. He would ask Sir James Paget whether the College of Surgeons proposed to discontinue the recognition of the preliminary examinations conducted by other bodies, such as the Society of Apothecaries.

Sir JAMES PAGET said that the only thing to be required of candidates for the diplomas of the College of Surgeons would be registration as directed by the Medical Council. The College reserved the right of adjudicating, as to exceptions from the regulations for admission to its examinations, in certain special cases, such as those of Indian students.

Dr. STORRAR could have wished that the College of Surgeons had acted as the University of London did, and had accepted no preliminary examination but its own; or that it could have accepted the examination of the College of Preceptors, and every other that came up to the proper standard. The Council should get rid of a large number of the foreign and colonial examinations which it recognised, and authorise the Branch Councils to deal separately with each case in which a person coming from abroad applied for registration.

Mr. MACNAMARA thought that the preliminary examinations ought not to be exclusively written, but also *viva voce*. A satisfactory result could not be obtained from a written examination alone; some candidates did better in a written, and others in a *viva voce* examination. The Royal College of Surgeons of Ireland—which had a board of examiners in general education, quite distinct from its professional examining board—was anxious to relinquish its preliminary examination. There were, however, difficulties—*e.g.*, while it had largely adopted the recommendations of the Council as to the subjects, it retained Greek as compulsory. There were great difficulties also arising from the fact that there was, so far as was known, no educational body in Ireland in which the course of education required was co-extensive with the requirements of the Medical Council. A man might, for instance, be a Bachelor of Arts of the University of Dublin without having been examined in all the subjects required. Education of a very high class was given in Ireland in such subjects as natural philosophy, etc.; but the difficulty was to find examining boards where requirements came up to the recommendations of the Council. The Royal College of Surgeons of Ireland had, from its first institution, held a preliminary examination; and in most cases, for many years, this had been passed before the commencement of professional study.

The motion was carried.

The Universities and Preliminary Education.—Letters were read from the Oxford and Cambridge Schools Examination Board, from the Cambridge University Local Examinations Board, from Dr. Paget, chairman of the Board of Medical Studies of the University of Cambridge, and from the Vice-Chancellor of the University of Oxford, with reference to the recommendation issued last year by the Council, with regard to the subjects of preliminary examination. The following report from the Executive Committee was also read; and, with the letters, was ordered to be entered on the minutes.

"It appears that if the new regulations with regard to preliminary examination, passed during the last year's session of the Council, be strictly enforced, none of the examinations conducted by the University of Cambridge—and the same may be said of those conducted by the University of Oxford—will fulfil the required conditions. It is not probable that those examinations could be altered in conformity with the new regulations; the Executive Committee therefore, bearing also in mind the recommendation of the Council, that 'it is desirable that the examination in general education should be left to the universities, and to such other bodies engaged in general education and examination as may from time to time be approved by this Council', recommends that the examinations in general education conducted by universities should be accepted as heretofore."

Dr. STORRAR approved of the proposal, but held that the Executive Committee had exceeded its functions in considering the letters and preparing the report.

Dr. HALDANE, Dr. FERGUS, Dr. HUMPHRY, and other members, defended the action of the Executive Committee, which was authorised by the Standing Orders to prepare reports on any subject, for the consideration of the Council.

Dr. HALDANE moved, Mr. TEALE seconded, and it was resolved:

"That the examinations in General Education conducted by universities be accepted as heretofore, but that if in any of these examinations the subjects of elementary mechanics of solids and fluids are not included, a knowledge of these subjects should be required at a subsequent examination; and that a copy of this resolution be forwarded to the several examining and licensing bodies concerned."

Indian Medical Students.—The following report from the Executive Committee was read.

"The Executive Committee begs to call the attention of the General Council to cases of students, coming from India, who have passed the matriculation examination at the several Indian universities. The examination at these universities includes Latin as an optional subject, but the students, as a rule, take up Sanscrit or some other language in place of Latin. The regulations of the Council require that the certificate of examination from these universities should include Latin. Certain students from Bombay who have passed the university examination there, not including Latin, have applied to be allowed to enter for examination, on condition that they shall now pass an examination in Latin, and this the Executive Committee has acceded to. Certain other students in the same condition have applied to the Executive Committee to allow them to enter for examination without any examination in Latin. The Committee under the special circumstances of the case, has considered that the passing in Sanscrit may be accepted in place of Latin, and has granted their request. As, however, this is not in accordance with the words of the recommendation of the General Council on education and examination, the Executive Committee thinks it right to submit the matter to the General Council, in order that the matter may be amended, and a rule laid down for the future guide of the Committee. The Committee suggests that the General Council delegate to the Executive Committee power to make exception to the recommendations on education and examination, in cases in which such exception shall seem to them to be reasonable."

The further consideration of this report was adjourned.

Standing Orders.—It was moved by DR. PITMAN, seconded by DR. AQUILLA SMITH and agreed to:—

"That Chapters I and IV of the Standing Orders be referred to the Business Committee to report whether any, and if so, what alterations or additions they would recommend in those sections of the Standing Orders."

Thursday, April 28th.

Dr. ACLAND, President, took the chair at 2 P.M.

Duties of the Executive Committee and English Branch Council.—Dr. PYLE asked the President whether certain business reported in the minutes of the Executive Committee did not more properly belong to the Branch Council; and if it was consistent with the recommendations of the Council on Education and Examination that such business should be undertaken by the Executive Committee.

The PRESIDENT answered "Yes" to the first question, and "No" to the second; but added that the subject could be conveniently considered under a motion of which Dr. Storrar had given notice.

Indian Medical Students.—The debate on this subject was resumed.

Mr. TURNER said that, in connection with the report on preliminary education, presented on the previous day, and with the discussions thereon, two important questions were opened. 1. Was Latin to be insisted on, or not? 2. Were the licensing bodies to be allowed to examine candidates who had not been registered as students by the Council? The question of Latin came before the Council in consequence of an application from certain natives of India, to whose request to be exempted from an examination in that language the Executive Committee had acceded. The Committee, however, seemed to have had some qualms of conscience as to whether it had exceeded its powers, and had made a report to the Council. If the course taken was approved, it would not be just to deny other similar claims for exceptional arrangements. The Scottish Branch Council had had several such claims brought before it, and had required that the applicants should pass an examination in Latin. In the present year, a complaint had been made to the Scottish Branch Council that Indian students were admitted to the examinations of the Society of Apothecaries without having passed an examination in Latin.

Mr. BRADFORD said that no one was admitted to the first examinations at Apothecaries' Hall, unless he had been examined in Latin.

Mr. TURNER said that the Branch registrar for Scotland was directed to send copies of the correspondence to the Society of Apothecaries; but no reply had been received. There seemed to be some want of uniformity in the manner of dealing with exceptional cases. The Executive Committee admitted candidates who had not passed in Latin; the Scottish Branch Council declined to admit them. The matter was one of such importance, that the Council ought not to pass it over without arriving at some decision. It was just to the Apothecaries' Society, to point out that the minutes of the Executive Committee contained records of a correspondence between the committee and the Society in reference to special cases of Indian (Parsee) students, in which reference was made to a resolution of the Court of Examiners to require them to undergo an examination in Cæsar or Virgil. Having passed this examination, they were admitted to the *Students' Register*. The second question was, whether the licensing boards were to be allowed

to admit to examinations candidates who had not been registered. The Royal College of Surgeons of England reserved to itself the right of dealing with special cases of persons coming from India or the Colonies. In the present year, the Scottish Branch Council had before it a case referred to it by the Royal College of Physicians of Edinburgh, of a Parsee gentleman who had studied in Bombay without having been registered in England as a student. He had not brought the certificates necessary for such registration, and had been advised to send to Bombay for them as soon as possible. The Scottish Branch Council had resolved that in all such cases registration should be required, even though the whole course of professional study had been taken abroad. This was not in accordance with the course followed by the Royal College of Surgeons of England. He thought that a rigid rule ought not to be laid down; but that allowance should be made in cases in which cause for doing so could be shown. Although the Council was only for the supervision of medical education and examination in the United Kingdom, yet in many particulars its action extended over the whole empire. Although it had no power as regarded registration in India or the Colonies, yet many natives of these came to the United Kingdom to obtain their qualifications to practise; and he held that, if they could pass the professional examinations, they should be allowed to do so, although they had not complied with the strict letter of the recommendations of the Council regarding education. Looking to the special character of general education in India, he thought that the Council ought to be able to recognise some other language as a substitute for Latin. In whose hands was the power of relaxing the Council's rules to be placed? He thought that it should not be given over to the licensing bodies—unless, perhaps, they reported to the Council on each case. It would be better in the hands of the Branch Council or Executive Committee.

Dr. PITMAN moved:

"That the General Council delegate to the Executive Committee, as well as to the Branch Councils, power to make exception to the recommendations on education and examination, in cases in which such exception shall seem to them to be reasonable."

Dr. QUAIN seconded the motion.

Mr. SIMON thought that the resolution went beyond the requirements of the case. The question really under consideration was that of the registration of medical students.

Mr. TURNER said that the question of the principle of making exceptions in certain cases, and that of the bodies to which this duty should be entrusted, ought to be kept distinct. He moved, as an amendment:

"That in cases where, for some special reason, candidates for admission to professional examinations by the licensing bodies may not have been able to comply with all the recommendations of the Council as regards the examination in general education and registration thereon, exception may be allowed on principles to be fixed by the General Medical Council."

Sir JAMES PAGET seconded the amendment. There were several cases in which it was not possible to require that the candidates should be registered as students before admission to examination—*e.g.*, the cases of candidates who were admitted to examination on presenting a continental degree, and of colonial and foreign candidates who desired to be examined, but not to use their diplomas in England. The licensing bodies ought not to admit exceptional cases, without reporting them to the General Council. The Council should hold the power of checking abuse, but should not make rules which could not be carried out.

Sir WILLIAM GULL said that it must rest with the Branch Councils to determine whether a proper preliminary examination had been passed; but the conditions for this must be determined by the General Council.

Mr. MACNAMARA said that there was no power to refuse to admit to the *Medical Register* anyone who produced a licence or diploma. The Medical Act gave the Council no power to refuse registration of medical students; but the Council could recommend the examining bodies to refuse to admit candidates whose names were not on the *Students' Register*. This recommendation had been loyally carried out; and it was the intention of the Royal College of Surgeons of Ireland in future to refer exceptional cases to the Irish Branch Council, instead of adjudicating on them.

Mr. SPENCE said that a man presenting a diploma could not be refused registration. But the question before the Council was, whether the examining boards should be allowed to admit candidates to professional examination without having passed a preliminary examination. This should be decided by the Branch Councils. The Royal College of Surgeons of Edinburgh always referred the cases to the Scottish Branch Council.

Mr. SIMON said that one plan would be to add to the recommendations of the Council a notification that they were not intended to apply to persons coming from abroad. As to exceptions, the licensing bodies should have power to deal with them, and should report to the Branch Councils.

Dr. STORRAR did not think that the Branch Councils had any difficulty in dealing with exceptional cases. Applications for special exemptions ought to be very carefully considered. Latin was taught in most of the Indian colleges; and in Australia and the West Indies, as well as in India, there were colleges in which instruction was given in the various subjects of preliminary education, including Latin. Seeing that the recommendations of the Council on the subject under consideration were not based on Act of Parliament, but on the mutual agreement of the Council and the examining bodies, there was danger of their breaking down altogether unless care were exercised. He did not say that there should be no exceptions; but they should be dealt with by the Branch Councils, who would report from time to time to the General Council.

The amendment was carried, and having been put to the vote as a substantive motion, was agreed to.

Mr. SIMON moved, Sir JAMES PAGET seconded, and it was resolved:

"That it be referred to the members of the Executive Committee, with the addition of Professor Turner, to prepare, for the consideration of the Council, draft rules defining the classes of cases in which exceptions may properly be allowed."

The Second Class Examination of the College of Preceptors.—Mr. SIMON moved, Mr. TURNER seconded, and it was resolved:

"That passing the second class examination of the College of Preceptors may, on the following conditions, be deemed to satisfy the requirements of the Council for preliminary general education, that is to say: (*a*) Provided, as regards Section V. of the examination, that both Algebra and Euclid be taken; and (*b*) provided, as regards Section VI. of the examination, that Latin, and also one of the modern languages, be taken; and (*c*) provided that the candidate's pass of the examination be in the first or second division of the pass; and (*d*) with the understanding that the requirements of the Council in respect of preliminary scientific education are not in any degree diminished by reason of a candidate having passed the above described preliminary general examination."

Dental Committee.—On the motion of Dr. PITMAN, seconded by Dr. AQUILLA SMITH, Dr. Haldane was appointed a member of the Dental Committee, in the room of the late Dr. Andrew Wood.

The British Dental Association.—A letter from Mr. J. Smith Turner, honorary secretary of this association, was read. It enclosed a copy of the following resolution, passed at a meeting of the representative Board:

"That the Representative Board of the British Dental Association beg respectfully to thank the General Medical Council for the prompt consideration it has given to the elucidation of certain provisions of the Dentists' Act, upon the interpretation of which considerable difference of opinion prevails."

The Dentists' Register and Additional Titles.—Applications were presented from Mr. J. Tomes, Mr. J. Smith Turner, and twenty-eight other registered dentists holding also medical or surgical qualifications, asking that such qualifications might be added to their descriptions in the *Dentists' Register*.

Dr. STORRAR considered that, if a dentist possessed a diploma in medicine or surgery, he should be allowed to state it. He moved:

"That every registered dentist holding any of the surgical qualifications recited in Schedule A of the Medical Act shall be entitled to have such qualification or qualifications recorded on the *Dentists' Register* as evidence of the possession of a higher degree of knowledge."

Mr. TURNER seconded the motion.

Dr. QUAIN said that the proposal involved the rescinding of a previous resolution of the Council.

Mr. TURNER said that the resolution rescinded by the Council on March 20th, 1879, was not the same as the present one; and there was no reason why the Council should not reconsider the matter. He thought that the possession of the diploma of a College of Surgeons implied superior fitness to practise dentistry. There was nothing in the advice of the Solicitor-General to prevent the Council from adding other qualifications after L.D.S. The Council would be doing injustice to those dentists who were more than dentists, if it refused to insert their additional titles on the *Dentists' Register*.

Dr. QUAIN said that physicians might as well have their titles added. The question, however, had been already discussed in the Council; and the opinion of counsel was obtained, to the effect that only additional titles in dentistry could be registered.

Mr. SIMON said that, even if the Dentists' Act gave the Council power to register additional titles on the *Dentists' Register*, it would be

very inconvenient. They were not justified in assuming that a member of the Royal College of Surgeons of England was therefore a better dentist. If the Council admitted additional qualifications, where was it to stop, unless it drew the line at dentistic knowledge?

Dr. AQUILLA SMITH advised the Council to be cautious. There were about five hundred and sixty-five dentists on the *Register;* and thirty of these had memorialised the Council to have their additional diplomas registered. He thought that, if these qualifications were registered, a feeling of jealousy would be excited in those who did not possess such qualifications.

Dr. BANKS agreed that it was a hard thing that the dentists should not be allowed to register their surgical qualifications. Some dentists had received a surgical education, while others were mere tradesmen.

Dr. PITMAN asked whether a diploma of a College of Surgeons was a higher qualification in dentistry. He would like to hear the opinion of members of Council who were connected with such colleges.

Dr. SCOTT ORR said that it might be illegal to register the additional titles in the column of qualifications in dentistry; but the letters denoting them might be added immediately after the name of the person registered.

Mr. TEALE would add the surgical titles if it were possible to do so.

Mr. SPENCE said that a member of a College of Surgeons was better qualified as a dentist than a man who held merely a licence in dentistry. The object of the *Dentists' Register* was to show who were qualified; and, if a man had a higher qualification, showing him to be a better dentist, he should have it registered. In Edinburgh, one of the best examiners in the College of Surgeons was a thoroughly educated dentist and surgeon.

Dr. PYLE thought that the addition of the surgical titles to the names of the present applicants would tend to stimulate other registered dentists to obtain diplomas in surgery, rather than make them jealous, as Dr. Smith had suggested.

Sir JAMES PAGET said that proper dentistry was something more than a mechanical art; but an ordinary dentist's qualifications did not imply the possession of much more than a limited amount of knowledge. A man with such a qualification would not know much of such things as the state of the liver, the presence of gout, etc., on which the treatment of the teeth might turn. Again, as regarded diseases of the jaws, no doubt a dental education gave much help, but a surgical education gave much more. Anyone who devoted himself to the special treatment of one part of the body was less qualified for this than the man who studied the whole frame. Again, it was important to excite members of the dental profession to seek more knowledge than they possessed; for the profession would rise as this knowledge was acquired. In the journals of dentistry, the papers written by members of the College of Surgeons were of a higher class than others.

Dr. MCCLINTOCK held that special practice was improved by more extended education. It would be injustice not to register additional qualifications; and the registration of these would act as a stimulus to improvement in those who did not possess them.

Dr. HUMPHRY said that it was a question whether the Council had power to enter surgical qualifications on the *Dentists' Register.* He had always thought that this was intended to be a register of dental qualifications; and that the words in the Dentists' Act, "higher degree of knowledge", referred to dentistry. A similar expression was used in the Medical Act in reference to higher degrees in medicine and surgery. It must not be forgotten that the Council did once place surgical titles on the *Dentists' Register*, and was obliged to remove them.

Dr. HALDANE could not vote for Dr. Storrar's motion, because the proposal made in it was illegal. There was indeed a grievance; but the Council had no power to put it right.

Sir WILLIAM GULL said that dentistry included not merely the removal of teeth, but the preservation of them. Titles in medicine should be inserted, as well as those in surgery.

After a few remarks from Dr. QUAIN and Mr. TURNER, Dr. STORRAR replied.

Mr. OUVRY, the Solicitor to the Council, being asked to give his interpretation of the Dentists' Act in its bearing on the proposed motion, called attention to the clauses of the Act relating to the subject. The qualifications in question were not additional in respect of dentistry. If the Council desired to insert them, and could do so, they must either be put after the names or in a separate column. It was for the Council to determine whether the licence in dental surgery was or was not higher evidence of dental knowledge than the diploma of a College of Surgeons.

The motion was put to the vote and carried. Dr. QUAIN required that the names and numbers of those who voted for and against the motion respectively, and of those who did not vote, be taken down. For, 13: Dr. Pitman, Sir James Paget, Mr. Bradford, Dr. Pyle, Dr. Storrar, Mr. Spence, Dr. Scott Orr, Mr. Turner, Dr. Leet, Dr. Banks, Mr. Teale, Dr. Fergus, Dr. McClintock. Against, 5: Dr. Humphry, Dr. Haldane, Dr. Aquilla Smith, Dr. Quain, Mr. Simon. Did not vote, 2: the President, Dr. Pettigrew. Absent, 4: Dr. Rolleston, Mr. Macnamara, Rev. Dr. Haughton, Sir William Gull.

It was moved by Dr. PITMAN, and seconded by Mr. TURNER:

"That the additional surgical diploma, membership, degree, licence, or letter, be entered in the fourth column of the *Dentists' Register*, and after the original entries."

Dr. SCOTT ORR moved as an amendment, and Dr. MCCLINTOCK seconded:

"That any additional diplomas, memberships, degrees, licences, or letters, be entered in the name-column."

The amendment was negatived; and the original motion was put to the vote and carried.

Chemists' Apprentices and the Dentists' Register.—A communication from the Business Committee of the British Dental Association was read, and was ordered to be entered on the minutes. It wished the Council to remove from the *Dentists' Register* the names of certain chemists' and druggists' apprentices, which had been wrongly entered on it.

Friday, April 29th.

Dr. ACLAND, President, took the chair at 2 P.M.

Report of Finance Committee.—Dr. QUAIN presented this report, the substance of which was as follows (omitting the tables).

"The Finance Committee reports that the income of the general and branch councils for the year 1880 (ending January 1st, 1881) has been £6,871 19s., an amount which exceeds the income of the year 1879 by £702 5s. The expenditure during the year 1880 has been £5,308 18s., which is less than the expenditure of 1879 by £116 9s. 9d. The Committee have the satisfaction of reporting to the council that the income during the year 1880 has exceeded the expenditure by the sum of £1,568 1s. . . . The items of expenditure in which there is an increase in the year 1880 over that of 1879 are:—1. On the *Pharmacopœia*, the expenditure for which amounts to £483 5s., due to a reprint of the work being required during the year. This outlay is in course of reimbursement. 2. The other items on which a noticeable increase of expenditure has taken place are miscellaneous printing, amounting to £98 10s. 1d., and on the *Medical Register*, £60 3s. 4d. The increase in the expenditure of 1880 over 1879 in regard to certain items is £732 2s. 5d. The principal items of diminished expenditure of the year 1880 as compared with 1879 are in the fees paid to the council, amounting to £533 13s. 6d.; in salaries and retiring allowances (the retiring allowance to one of the late clerks having lapsed by his death), amounting to £94 5s. 5d.; and some smaller sums, amounting altogether to £779 2s. 4d. This shows, on the whole, a decrease of £46 19s. 11s. The annual average income during the last seven years exceeds the annual average expenditure by the sum of £62, whilst the excess of income during the years 1879 and 1880 is respectively £961 10s. and £1,568 1s. On January 1st, 1881, there remained to the account of the Dental Fund a sum of £9,000 new 3 per cent. stock, and in the Bank £824 8s. 11d., making a total of £9,824 8s. 11d; but it must also be noticed that, while the total income of this fund during the year, from all sources, amounted only to £616 7s. 3d., the expenditure amounted to £1,808 10s. 7d., leaving a deficiency of £1,192 3s. 4d., to be met out of uninvested capital. By request from the Committee, the Registrar has prepared a roughly approximate estimate of the probable future annual income and expenditure of the Dental Registration (the former amount to £521, and the latter to £1,407). The table shows a probable future excess of expenditure over income of about £880, which will have to be met by drafts on the invested capital."

Dr. QUAIN moved, "That the report be received, entered on the minutes, and adopted."

Dr. AQUILLA SMITH seconded the motion.

Mr. TURNER said that the deficiency in regard to dental registration was a serious matter, as there appeared likely to be a yearly drain on the capital fund. He would ask whether something could not be done to reduce the annual expenditure. He thought that the dentists' fund had been overweighted by the expenses of the General Council.

Dr. QUAIN said that the legal expenses in connection with the registration of dentists had been very heavy. The proportions of the charges to be borne by the general and dental funds had been most carefully calculated by the Registrar.

Dr. A. SMITH said that the matters which had caused extraordinary expense would most probably not recur.

The PRESIDENT said that the expenses of the Council had caused

great anxiety to the late Dr. Andrew Wood and to several other members, who were desirous that they should be reduced.

The motion was carried.

The Trustees of the Council.—Dr. QUAIN moved, Dr. PITMAN seconded, and it was resolved:

"That Section 5 of Chapter XVI of the Standing Orders be amended, by striking out the words 'of their members as', and transposing the words 'at least' after 'trustees'."

Time of Meeting of Council.—Mr. MACNAMARA moved:

"That it is desirable to hold a stated meeting of the General Medical Council once in each year."

In proposing that there should be a meeting of the Council at a stated time each year, he did not wish to interfere with the prerogative of the President to call a meeting at any time. The best time for the meeting would be the early part of the year; as, if any subject of importance was brought before Parliament, it could be discussed, and action could be taken if necessary. The Rev. Dr. Haughton had suggested that the present meeting should be held in the Easter recess, when he could have attended; but, unfortunately, it was summoned for the week after the recess, when his duties as Senior Lecturer in Trinity College prevented him from being present; and this was to be regretted, as general education, on which Dr. Haughton was a high authority, was under discussion in the Council. If the principle of holding a stated meeting were adopted, a time might be fixed which would be convenient to members.

Dr. LEET seconded the motion.

Dr. BANKS had been requested by the Rev. Dr. Haughton to express to the Council his regret at being absent from the meeting; but the time at which it was summoned was quite inconvenient to him.

Dr. STORRAR would leave the duty of summoning the Council in the hands of the President. The time of meeting must be determined by circumstances. If there were a fixed time of meeting, it might happen that information of great importance would be laid before the Council at the end of the session, or just after it; which might cause much trouble and expense.

Dr. AQUILLA SMITH said that the power invested in the President was quite sufficient; and, in cases of emergency, any eight members of the Council could summon a meeting.

The PRESIDENT said that, whatever might be the decision of the Council, it would be his duty and pleasure to carry it out. If the motion were carried, he would still be under the obligation to summon the Council whenever it might be necessary to do so. It was often a very difficult matter to fix the time of meeting; and it frequently involved an extensive correspondence on his part with the members of the Council and with the Government.

By the permission of the Council, the motion was withdrawn.

Yearly Examinations of Medical Students.—Mr. MACNAMARA moved:

"That it be recommended to the several licensing bodies to institute examinations at the end of each year of professional study, which the student should pass before being permitted to enter on the subsequent year's course of study."

He said that this proposal was very much in accordance with the expressed opinion of the Council, which had unanimously decided in favour of breaking up the professional examination into three parts. Provision should be made for examining the students at the end of each year on the studies of the past year. He would not lay down a hard and fast rule, which was injurious to education; but would leave much to the medical authorities. But, whatever the system of education might be, it was important to ascertain the progress of the student at the end of each year. The important part of his motion, like the postscript to a lady's letter, lay in the concluding words—that the student should not be allowed to proceed with other studies until he had passed a satisfactory examination. This would be a great boon to parents and guardians; as, if a student were found at the end of the first year to be unfit for the medical profession, a small expense would have been incurred, and he could be, perhaps, diverted to another calling. Many persons entered on the study of medicine, who, after great outlay on their education, found that they were quite unfit for it; and even if, by the help of grinding, they managed to pass, the profession would be better without them. Such persons would be eliminated by yearly examinations.

Dr. MCCLINTOCK seconded the motion.

Mr. TEALE said that the course proposed would involve a great deal of change, and would be inconvenient to English medical students in the provincial schools, unless provision were made for holding examinations at the schools.

Dr. AQUILLA SMITH opposed the motion.

Dr. STORRAR had always been strongly of opinion that examinations should be held at the end of each period of study; but not that it should be an absolute condition that the student should pass before proceeding to other studies.

Mr. MACNAMARA having replied, the motion was put to the vote and lost.

Mr. MACNAMARA required that the names and numbers of those who voted for and against the motion respectively, and of those who did not vote, be taken down. Against, 14; Dr. Pitman, Sir James Paget, Mr. Bradford, Dr. Humphry, Dr. Storrar, Dr. Haldane, Mr. Spence, Dr. Scott Orr, Mr. Turner, Dr. Pettigrew, Dr. Aquilla Smith, Dr. Banks, Mr. Teale, Dr. Fergus. For, 2: Mr. Macnamara, Dr. McClintock. Did not vote, 5: The President, Dr. Pyle, Dr. Leet, Dr. Quain, Mr. Simon. Absent, 3: Dr. Rolleston, Rev. Dr. Haughton, Sir William Gull.

Proceedings in Cases of Alleged Infamous Conduct.—Mr. TURNER moved, Mr. MACNAMARA seconded, and it was resolved:

"That it be remitted to the Executive Committee to reconsider, with the Solicitor of the Council, the Standing Orders bearing on the mode of procedure to be followed in cases where inquiry is to be made into the case of registered practitioners charged with being guilty of infamous conduct in any professional respect, and to report to the Council thereupon."

Preliminary Scientific Examinations.—Letters from the universities and medical corporations, in reply to the questions issued by a committee of the Council respecting the institution of preliminary scientific examinations, were presented; and, on the motion of Dr. HALDANE, the Chairman of the Committee, seconded by Dr. HUMPHRY, were ordered to be received and entered on the minutes.

Dr. HUMPHRY moved, Dr. PYLE seconded, and it was resolved:

"That the Registrar be directed to return the thanks of the Medical Council to those bodies which have replied to the letter forwarded by Dr. Haldane on behalf of the Committee appointed on July 14th, 1880, to communicate with the licensing bodies on the subject of preliminary scientific education."

Dr. HALDANE moved, Mr. SIMON seconded, and it was resolved:

"That the following report of the Preliminary Scientific Examination Committee be received and entered on the minutes."

The report was as follows.

"On July 14th, 1880, the following resolution, in regard to the institution of a preliminary scientific examination, was agreed to by the General Medical Council:—'That, in the opinion of the Council, it is desirable that intending candidates for the medical profession should, before they enter on the purely medical curriculum, have been instructed and examined in the rudiments of natural science—physical, chemical, and biological—and, that, in proportion, as this can be done, the present medical curriculum and the present professional examinations should be lightened of all such matters.'

"In reference to this resolution, the following further resolution was agreed to:—'That as the Council has agreed that it is desirable that intending candidates for the medical profession should, before they enter on the purely medical curriculum, have been instructed and examined in the rudiments of natural science—physical, chemical, and biological—and, that, in proportion, as this can be done, the present medical curriculum and the present professional examinations should be lightened of all such matters, a committee be appointed to communicate on the subject with the licensing bodies, and to report to the Council at its next meeting."

"A Committee, consisting of Dr. Haldane, chairman, Dr. Rolleston, Dr. Storrar, Mr. Turner, Dr. Hudson, and Dr. Humphry, was accordingly appointed, and on November 11th, 1880, this Committee issued a letter to the various licensing bodies requesting answers to the following questions.—1. What amount of knowledge of the rudiments of natural science might be fairly required from intending candidates for the medical profession? 2. Should candidates before being admitted to examination, be required to adduce evidence of having been specially instructed in natural science; or should proficiency, as ascertained by examination, be considered sufficient? 3. At what period should the preliminary scientific examination be passed? Should it take place before the commencement of the purely medical curriculum, or before the end of the first year thereof? 4. If a candidate have taken up a department of natural science, as an optional subject, at the preliminary general examination, should the fact of his having passed in it satisfactorily, exempt him from appearing for examination on the same subject at the preliminary scientific examination? 5. In the case of candidates who have passed the preliminary scientific examination, what modifications could be made in the present medical curriculum and present professional examinations?

"Answers have been sent in by seventeen of the licensing bodies. The University of Dublin does not approve of the resolutions, 'their principle being contrary to that of the present system of Trinity College, which

they consider superior'; and the University of London enters into no detail, but merely refers to its own regulations as published in the calendar of the University. The other sixteen bodies have answered more or less in detail. The following digest expresses generally the opinion entertained by those bodies with regard to the questions submitted to them.

"1. On this point the universities adhere to their own practice, and express no opinion as to what should be required as a minimum qualification. There is more diversity of opinion on the part of the corporations. The College of Physicians of Edinburgh considers the present preliminary examination sufficiently extensive, but would make natural philosophy a compulsory subject; the College of Physicians in Ireland recommends an examination in the elements of mechanics, hydrostatics physics, and chemistry; the College of Surgeons of England would encourage study in one or more branches of natural science; the College of Surgeons in Edinburgh recommends mathematics, as at present, elementary physics, and chemistry; the College of Surgeons in Ireland recommends physics, elements of chemistry, and botany; the Glasgow Faculty, physics, chemistry, and 'perhaps an elementary knowledge of general biology'; the Apothecaries' Hall in Ireland recommends elementary mechanics, chemical physics, and the elements of zoology and botany.

"2. The universities for the most part require proof of systematic instruction. The corporations are generally in favour of the examination test alone. The Apothecaries' Society of London is of opinion that evidence of special instruction should be required. The Glasgow Faculty would recommend, but not require it.

"3. The University of St. Andrew's, the College of Physicians of Edinburgh, the Colleges of Physicians and Surgeons of Edinburgh, the Glasgow Faculty, and the Apothecaries' Halls in England and Ireland, recommend that the examination be passed before the commencement of the medical curriculum; the Colleges of Physicians and Surgeons in Ireland, during, or at the end of the first year of the medical curriculum; the universities of Edinburgh and Glasgow, not earlier than the end of the first year of the medical curriculum; the University of Cambridge as soon as the student pleases, provided not less than three full years intervene between it and obtaining a degree or diploma.

"4. On this point the universities would adhere to their present practice, which in most instances admits no exception, but the University of Edinburgh suggests: 'If a candidate has already passed an examination in chemistry, botany, or geology, such as that required for a degree in science, this should *pro tacito* exempt him from further examination.' The College of Physicians in Ireland would require the full scientific preliminary to be passed; the three Colleges of Surgeons would exempt (the College of Surgeons of England, partially); the Glasgow Faculty, provided there are to be two examinations, would make the first literary, the second scientific; the Apothecaries' Society of London would require the examination in natural science, subject to be compulsory either at the preliminary general examination or at a second or preliminary scientific examination.

"The universities of Edinburgh and Glasgow and the Colleges of Physicians and Surgeons in Ireland would make no modification; the College of Surgeons of Edinburgh and the Glasgow Faculty would exclude chemistry, if passed at the preliminary examination, from the medical curriculum; the universities of Cambridge and St. Andrew's and other bodies cannot reply without knowing what is to be the nature of the preliminary scientific examination.

"From a consideration of the answers, of which an abstract has been given, it will be seen that there is a considerable difference between the views of the universities, on the one hand, and of the corporations on the other; the former adhering to their present standard, the latter keeping in view the danger of raising the standard too high. It may be expected that there will be a decided difference in the requirements for a degree and a mere licence to practise; and that the difference would consist, not merely in professional education and examination, but also in the standard of literary and scientific acquirements. Thus, while it is right that candidates for a degree should be required to possess a good general knowledge of biology, it does not seem desirable that knowledge in so wide a range should be required from every medical student. The Committee are of opinion that in the case of non-university students, instead of a special preliminary scientific examination, it would be better to carry out a recommendation (31) of the Medical Council, respecting a first examination, to be passed at any time before the end of the first year of medical study, and to include elementary mechanics (if not previously passed), chemistry and chemical physics, and elementary human anatomy or elementary biology. There is reason to believe that the first year, at least, of medical study is too often wasted, in consequence of the first examination, which in many instances does not take place till the end of the second year, being looked upon as something in the remote future; whereas the institution of an examination to be passed at an earlier period would necessarily give a stimulus to early exertion.

"In conclusion your committee would beg to recommend:—

"Firstly, that the recommendations of the Council at present in force in respect of the natural science subjects in the preliminary examination be not at present changed.

"Secondly, that the attention of those licensing bodies which have not complied with recommendation 31* of the Medical Council be directed to that recommendation; and that it be further recommended that the subjects of this first professional examination be:—1. Elementary mechanics of solids and fluids, comprising the elements of statics, dynamics, and hydrostatics (unless an examination in that subject shall have been passed at the preliminary examination. 2. Chemistry and chemical physics (meaning thereby heat, light, and electricity). 3. One or more subjects of elementary biology, which may be elements of human anatomy, or of human anatomy and physiology, or of botany, or of zoology and comparative anatomy. It is not intended that the examination in elementary human anatomy and physiology is to supersede a fuller examination on these subjects at the second professional examination.

"The Committee are of opinion that it is desirable that evidence of attendance on lectures and practical instruction in anatomy and chemistry should be required; but they do not think that this is necessary in the case of elementary mechanics. They would observe, however, that the Council have not hitherto issued recommendations relating to requirements of attendance on lectures."

Dr. HALDANE said that delay had taken place in the preparation of the report, as it had not been possible to send the questions to the various bodies concerned before November, and some of the replies had only been received during the session of the Council. He did not blame the bodies for the delay; many of them had stated meetings at certain dates. He had examined the results of the preliminary general examinations at the University of Edinburgh and the Royal Colleges of Physicians and Surgeons of Edinburgh; there being 412 candidates at the former, and 109 at the latter. The percentages of failures in the various subjects were: English—University 24, Colleges 37; Latin—University 37, Colleges 62; Greek—University 27, Colleges 0 (Greek being an optional subject in the latter); French—University 42, Colleges 54; German—University 0.8, Colleges 20; Arithmetic—University 17, Colleges 33; Mathematics—University 24, Colleges 51; Natural Philosophy—University 29, Colleges 30. These figures indicated a very defective state of secondary education; and the failures were not so much the fault of the candidate as of the system of education. He thought that the plan proposed in the report would be useful, without adding anything to what was at present required by the Council. The committee had considered what position the preliminary scientific examination should hold, and had determined that it should be a first professional examination. He moved the adoption of the report.

Mr. TEALE seconded the motion *pro formâ*. It was very desirable that medical students should know some of those subjects which had somewhat dropped out of the curriculum of medical education. But it was a very serious matter to force a new examination on the licensing bodies; it should not be done without grave consideration, for harm as well as good might result. The Council should not be in a hurry to press the matter forward.

Dr. PETTIGREW said that it would be difficult to accept the report in its totality. Prominence was given in the recommendations of he committee to elementary mechanics, and not enough to physiology and zoology.

Dr. HALDANE withdrew his motion, and moved:

"That the following recommendation of the committee be adopted: 'That the recommendations of the Council at present in force in respect of the natural science subjects in the preliminary examination be not at present changed'."

Mr. TEALE seconded the motion.

Dr. PITMAN moved as an amendment, and Dr. FERGUS seconded:

"That the report be referred back to the committee, with a request that, after they have received and considered the answers from all the medical authorities to which certain questions have been addressed by the committee, the report be received and sent to each member of the Council, preparatory to its consideration at the next session of the Council."

After some remarks from Mr. MACNAMARA, Dr. FERGUS, Dr. HUMPHRY, and Dr. BANKS, the further consideration of the subject was adjourned.

* Recommendation 31.—"It is desirable that an examination in the earlier subjects of professional study should take place before the end of the first year of professional study."

The Dentists' Register.—A report was presented from the Dental Committee with respect to the cases of five persons on the *Dentists' Register*, regarding whom the question of their removal had been raised. It was decided, in the case of three, that they were properly registered; and the other two were referred back to the committee for further inquiry.

Saturday, April 30th.

Dr. ACLAND, President, took the chair at 1 P.M.

Questions to the President.—Dr. QUAIN asked the President the following question:

"A resolution was adopted by the General Council, on March 26th, 1879, having reference to an important feature in the formation of the *Dentists' Register*. A resolution entirely altering the resolution referred to was adopted by the Council on April 28th, 1881. The question is: Is it or is it not correct, as a matter of order, 'that an original resolution should be rescinded before a new resolution is proposed?'"

To this question the PRESIDENT gave the following answer: "In answer to the question put to me by Dr. Quain, I have to state that, according to such usages as I can ascertain, it would be generally more strictly regular if an original resolution be rescinded before a new resolution is proposed. In the case referred to on this occasion, if a resolution had been framed setting forth that the resolution of March 26th, 1879, was rescinded, and the resolution of April 28th, 1881, substituted, it might perhaps have been a better course. But, inasmuch as the latter resolution does in fact rescind the former, the course suggested was not necessary."

The PRESIDENT stated that the Registrar had submitted to him the following questions, in regard to a resolution passed on April 28th.

1. Are registrable surgical diplomas that are not registered in the *Medical Register* to be entered in the *Dentists' Register?* 2. What are to be considered as surgical qualifications? For instance, is the licence of the Royal College of Physicians of London to be considered such a surgical qualification, registrable in the *Dentists' Register?*

It was moved by Dr. PITMAN, seconded by Dr. HALDANE, and agreed to:

"That the President be authorised to answer these questions, and any other questions that may arise in respect of the registration of additional titles in the *Dentists' Register*, after consultation with the Solicitor to the Council."

Preliminary Scientific Examinations.—The debate on the motion proposed on the previous day by Dr. HALDANE, and on the amendment moved by Dr. PITMAN, was resumed.

Dr. HUMPHRY regretted that the subject should not be discussed; but to do so at present would occupy the whole time at the disposal of the Council.

Dr. HALDANE regretted that the report could not be discussed; but in the present circumstances he would be disposed to agree with Dr. Pitman's amendment, and would withdraw his motion.

Mr. MACNAMARA objected to the withdrawal of the motion. It would be unfortunate that the Council should appear before the public as not having come to a conclusion on matters regarding which it was ready to decide, and which had been thoroughly discussed by the ablest members of the Council. By this course, students were kept in a state of ferment, not knowing what was before them. He implored the Council, for the sake of its own reputation, of the students, and of the corporations, to finish the discussion of the question.

Sir WILLIAM GULL said that it was not so easy to settle the matter as Mr. Macnamara supposed, though all were agreed that what was proposed was most desirable. He thought the Council was not prepared to consider the whole question.

Mr. SIMON would suggest a middle course. He thought that the reason for the withdrawal of the motion was a belief that it would be necessary to enter into much detail. This was, he considered, a matter for the licensing authorities rather than for the Council. If Dr. Haldane's motion were withdrawn, that would be no reason why the matter should altogether stand still; for the Council was dealing with a principle. There had long been a feeling that the Council ought to relieve the medical curriculum of matters which might well be made preliminary. It might well be suggested to the licensing bodies to consider the establishment, separately or conjointly, of a scientific examination, either before or during the medical curriculum.

Dr. PITMAN, with the consent of the Council, withdrew his amendment.

Mr. SIMON moved the following amendment to Dr. Haldane's motion:

"That it be recommended to the several licensing authorities under the Medical Act, to consider whether they can, separately or conjointly, take steps to promote the establishment of a preliminary scientific examination, and to require of all candidates for their respective licenses that, after passing the preliminary examination in general education, and either before commencing the purely medical curriculum, or at latest before the end of the first year thereof, they shall pass such a preliminary scientific examination as is proposed."

Sir JAMES PAGET seconded the amendment, which was carried, and, having been put to the vote as a substantive motion, was agreed to.

It was moved by Sir JAMES PAGET, seconded by Dr. BANKS, and agreed to:

"That the whole subject be referred to the same committee, with a request that, after they have received and considered the answers from all the medical authorities, they report thereon, and that their report be sent to each member of the General Council, preparatory to its consideration at the next session of the Council."

Duties of the Executive Committee.—Dr. STORRAR moved, and Dr. PYLE seconded:

"That the Standing Orders, as regards the duties of the Executive Committee, be reconsidered by the Council."

The motion was, with the consent of the Council, withdrawn.

Medical Examinations in Switzerland.—Dr. HUMPHRY presented the following report from the committee appointed, on April 26th, to consider the latest regulations for the conduct of the Swiss medical examinations, which had been transmitted to the Medical Council by the direction of the Lord President of the Privy Council.

"The regulations appear to have been framed with much care, and to provide that the candidates shall be well tested in the various subjects of professional study. The examinations are under the control of a Committee of Direction, consisting of five members, appointed by the Federal Council, selected from the five localities in which examinations are held, and of two assessors. The examination for a diploma is in two parts: a first part, or 'examen propédeutique', in physics, chemistry, botany, zoology, and comparative anatomy, anatomy and histology, and physiology; a second part, or 'examen professional', in pathological anatomy, pathology and therapeutics, surgery and surgical anatomy, obstetrics, ophthalmology, and legal and sanitary medicine. The examinations are practical (including examination in writing) and oral. When foreigners desire to submit themselves to the Federal examinations, each case must be submitted to and approved by the Committee of Direction. Foreigners who, after due examination, have obtained a foreign diploma, giving full privilege to practise in their respective countries, can only obtain the Federal diploma after having gone through the whole professional examination, unless an international treaty of reciprocity recognises the validity of the foreign diplomas. It is, however, in the power of the Committee of Direction to admit foreigners of high scientific reputation, or who have been in practice ten years, to an 'examen sommaire', which will be an oral examination in pathological anatomy, special pathology and therapeutics, surgery, and obstetrics, or to exempt such foreigners from examination altogether. The committee views with satisfaction the opportunities offered by these provisions which are made, seeing that they are made under the circumstances of there not being any international treaty of reciprocity for giving validity to foreign diplomas."

On the motion of Dr. HUMPHRY, seconded by Dr. PITMAN, it was resolved:

"That the report be received, entered in the minutes, and adopted."

The Business Committee.—Dr. PITMAN presented the report from the Committee appointed to report whether any, and if so what, alterations or additions should be made in the Standing Orders relating to the Business Committee. The Committee recommended the addition of the following clauses. 1. The Business Committee shall continue in office for a period of one year from the date of its appointment, or, if the Council be not sitting at the time when the year expires, until the first day of the next meeting of the Council. 2. Should there occur, during the recess, any vacancy in the Business Committee, the Executive Committee shall be empowered to fill up such vacancy. 3. In Chapter 1, Clause 3, after the words "the General Registrar shall", add, "with the chairman of the Business Committee", (prepare the business for the meetings of Council). 4. Any notice of motion to be submitted to the General Council on the first day of the session must be sent to the Registrar at least six clear days before the beginning of the session.

It was moved by Dr. PITMAN, seconded by Sir JAMES PAGET, and agreed to:

"That the additions and alterations suggested in the report by the Business Committee be adopted."

Registration of Students.—The following report was presented, and on the motion of Dr. PITMAN, seconded by Dr. BANKS, was ordered to be received and entered on the minutes.

"The Committee appointed on April 28th, 1881, to prepare for the consideration of the Council draft rules defining the classes of cases in which exceptions may be allowed to the recommendations of the Council as regards the examination in general education and registration, reports as follows. Exceptions may be made in the case of a student from any Indian, colonial, or foreign university or college, who shall have passed the matriculation or other equivalent examination of his university or college, provided such examination fairly represents a standard of general education equivalent to that required in this country. Before any such student can be registered, sanction must be given in Scotland and Ireland by the respective Branch Councils of those countries, and in England, either by the Branch Council for England, or by the Executive Committee, as may be most convenient. In case a graduate in medicine of an Indian, colonial, or foreign university, or a student who, having completed the full time required by the Medical Council, and having given satisfactory evidence of general education, shall have spent the whole or three-fourths of that period at an Indian, colonial, or foreign university, is admitted to examination by any of the licensing bodies, the licensing body is requested to report the particulars of each such case to the General Medical Council."

Dr. PITMAN moved, Dr. AQUILLA SMITH seconded, and it was resolved:

"That, after Recommendation 8 of the Council's Recommendations on Education and Examination, a proviso be inserted to the effect that, in the opinion of the Council, exception to Recommendations 7 and 8 may properly be made in the case of a student from any Indian, colonial, or foreign university or college, who shall have passed the matriculation or other equivalent examination of his university or college, provided such examination fairly represents a standard of general education equivalent to that required in this country.

"That, after Recommendation 20 of the Council's Recommendations on Education and Examination, a proviso be inserted to the effect that, in the opinion of the Council, exception to Recommendation 20 may properly be allowed in the case of any graduate in medicine of an Indian, colonial, or foreign university, or of any student who, having completed the full time required by the Medical Council, and having given satisfactory evidence of general education, shall have spent the whole or three-fourths of that period at an Indian, colonial, or foreign university."

It was moved by Mr. TURNER, seconded by Dr. STORRAR, and agreed to:

"That, in Recommendation 15 of the Council's Recommendations on Education and Examination, line first, after the words 'Branch Councils', be inserted the words 'and in England the Executive Committee, if its meeting be more convenient and the case be urgent'."

It was moved by Mr. SIMON, seconded by Mr. TURNER, and agreed to:

"That the several licensing bodies be requested to communicate to the Council annually, in the month of January, a statement of the action taken by them respectively during the last preceding calendar year, in regard of exceptional cases under Recommendation 20 of the Council's Recommendations on Education and Examination."

The Executive Committee.—Dr. AQUILLA SMITH moved, Dr. BANKS seconded, and it was resolved:

"That the powers and duties heretofore delegated to the Executive Committee be vested in the said Committee until the next meeting of the General Medical Council."

Votes of Thanks.—The following votes were agreed to on the motion of Dr. AQUILLA SMITH, seconded by Sir JAMES PAGET:

"That the thanks of the Council are hereby cordially tendered to Dr. Acland, the President, for his efficient services during the present session of the Medical Council."

"That the cordial thanks of this Council are eminently due, and are hereby tendered, to Dr. Pitman, for his services as chairman of the Business Committee during the present session of the Council."

"That the cordial thanks of the Council are eminently due, and are hereby tendered, to the Treasurers, Dr. Quain and Dr. Pitman, for their services."

The PRESIDENT expressed to the Council the high sense he entertained of the value of the Registrar's services, and trusted that the Council would allow him to tender their best thanks for the able and assiduous discharge of the duties of the office. It was resolved: "That the best thanks of this Council are eminently due, and are hereby given, to the Registrar for his efficient services in carrying on the work of the Council."

The session of the Council then closed.

THE NOTIFICATION OF INFECTIOUS DISEASES.

ON Tuesday, a large deputation waited upon the Local Government Board, to urge that the Government should give effect, by legislation, to resolutions passed, in the interests of public health, by various bodies in London and the country, for the amendment of the Public Health Acts, and especially for the compulsory notification of cases of infectious disease. The British Medical Association was represented by Dr. A. Carpenter of Croydon, President of the Committee of Council; by Dr. Farquharson, M.P.; Mr. Ernest Hart, the Editor of the BRITISH MEDICAL JOURNAL; and Mr. Francis Fowke, the General Secretary. The Society of Medical Officers of Health was represented by Dr. Bristowe, the President; Dr. Dudfield, Dr. Corfield, Mr. Liddle, Dr. Tripe, Dr. Tidy, and Mr. Lovett. The Vestries and District Boards of London were represented by General Boileau, Mr. Watherston, and forty other gentlemen. The Social Science Association was represented by Mr. Michael, Q.C.; while Mr. Ernest Hart also attended as Chairman of the National Health Society.

The President of the Local Government Board was attended by Mr. Hibbert, M.P., Sir John Lambert, Mr. Hedley, and Dr. Bridges.

Mr. HASTINGS, M.P., said that, with Dr. Farquharson, he had the honour of introducing this large and influential deputation. They came, knowing the interest which Mr. Dodson took in all sanitary matters, to ask that steps should be taken to prevent the spread of the terrible infectious diseases which afflicted the population; for, of all sanitary questions, this was one of the most important. There were present those who could adequately deal with the details of the subject, and he, therefore, would only touch upon the general outlines of it. He was aware that there were differences of opinion as to the best procedure to be adopted; but, as to the necessity of steps being taken to give effect to the requirements of these bodies, he had no doubt. He had had doubts, he confessed; but these had been dispelled after hearing a discussion in the Health Section at the last meeting of the Social Science Association, when it was shown that, at Greenock, Edinburgh, and other places, the principles of compulsory notification of infectious disease had been carried out, under local Acts, with a most beneficial effect to the public health of the localities thus subjected to the operation of this principle. Tentative and partial legislation having been productive of excellent results, it was now asked that the principle should be extended to the whole kingdom, so that the health of the people should be protected against the inroads of these terrible diseases, by the authorities having notified to them where the infections had broken out, whereby they might be enabled to take steps to prevent the infection from spreading. There was now a Bill before the House of Commons, read a second time, to provide for Ireland this protection. The principle of this Bill had commended itself to the intelligence of the House of Commons; and he was sure that, if the Local Government Board would present a Bill to give the like law to England, it would receive the warm support of all sanitarians, and the thanks of the whole community.

Dr. FARQUHARSON, M.P., as an old member of the British Medical Association, had great pleasure in introducing his medical brethren as part of this large deputation; and, in the presence of older members, and of Dr. A. Carpenter, the President of the Council, would not say more than that he entirely concurred with what had fallen from Mr. Hastings, and pressed the necessity existing for harmonising the various steps which had been taken in various parts of the United Kingdom.

GENERAL BOILEAU, the Chairman of the Kensington Vestry, presented resolutions on this subject, which had been unanimously adopted by a meeting of delegates from all the districts of London, at Kensington, a month ago. These were: "That, in the interests of public health, and to enable nuisance authorities to discharge the duty of checking and preventing the spread of infectious diseases, such as small-pox, scarlet fever, etc., provision should be made by legislative enactment to secure the compulsory disclosure to the said authorities of all cases of such diseases immediately after their occurrence." "That the provision of the twenty-sixth section of the Sanitary Act, 1866 (Section 124, Public Health Act, 1875), are insufficient for the protection of the public health, and should be so amended as to empower any justice to direct the removal to a hospital, within the district of the nuisance authority, of any person suffering from any dangerous infectious disorder, and being without proper lodging or accommodation, such as to enable patients to be properly isolated, so as to prevent the spread of disease to other inmates of the same house, or to be properly treated." "That the admission into hospitals for the purpose of isolation of persons suffering from infectious diseases, and being without proper lodging or accommodation, is eminently desirable in the interests of the public, and should be encouraged; that payment for the assistance given in hospitals to such persons removed thereto for isolation by the nuisance

or Poor-law authority should not be enforced; that the giving of such assistance should not entail on the recipients the loss of any social or political status; and that the cost of hospital treatment of such infective sick persons should be made a charge on a common fund." The speaker referred to the fact that, in other countries, the principle of compulsory notification of infectious disease was adopted, and that, even in this country, it was required under local Acts in some parts; the principle, too, was conceded so far as Ireland was concerned; and it therefore seemed hardly necessary to do more than point out to the department having charge of the public health that this important sanitary measure was lacking, so far as London was concerned. It was not necessary to enter into any details as to the manner in which it was to be done, for the members of the House of Commons would, in their wisdom, find a means, acceptable to the country generally, by which this important safeguard could be given to the public against unsuspected contact with infectious disease. He urged that the safety of animals from contagious disease was secured by strict notification of the outbreak of these diseases being required; and, if such steps were required on behalf of the "beast which perisheth", surely it was necessary for the safety of the public. In touching upon the question of infectious hospitals, the speaker incidentally said that the feeling which prompted the erection of a few large hospitals for infectious diseases seemed to be changing in favour of more smaller ones in the many districts of London; and he maintained that there should be no loss of status sustained by persons who, for the safety of the community, were taken to these hospitals.

Dr. A. CARPENTER stated that he was present on that occasion as the representative of the British Medical Association, and he considered it to be a great privilege and honour to represent that important and powerful organisation. This body, he explained, was founded forty-nine years ago by the father of Mr. Hastings, M.P. It now had Branches in every part of Great Britain and Ireland. These Branches sent representatives to the Council, over which he had the privilege of presiding. At the last meeting of the Council, the subject now brought before the department was submitted to the Council; and it was unanimously agreed by a large meeting of those representative members, that the Association should appear at this deputation, and support the necessity of legislation on the subject by the Government. He might add, that the subject had been taken in hand by committees of the Association—committees appointed year by year to consider the subject of guarding the public health from the inroads of infectious diseases, and other matters connected with the public health; and, in reports presented year by year at the annual meetings of the Association, in the great cities and towns of the kingdom, in the several divisions of the kingdom, resolutions had been adopted, in most cases unanimously, giving the assent of the Association, consisting of upwards of nine thousand registered medical practitioners, to the principles now set forth. The Committee of Council of the Association had been urged, over and over again, to give effect to these resolutions. The speaker placed in the hands of Mr. Dodson a list of the members in the Association, as well as a copy of its laws and by-laws as an incorporated body, and remarked that the President of the Local Government Board would see that the Association was a powerful body of medical men, who were combined to promote the interests of medicine and the interests of the public in those matters in which medicine had a part. Now, in these meetings of medical men, held in important cities year by year, the suggestions contained in the resolutions having always been approved, the President of the Local Government Board, in proposing to give effect to them by legislation, would show that he was supported by the declared opinions of a very large proportion of the members of the profession of medicine in the kingdom, who declared their support of these suggestions in the desire to promote the public health, and with a full knowledge of the action necessary to be taken to promote that end. In the first place, it was asked that there should be a compulsory notification of cases of infectious disease existing in families. Now, in order to protect the flocks and herds in the country, it was found necessary to exact a notification of infectious disease occurring to animals; and surely, if this were necessary to protect animals from the spread of infection—and that it was efficacious in limiting disease was proved by the importance attached to compliance with the law—it was necessary in the case of the population of these islands, and especially of our crowded towns. It passed all comprehension why there should be any hesitation on the subject; for, until there was such a regulation applicable for the safety of the public as was given for animals, it would be impossible to carry out any regulations for the prevention and spread of epidemic disease in the homes of the country. With regard to the isolation of persons suffering from infectious diseases, it was quite evident that the law did not allow that proper isolation of persons afflicted with infectious disease necessary for the safe guarding of the public health; and it could not be too strongly pressed, that the power of the local authorities to isolate persons suffering from those dangerous diseases should be entrusted to their hands. In support of the third proposition in the resolutions—that the isolation of persons who had not proper lodging or accommodation should be encouraged by the isolation in the rate-supported hospitals, causing no loss of civil status—Dr. Carpenter pointed out that large numbers of the population, far removed above the taint of pauperism, would have no provision in their habitations for the isolation of cases of infectious disease; and that, as the cases were removed for reasons of public safety, the cost should be borne by the district. In the metropolis, it would come out of a common fund; and, throughout every other union in the country, there should be a common fund, to bear this and other general costs. With regard to the subject of the establishment of hospitals for infectious cases in every district, there were, as the President knew, different opinions. Some had come to the conclusion that every district should provide for its own portion of the sick population, and that the hospital in each district should be controlled by the local authority of that district. The "authority" having the charge of the hospital, and the arrangement for the transfer of the infectious cases, should be the sanitary, and not the Poor-law, authority of the district; it should be under the district board of health, and not the district board of guardians. Speaking from his experience of such districts as Croydon, it would be far better, where wards were erected for the isolation and treatment of infectious cases, that these wards should be under the direction of other local authorities than the guardians, there being a certain idea on the part of the people, that going into a building under the authority of the guardians would attach the stigma of pauperism to the recipients. It was impossible to eradicate this idea from the minds of the people; and it was an insuperable objection in the way of carrying out measures for the benefit of the public health. He could not see why these hospitals, where they were under the guardians, should not be transferred to the health-authorities. In Croydon, there was an asylum where infectious diseases could be treated, and that was sufficient for the one district; but if that were to remain under the guardians, there would have to be a second for persons who would not go to a "Poor-law" asylum. Now, he held that the dangers of infection would be enhanced by too many centres of aggregation; and while he should object to the overwhelming aggregation of disease of an infectious nature in one building, yet the multiplication of hospitals for these diseases would increase the risks. He handed in finally the last two reports on the subject, presented to the Parliamentary Bills Committee by its able chairman, who was also the editor of the BRITISH MEDICAL JOURNAL. He would not speak upon further details, as Mr. Ernest Hart was present, and could speak with authority upon all points of the subject.

Dr. BRISTOWE, for the medical officers of health, stated that the medical men who had charge of the health of districts, had long made up their minds as to the necessity of the compulsory notification of infectious diseases as a means of stopping the ravages of those diseases. The medical men had led public opinion upon the subject, for they had year after year adopted resolutions which had been laid before the Local Government Board. It was important to note that, if infectious diseases were to be arrested, it must be at the instant when they occurred; the medical officers must know at the beginning when a disease of an infectious nature had made its appearance. But the medical officers of London districts never, under the present state of the law, were made aware of the existence of an infectious disease in their neighbourhoods until it had caused some deaths, and then it was well spread over a neighbourhood, and was far beyond any efforts to stop it. He supported the view that there should be no loss of position to those who were isolated in asylums; and if the stigma of pauperism were removed from those who entered the asylums, much of the difficulty of getting people to be removed to them would vanish. At the present time, persons suffering from infectious diseases could not be pressed into an asylum; for the law had more regard for the individual than for the safety of a whole community; but he held that the welfare of the community should be considered first. The necessity of isolation was to be seen from the fact that one person in the large Peabody Buildings, which contains 1,500 persons, might be afflicted with an infectious disease, and that person could not be isolated in such a building beyond the fear of communicating the contagion. A person so afflicted should be removed at once, but there was no person to remove him; and he knew a case in which small-pox arose in the father of a family of ten persons, occupying four rooms in one of these buildings, and as the case could not be removed the disease spread over the whole house. Spread of disease was often caused by laundries. Linen and clothes from an infected house were sent to the laundry; the woman's child would take the disease; the woman carried on her work and

nursed her sick child, and Mr. Dodson might fancy the consequences. If that woman were ironing Mr. Dodson's shirt, while attending to her sick child, she would be sending at the same time, the small-pox into Mr. Dodson's family; yet while the woman was communicating the disease broadcast, there was no power in the sanitary authority to stop the evil, under the present state of the law. This should be changed, for the sanitary authority should have power to remove those cases from causing danger to the public. As to the question of the hospitals, he thought it would be a great mistake to multiply hospitals for infectious diseases throughout London. A separate one for each country town or district might do very well; but the thing would not do in London.

Mr. MICHAEL, Q.C., stated that he had been asked to say a few words as representing the health section of the Social Science Association, which had, for a great number of years, taken up this subject for discussion in different parts of the country, and the public assemblages had passed resolutions in favour of steps being taken to protect the population. This fact showed that the public felt the law was powerless to help them to protect themselves, and he believed that it was the influence brought to bear by the British Medical Association and Social Science Association, and through their joint committee on State medicine and public health, that the public had been led to see the necessity for enforcing the registration of cases of prevailing infectious diseases, for the information of the local authorities, and for the complete isolation of persons suffering from fevers, small-pox, cholera, or other diseases of those types. Mr. Dodson was probably aware that the Public Health Act of 1875 did not apply to the metropolis, and that it was simply a consolidation Act, dealing with little more than the difficulties created by having a mass of statutes bearing upon the same subject which had existed up to that time. The speaker went on to describe the chaotic state of the law in regard to sanitary matters, and pointed out that the steps taken in legislation to prevent the spread of infectious diseases, powers to this end being possessed by various towns, was the result of private effort in advance of public legislation. The good effected by the clauses introduced into local acts, to effect the compulsory notification of infectious diseases, was most striking, and exemplified the great advance which had been made, by private means, in advancing the health of the public.

The PRESIDENT asked if the introduction of the clauses for the compulsory notification of infectious disease had not been opposed?

Mr. MICHAEL replied that all of them had been passed without opposition, with the exception of the clauses introduced in the Lincoln local Bill. But one great difficulty was experienced in regard to these clauses, and that was when the question was raised "What is there exceptional in this town to other towns, that there should be this notification of diseases required, and an onerous burden cast upon the community of this town not required elsewhere?" This was the question raised in every case, and it was difficult to answer, or to press that a great general public principle, for the benefit of the whole population, had to be taken piecemeal in this manner. Now the Government had the advantage of seeing how this principle worked in different towns; and this would assist them in preparing such a well advised amendment of the Public Health Act as would give the whole country the benefit of the legislation which had worked out so well in some localities and towns; and if the Government appointed a committee to deal with the subject, it would be found that there was an absolute consensus of opinion as to the necessity of there being a compulsory and early notification of the breaking out of infectious diseases. He did not consider that what was asked for would be effected without difficulty; but then there was the great consideration of the public safety, and this must override considerations of a private nature; such as permitting a laundress, who was washing the shirts of her customers, to be employed at the same time in nursing her child smitten with small-pox, by which the disease was spread to many families, and so kept alive. That this was no mere imaginary case was apparent from the cases mentioned in the newspapers, of persons being summoned and fined in small sums for doing acts of incalculable injury to the health of the public. Mr. Michael pressed the necessity for powers being given to sanitary authorities to remove suffering persons to the asylum, and remarked that this power was given in regard to the common lodging-houses; and common lodging-house keepers, too, had to give notification of the breaking-out of infectious disease in those houses, and if in such cases, why not when a laundress spread it in the linen she washed? Mr. Michael also complained of the action of the auditor of the Local Government Board, who, when local authorities took exceptional steps to stop the spread of infection, surcharged the private gentlemen with the costs. This had occurred in a case where a local authority engaged a nurse to attend upon a patient who had been isolated. Thus it was seen that the auditor of the Local Government Board actually discouraged public-spirited action for the safety of the community. These questions, Mr. Michael added, were of national importance, and the Local Government Board, as the guardian of the public health, was now pressed to give effect to the demand by all these combined bodies for means of protecting the public health.

Mr. ERNEST HART, who said that he attended in response to a double invitation, as Chairman of the Parliamentary Bills Committee and as chairman of the National Health Society, said that the points which had not been touched upon were few. Mr. Dodson, from the representations which had been made by that conjoint deputation, could now see that there was a general agreement between the medical profession and the public as to the necessity of a compulsory notification of infectious diseases in private families. Mr. Hart had the honour, some time ago, of addressing Mr. Dodson's predecessor in the presidentship—Mr. Sclater-Booth—on the same subject; and Mr. Sclater-Booth held that, though it was important, he conceived that at that time it had not entered into the "realm of practical politics", or of "practical statesmanship", and he told the deputation that, before anything could be proposed by the Government, or carried by Parliament, the public must be educated in the ideas which Mr. Hart then put forward in support of his "model clause" for the registration of infectious disease. It must be apparent now to Mr. Dodson, and to "practical statesmen", that that step had been surmounted—that the public mind had been sufficiently "educated" on the question to render the matter ripe for the realm of "practical politics". Here were present the representatives of the local governing powers of the vast population of London, and they had unanimously agreed to resolutions which showed that the education of the public on the matter had advanced; so that the necessary preliminary, in the regard of Mr. Sclater-Booth, to proposed legislation, had already been reached. Now it was the question whether the needful legislation on these points should be purely isolated; and upon this he would remark that in some of the towns which had acquired, under local Acts, powers of notification of disease and many large sanitary powers, these had become largely inoperative, owing to the isolated and piecemeal condition of the legislation; and it was a necessary preliminary that there should be an inquiry by a Commission as to the manner, force, and the mode of their being worked. Various local sanitary authorities had, by local Acts, taken upon themselves a variety of duties—the closing of laundries, the partial quarantine of schools, and the like; and this, without necessary supplements, such as the provision of instruments for disinfection, the means of providing places for disinfection, or the means of providing places of isolation for those who were in a condition of communicating infection. It was asked, therefore, that the whole subject should be referred to a committee, or a Select Committee, to show how the local Acts were working; to see what were the necessary corollaries of the existing regulations on infectious diseases; and to see if there should not be taken some powers by the Local Government Board when questions relating to the public health came in the form of local Bills before Parliamentary committees, to be represented before those committees by counsel, in order to prevent for the future absurd clauses from being introduced into health and local Acts, such as existed now. The Local Government Board ought also to consider whether it should not take powers to meet the requirements of this deputation, in requiring the notification of cases of infectious disease by taking to itself the power of conferring authority on any local authority to require notification of contagious disease, when an inquiry by an inspector from the Local Government Board showed that it could with advantage be conferred. No local board could consider that it had discharged its duty when it had required the notification of cases of infectious disease, for this would be barren and fruitless if there were not power of provision for remedying the existing difficulties of isolation and disinfection of the sick poor; and this without personal hardship, personal cruelty, and, as had sometimes been the case, personal ruin.

Mr. DODSON, in reply, said: It is with great pleasure, gentlemen, that I receive the various deputations which have waited upon me to-day; and, notwithstanding what Mr. Ernest Hart has said as to my having had to listen to many speakers, I can assure you that I have listened with great satisfaction to the different observations you have addressed to me, and to the several suggestions you have made. Some of these suggestions, coming from persons so well qualified to speak on the subject, are of much value; and I can assure you that they will meet with due consideration by the Board on behalf of which I speak. I wish, however, to point out with reference to the proposed compulsory notification of infectious diseases, that a mere notification of such cases does not advance very much a solution of the question. One gentleman (General Boileau), has alluded to the legislation in reference to contagious diseases among animals, and pointed out that in that case a notification is required. I need not remind you that, in the cases of animals, a notification is not the only thing required. The notification

is followed up by very rigorous measures indeed. In some cases, more rigorous measures than any reformer, however earnest, would venture to propose should be applied to human beings. I do not, for instance, anticipate that any of you would go so far as to recommend the use of the pole-axe in cases of contagious disease among human beings. The fact is, it appears to me that underlying the question of a notification of such cases comes what I look upon as the real difficulty. I refer to the difficulty, which Mr. Hart has suggested, as to where people who become affected by disease are to be removed, and how the means of isolation which are a corollary of notification can be provided. What is to be done with such persons? No doubt persons well off, who had all necessary resources to fall back upon—persons who could afford to keep up large houses—such persons as these could effect the isolation of contagious cases at home. But what is to be done with persons who have no such facilities at their command—with people obliged to live in lodgings—with families who may have to put up with one or two rooms? What is to be done to secure isolation for classes of persons such as these? Underlying the whole question is also the consideration as to what sort of hospitals should be provided for such cases, and what sites should these hospitals occupy. That is a much more difficult matter than providing by legislation for a compulsory notification of infectious diseases. The sanitary authorities throughout the country have power to provide hospitals, but the cases in which they have exercised that power are few. The great difficulty seems to be as to the sites upon which such hospitals could be established. In the metropolis there are no compulsory powers for the provision of such hospitals—I mean no power to obtain sites by compulsion for their establishment. The difficulty experienced in finding such sites, not only in the metropolis, but in the large towns throughout the country, is consequently overwhelming. One gentleman has said that a "feeling" prevails in favour of small special hospitals for contagious diseases in the metropolis, but he spoke of it only as a feeling. The speaker who directly followed expressed a different opinion; I think it was Dr. Carpenter who expressed the deliberate opinion that an hospital for such cases should be provided in each central district. (Dr. Carpenter explained that his observation applied to country districts and not to the metropolis.) The real difficulty after all, is how to provide hospital accommodation for such cases. The question to be solved is how that difficulty can be surmounted? I confess that, having so many medical gentlemen around me, and having heard them express their opinion on the subject, I should have been glad if, instead of mentioning what was the "feeling" only as to the best means of dealing with contagious cases and preventing the spread of disease in the metropolis and large towns, they pointed out what they considered the best means. I should like to know, for instance, whether it is a safer course to have several comparatively small hospitals for such cases, and to leave each district to provide for itself, or to continue the present system. Which is the least source of danger? Is it better to have the disease concentrated in a few centres, or to have the disease centred in a large number of small districts? I should be glad if gentlemen so competent to speak on the subject would not shrink from giving their opinions as to this important point.

GENERAL BOILEAU said that Dr. Dudfield had much experience on the question.

Dr. DUDFIELD said he could not claim to speak as an authority, but in deference to the request of General Boileau, and at the invitation of the Right Hon. the President, he would state that, in a place like Croydon, it was very well to have a hospital for the district, which would be all-sufficient, but with regard to a town like London, as Dr. Bristowe had pointed out, there would be a vast amount of danger in hospitals spread over every district. He thought it would be a great mistake to have a large number of these hospitals. At the same time, he thought that slight cases of small-pox should not be sent to the great hospitals, but should be removed, as they could safely be, to long distances from London; and this, he thought, would remove the necessity of keeping so many beds in the present hospitals of the metropolis. A few days ago, a lad was found going about from house to house with milk, with small-pox upon him. Now, that boy could communicate the disease, but he was not sufficiently ill to be laid up in one of the large hospitals, and occupy a bed which would be needed by a person suffering acutely from the disease; and a case like this could be easily removed from London. If cases like these were removed, the present hospitals would be quite sufficient to meet any emergencies which might arise. In the same way, convalescents should be removed as speedily as possible. They did not want the treatment given in the metropolitan hospitals to those acutely sick, and it was highly necessary that they should be kept from the population, for they were in a condition, and would be for some time, to give infection. On these grounds, they required to be isolated, and should be sent away, not for their treatment, but for the safety of the population. He considered that it would be most inadvisable to multiply, to the number of thirty or forty in London, these hospitals, centres of infection, for such they would be in the crowded districts of the metropolis. Being a medical officer of Kensington, he could speak with regard to the Fulham hospital. Now the hospital was a quarter of a mile away from any house; and if it was dangerous to have a hospital in a place like Fulham, it would certainly be an extreme of danger to have forty hospitals in the crowded districts of the metropolis. He did not believe in the theory of direct infection, but there might be something in the prevalent idea of indirect infection. The medical officers of health were in favour of ample accommodation being provided for London, but they were not by any means desirous of having a small-pox hospital in every district, which they regarded as highly dangerous. The hospitals of the Metropolitan Asylums Board had been doing a great work since 1867, but now, from the spread of small-pox, owing to the manner in which cases were kept secret, and from other causes, such as laundries, milk, and so on, it had been made impossible, in many cases, for the people in the district of the hospital who were afflicted to go into it, as it was full.

The PRESIDENT asked if he understood that the medical officers were in favour of outlying places being occupied by convalescents; and further asked whether there would be no danger from these convalescents going a distance?

Dr. DUDFIELD said he was of the opinion that the convalescents were highly dangerous to other people, but this difficulty could be removed under a proper system of ambulances; and if the convalescents were removed, room would then be provided for cases which could not be moved any great distance, and for which hospitals in the immediate vicinity of London were absolutely necessary.

Mr. DODSON asked what was the average duration of the time during which the patient could not be considered as convalescent, and be removed?

Dr. DUDFIELD said there were numbers of cases which might be removed on the first day; but the majority of the cases might be removed at various periods. Sometimes the case would last for three months. He had known cases discharged within three weeks, but he thought that was a dangerous example of the time during which persons should be kept.

Dr. CARPENTER said he might be allowed to explain that he considered that, if the Sanitary Acts were amended so that the origin of the disease could be traced, the spread of the disease would be prevented; and London would, in his opinion, be amply provided with hospital accommodation for infectious diseases, if the Legislature would compel the notification of cases of small-pox, and thus in a great measure prevent the spread of disease.

The representative of GREENWICH complained that the hospital at Greenwich was full of cases from all parts of the metropolis; that, when a case of small-pox broke out in Greenwich, the patients had to be detained in their own houses.

Mr. DODSON thanked the deputation for the information afforded him, and assured the gentlemen composing it that the matters laid before him should have his full consideration.

The deputation thanked the right honourable gentleman for his courtesy, and retired.

PRESENTATIONS.—The honorary medical and resident officers of the *Dreadnought* Seamen's Hospital have just presented to Mr. H. C. Burdett a carved oak library table, as a mark of esteem, and as a recognition of their appreciation of his successful labours during the period he has had the management of the Greenwich Hospital.—On the evening of April 29th, Dr. John Borland, Kilmarnock, was entertained to supper in that town, and presented with a testimonial, consisting of a purse containing five hundred sovereigns, together with a silver-salver and gold brooch for Mrs. Borland, on the occasion of his jubilee as a medical practitioner in Kilmarnock. There was a large and influential company, including several eminent professional gentlemen from a distance, among whom was Professor George Macleod of Glasgow, who officiated as croupier. The salver bears this inscription: "Presented to John Borland, M.D., with a cheque for £500, and a gold brooch for Mrs. Borland, on the occasion of his jubilee as a medical practitioner in Kilmarnock, in recognition of the invaluable services rendered to his native town during the past half century. Kilmarnock, April 29th, 1881."

SOUTH LONDON SCHOOL OF PHARMACY.—The prizes were awarded to the following successful competitors at the examinations ending the Second B Course, and presented on April 30th, 1881. The medals were given as follows. Senior Chemistry: Mr. Thomas; Junior Chemistry: Mr. Shaw; Botany: Mr. Bull; Pharmacy: Mr. Walker; and Materia Medica: Mr. Kay.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION:

FORTY-NINTH ANNUAL MEETING.

THE Forty-Ninth Annual Meeting of the British Medical Association will be held at Ryde, Isle of Wight, on Tuesday, Wednesday, Thursday, and Friday, August 9th, 10th, 11th, and 12th, 1881.

President.—G. M. HUMPHRY, M.D., F.R.S., Professor of Anatomy in the University of Cambridge; Senior Surgeon to Addenbrooke's Hospital.

President-elect.—BENJAMIN BARROW, F.R.C.S., Consulting-Surgeon to the Royal Isle of Wight Infirmary.

An Address in Medicine will be delivered by JOHN SYER BRISTOWE, M.D., F.R.S., F.R.C.P., Senior Physician to St. Thomas's Hospital.

An Address in Surgery will be delivered by JONATHAN HUTCHINSON, F.R.C.S., Senior Surgeon to the London Hospital.

An Address in Obstetric Medicine will be delivered by JOHN G. SINCLAIR COGHILL, M.D., F.R.C.P.Edin., Visiting Physician to the National Hospital for Consumption, Ventnor.

The business of the Association will be transacted in Four Sections and one Subsection, viz.:—

SECTION A. MEDICINE.—*President:* Edward Long Fox, M.D., Clifton, Bristol. *Vice-Presidents:* W. Withers Moore, M.D., Brighton; Bushell Anningson, M.A., M.D., Cambridge. *Secretaries:* William Hoffmeister, M.D., Townsend House, Cowes, Isle of Wight; Robert Saundby, M.D., 71, Newhall Street, Birmingham.

SECTION B. SURGERY.—*President:* W. Martin Coates, M.R.C.S., Salisbury. *Vice-Presidents:* Charles Macnamara, F.R.C.S., London; Alexander G. Davey, M.D., Ryde. *Secretaries:* Ed. Allan Waterworth, M.D., 40, Quay Street, Newport, Isle of Wight; Herbert W. Page, M.A., M.B., 146, Harley Street, London.

SECTION C. OBSTETRIC MEDICINE.—*President:* Sir E. B. Sinclair, M.D., Dublin. *Vice-Presidents:* John Livesay Whitehead, M.D., Ventnor; Edward Malins, M.D., Birmingham. *Secretaries:* Robert Cory, M.D., 14 Palace Road, Albert Embankment, S.E.; James Mann Williamson M.D., South Cliff Cottage, Ventnor, Isle of Wight.

SECTION D. PUBLIC MEDICINE.—*President:* Arthur Ransome, M.D., Bowden, Cheshire. *Vice-Presidents:* George Wilson, M.D., Leamington; William Armistead, M.B., Cambridge. *Secretaries:* James Neal, M.D., Barcelona House, Sandown, Isle of Wight; H. Aubrey Husband, M.B., 13, Northumberland Street, Edinburgh.

SUBSECTION: OTOLOGY.—*Chairman:* Urban Pritchard, M.D., London; *Secretaries:* E. Cresswell Baber, M.B., 4, Preston Street, Brighton; W. Douglas Hemming, F.R.C.S., Glenalmond, Bournemouth.

Honorary Local Secretaries.—J. M. Pletts, Esq., Kent House, Melville Street, Ryde, Isle of Wight; W. E. Green, Esq., Belgrave House, Sandown, Isle of Wight.

BRANCH MEETINGS TO BE HELD.

NORTH OF IRELAND BRANCH.—The annual meeting of this Branch will be held in the Belfast Royal Hospital, on Thursday, May 26th, at 4 P.M. The members will dine together at 7 P.M. Members intending to read papers or send communications will kindly intimate their intention to JOHN MOORE, M.D., Honorary Secretary, 2, Carlisle Terrace.—April 26th, 1881.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The annual meeting of this District will take place at Canterbury, on Thursday, May 12th, at the County Hospital, at 3 P.M.; Mr. W. Knight Treves, F.R.C.S., in the chair. The following communications have been promised. 1. Dr. Tyson: A Case, with Remarks on Treatment. 2. Mr. A. Long: A Case of Hæmoptysis. 3. Mr. Rigden: Craniotomy during forty-three years' experience. 4. Mr. Wacher: A Specimen of Ruptured Uterus. 5. Mr. Whitehead Reid: A Specimen of Ruptured Duodenum, from Kick of a Horse.—T. WHITEHEAD REID, Honorary Secretary, 31, St. George's Place, Canterbury.—April 27th, 1881.

LANCASHIRE AND CHESHIRE BRANCH.—A joint meeting of this Branch with the Staffordshire Branch will be held at Crewe on **Tuesday, May 10th.** Through the kindness of Mr. Atkinson, lunch will be provided at the place of meeting from 1 to 2 o'clock. The meeting will take place at 2 P.M. At 3.30 P.M., a special train will convey members to the works of the railway company, and the whole of these interesting works, including the Bessemer process, will be viewed. Dinner at the Royal Hotel, at 5.30; tickets 7s. 6d., exclusive of wine. The following communications have been promised. Mr. Banks: On Radical Cure of Hernia, complicated with Undescended Testicle. Dr. Ashby: The Diagnosis of some Forms of Scarlatina.—A. DAVIDSON, Honorary Secretary, 2, Gambier Terrace, Liverpool.—April 26th, 1881.

BATH AND BRISTOL BRANCH.—The next ordinary meeting of this Branch will be held at the Grand Pump Room Hotel, Bath, on Thursday, May 19th, at 7.15 P.M.; Alex. Waugh, Esq., President.—R. S. FOWLER, E. MARKHAM SKERRITT, Honorary Secretaries.—Bath, April 1881.

BORDER COUNTIES BRANCH.—The spring meeting will be held at Penrith, on Wednesday, May 25th. Gentlemen who intend to read papers are requested to communicate with one of the Honorary Secretaries, JOHN SMITH, M.D., Dumfries; J. KENDALL BURT, M.B., Kendal.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

A MEETING of the above District was held on Wednesday, March 30th, at the Burlington Hotel, Eastbourne; DR. JEFFERY in the chair. Eighteen members and visitors were present.

Communications.—The following were read:

1. Dr. Withers Moore: A case of Idiopathic Anæmia.

2. Dr. Treutler: Case of Unilateral Hemiplegic Anasarca, consequent on scarlatina.

3. Dr. Treutler: Case of Gunshot Wound of the Eye, with subsequent correspondence about the case.

4. Dr. Treutler: Proposition to form an Ethical Committee of the Branch, with a view to the maintenance of the interests and good relations of the members.

5. Dr. Fussell: Notes on a case of Embolic Infarctions in several organs, following Ulcerative Endocarditis. Morbid specimens were exhibited.

6. Mr. F. M. Wallis: Case of Extra-Uterine Fœtation. (Specimen exhibited.)

The Next Meeting is to be at Brighton on or about May 25th. Dr. W. A. Hollis was nominated as chairman.

The Dinner took place at the hotel at conclusion of the meeting.

SPECIAL CORRESPONDENCE.

PARIS.

Criminal Abortion.—Responsibility of Criminals.—Homicide by Imprudence.—Vegetarian Society.—Prevention of Fires.—Nursing.

ONE would have supposed that the trial for criminal abortion referred to in my note, which appeared in the JOURNAL of February 19th, would deter others from committing such a heinous offence; but scarcely a fortnight had elapsed after the above trial, when another case was brought to the notice of the judicial authorities. In this instance, the subject of the abortion, a young girl aged 18, suddenly became so ill as to excite the suspicions of some of her friends, who had reason to believe she had been pregnant, and to whom she confessed to having submitted to an operation for the purpose of procuring abortion. She also disclosed the name of the operator, who has the double qualification of doctor of medicine and "pharmacien", and keeps a druggist's shop in the Rue Montmartre. This medico-pharmacist was immediately arrested, and has been tried. The propriety of judging such cases in open court has been much discussed in the daily papers; some condemning it as immoral, whilst others assert that the dread of exposure would tend to avert crime. At any rate, all are agreed that, if such trials must be conducted in open court, it is not necessary that the public should be instructed with such minute details as were described by the medical experts at the late trial, when, as one paper satirically remarked, a regular lecture was given on the various medicinal and operative means that are generally employed for the purpose of procuring abortion.

The question of responsibility or irresponsibility of criminals has been discussed in the papers, owing to the atrocious crimes that have been lately committed in this country. One of the most recent examples was the cold-blooded murder of a little boy, six or seven years old, by a lad aged fifteen. The victim, who was going home from school, was enticed by the lad to follow him to his room, where the latter, after having fastened his victim's hands behind his back, threw him on his bed, and ripped his belly open with a sort of butcher's knife; and, in order to stop the cries of the child, he cut his throat with the same instrument, and nearly severed the head from the body. All this was done in a few minutes; and when the deadly act was completed, he washed and dressed himself, went to the police-station, and gave himself up, describing, in the coolest manner, what he had done. The Commissary of Police was at first inclined to think he had to do with a lunatic, or a person inclined to crack a practical joke; but the young monster so persisted in his statements, that a policeman was ordered to accompany him to the scene of the murder. Here the dead body of the victim was found as described above. The murderer was immediately arrested. On being questioned as to the motives which actuated him

to commit the crime, he stated that, from what he had read in novels and newspapers, he for some time felt an irresistible desire to murder somebody; and as he thought he could not manage anyone stronger than himself, he decided upon killing a little boy; and as he met his unfortunate victim, to whom he was a perfect stranger, he considered it a favourable opportunity for putting his fiendish desire into execution.

A case of "homicide by imprudence", or what in English jurisprudence would be termed "manslaughter", was lately tried at the police-court in Paris, in which a *pharmacien* was implicated in the accidental poisoning of a young girl nine years old by the administration of the binoxalate of potash. A physician had ordered the girl ten grammes, or about one hundred and fifty grains, of the tartrate of potash as a purgative; but, by mistake, the binoxalate of potash was given instead. The child had taken only half the draught in which the salt was dissolved, as she could not get through the other half, owing to the burning sensation it caused in the mouth and throat; and she had scarcely swallowed the draught when she was seized with violent colicky pains in the stomach, accompanied with vomiting. These continued to increase with such intensity that she cried and writhed in a most pitiable manner, until death put an end to her sufferings, which took place within twenty minutes after the ingestion of the medicine. Suspicions of poisoning having been roused in the minds of the parents and the medical man who was called in, the case was brought before the court, where it was indubitably proved, not only by analysis of the remaining portion of the draught, but by the presence of lesions along the digestive tube, that death was caused by the binoxalate of potash; and the *pharmacien* was condemned to a month's imprisonment, a fine of 100 francs (£4), and 2,000 francs damages. The accident occurred by the vessel containing the salt bearing the label "tartrate of potash"; this exculpated the assistant who issued the medicine.

A vegetarian society has been formed in Paris, under the auspices of Dr. Hureau de Villeneuve, already well known in the scientific world in connection with the Aeronautic Society of Paris. He has been elected president of the Vegetarian Society; and delivered, at its first meeting, a very able address in favour of vegetarianism, that is, the exclusive use of vegetables and their derivatives—milk, eggs, and butter being the only animal substances allowed. The society has its own journal, entitled *La Reforme Alimentaire*, of which Dr. Hureau de Villeneuve is the editor. He is also editor of the publication called *L'Aeronaute*. A vegetarian society would be almost considered a superfluity in France, as the French are not a great meat-eating people, though they are beginning to find out that meat is a very good thing. A meat-diet is becoming more the general rule in this country, at least in Paris, if one may judge from the *menus* of even the smallest restaurants, where an ordinary workman may be seen enjoying his "bifteck" or "cotelette" at "dejeuner", and a slice of "rosbif" or "gigot" at "diner", accompanied each time by a quantity of bread, vegetables, and fruit, all washed down by half a bottle of "vin ordinaire" and any amount of water. Dr. Hureau de Villeneuve has been practising vegetarianism for the last two years, and he says it agrees with him, though I must say he is looking rather puffy and leucocythæmic.* In a conversation with him, he told me he was induced to adopt the vegetable diet, as he was a martyr to rheumatism, which has since entirely left him, and he has never enjoyed better health in his life. Be this as it may, I do not think he will have many followers; and even the members of his own family are not ready to follow the "new regime". There is no doubt—as, indeed, was pointed out in those very interesting articles entitled "The Doctor in the Kitchen"—that Europeans in general, and the English in particular, eat more meat than is good for their health or purse, though Dr. Hureau de Villeneuve assured me that, in a pecuniary point of view, there was no great saving, as many dishes of vegetables are more costly than the same quantity of meat.

At a recent meeting of the Société Française d'Hygiène. M. Schlumberger read a very interesting paper on a simple and practical means of preventing fires in workshops, or in places containing inflammable substances. It consists of having, in these places, a few jars of liquid ammonia, of course hermetically closed; and, in the event of any inflammable substance taking fire, a jar is broken in the locality, which is immediately vacated by the people in it. The fumes from the ammonia are sufficient to stop the commencement of a fire, and thus prevent more damage than the fire might otherwise have caused if allowed to extend. These jars would be particularly useful in the cellars of grocers and druggists, where a quantity of inflammable substances is stored up; and in the event of an explosion, the jar itself would burst, and thus prevent the fire from extending. M. Schlumberger, who is a chemist, has for a long time resorted to this plan, and with great success; and the Society, finding it simple and practical, voted their thanks to M. Schlumberger, and recommended that the subject should be given as much publicity as possible.

In a recent letter, I noticed the disaffection that prevailed in the hospitals here, owing to the determination of the Municipal Council to replace the sisters employed as sick nurses by women taken from the laity. This is a rather radical, and I should say impolitic, measure, against which the majority of the physicians and surgeons of the hospitals—of whom there are one hundred and thirteen—have officially protested, and in the list are seen names of men of the highest standing in the profession, who wish to show that to be a good republican one need not be anti-clerical or anti-religious, and that they will not allow themselves to be influenced by other motives than the interest of the sick confided to their care.

* I have purposely employed this term, as it better expresses my meaning than the word anæmic.

CORRESPONDENCE.

CONSULTATIONS WITH HOMŒOPATHS.

SIR,—Having for some time past retired from the more active and public duties of my profession, I have had more leisure to look into many matters, medical and ethical; and have been enabled thereby to take a more judicial view of men and things—to emancipate myself from the thraldom of ideas and feelings which were instilled into me from my youth; and I confess this has led me to view many of our cherished notions and opinions from a different stand-point from that from which I saw them twenty years ago. Among other matters, the subject of homœopathy, and the bearing of my medical brethren towards those who profess that doctrine, has exercised my thoughts. The offer of your pages for the discussion of this subject, and, above all, the manly and outspoken letter of Dr. Bruce of Dingwall, which entirely accords with my own views, have emboldened me to commit to print a few questions and reflections which I have long wished to give utterance to.

What is a quack? There are many varieties of the species; but a quack medical I would define to be one, who either from ignorance believes, or from dishonesty professes, that he can cure all diseases by some particular remedy, or some peculiar method, which he keeps a secret from others, and practises for his own exclusive profit. With such, of course, we can hold no converse; both his ignorance and dishonesty forbid us to do so; he is simply beneath notice, and merits only pity or contempt. But, let me ask: Are homœopaths embraced in the above definition? If not, on what grounds do we refuse to meet them in consultation? Certainly, it cannot be on the score of ignorance; for many of them are highly educated and talented men, and posssess the same legal qualifications to practise as ourselves. Is it, then, on the score of dishonesty? I fancy this is the chief reason: they are looked upon by the orthodox as a sort of medical privateers, sailing under false colours, professing to cure their patients by infinitesimal doses, while in reality they are treating them allopathically, and often with stronger doses than we are in the habit of prescribing. Or, the knock-down argument is used: they are either fools or knaves; fools, if they believe in the efficacy of their globules; knaves, if they do not, and yet prescribe them. I have lived to learn that there may be homœopaths who are neither one nor the other, but as honourable and intelligent as ourselves, and in one respect perhaps more so; for, whereas we ignore their remedies, they, acting on the principle that "Fas est ab hoste doceri", adopt ours when their own fail. If, then, it be admitted that there are both able and honourable men among homœopaths, on what other grounds are we entitled to refuse to consult with them? Oh, it is said, because there is nothing in common between us; their doctrines are so opposed to all that we consider rational medicine, that there could be no possible agreement.

Well, this is undoubtedly a valid objection; but would it not be well to inquire whether the leading homœopaths of the present day do adopt, in their entirety, the doctrines of Hahnemann? Do not let us go to their enemies for their character, but let us hear from their teachers in the homœopathic school what they have to say for themselves. I suppose none of them believe in the suppressed-itch theory of Hahnemann; or in the imparting of medicinal virtues to inert substances, as charcoal, by trituration; or who rely solely on symptoms as a guide to treatment, independent of their cause. But they do believe, as I think most of us do, though to a more limited extent, in the doctrine of *similia similibus;* and they hold themselves justified, as they have a perfect right to do, in making use of other remedies than homœopathic ones, where these fail to effect their object, and in larger doses than was formerly their wont. This, so far from being a ground of complaint against them, redounds to their credit; and proves that they are not slavishly following in the footsteps of their master, but claim the same right to adapt

their practice to the altered circumstances and views which now prevail as we do ourselves. Has our own practice undergone no change? Do we still adhere to the teachings of half a century ago? If not, are we entitled to put on the mantle of infallibility, and to condemn all systems but our own as irrational and unscientific?

What is rational medicine? Is it that which was in vogue fifty years ago, when our patients were bled, cupped, leeched, purged, starved? Or, is it that which succeeded it: when all these depletive measures were abandoned, and they were gorged with food, and stimulated with wine, brandy, and rum, till the outcome of this scientific treatment had culminated in the manufacture of a legion of drunkards? Or, is it that towards which we are travelling at the present day, when both the former systems are decried; and we are taught that safety can only be secured by abandoning the one and the other, and adopting the practice of total abstinence from all alcoholic liquors?

If then, we have changed our principles of treatment, surely homœopaths are not to be denounced, and stigmatised as dishonest, because they have modified theirs.

Between the best practitioners of the homœopathic school and ourselves, there is really little difference, as, indeed, is proved by the case referred to by Dr. Markham, in his letter published in your issue of the 23rd ultimo. Let us, then, look this matter fairly in the face; and ask ourselves, whether the time has not arrived when we should review our position with relation to homœopathy—whether it would not be a gain to both parties that some understanding should be come to; and, while we cannot but acknowledge that, as regards the past, error has been committed on both sides, let us also admit that good has resulted from the conflict. As members of a profession which boasts of being liberal, and by courtesy is styled such, let us prove our title to it by our acts; and cease to hold that attitude of hostility towards the practitioners of homœopathy, which, say and think what we will, is regarded by the outside public as merely a phase of trade-unionism.

The mere fact that homœopathy still survives, spite of unceasing persecution and ridicule, and not only survives, but flourishes, is *primâ facie* evidence of there being something more in it than we are aware of, or are willing to admit; and many facts, bearing on the doctrine of similars, and on the potency of minute quantities, have recently been brought to light, which go to strengthen rather than weaken the Hahnemannian doctrine.* I think, then, the time has come when, both on ethical and scientific grounds, we should take up the question anew; and, with all deference, I would submit that, if a homœopath is properly qualified, and practises his profession honourably and to the best of his ability, the onus rests with us to show why we should not meet him in consultation.—Yours obediently,

London, May 2nd, 1881. C. HOLTHOUSE.

SIR,—Without entering into the merits of the question raised by Dr. Markham on the earlier cases quoted by him (whose parallelism to the later case appears to me to be destroyed by the exceptions he himself makes), I cannot but think the whole argument turns upon the point as to what constitutes a medical consultation.

Homœopathy, in the eyes of all good men and true, is a thing as much outside legitimate medicine as astrology, alchemy, or the Brunonian system. The "gibberish", as Dr. Johnson called it, by which such theories were represented, is a term equally applicable to the phraseology used in support of the modern assumption of "similars". How then, it may be asked, can the physician be said to "consult" with men who have neither language or ideas in common with him?

What Dr. Quain did, in conformity with the advice of friends best able to help him, was to *prove* that Dr. Kidd was not a homœopath. Dr. Kidd's letter positively declared the fact, the first consultation verified it, and the bulletins, which were the result of subsequent consultations, confirmed the honesty and truth of Dr. Kidd's declaration; but, even if Dr. Kidd had turned out to be an inveterate homœopath, it might have been possible to put Dr. Quain honourably in possession of the case. Although the issue was not tried, the power existed of eliminating Dr. Kidd altogether. In such a case, the patient would have to exercise the power.

Your correspondent who signs himself "A Member" asks: "Is an ordinary practitioner justified in refusing aid in a dangerous case of labour, where a homœopathist professed is in attendance?" In answer, let me put a hypothetical illustration. Suppose Mr. Gladstone, in his late serious illness, had been first attacked in a railway-carriage, and that a homœopathic gentleman, travelling in the same carriage, and calling himself a physician, had been invited to take charge of the case until the Prime Minister could obtain the services of his own physician. What would Dr. Andrew Clark, on arriving at the patient's bedside, have done with the homœopathic gentleman? Assuredly, one of two things must have happened. If the homœopath were honest, and at once confessed his creed, Dr. Clark would simply have ignored him as a medical practitioner. If this revelation were delayed, and the unwelcome truth elicited at a later period, the homœopath would probably have been summarily and ignominiously dismissed. Under either circumstance, professional honour would have been vindicated.—I am, etc., HENRY DAYMAN.

Millbrook, Southampton, May 2nd, 1881.

* I refer here to such facts as the recommendation of minute doses of ipecacuanha by Dr. Ringer to relieve sickness; very large doses of quinine by Professor Charcot and M. Menière to relieve the giddiness and singing in the ears in Menière's disease; small doses of pilocarpine by Dr. Murrell to check the sweating of phthisis.

THE NAVAL MEDICAL WARRANT.

SIR,—In reply to your correspondent "A Fleet-Surgeon". I would ask your permission for space to make one or two remarks. My letter was neither "deprecatory nor apologetic in tone", but I recognise such a thing as fair play; and I think the tone that has pervaded the bulk of the correspondence coming from naval medical officers is lacking in this respect. With regard to the existence or otherwise of an examination on entry, I would remark, that the Order in Council of April 1st distinctly mentions, in clause 21, those provisions of former Orders in Council and articles in the regulations which are cancelled by it; and, if your correspondent continues his search, he will find that article 241, Queen's regulations, paragraph A to D inclusive, is thus cancelled, but paragraph E is retained. Let us turn to paragraph E, and we find the following: "He" (that is, the candidate) "must pass such examination, etc., as the Admiralty may from time to time require." I therefore look to see what are the requirements at present in force, and I find them in circular dated 6th of July, 1875, which, as *it is not cancelled, must remain in force till it is so.*

With regard to rank, will your correspondent turn to clause 6, and he will find the following: "In all matters wherein the army and army administration are concerned, fleet-surgeons to rank with and as brigade-surgeons." I am one of those who hold that the creation of any additional rank, in servile imitation of the army, would have been ruinous to our service; and in this opinion I think the majority of naval medical officers fully concur. The above regulation most fully meets all requirements of the case.

Your correspondent also questions the accuracy of my statement with regard to pay and retirement; this, of course, is not a matter of opinion; and if it is considered how the problem of assimilating the conditions of two services, widely different in many respects, has been solved, I think it will be generally admitted that in this respect the navy has not come worst off, when it is remembered that *all* fleet-surgeons can retire after thirty years' service, or at fifty-five years of age, on £547 10s., which only forty brigade-surgeons, selected from the whole body of surgeons-major, can do.

The real blots have not been hit at all by your correspondent—viz., the absence of anything to compensate naval medical officers for service in such climates as Hong Kong, the West Coast, or India; while the allowances in the army are so liberal. Nor is anything said of the most impolitic conduct of the Admiralty in refusing the Naval Director-General the same increase of salary as was given to the head of the Army Medical Department. In conclusion, I would remark, with all due deference to your correspondent, that the "Order in Council", far from being a conclusive authority, has not touched on two at least of our greatest grievances—the question of cabins and that of duty. One of them has since been settled by circular, whether satisfactorily or otherwise time will show; the latter, I fear, is the more likely; and, if so, I prophesy a complete failure for the whole warrant. The authorities are mistaken if they suppose that increase of pay alone will make the service a popular one: it will do nothing of the sort. The other question—that of the definition of duties—it is hoped will soon be settled; therefore it is that the advent of the circular is looked forward to with much interest.

I must ask forgiveness for the length of this letter, but trust you will be able to give it a place.—Yours, etc.,

May 1881. MEDICO.

SANITARY OUTRAGES IN IRELAND.

SIR,—I have to thank you for your kindness in inserting my ideas in your issue of the 26th ult., as to the most effectual mode of preventing the recurrence of sanitary outrages, which are continually occurring in Ireland; and since then, I find that some of the leading medical men are supporting the Bill now before Parliament for the purpose of notifying infectious cases of disease to the sanitary authorities. This is no doubt another step towards reform, assuming that the Bill passes. Of

which avail is the notification, unless the authorities are compelled to take action? This is the missing link in the Public Health Act: no means of enforcing sanitary authorities to do their duty; and hence the necessity of appointing a central authority, who will be specially charged with the protection of the health of the people, with full power to instruct sanitary authorities what their duty is, and in case of refusal to carry out those instructions—to compel them to do so. At present the dispensary medical officers notify to the Local Government Board and the local authorities, when and where infectious cases of disease arise; but the notice is not attended to. For instance, notice was given in 1879 of 3,008 cases of scarlatina, 1,344 of small-pox, and 10,999 of fever. What action was taken on those notices by the authorities? None. Hence the necessity of amending the present Bill by adding to it a clause to the effect that sanitary authorities should inspect the premises; when the cause of the disease is discovered, to have it removed. WM. D'ESTERRE PARKER.

Passage West, Cork, April 23, 1881.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, April 28th.

Vaccination.—Mr. P. A. TAYLOR asked the President of the Local Government Board whether it was true that Mr. John Abel, of Farringdon, had been prosecuted thirty-four times for refusing to have his children vaccinated; and whether he proposed to bring in any measure to limit the amount of punishment inflicted for non-compliance with the Vaccination Acts.—Mr. DODSON: Although I have no official information as to the exact number of times Mr. Abel has been prosecuted for not having had his children vaccinated, I have no reason to suppose that the number of times is not correctly stated in the question. At the same time, it is right to mention that the Board are in no sense responsible for the repeated prosecutions in this case, and they have not failed to point out to the guardians the expediency of caution and moderation in continuing frequent prosecutions. Looking to the scant encouragement the Bill introduced by me for the purpose of limiting prosecutions in these cases met with, I am not prepared to bring in a similar measure this session.

Friday, April 29th.

Small-pox in the Metropolis.—Mr. PELL asked the President of the Local Government Board whether the metropolitan boards of guardians and the vestries had replied to the letters addressed to them by the Local Government Board on February 23rd, 1881, and if he could inform the House what extent of provision had been or was being made for hospital treatment and isolation of pauper and non-pauper cases of small-pox in the metropolis.—Mr. DODSON said that all the boards of guardians had replied to the letter of the Local Government Board. Fourteen boards had, up to the present time, undertaken to provide some accommodation for the reception of small-pox patients of the pauper class; and fourteen district boards had undertaken to the same effect with regard to the non-pauper class. The beds of the Metropolitan Asylums Board—968 in number—were at present full, and the Board were unable to make any further arrangements.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

AT a meeting of the Master and Fellows of Gonville and Caius College, on May 2nd, the following were elected Fellows of the College: 1. George Edward Paget, M.D., F.R.S., Regius Professor of Physic, late President of the Council of Medical Education of the United Kingdom, D.C.L. Oxford and Durham, LL.D. Edinburgh, Hon. M.D. Dublin. Dr. Paget graduated at Caius College as eighth Wrangler in 1831, was elected a Fellow of the College in the following year. He vacated his Fellowship by his marriage in 1851. He was appointed Regius Professor of Physic in 1872. 2. M. M. Pattison Muir, M.A., Prælector in Chemistry at Caius College.

UNIVERSITY OF DURHAM.

EXAMINATIONS FOR DEGREES IN MEDICINE.—The next Final Examination for the Degrees in Medicine and Surgery will be held in June next, commencing on Monday, the 20th. Candidates who intend to present themselves must forward their names and fees, not later than the 23rd of May, to Dr. Luke Armstrong, Registrar of the College of Medicine, Clayton Street West, Newcastle-upon-Tyne.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE RECENT APPOINTMENT AT HASTINGS.

THERE can be no doubt that the town of Hastings is likely to suffer considerably, when the knowledge is spread among the medical profession that the important appointment of medical officer of health has been filled in a manner of which the profession in the town wholly disapprove. A town such as Hastings offers many advantages to visitors for health-purposes; but it is also replete with dangers. Only last week, we had a serious complaint addressed to us of the want of sanitary precautions in one of the lodging-houses, in respect to the arrival of an imperfectly convalesced scarlatina patient, and want of adequate enforcement of quarantine arrangements. Hastings has enjoyed the reputation, under the charge of Mr. Ashenden, with the vigorous assistance of Mrs. Johnston, of having organised a system by which epidemic and zymotic disease could be kept in check, and was provided with unusual sanitary safeguards for visitors. The carrying out of such a system, most essentially in a town of lodging-houses, which aims at becoming a health-resort, depends for its success very largely upon the complete, hearty, and intimate co-operation of the medical men generally with the medical officer of health, and on the delicate relations which must constantly arise in carrying out such a system. The spontaneous aid, information, and concurrence afforded by the private practitioner constitute primary elements of success in the sanitary regulation of a seaside resort, and the consequent readiness of the medical profession to recommend their clients to resort to it.—In relation to the above, the following memorial is being influentially and numerously signed for presentation to the Mayor of Hastings.

We, the undersigned inhabitants of the borough, do respectfully ask you to convene, at your earliest convenience, a public meeting, to protest emphatically against the late appointment of the medical officer of health against the general wish of the inhabitants, which we consider calculated to do infinite damage to the trade and prosperity of the town, by bringing disrepute upon it as a health-resort, which is assuredly evinced by strictures passed in the leading medical journals, and is thus brought under the notice of the profession, who will assuredly refrain from recommending their patients to come here if such appointment be maintained.

POOR-LAW MEDICAL OFFICERS AND SUPER-ANNUATION.

WE are pleased to be able to congratulate Mr. Cremer of Norwich, ex-medical officer of the union, on the success of his appeal for superannuation allowance, despite the memorial of the Ratepayers' Association to the guardians praying that such grant should not be made. If ever a medical officer merited such consideration from the board he had served, Mr. Cremer was that one. Having reached the advanced age of eighty-four years, he has held his office uninterruptedly for fifty-one years. On the question being put to the vote, whether an annuity of £50 should be given, eighteen guardians voted for it, seven against, and four remained neutral; consequently the resolution was carried. Similarly, we have to express our sympathy with Mr. George Pink, eighty-seven years old, who has held office in the Petersfield Union for over forty years, and who, having been compelled to resign his appointment in consequence of advanced age, finds himself in very straitened circumstances. Here his application was not even entertained.

POOR-LAW MEDICAL RELIEF: LEIGH UNION, LANCASHIRE.

AT a meeting of the board of guardians of the Leigh Union, held on April 21st, an application for an increase of his salary was made by Mr. Paradise, medical officer of the workhouse, etc. The Leigh Workhouse is licensed for 233 inmates, and in the previous week there would appear to have been 83 persons on the medical officer's relief-book. For his daily attendance, averaging an hour, for providing and dispensing all drugs, the cost of which amounts to £20, Mr. Paradise receives the munificent sum of £30 a year only, half of which is paid out of the Consolidated Fund; so that the workhouse sick poor of this union cost the guardians £15 a year only. After Mr. Paradise's letter had been read, a proposition was made to increase his stipend by £20 a year; but, unfortunately, after much discussion, it was lost, ten voting against an increase, and seven only for it. We do not, however, despair of seeing some alteration for the better speedily made, as

some of the observations by the speakers who advocated an increase were all that could be desired; notably when it was stated that diminution in the duration of sickness meant diminution in poor-relief expenditure, etc.—an aphorism which it would be well if all boards of guardians understood and followed. With the facts stated in Mr. Paradise's letter, it must be obvious that the duties of his office can only be efficiently discharged by a serious personal sacrifice. How long such sacrifices will continue to be made, it is not very difficult to estimate. In the Leigh Union generally, there would also seem to be a want of fair play to the medical officers in fixing their stipends. Thus, in the Atherton district (population 15,962, acreage 7,599), Mr. Hoyle receives £60; in Lowton (population 11,653, acreage 7,076), Mr. Paradise has £35; in the Pennington district (population 14,300, acreage 9,677), Dr. Sephton has £80. This disparity is so great as to necessitate some explanation of and alteration by the guardians.

HOSPITAL ACCOMMODATION FOR INFECTIOUS DISEASES: SMALL-POX WARDS IN FEVER HOSPITALS.

SIR,—To all who are interested in small-pox hospitals, the following facts will prove instructive—the lessons of experience should not be lost. The Halifax Borough Hospital for fever, scarlatina, and small-pox, is an old residence, situated within the precincts of the Halifax cemetery. Alterations were made to convert it to its present purpose; and I may say, as far as regards fittings and furniture, nursing, and management, there is scarcely anything to be desired. The sanitary committee have done everything in their power to make the wards comfortable; but here my criticisms must begin, after giving full credit to all concerned with it for good intentions.

There are wards for typhoid fever, scarlatina, and small-pox, within the same building; and by the force of necessity, owing to structural arrangements, the air from all these wards passes from one to another, along the windows and from the ground floor by the staircase to the upper rooms. Under such conditions, and the difficulty of preventing communication by nurses, a patient recovering from typhoid fever runs the risk of contracting another disease—escaping Scylla to run on Charybdis.

Small-pox, unfortunately, has made its appearance in Halifax; so that there is an infective focus in Yorkshire. The first case was under my care in the beginning of February. The patient was attended at home, as he would not consent to be removed to the hospital. He contracted the affection at Manchester. The next case occurred the first week in April; the patient being removed to the borough hospital, and placed in a small-pox ward—a low-roofed room on the upper story on the same side as the matron's apartments. One nurse was specially deputed to attend this patient; this nurse has escaped the disease, but a housemaid and another nurse have contracted it; and, to make matters worse, the matron is also laid down with it. A patient of mine was in the hospital convalescent from a severe attack of typhoid fever when the small-pox case was admitted. He had, unfortunately, to remain some days longer; but I discharged him seemingly well. However, he had become infected, and he is now again in the hospital with confluent small-pox; so that the unfortunate fellow has every reason not to bless the Halifax Borough Hospital.

The above cases prove the danger of having small-pox and fever wards within the same compass of air-circulation, or inside a building, when communication between nurses and variously affected patients cannot be controlled. It also furnishes another instance of the mistake of converting an old house into an infectious hospital, and still more of opening small-pox wards in a permanent building. I think it is true, as M. Sarayin says: "L'hôpital permanent est l'hôpital sepulchre" (*Nouveau Dict. de Médecine* tome 17, art. Hôpital). This remark has an especial grim significance for the Halifax Borough Hospital, as it is surrounded by graves.

At present, the hospital is devoted solely to small-pox cases. A practical question now arises: Will it ever be fit again for general infectious diseases? and what process of disinfection must be used to thoroughly cleanse it? My own opinion is in the negative, but perhaps I am prejudiced, as I have persistently condemned the hospital since its foundation; and I said in 1872: "The situation is bad, the construction of the hospital is hygienically defective, and a grave mistake was made at first in selecting the site". I advocated a small-pox shed; and the *Lancet* remarked, in reference to my opinion at that time: "We are glad to notice the strong advocacy (at Halifax) of an easily erected and easily dismantled shed for the treatment of small-pox and infectious diseases. It is simply disgraceful to send such cases to a workhouse or general hospital." During that epidemic, I had under treatment one hundred and fifteen cases of small-pox inside the workhouse, in a building quite contiguous to my general infirmaries. Owing to my stringent quarantine, not a single person within the house contracted small-pox. My mortality was five deaths out of the total number, in the proportion of 3 per cent. vaccinated, 32 per cent. unvaccinated.

I trust you will excuse the length of this letter; the importance of the subject must be my excuse. The action of the Halifax authorities should be a warning to others, and should teach them not to neglect the advice of those who speak with authority.—Believe me, yours faithfully, T. M. DOLAN.

Horton House, April 23rd, 1881.

OBITUARY.

CHAWORTH EDWARD LYSTER, M.D., LIVERPOOL.

THE death of this highly esteemed associate has occasioned the deepest grief in a wide circle of professional and lay friends in Liverpool and its neighbourhood. Though only 46 years of age at the time of his death, he had been for many years well established in a large and lucrative practice, and was a general favourite with all his medical brethren, by whom he will be greatly missed.

The deceased was born in Dublin, and received his professional education in the Royal College of Surgeons School, and at the Rotunda Hospital. He became a Licentiate of the College in 1856, and a Licentiate of the Apothecaries' Society of London in 1859, about which time he first came to Liverpool, becoming resident surgeon of the Fever Hospital. He afterwards served several years at the dispensaries, first as assistant, and afterwards as senior house-surgeon. In 1862 he took the degree of M.D. St. Andrew's, and the year following commenced practice in Prince's Park—one of the most fashionable suburbs of Liverpool. Here he enjoyed a considerable practice, his genial manners endearing him very much to all his patients, who also found in him a practitioner well-informed in all branches of his profession. He found time to take great interest in the Liverpool Medical Institution, to which he was for three years general secretary, and subsequently vice-president. He held a similar office recently in the Lancashire and Cheshire Branch of the British Medical Association, and was a frequent attendant at local and other medical gatherings. In 1874 he became a Fellow of the Royal College of Surgeons of Ireland by examination. In 1876 he was married, and leaves a widow and two young children. Dr. Lyster possessed excellent health till very recently; the only change which his friends noticed was that he had aged somewhat prematurely. This was due, no doubt, to the anxieties of a large practice, much of which was obstetric. He suffered at intervals from attacks of rheumatism, which, however, were not very severe, and yielded to treatment. Three weeks before his death he had an attack of acute rheumatism, which was followed by cardiac inflammation and double pneumonia. These complications proved fatal on the 20th of April. His remains were followed to the grave by a very large gathering of friends, chiefly professional.

MICHAEL C. BERNARD, M.B., DUNDRUM.

DR. MICHAEL CHARLES BERNARD died lately at his residence Elm Lawn, Dundrum, from congestion of the lungs, aged 70. Dr. Bernard was a Bachelor of Medicine of the University of Dublin, and obtained the licence in surgery of the Royal College of Surgeons in Ireland so far back as 1834. He practised for nearly half a century in Dundrum, and for nineteen years held the appointment of Medical Officer to the Dundrum Dispensary District, which he resigned in 1870, and retired on superannuation. Dr. Bernard was much esteemed and respected by a large circle of friends.

THE TEMPERATURE OF PERIPHERAL ORGANS.—Herr J. G. Edgren has lately published, in the *Nordiskt Medicinskt Arkiv*, an elaborate article on the modifications of temperature in external parts. His experiments, the results of which are given in detail by means of tables, were performed on the hind legs of rabbits. The temperatures were determined by means of thermo-electricity; and the following results were arrived at. 1. A touch or blow on the skin, or an impression on the senses of sight or hearing, generally produces a rapid fall of temperature. 2. If the sensory impressions affect the same foot, there is a rise of temperature. 3. These changes in temperature are unaffected by section of the saphenous nerve on the same side. 4. The changes in temperature noted in No. 1 cease when the sciatic nerve on the same side is divided. 5. Section of the saphenous nerve does not produce any apparent change of temperature. 6. Irritation of the saphenous nerve produces a slight cooling both of the dorsum and of the sole of the foot; if the sciatic nerve be divided, there is increase of temperature in the dorsum, and fall in the sole. 7. Division of the sciatic nerve causes a rapidly transient slight cooling, which is followed by a rather considerable rise of temperature, of long duration, which, however, gradually falls again on the subsequent days. 8. Irritation of the recently divided sciatic nerve produces a considerable fall of temperature, which ceases immediately on the removal of the irritation. By means of continued rhythmic irritation, it is possible to produce a fall of temperature to the same degree as before the nerve was divided, or even lower. 9. Irritation of the saphenous nerve, one or more days after its division, produces on the first days a slight cooling, afterwards no change of importance. 10. Irritation of the sciatic nerve, one or more days after its division, produces either a fall or a rise of temperature, or no thermic effect. The result depends on the time that has elapsed since the division of the nerve, not on the initial temperature of the foot when the irritant is applied. 11. Direct inspection of the vessels shows that the sciatic nerve regulates not only the anterior tibial artery and its branches, but also the lower parts of the saphena artery and its branches. 12. The final conclusion is, that the saphenous nerve contains vaso-motor filaments, and the sciatic nerve both vaso-motor and vaso-dilator filaments; and that the processes of degeneration in the peripheral ends of the divided nerves allow the physiological proof of the presence of vaso-dilator nerves.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology, at a meeting of the Board of Examiners on April 27th, and when eligible will be admitted to the pass examination.

Messrs. Rivis Mead, Alexander Stables, Alister S. Bowman, Thomas R. Bailey, Thomas A. Fraser, and William Hunter, of the Edinburgh School; Edward J. Byrd, and G. Thomas Woods, of the Leeds School; Frederick C. Larkin, and Thomas D. C. Barry, of the Liverpool School; Warwick J. Doidge, B.A.Cantab, of St. Mary's Hospital; John W. White, of the Glasgow School; William J. T. Baker, of the Bristol School; Arthur W. Scott, of the Birmingham School; and Ernest C. Arnold, of St. George's Hospital.

Eight candidates were rejected for three months, including two who had an additional three months.

The following gentlemen passed on April 28th.

Messrs. Harry C. S. Shaw, Louis Robinson, Alexander Harper, and Montagu Smith, students of St. Bartholomew's Hospital; James A. J. Murray, Archibald McKenzie, Samuel G. Campbell, and Joseph J. Stapleton, of the Edinburgh School; Thomas P. Gostling, and John C. Jackson, of University College; Charles F. Clark, and William C. McDonnell, of the Charing Cross Hospital; Thomas E. Gordon, of the London Hospital; Reginald M. Williams, of St. Thomas's Hospital; and Robert R. Williams, of the Glasgow and King's College Hospitals.

Nine candidates were rejected.

The following gentlemen passed on April 29th.

Messrs. Henry G. O. Wharry, Edgar W. Willett, Richard B. D. Batt, Herbert L. Dowsing, Charles O. B. Harding, and Francis F. Walton, of St. Bartholomew's Hospital; Arthur E. Larkin, Walter Fowler, Arthur H. Dodd, and Charles S. Jago, of Guy's Hospital; Jonathan Royston, Robert Mills, Joäs G. D'Aquiar, and William Livermore, of the Middlesex Hospital; Leonard J. Willan, and William J. Best, of the London Hospital; Thomas F. Forster, of King's College; Charles R. Lempriere, of University College; Lewis D. Brown, of St. Thomas's Hospital; and Gerald Callender, of St. Mary's Hospital.

Four candidates were rejected.

The following gentlemen passed on the 2nd instant.

Messrs. Wilfrid J. Hadley, Robert H. Nicholson, Edward H. Morgan, Daniel B. Spence, and Matthew C. Corner, of the London Hospital; Allan G. Minns, Herbert J. Dring, Edward W. Simmons, and Henry I. Tresidder, of Guy's Hospital; Stephen Paget, B.A.Cantab, Arthur Hillaby, and William R. de Morinni, of St. Bartholomew's Hospital; Nathaniel H. Turner, John H. Gostling, and Charles S. Sansom, of King's College; Arthur H. L. Stewart, of St. Mary's Hospital; James E. Blomfield, of University College; and William Urwick, of the Westminster Hospital.

Six candidates were rejected.

The following gentlemen passed on the 3rd instant.

Messrs. William Habgood, James T. Cheves, Herbert C. Dent, and Ernest Cusse, of King's College; William H. Brenton, William C. Crealock, Magnus M. Adler, and John H. H. Manley, of Guy's Hospital; Philip P. Bentliff, and William D. Stevenson, of the Middlesex Hospital; Coniston Spackman, and Thomas Finch, of St. Bartholomew's Hospital; Joseph J. W. Farr, of the Charing Cross Hospital; and Henry A. de Lom, of the Toronto and St. Thomas's Hospitals.

Ten candidates were rejected.

The following gentlemen passed on the 4th instant.

Messrs. Laurie A. Lawrence, Henry F. Horne, and Frederick C. Wallis, of St. Bartholomew's Hospital; William H. L. Marriner, Henry M. Sutton, and John L. W. Kitching, of St. Thomas's Hospital; Owen W. Roberts, of St. Mary's Hospital; Ernest J. G. Berkley, of the Charing Cross Hospital; Charles D. Muspratt, of Guy's Hospital; Thomas D. Richards, of the Edinburgh and King's College Hospitals; and Matthew R. Gooding, of University College.

Six candidates were rejected, including one for six months, making a total of fifty-six out of the one hundred and eighty-five, including three for six months.

UNIVERSITY OF DURHAM.—At the First Examination for the Degree of Bachelor in Medicine, concluded on Friday, April 29th, the following candidates satisfied the Examiners.

Henry Hinds Austen, M.R.C.S., William Crump Beatley, Arthur Tresco Franklyn Brown, Richard Brown, Frederick W. Cock, George Herbert Doudney, Robert Hardie, Arthur Hepworth, George Grahamsley Howitt, Theodore Joseph Hudson, L.R.C.P., M.R.C.S., Joseph Armstrong Hutchinson, Alfred Lingard, M.R.C.S., L.S.A., Llewellyn Arthur Morgan, William Augustus Norry, William Edmund Paley, F.R.C.S.Eng., William Elliott Price, Edwin Longstaff Proude, M.A.Cantab, George Walter Ridley, John Valentine Salvage, Charles Yalden Shuter, Frederick Spicer, Walter Bolton Tomson, William Turnbull, Abelardo Joseph Triay, B.A., L.M. and S., Christopher Vise, M.R.C.S.; Basil Woodd Walker, L.R.C.P., M.R.C.S., Charles Arthur Wigan.

Thirty-eight candidates entered for the examination, two withdrew, and nine were referred to their studies for a period of six months.

UNIVERSITY OF EDINBURGH.—DEGREES IN MEDICINE.—The following is a list of candidates who have passed the second professional examination, April, 1881.

F. Ashwell, T. R. Bailey, G. J. H. Bell, J. S. Bolton, J. R. H. Bond, C. H. Bourne, John Bowie, A. S. Bowman, William Brydon, W. A. Buchan, George Burn Murdoch, P. E. Bury, W. H. Calvert, S. G. Campbell (with distinction), A. K. Christie (with distinction), Philip Cockburn, P. B. Cousland, John Craig, William Davidson, D. R. Davies, A. S. Delépine (with distinction), C. V. Delépine (with distinction), R. G. Dempster, William Dutton, A. B. Dymock, H. J. Fletcher, J. M. Ferguson, B. E. Fordyce, T. A. Fraser (with distinction), G. W. Galletly, Lawson Gifford, F. W. Grierson, C. B. Gunn, G. F. Gutheridge, M. W. Gutteridge, W. W. Hall, H. C. Hallows, F. H. Hawkins, T. K. Hill, A. P. Hillier, Richard Humphreys, William Hunter (with distinction), Granville Jameson, A. C. Keep, Arthur King, P. B. Le Franc, R. T. Lorraine, W. B. M'Donald (with distinction), A. F. Mackenzie, W. G. Macpherson, Robert Mackinlay (with distinction), E. O. Macniven, F. P. Marais, Rivis Mead, A. J. K. M. Mill, J. B. Nash, A. M. Neethling, G. R. Nelson, E. F. Neve, Diarmid Noel-Paton (with distinction), E. S. Palmer, R. W. Philip, G. C. Purvis (with distinction), Herbert Rendall, G. J. Renwick, R. H. Rozenzweig, T. L. Shearer, G. F. Shiels, David Smart (with distinction), G. A. van Someren, A. E. C. Spence, William Spence, Alexander Stables, Joseph Stanleton, J. N. Stark, Charles Stein, R. T. Sutherland, J. R. Suzor, William Taylor, A. H. Thomas, W. F. Thompson, P. E. Todd, David Treharne, J. A. Turner, W. O. Walker, H. F. Watkins (with distinction), John Whitaker, J. M. Whyte, Ernest Wilcox, H. M. Wilson, Thomas Wood, William Younan.

UNIVERSITY OF ST. ANDREW'S.—The graduation ceremonial in medicine, science, and arts, took place on April 21st, in the Hall of the University Library, St. Andrew's; Principal Shairp presiding.

The Dean of the Faculty of Medicine presented the following for the degree of M.D.

Thomas James Call, M.R.C.P.Edin., L.F.P.S.Glasg., L.S.A.Lond., Ilkley, Yorkshire; Charles Chaple, L.S.A.Lond., London; Thomas Dawson Finucane, L.F.P.S.Glasg., L.A.H.Dubl., L.M., Black Rock, Dublin; John Allan Lycett, M.R.C.S.Eng., L.S.A.Lond., L.R.C.P.Lond., L.M., Wolverhampton; William Fettes Murray, F. and L.R.C.S.Edin., Forfar; Martin Gay Black Oxley, M.R.C.S.Eng., L. and M.K.Q.C.P.Irel., Liverpool; Edward Monro Spooner, M.R.C.S.Eng., L.S.A.Lond., Blandford; Herbert Tibbits, M. and F.R.C.P. Edin., L.R.C.P.Lond., M.R.C.S.Eng., London; James Tily, L.R.C.P.Edin., M.R.C.S.Eng., L.S.A.Lond., L.M., Richmond; Theophilus William Trend, M.R.C.P.Edin., M.R.C.S.Eng., L.K.Q.C.P.Irel., Southampton.

In absentiâ.—John Sutherland Mackay, M.A.Edin., M.B. and C.M. St. And. Huelva, Spain.

At the same time the following gentlemen had the degree of Bachelor of Medicine and Master in Surgery conferred upon them, after examination.

John Edward Hanson, L.R.C.S.Edin., London; George Lowe, L.R.C.P.Edin., Darlington; John Alexander M'Munn, L.R.C.S.Edin., Belfast.

The following passed the first M.B. examination.

Alexander Bowie, Edinburgh; Robert Knox Wighton Redpath, Edinburgh.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 28th, 1881.

Dixey, Arthur Crosbee, Cheltenham.
Russell, John Hutchinson, Plaistow, Essex.

The following gentlemen also on the same day passed their Primary Professional Examination.

Holton, Richard, Queen's College, Manchester.
Key, David Thomas, Guy's Hospital.

In list of those who received certificates to practise on Thursday, 21st April, the name of Samuel Wyborn, Sussex House, Windsor, was omitted.

MEDICAL VACANCIES.

THE following vacancies are announced :—

BERWICK-UPON-TWEED UNION—Medical Officer to Workhouse. Salary, £50 per annum, with midwifery and vaccination fees. Applications by May 14th.

BERWICK-UPON-TWEED UNION—Medical Officer of Health to the Rural Sanitary Authority. Salary, £70 per annum. Applications by May 14th.

BRADFORD FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION—Resident Medical Officer. Salary, £200 per annum. Applications by 24th May.

BRAMTREE UNION—Medical Officer and Public Vaccinator. Salary £100 per annum. Applications by May 21st.

CARRICKMACROSS UNION—Medical Officer for Rafeeragh Dispensary District. Salary, £100 per annum, with £15 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 13th instant.

CARLOW UNION—Medical Officer for Ballickmoyler Dispensary District. Salary, £120 per annum, with £20 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 12th instant.

CUMBERLAND INFIRMARY—Assistant House-Surgeon. Salary, £60 per annum. Applications by 24th May.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST—Resident Clinical Assistants. Applications by May 7th.

HULL AND SCULCOATES DISPENSARY—House-Surgeon. Salary £150. Applications by May 18th.

LEEDS UNION—Assistant Medical Officer. Salary, £100 per annum. Applications by May 9th.

LONDON FEVER HOSPITAL, Liverpool Road—Surgeon. Applications by 11th May.

MULLINGAR DISTRICT LUNATIC ASYLUM—Visiting and Consulting Physician. Candidates should lodge their testimonials with the resident medical superintendent. Election on the 12th proximo.

RADCLIFFE INFIRMARY, Oxford—Honorary Surgeon. Applications by 21st May.

SHERBURN HOSPITAL, near Durham—Medical Officer of Ancient Foundation. Salary £250. Applications by May 20th.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck Street, Cavendish Square—Obstetric Physician. Applications by May 22nd.

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, 54, Berners Street, W.—House-Surgeon. Applications by 16th May.

STONEBRIDGE DISPENSARY—House-Surgeon. Salary, £130. Applications by May 21st.

THE GUARDIANS OF THE POOR OF THE PARISH OF ST. MARYLEBONE—Medical Officer; salary, £450 per annum. Assistant Medical Officer; salary, £130. Dispenser; salary, £120. Applications by 13th May.

THE BROWN ANIMAL SANATORY INSTITUTION—Professor-Superintendent. Salary, £300. Applications by May 21st.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY—Senior House-Surgeon and Provident Medical Officer. Salary, £100 per annum. Applications to be sent in by Monday, May 30th.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY, Torquay—Junior House-Surgeon and Dispenser. Salary £90. Applications by June 6th.

TOWCESTER UNION—Medical Officer. Salary, £60 per annum, exclusive of vaccination, midwifery, and surgical fees. Applications by May 16th.

UNIVERSITY COLLEGE, London—Professorship of Ophthalmic Medicine and Surgery. Applications by May 10th.

WANDSWORTH PROVIDENT DISPENSARY—Medical Officer. Applications by May 12th.

MEDICAL APPOINTMENTS.

BULL, G. Coulson, M.R.C.S.E., L.R.C.P., appointed Senior House-Surgeon to the Kent and Canterbury Hospital, *vice* W. Shaw, M.R.C.S.E., etc., resigned.

CLARK, Henry E., M.R.C.S. and F.F.P.S.G., appointed Surgeon to the Glasgow Royal Infirmary, *vice* Hector C. Cameron, M.D., resigned.

DANIELL, Richard Thomas, M.B., F.R.C.S.I., appointed Surgeon to the T division of Police, *vice* Alfred Godrich, L.R.C.P., M.R.C.S., resigned.

JACOB, E. H., M.D., M.A., appointed Demonstrator of Physiology to the Leeds School of Medicine.

JOHN, Jenkin Lloyd, L.R.C.P., L.M., L.S.A.Lond., appointed House-Surgeon to the Denbighshire General Infirmary, *vice* W. F. Jones, M.R.C.S., L.R.C.P., L.M., L.A.H., resigned.

LEWIS, W. A. Aylmer, L.R.C.P. and L.R.C.S.Ed., elected by Town Council Coroner for the borough of Oswestry, *vice* J. Sides Davies, M.R.C.S. and L.S.A., deceased.

WATKINS, Christopher J., M.R.C.S., L.S.A., appointed House-Surgeon to the Glamorganshire and Monmouthshire Infirmary, Cardiff, *vice* T. W. Grave, L.S.A., M.R.C.S., resigned.

YOUNG, W. Mussen, M.D., appointed Assistant Medical Officer to the Suffolk County Asylum, *vice* F. W. H. Davie Harris, M.R.C.S.Eng., resigned.

PUBLIC HEALTH MEDICAL APPOINTMENTS.

WILSON, J. Mitchell, M.B., S.Sc. Cert. Camb., appointed Medical Officer of Health to the Borough of Doncaster, *vice* J. B. Withington, M.R.C.S., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

MARRIAGES.

POTT—PARSONS.—On the 28th instant, at the Parish Church, Wimbledon, by the Rev. E. W. Relton, Vicar of Ealing, assisted by the Rev. Canon Haygarth, Vicar of the Parish, Francis Holliday, younger son of W. H. Pott, of Wimbledon, to Agnes Mary, younger daughter of the late Thomas Parsons, and granddaughter of the late Edward Daniell, of Newport Pagnell, Surgeon.—No cards.

M'LACHLAN—RAE.—On the 26th ult., at Lockerbie, Dumfries-shire, by the Rev. A. D. Campbell, assisted by the Rev. P. Carruthers and the Rev. D. Thomas, S. F. McLachlan, M.B., of Longtown, to Mina, eldest daughter of William Rae, Esq., of Lockerbie.

MAPLES—HOUGHTON.—On the 28th April, 1881, at St. Mary Abbotts, Kensington, by the Rev. R. Woodhouse, Reginald Maples, L.R.C.P., etc., of Kingsclere, Hants, sixth son of Ashley Maples, of Spalding, to Alice Matilda, third daughter of the late Charles George G. Houghton, of Funchal, Madeira.

MORRIS—BOVILLE.—April 28th, at St. Peter's, Osmotherley, by the Rev. E. Weight Clarke Kelly, M.R.C.S., etc., youngest son of Edwin Morris, M.D., F.R.C.S., of Spalding, Lincolnshire, to Eleanor, only child of the late M. Boville, Esq., of Osmotherley, Yorkshire.

SELLERS—FARROW.—On the 28th instant, at St. Albans, Rochdale, by the Rev. W. Cooper, M.A., Vicar, assisted by the Rev. R. S. Rowan, M.A., Vicar of St. James's, Richard Burdett Sellers, M.R.C.S., L.R.C.P.Edin., John Street, to Sophia (Sophie), second daughter of Charles Farrow, Chesham Place, Rochdale.

DEATHS.

AUSTIN.—At Tongue, Sutherlandshire, on the 1st instant, Evelyn Florence, elder child of J. A. Austin, M.D., aged 21 months.

DAVIES.—On April 21st, at The Poplars, Oswestry, John Sides Davies, M.R.C.S.E., L.S.A., aged 44.

VACCINATION.—Mr. W. E. S. Burnett has received the Government grant of £13 14s., for efficient vaccination in the Ashton-under-Lyne Union.

DEPUTY SURGEON-GENERAL JOHN OGILVY, M.D., lately employed at Aldershot, has been appointed principal medical officer at Bermuda, in succession to Deputy Surgeon-General T. C. O'Leary, M.B., whose retirement from the active list will take place. Dr. Ogilvy served as assistant-surgeon of the 33rd Regiment throughout the Crimean war, and has served in India as secretary to the principal medical officer.

PUBLIC HEALTH.—The annual rate of mortality last week, being the seventeenth week of this year, in twenty of the largest English towns, averaged 21.2 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Leicester 12, Norwich 15, Sunderland 15, Leeds 16, Birmingham 17, Hull 17, Portsmouth 18, Oldham 18, Nottingham 19, Bradford 19, Newcastle-on-Tyne 19, Plymouth 21, Bristol 21, London 21, Sheffield 22, Brighton 23, Manchester 23, Wolverhampton 23, Liverpool 25, and Salford 26. Measles showed the largest proportional fatality in Bristol, Newcastle-on-Tyne, and London; the general fatality of scarlet fever and whooping-cough was considerably below the average for the season. The 11 deaths from diphtheria in the twenty towns, showing a decline from recent weekly numbers, included 6 in London and 2 in Liverpool. Small-pox caused one death in Birmingham. In London, 2,829 births and 1,550 deaths were registered. The deaths were 35 below the average, and gave an annual death-rate of 21.8. During the past four weeks of the current quarter, the metropolitan death-rate averaged 22.2 per 1,000, against 26.2 and 20.9 in the corresponding periods of 1879 and 1880. The 1,550 deaths included 70 from small-pox, 60 from measles, 30 from scarlet fever, 6 from diphtheria, 37 from whooping-cough, 2 from typhus fever, 8 from enteric fever, 2 from ill-defined forms of continued fever, 10 from diarrhœa, and not one from dysentery or simple cholera; thus, 225 deaths were referred to these diseases, being 23 below the average. The deaths referred to diseases of the respiratory organs, which had been 395 and 338 in the two preceding weeks, further declined last week to 328, and were 11 below the average; 191 were attributed to bronchitis, and 99 to pneumonia. Different forms of violence caused 71 deaths; 53 were the result of negligence or accident, among which were 29 from fractures and contusions, 2 from burns and scalds, 5 from drowning, and 11 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 49.9°, and 1.5° above the average. The mean degree of humidity of the air was 75, complete saturation being represented by 100; the air was, therefore, of its average dryness. The general direction of the wind was westerly, and the horizontal movement of the air averaged 12.5 miles per hour, which was 1.1 above the average. Rain fell on four days of the week, to the aggregate amount of 0.36 of an inch. The duration of registered bright sunshine in the week was equal to 16 per cent. of its possible duration. The recorded amount of ozone showed a considerable excess on Saturday.

BIRMINGHAM AND MIDLAND MEDICO-ETHICAL ASSOCIATION.—On the 28th ult., a meeting was held in the library of the Birmingham Medical Institute, for the object of forming a local association of medical practitioners "for mutual defence and ethical purposes." There was a good attendance. Dr. Sawyer was voted to the chair. Dr. Flinn of Brownhills announced that in answer to a circular, which he had circulated amongst his brethren in Birmingham and the neighbourhood, he had received about fifty replies, in which the writers expressed their desire to join a society of practitioners formed for carrying on medico-ethical work. Among the objects to be aimed at, he had enumerated the suppression of the increasing practice of medicine and surgery by persons not legally qualified, and the consideration of the subjects of hospital reform, provident dispensaries, remuneration of club surgeons, and the abuse of medical charities. A resolution was passed, declaring that those present formed themselves into a society to be called the "Birmingham and Midland Medico-Ethical Association". The following gentlemen were appointed a provisional committee:—Mr. E. Chesshire, Mr. Oakes, and Dr. Sawyer, Birmingham; Mr. Vincent Jackson, Wolverhampton; Mr. Manley, West Bromwich; Mr. Masters, Hednesford; Mr. Yates, Birchfield; and Dr. Flinn, honorary secretary.

A FESTIVAL Dinner in aid of the funds of the Middlesex Hospital will be held at Willis's Rooms, King Street, St. James's, on Friday, May 13th, 1881, at which the Right Hon. the Earl of Derby has kindly consented to preside.

CHARGE AGAINST A MEDICAL MAN.—The case of Mr. Samuel Scott, a surgeon at Battersea, who was charged with the manslaughter of a patient by neglect, has again come before Mr. Justice Denman; and Mr. Montagu Williams, in addressing the Court, said that the grand jury had ignored the bill against the defendant, and he did not propose to offer any evidence in support of the coroner's inquisition. Mr. Justice Denman said he had read the depositions very carefully, and he thought the learned counsel had evinced a very proper discretion in not offering any evidence upon the coroner's inquisition. He could not see that there was any evidence to support the charge. The defendant was then formally given in charge, and, no evidence being offered against him, the jury returned a verdict of not guilty.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th. 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

THURSDAY.—Ophthalmological Society of the United Kingdom, 8.30 P.M. Mr. Spencer Watson: Retinal Hæmorrhage, with High Arterial Tension. Dr. Allen Sturge: Paralysis of both Third Nerves after an Apoplectic Attack. Mr. Jas. E. Adams: Embolism of both Eyes in a Case of Endocarditis. Mr. Lang: Optic Neuritis in a Case of Corneal Ulcer (microscopical sections). Living specimens at 8 o'clock: Mr. Brudenell Carter: Case showing the Result of Previous Neuritis from Injury to the Head. Mr. McHardy: Persistent Hyaloid Artery. Mr. Nettleship: 1. Dislocation of Lens between Choroid and Sclerotic; 2. Ophthalmoplegia Externa; 3. Card Specimen of Tumour at Cavernous Sinus, causing Uncomplicated Ophthalmoplegia.

FRIDAY.—Clinical Society of London, 8.30 P.M. Report of the Committee on Excision of the Hip-Joint. Dr. Whipham: Aneurysm of the Aorta demonstrated during life by the Laryngoscope. Dr. T. Stretch Dowse: A Case of Anorexia Nervosa. Mr. A. R. Gould: A Case of Rapid Death after Antiseptic Osteotomy of the Tibia. Dr. Wiltshire: A Case of Traumatic Rupture of an Ovarian Cyst.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CLINICAL TEACHING IN UNION HOSPITALS.

THE subjoined memorial has been drawn up by Dr. Laffan of Cashel, and the signatures of union hospital medical men are invited.

"The memorial of the undersigned physicians and surgeons to union hospitals to the senate of the Royal University, respectfully showeth,—That clinical or bedside training is universally admitted to be of the first importance in the education of medical students. That a mere fraction of the resources available for such instruction is now at the disposal of such students. That, during the year 1877, 111,334 patients labouring under all forms of sickness were treated in these various union hospitals, which are provided with every possible requisite for the treatment of disease; while, during the same time, not more than 10,000 patients were treated in those hospitals of Dublin, Belfast, Cork, and Galway, which have between them the monopoly of clinical instruction. That no system of concursus regulates the appointments to the medical staffs of those clinical hospitals in the four towns last referred to; and that no ground, therefore, exists for alleging such a difference in the attainments of the respective staffs as would furnish a plea for excluding provincial men from all share in clinical teaching. That the results of the present system of monopoly are such as might have been anticipated; and that the serious attention of the General Medical Council was long ago directed to those glaring defects in the practical training of medical students. That, in the year 1877, chiefly at the instance of Sir James Paget, the Council resolved to recommend that one year of the medical curriculum should be spent by each student at a union or other provincial hospital. That local interests and the deficient powers of that Council have heretofore prevented effect from being given to this enlightened recommendation. That, having every confidence that your body will not allow such mere local interests to any longer oppose obstacles, and looking with every confidence to your university placing itself in the van of progress, the undersigned respectfully memorialise you to enforce this recommendation of the governing body of the medical profession."

INVETERATE SNEEZING.

SIR,—Under the above heading, "A Member" asks what line of treatment would be most likely to effect a cure. I have had a few very obstinate cases of sneezing, and have generally found them yield by injecting a solution of acetate of morphia (two grains to one ounce of water) up the nostrils twice a day. The solution should be slightly warmed before using. The following prescription may also be of service. ℞ Morphiæ acet. gr. iss; bismuthi trisnit. ʒi. M. Used two or three times a day, as a snuff. Sometimes a small abrasion of the mucous membrane, exposing the peripheral extremity of a nerve, will account for the obstinacy of the case described.—I am, sir, etc.,

E. T. CROTCH.

Fareham, May 2nd, 1881.

SIR,—In reply to "A Member", I would refer to Section 5.7:3 of the *Medical Digest* for information regarding inveterate sneezing, where reference will be found to a case under Dr. Moslen, in which there were almost 50,000 sneezes in the space of eighty hours, alarming the whole neighbourhood with their violence. A cure was effected by placing the patient in a hot bath, with cold applications to the head, and hot and cold douches to the back. A variety of remedies are suggested in the *Lancet*, vol. i, 1869, p. 72. Dr. Mayer, in the *Lancet* for January, 1875, p. 73, on the supposition of an attack having an hysterical origin, used, with success, large doses of valerianate of zinc. Iodide of potassium, belladonna, pressing the finger beneath the septum nasi, are advocated by different observers in the *Lancet*, vol. ii, 1873, p. 864. Since the publication of the *Digest*, the following papers and suggestions have appeared. Dr. Russell, in the JOURNAL, December, 1879, p. 937, records a case due to impacted cerumen; a similar cause being described by Dr. Weakes in the *Lancet*, February, 1880, p. 253. In the JOURNAL, vol. ii, 1879, p. 1021, cotton-wool in the nares is recommended by Mr. Bradley; while a camomile flower in the same position is advocated in vol. i, 1880, p. 30, by Mr. Martin, who also finds belladonna very valuable.—I am, etc.,

RICHARD NEALE, M.D.Lond.

60, Boundary Road, South Hampstead, N.W.

SIR,—In answer to "A Member", I had some years ago a similar case of inveterate sneezing to treat; and, acting on a suggestion of Dr. Dobell's, I cured it by the following means. The nares were irrigated for a few minutes on Dr. Rasch's plan, with a weak solution of phosphate of soda, and then pencilled with a mixture of one of glycerine to three of water.—Very truly yours,

L.K.Q.C.P.

NOISELESS COAL-BOXES.

SIR,—In reference to Dr Edis's suggestion, in the JOURNAL of April 23rd, on the above subject, I think the following method of putting it into practice will be found an improvement. I have always adopted it with success in the sick-room, and invariably recommend it to the members of the St. John Ambulance Association's classes on Home-Nursing. Let the scuttle be well filled every evening with selected pieces of coal, about the size of the two fists, each piece of coal being tightly wrapped in thin brown paper. Newspaper is very apt to flare up suddenly, and startle a patient, and it leaves a great deal more ash than does brown paper, which quietly smoulders away; further, the smoke of the brown paper, should any of it escape into the room, is considered by many a very good disinfectant.—Yours faithfully,

22, Elgin Crescent, W., April 26th, 1881. HARRY CROOKSHANK.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

COLONEL TOTTENHAM'S QUESTION AND IRISH LUNATIC ASYLUMS.

SIR,—Dr. Blumer's letter appeared while a previous one of mine was in your hands. I am glad the Irish asylum assistants have at length found somebody to speak for them; but I hope to convince your readers that their advocate is both a prejudiced witness, and has failed to make good his attack on the one position of mine which he ventured to assail. On the strength of your leading article of January 1st, I stated that my doctrine had the full concurrence of the chief American medical superintendents. How does it disprove of this statement to allege that, as a body, they have not supported it? My proposition was, that leading superintendents supported it; and the correctness of this he acknowledges further on in his letter, where he naively confesses that the great American Association does actually contain superintendents among its members; though so imperfectly informed is he, that he does not know the number. It is true that Dr. Blumer insinuates that these gentlemen are not leaders in their calling; but more impartial evidence on this point must be forthcoming before their status can be considered as determined. Dr. Blumer informs us that the Association is a self-constituted body. Might I ask Dr. Blumer if he be aware that all other leagues established for the reform of abuses, past or present, are or were self-constituted bodies? I would be very much surprised indeed if human nature were so different at the other side of the Atlantic from what it is in the Old World, that the cry for reform should come from within, instead of, as it always has done with us, from without, privileged castes and classes.

Dr. Blumer tells us that the merits of the question at issue do not concern American superintendents; and on the strength of this statement he passes over all my other arguments. What right of intervention had Dr. Blumer, if my views had no application to a wider sphere than that of these kingdoms? I am not surprised to hear that the modesty of many of our American cousins is sufficiently pronounced to make them unconscious of the possession of any deficiencies. Even in the more easy-going Old World, the body of similar officials would, if polled, be doubtless found to hold with a like modesty to the belief in their own all-sufficiency, and this though they are selected in Ireland, at all events, without any regard to antecedent medical status.—Yours truly,

THOMAS LAFFAN.

Cashel, April 26th, 1881.

COLLEGE AND HALL should ask the opinion of a solicitor; we think he is entitled to recover.

CARRIAGES FOR MEDICAL MEN.

SIR,—For general country practice, a gig is by far the best for every-day use; and if a close carriage be required, by far the most useful, a waggonette with a movable head. A brougham would be found a very heavy drag, however light it is made. I am now using a gig, very light and comfortable, built by Maythorn, of Biggleswade, near Bedford. It is hung with C-springs, and the body is attached to the shafts under the footboard by a bolt and a cross spring behind. I never had a more comfortable one. It is cheap, strong, and light.—Yours faithfully,

P. H. BANKS.

ERRATUM.—In last week's JOURNAL, page 711, column 2, in the note on "Homœopathy", with reference to a letter from Dr. Dyce Brown, in line 7, for "Galen" read "Carus".

DICKENS' "FUNNY OLD WOMAN" WHO PICKED HER TEETH WITH A PIN.

DR. FRANK H. HAMILTON'S private collection of charred and broken bones, which he calls his bric-a-brac, contains, according to the *New York Medical Gazette*, a curious souvenir of Dickens and of his "American Travels". It is the skull of the "Funny Old Woman" whom he saw in the obscure hotel at the then very small village of Sandusky, Ohio, in 1842, and who, while waiting at the table, occupied herself in the intervals of her more active employment, in picking her teeth with a pin. Probably Mr. Dickens regarded her as a typical American waitress, since, so far as we know, she is the only one mentioned in his "Notes", and it has generally been supposed that in these papers Mr. Dickens intended to give his readers an illustration of American customs and manners. Examination of the skull, however, suggests to the medical man that she may have indulged in this peculiar pastime for other reasons than because this constituted a part of her special training for the duties of waitress. Nearly the entire frontal bone is toughened, eroded, and perforated by disease. Large portions of the parietal bones are in the same condition. All of the teeth are gone, and most of the alveolar sockets are absorbed. No doubt, about the time she fell under the observation of the distinguished traveller, she had pretty bad teeth, and probably had occasion oftener to use a toothpick than most other waiting-maids. Dr. A. N. Read, a distinguished physician of Norwalk, Ohio, attended her some years later, when she was suffering from tertiary disease, in the Norwalk almshouse; and after her death, sent the skull to his son, Dr. Ira B. Read, of New York, by whom it was presented to Dr. Hamilton, accompanied with the tibia and fibula of her left leg, which had been broken and united.

CHICAGO GLASS EYES.

FROM particulars supplied to the reporter of a Chicago paper by a dealer in glass eyes in that city, it appears that there are as many as a thousand wearers of these eyes in Chicago, and that from 600 to 800 eyes are sold there every year. The best eyes are made at Uri, the manufacture being favoured by the occurrence there of fine silicates and other minerals required. These eyes withstand the corrosive action of tears and other secretions better than those of France. At Uri are also made large quantities of eyes used in mounting animals, besides a superior quality of glass marbles, known to boys as agates. The artificial eye is a delicate shell or case, very light and thin, and concave, so as to fit over what is left of the eyeball. The shell is cut from a hollow ball or bubble of glass, the iris is blown in, and then the whole is delicately recoated. The trade in Chicago has undergone a curious change. Twenty years ago there were sold very many more dark eyes than light, but from that period on the sale of dark eyes has been perceptibly dying out. About 20 light eyes are now sold to one dark. In Boston the percentage is even larger—about 35 blue or light eyes to one brown; while, on the other hand, in New Orleans, 50 brown or dark eyes are sold to one light. The change in Chicago is supposed merely to show that the influx of population has been from the East principally and from Northern Europe. Surgical operations on the eye are now performed much more skilfully. Whereas it was once thought necessary to take out the whole eye, various parts are now amputated, and the glass eye fitted on the stump, which moves quite naturally. Some people who have lost an eye keep several substitutes. They will use one for the daytime with a small pupil, and another for night with a large pupil, as a set-off to the dilatation.

FLUKE IN SHEEP.

SIR,—In answer to "M.B.", whose letter appears in the JOURNAL of this week, I may say that fluke in the liver in sheep has been very prevalent here, and I have always condemned the meat of sheep so infested, acting on a rule laid down by Fox in his book on the *Sanitary Examination of Water, Air, and Food*, p. 427. But of late I have made it a practice to examine some portion of the muscular fibre under the microscope, and give my certificate according to results. In bad cases of fluke, where the liver is hard, nodulated, and contracted in patches, a small parasite will be found in the muscular fibre, especially in the abdominal walls and in the muscles corresponding to the psoas and iliacus in man. This parasite is not unlike Rainey's corpuscles; but, unlike those, it is segmented and pointed at both ends. I had a measurement of several, but have lost it; consequently, I am unable to give minute details; but anyone conversant with the examination of muscular fibres under the microscope cannot fail to discover the parasite if it be present. In all cases where the parasite exists, the meat should be condemned as unfit for food. I have found that, in the early stages of fluke in the liver, that parasite does not exist in the muscle. In this town, the butchers destroy the livers of infected sheep, so as to prevent the inspector from seizing the carcase; but the greenish-yellow colour of the meat, its general flabby state and appearance, will, as a rule, lead one to examine the muscle as I have pointed out.—I am, sir, your obedient servant,

S. B. MASON, L.R.C.P., etc.,
Medical Officer of Health for Pontypool.

Denham House, Pontypool, Monmouthshire, April 23rd, 1881.

F.R.C.P.—The person whose advertisement is sent is, we fear, beyond the reach of professional remonstrance.

MARTIN'S BANDAGES.

SIR,—May I suggest to horsekeepers a new use for Martin's rubber bandages? Often and often, especially when hard-worked and in hilly countries, my professional brethren must be annoyed to find their horses "cut" behind, or "speedy-cut", and come home bleeding a little, and lame a little; and this sort of chronic small injury, if it go on, necessitates rest, or ends in some such calamity (especially if it be a "speedy-cut") as the horse going down head-first or broadside on. For this, harness-makers devise a boot, which remains on the leg, but slips off the place, and if much used is useless, and in a gravelly state of roads becomes clogged with damp and grit. For this state of things, a carefully adjusted rubber bandage (only a few folds are needed) is infinitely superior to the boot; but at every stage of a long journey, it is as well, when the horse is rested, to take off the bandage and re-adjust it before starting. The only thing that is really necessary is to put the bandage on oneself at first, and to see that the fetlock or joint (whichever it may be), is perfectly dry before the bandage is put on.—Your obedient servant,

Shanklin, Isle of Wight, April 25th, 1881. GEORGE H. R. DABBS.

RAILWAY-CARRIAGES FOR GENTLEMEN.

SIR,—As illustrative of the advisability of having carriages for "gentlemen only", and by so doing supplying a necessity for those suffering from urinary and other affections, I send you the following case, which occurred lately. A gentleman, middle-aged, who had been drinking freely, found himself at Cannon Street, just in time to catch the train for Tunbridge, one hour's journey. Accordingly, he jumped into a smoking-carriage, only to find it occupied by two ladies, among others. He suffered from distension of the bladder for the whole journey; and, on his arrival at Tunbridge Station, found himself totally unable to urinate. He came to me, and I found him suffering intense pain, evidently from spasmodic stricture. Having no bath at hand, I determined to administer chloroform at once, and shortly was able to relieve him by the withdrawal of at least three pints. I think you will agree with me that the smoking-carriages on our lines should be held sacred for the use of men alone.—Yours faithfully,

W. J. LAND.

Bordyke House, Tunbridge, Kent.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. E. Nettleship, London; Dr. W. Walter, Manchester; Mr A. W. Jackman, Sheffield; Our Edinburgh Correspondent; Mr. G. Colman, Cardiff; Dr. Thomas Jones, London; Dr. A. Hamilton, Chester; Our Aberdeen Correspondent; Mr. F. Lankester, London; Messrs. F. Newberry and Son, London; Our Dublin Correspondent; Dr. Farquhar, Pudsey; Mr. Balmanno Squire, London; Mr. F. Johnson, St. Leonard's-on-Sea; Mr. H. Smith, Brighton; Dr. John C. McVail, Kilmarnock; Mr. Dacre Fox, Manchester; Mr. G. Eastes, London; Mr. J. E. Hanson, Huddersfield; Mr. W. A. Lewis, Oswestry; Dr. C. Parsons, Dover; Surgeon; Messrs. W. Harrington and Son, Cork; Mr. G. W. Long, Sherborne; Mr. E. Kitchen, Leatherhead; Dr. J. W. Byers, Belfast; Dr. John C. Thorowgood, London; Mr. A. W. Mayo Robson, Leeds; Mr. T. B. Logan, Bristol; Dr. Gowers, London; F.R.C.P.; Dr. Edwin Rickards, Birmingham; Mr. W. Sykes, Mexborough; A Member; Dr. Sawyer, Birmingham; Mr. E. White Wallis, London; Mr. Robert Barker, London; Mr. W. P. Means, Newcastle-on-Tyne; Dr. J. A. Austin, Tongue; Mr. J. W. Sellers, Rochdale; Mr. W. Whitton, Towcester; Dr. F. T. Porter, Dublin; Mr. Price Jones, Llangollen; Mr. W. Jones Morris, Port Madoc; Mr. John Ewens, Bristol; Mr. H. E. Spencer, York; etc.

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CLINICAL REMARKS
ON
TWO CASES OF TUMOUR OF THE BLADDER.

Delivered at the University College Hospital on January 17th.

By BERKELEY HILL, F.R.C.S.,
Professor of Clinical Surgery in University College, London.

GENTLEMEN,—There have been recently in our wards some excellent examples of those rare affections, tumours of the bladder. I propose to-day to select for remark two of these cases, partly for their rarity, partly because we have the morbid growths themselves for your inspection.

In speaking of tumours, I mean true morbid growths; and exclude those swellings of the hypertrophied prostate met with in certain old men, which, by their deformity, produce a train of sufferings sufficiently acute. During the year just past, we have had several such patients in our wards, affording examples of some or other of the consequences of hypertrophy of the prostate. But with such cases it is not my intention to occupy your time to-day.

The list of morbid growths comprises :

1. *Fibrous polypi*, fibrous outgrowths from the surface of the bladder, an extremely rare affection, described by Civiale and one or two others. Of these growths, a few specimens are preserved in museums.

2. *Scirrhus and encephaloid* of the walls of the bladder, growths nearly always secondary to cancerous disease elsewhere, but occasionally occurring primarily in this situation.

3. *True epithelial cancer*, beginning in and slowly extending in the wall of the bladder.

4. *Villous tumour*.

These growths may all begin in the bladder itself; but affections of the organs may lead to projections into, and invasion of, the bladder—as, for example—

5. *Malignant disease of the prostate*, generally encephaloid in character.

6. *Tubercular disease* of the vesiculæ seminales, or of the vesiculæ seminales and prostate.

At this moment, there is an old man in Ward 10, seventy years of age, and in fair general health, who has, for the last eighteen months, been unable to void any urine by natural efforts. He draws it off through the catheter, by which the urethra is easily traversed until the prostate is reached, where, if not well curved or very supple, it stops short. There is no suprapubic dulness ; but, when the prostate and floor of the bladder are examined *per rectum*, an irregular mass of stony hardness is felt ; one firm nodule projects at the upper margin of the sphincter ani into the rectum. This condition of the base of the bladder not only obstructs the flow of urine, but is also the cause of the tenesmus to which he is frequently subject, though the rectum itself is at present free from the growth. The urine is normal, always clear, and free from blood or pus ; but the increasing irritability of the bladder is the patient's constant torment. By night or day, he seldom passes an hour without being compelled to use his catheter; for, as soon as two or three ounces of urine collect, his bladder makes violent efforts to expel it. The wide extent of the induration of the prostate and floor of the bladder, and its irregular stony hardness, are the grounds on which we consider it to be a case, not of simple hypertrophied prostate, but of malignant, probably scirrhous, disease.

There is also at the present time, in Ward 9, a young man, whose life is tormented by cystitis and great irritability of the bladder, sometimes more, sometimes less acute, but of already more than twelve months' standing; and occasioned by a condition of the vesiculæ seminales, which we believe to be tubercular. He has already undergone Syme's amputation at the ankle for strumous disease of that joint. On another occasion, I shall draw your attention to tubercular disease of this region, of which, from time to time, we get examples sent in as cases of stone. I will pass to the two cases of which the bladders are before you.

The first is the case of epithelial primary disease, whose history has been carefully recorded by Mr. A. J. Grant, the ward-clerk. The patient, No. 2,448 in the hospital register, was sixty-three years old; and, until four months before his admission, had no sign of disorder of his urinary organs. The first symptom of his disease that attracted attention was hæmorrhage. The urine became red, and the blood increased so much that in a week's time it came away from the bladder in clots. Soon, but after the appearance of clots, pain began to be felt ; but only after the bladder was emptied. So long as the patient was still, and did not pass urine, he was free from pain. This character of the pains continued until after his admission to hospital; but, in a few days, there were added violent attacks of spasmodic effort to void urine, which, always painful, became excruciating towards the end of his life, growing more and more frequent, and at the end almost constant.

The frequency of micturition, at first not unusual for a man of his time of life—twice by night and about every four hours by day—steadily increased during the three months which elapsed after the first appearance of the blood, until the call to pass urine came every quarter of an hour. Up to this time, the urine, though bloody, was not offensive, and had no sticky deposit. At this stage of his malady, an irregular practitioner sounded the patient for stone. After this exploration of his bladder, which he described as being prolonged and very painful, his sufferings increased ; micturition became necessary every quarter of an hour; and the urine, still loaded with blood, grew very offensive. Probably the exploration was the immediate cause of the cystitis, though this affection was almost certain to arrive sooner or later. Still, the danger of thus aggravating the patient's sufferings by instrumentation should always be kept carefully in view, when deliberating on the expediency of sounding a patient. On his admission, on December 7th, 1880, he was found to be a fairly stout man, and in pretty good general condition ; of this stoutness he lost little before death ; but his state as to micturition was pretty much as already described ; frequent (half-hourly) calls to pass urine—its ejection being accomplished with much straining and pain, the latter referred to the end of the penis ; and blood and ropy pus passed every time with the urine. The sound introduced into the bladder struck no stone, but caused great pain in passing over the neck; indeed, the exploration could not be completely carried out, owing to the pain it excited. The prostate was not enlarged, nor could any unusual condition of the bladder be detected by rectal examination. There were no enlarged glands to be felt in the inguinal or the iliac regions.

Thereafter, various remedies were employed to allay the cystitis and consequent irritation of the bladder, but without avail. On one occasion, the patient was anæsthetised, the bladder carefully sounded, and its ammoniacal ropy contents washed out by Clover's bottle. As before, no stone was found; but, in the purulent deposit from the fluid so exhausted, shreds of tissue were found on microscopical examination, by Mr. Stanley Boyd, our surgical registrar ; these consisted of patches of epithelial and nucleated cells, to some of which a shred of fibres was attached. In spite of anodynes, of attempts by tying in India-rubber catheters, or by washing out with quinine or astringent solutions, or simple warm water, to diminish the accumulation of fœtid urine, the patient's sufferings increased; the catheter could not be retained more than four or five hours; then the spasm it excited became unbearable. At this time constitutional disturbance began. His tongue became dry, and coated with brownish fur ; and his strength rapidly diminished. In these circumstances, I proposed to him that he should submit to operation—not with any expectation of cure, but, by establishing a free drain for the urine as fast as it reached the bladder, of relieving him of the constant pain and straining excited by its accumulation and putrefaction therein. With this object, on December 29th, I performed the usual lateral operation for the removal of stone from the bladder : making at first a small opening in the neck of the bladder, through which I introduced my finger, and recognised a soft mass projecting from the floor on the right side. By enlarging the incision in the neck of the bladder, I was able to bring away, in a lithotomy forceps, the mass I felt, which proved to be a pedunculated growth of cellular tissue, as large as a marble, but too much disorganised by sloughing for its structure to be minutely examined. By free injections of cold water, several such masses were washed out, along with much stinking pus and mucus. The hæmorrhage during the operation wus unimportant. The patient was but little relieved by the operation, though bleeding ceased and the urine drained away continuously through the wound. His spasms, though less frequent, continued with nearly the same severity until his death, on the third day after the operation.

Post mortem, the condition of the urinary organs was very interesting, and, especially so, when compared with that of the case of villous disease, whose examination we made on the same afternoon. The bladder was contracted, of about six ounces' capacity; and, when laid open along the mesial line from the neck by the anterior part to the apex, and everted, it revealed this condition. There is a growth, which, commencing on the inner surface opposite the pubes, continues along the right side to the apex, and there crosses to the left. On the right, the growth is much the thickest ; while, on the left, its advancing margin

is well defined, being raised near the apex a quarter of an inch above the general level of the mucous membrane. The surface of the growth is generally sloughy and very irregular; long shreds hang down from the upper portion, and from the right side depends a finger-like process, one inch long and a quarter of an inch across. The mucous membrane of the bladder elsewhere is grey and pigmented, thus showing considerable chronic inflammation. The walls are rugose, from moderate hypertrophy of the muscular tissue. Here are some sections of the growth, showing the nests of nucleated epithelial cells, occupying the meshes of a fine connective network, freely supplied with capillaries. You should compare it with the specimen from the villous growth, showing the delicate branching processes hanging freely from the tumour. The ureters are but little, if at all, dilated—though, like the bladder, the mucous membrane and that of the pelvis, especially of the pelvis in the left kidney, are thickened, greyish, and marked with small hæmorrhages. The kidneys themselves are congested and interstitially inflamed, the left particularly so. These changes in the kidney are of recent origin, set up by extension of the irritation from the bladder.

You will note, that the condition of the body after death confirmed the indications of the symptoms during life, that the patient died of exhaustion consequent on the irritation of the bladder, and from the cachexia of the tumour. The general system was but to a small extent invaded. A few of the lumbar lymphatic glands were enlarged, and pale grey on section; but no consecutive multiplication of the growth beyond the bladder was found.

Next come the notes of the case of villous growth. J. M., 38 years old (No. 2,615 in hospital register), a lamplighter, and, therefore, walking much daily, had been a healthy man, and noticed nothing unusual in his habit of passing urine until April 1880, eight months before admission. Then suddenly his urine became red with blood after exercise, and flowed less freely than before. This red coloration was for some time only observed during and after exercise, never on rising from bed in the morning. The intermixture of blood continued, without intermission, to be the main trouble until last Christmas, with the exception only of three or four days, during which his urine was of ordinary aspect. About Christmas new symptoms appeared—namely, constant desire to micturate and uncontrollable dribbling. On Christmas Day, clots of blood came away during the efforts to pass urine; at the same time pain commenced to be felt in passing urine, and for three or four minutes afterwards, at the end of the penis. When admitted on December 30th, he walked to the hospital from Kentish Town, and the urine passed on his arrival was dull crimson. The next day the patient was passing urine and blood every few minutes, with much painful straining to void the last few drops; often black clots, without any urine, were then ejected. There were no renal or suprapubic tendencies; no swelling of the testes or cords. The prostate was of normal size, but the trigone of the bladder, felt through the rectum, appeared to be thickened though yielding. The finger experienced the kind of resistance afforded by a moderately distended bladder. To clear up this doubt, a flexible *coudé* catheter was passed into the bladder, encountering no difficulty, and giving rise to no pain in its passage; but as only a few drops of blood escaped through it, some water was injected; this returned almost untinged with blood, being forcibly driven out both through and along the sides of the catheter. The bladder being thus proved to be empty, the catheter was withdrawn, and brought away in its eye a grey granulation. This was at once put under the microscope, when it was seen to be a compound papilla, covered by slender columnar epithelium. This discovery materially aided the diagnosis, otherwise difficult, of vascular tumour of the bladder. This diagnosis, suggested by the persistent painless hæmorrhage, and by the fact that villous is the most frequent form of tumour of the bladder, was rendered certain by the structure of the papilla. This examination took place the day after the patient's admission—viz., December 31st. The treatment ordered was turpentine, in five-minim doses, every four hours, opiates to relieve spasm, rest in bed, and ice to the perinæum. It was also determined that, if this did not check the hæmorrhage in twenty-four hours, recourse should be had to subcutaneous injections of sclerotic acid, a form of the active principle of ergot. As the bleeding had not diminished by 11 A.M., on January 1st, a subcutaneous injection was given, not of sclerotic acid, but of ergotine itself, specially prepared on a new method by Mr. Gerrard, the hospital pharmacist. The injection was repeated at 5 P.M., and again at 1 A.M. on the next morning (January 2nd). On each occasion half a grain was injected, about half the dose usually employed. By 11 A.M. the hæmorrhage had greatly diminished, though not wholly ceased, when suddenly syncope set in, and he died. *Post mortem* examination twenty-seven hours after death. The body was somewhat blanched, and the viscera were all more or less drained of blood. The heart contained a small quantity of fluid blood, free from clot, and was firmly contracted in rigor mortis. The pulmonary arteries were clear of coagula. Owing to the obscurity surrounding the cause of death, all the viscera were carefully examined, and were all found to be free from disease, with the exception of the urinary organs. These, from the great size of the growth, formed an admirable example of a villous tumour in the bladder; such tumours usually are not larger than a marble or small strawberry; but this, you see, is as large as a hen's egg, measuring over two inches in length, by one and a-half inches in breadth. The growth itself is formed of long delicate villi of deep red colour, and attached by a short pedicle, measuring less than half an inch across, to the margin of the orifice of the right ureter, around which it so grows, that a probe passed down the ureter reaches the bladder only after traversing the growth. These growths are scarcely ever, if ever, found away from the trigone, and usually spring from one of the three orifices. In structure they are true papillomata, almost warts; and they prove fatal, not by any malignant character of their growth, but mainly by their mechanical action, wearing the patient out with pain and irritation, and partly by exhaustive loss of blood, for the structure of the tumour is loose and highly vascular, each of these delicate papillæ being provided with its capillary vessel, so that the frequent rupture of blood-vessels is an unfailing occurrence. We owe to our surgical registrar—Mr. Stanley Boyd—the preparation of the specimens for our inspection, and also these beautiful sections of the growths under the microscope now before you. You will at once recognise the fine branching papillæ, each one containing its capillary, and covered by slender columnar epithelium, of which the mass is almost entirely composed.

The bladder, ureters, and kidneys, are excellent examples of the changes which take place as simple results of impediment to escape of urine from the bladder. The bladder itself is of ordinary capacity, its mucous membrane is healthy, not chronically inflamed as in the example of epithelial cancer. It is rugose and slightly sacculated from the great hypertrophy of the muscular coats, being half an inch thick in some places. The ureters are vastly dilated on both sides; that from the right kidney almost admitting the little finger, and having its coats much thickened; but, like the enormously dilated pelvis and calyces, presenting no trace of inflammation either recent or old. The kidney itself shows an extreme result of distention, being little more than a bag of fluid. All signs of papillæ or pyramids are gone; their sites at the heads of the calyces being occupied by depressions. The cortex forms a thin layer, nowhere more than a quarter of an inch thick, and with the expanded pelvis and calyces constructs the bag which the kidney has become. The left kidney in all respects resembles the right, except that the dilatation of its several parts is considerably less. The cortex is of ordinary thickness, pale yellow, and of normal consistence; and a good deal of the pyramids still remains. It is obvious how these changes come about. The growth began at the outlet of the right ureter; consequently impediment to the escape of urine from the right kidney commenced very early, and was kept up, long before any difficulty occurred to the entry into the bladder of urine from the left ureter; thus expansion of the left ureter and kidney began only when the tumour had gained such a bulk, that would enable it to overlie the orifice of the left ureter, when it fell on the floor of the bladder, or was compressed against the trigone in the empty state of the viscus. So again, the hypertrophy of the muscular coat of the bladder was caused by the impediment to the discharge of urine when the tumour blocked the neck. This position of the tumour against the neck of the bladder probably excited the violent spasmodic contractions which were so painful during the last days of the patient's life.

It is interesting to compare the absence of inflammation in this bladder with the abundant evidence of cystitis, pyelitis, and nephritis in the case of epithelioma. There we have the slaty grey colour, and punctiform hæmorrhages in the mucous membranes, the shiny muco-pus adhering to the walls of the bladder, ureter, and pelvis, and the nephritis most decided in the left kidney, and not quite absent in the right one. You will recollect in the patient's account of his state previous to his admission here, that his urine, though bloody, was neither ropy nor offensive before the sounding by the quack; in fact, probably it was very similar to that which our patient with villous tumour passed; dark red, though fairly clear, and with a sediment consisting almost wholly of blood-clots. After the sounding, the urine quickly changed, and showed evidence of cystitis. Cystitis being set up, it was not difficult, in a bladder deformed by thickening of its coats, for a shred of putrid muco-pus to slip into, or be driven into the orifice of an ureter during some expulsive effort of the bladder, and there excite inflammation, which would quickly travel along the irritated mucous surface to the pelvis of the kidney. This is one mode, though probably not the only one by which pyelitis is set up in cystitis; but it is a mode that explains why, in cases of cystitis and pyelitis set up

by upwardly extending irritations, one ureter and kidney shall be affected while the other escapes.

In both these patients, the sign that enabled us to make a correct diagnosis during life, was the evidence obtained by putting under the microscope fragments of the tumour itself; these fragments coming away in the fluid withdrawn from the bladder in the one case, and being brought out in the eye of the catheter in the other. But such good fortune is rare, and probably portions of the growth are separated only when it has attained considerable development. Hence in many cases the diagnosis (on which depends the treatment) has to be made on symptoms. Now the three leading symptoms of tumour are—1. Irritable bladder; 2. Hæmorrhage; 3. Pain of a particular kind. But these symptoms also often accompany several other affections—namely, stricture of the urethra, stone, chronic retention from enlarged prostate, malignant and tubercular disease of the prostate and vesiculæ seminales, and certain diseases of the kidney; even piles or ulcer of the rectum are occasional reflex causes of irritable bladder. The presence or absence of such possible causes as these must be ascertained by physical examination of the parts. In these two cases, the exclusion of all causes of vesical irritative hæmorrhage and pain, but stone, was easy during life. The condition of the urethra, and of the prostate and rectum, could be ascertained; while the clinical symptoms, though not strongly indicative of stone, did not certainly contradict that disorder.

Irritability of the Bladder.—In cases of stone, stricture, and prostatic retention, it usually happens that too frequent and somewhat painful desire to pass urine is the first symptom for which relief is sought. When stone excites it, irritability is an early sign, because the cause of irritation, the stone, most frequently lies on the neck, being continually thrown thither by the action of the vesical muscles. Cases of tumour commonly differ from the rest, in that bleeding is the first symptom to attract the attention. Irritability of the bladder is a late symptom. It did not appear in our two patients for some time (four weeks in one man, and several months in the other) after hæmorrhage had become habitual. The early or late variation in the time of the appearance of frequent calls to pass urine in cases of tumour when bleeding has become a prominent feature of their malady, depends much on the position of the growth: that is, in its proximity to the outlet from the bladder. In our case of epithelioma, the morbid growth began at the right side of the bladder, and, spreading in all directions along the mucous membrane, soon reached the neck. But in the case of villous tumour, the tumour was attached to the right ureter by a pedicle, and could affect the neck only when it had attained bulk sufficient to enable it to fall against that part. In the former, irritation soon came; in the latter, only shortly before death. Nevertheless, the character of the irritation they excited had features strongly unlike the irritability caused by calculus.

Hæmorrhage.—The bleeding had characters differing from that customary with stone; it was the first symptom sufficiently urgent to attract attention; it was from the beginning comparatively copious, and soon consisted in great part of clotted blood. Again, the hæmorrhage was persistent, and was almost throughout the leading symptom. This is very characteristic of tumour, though intervals of cessation of hæmorrhage do occur during the course of a tumour. Even several weeks may at first intervene between the discharges of blood; no other symptom is developed, and the urine may remain in the intervals quite free from blood or albumen. But when once bleeding is set up, it becomes more and more copious, and the intervals between the bleedings grow more and more short, while the irritability is continuous, slight, or altogether absent. When a stone causes hæmorrhage, it is seldom copious at first, and never prolonged; but it very rarely refrains from causing irritability.

Hæmorrhage from calculus is caused by the stone eroding the mucous surface of the bladder where it lies, and opening a vessel whence blood escapes; but such vessels are commonly of small calibre, and are quickly closed by coagulation of the blood. Hence, characteristic of such bleedings, is the small quantity lost, being often sufficient merely to furnish traces of albumen in the urine, or to appear as a few drops of blood *per urethram* distinct from the urine. Copious intermittent hæmorrhage may be caused by stone, but only in cases complicated by hypertrophied prostate, on which some dilated veins are coursing. Such veins often bleed when grazed by a stone, just as they will bleed copiously for a short time, even when there is no foreign body in the bladder, if the organ become congested by exposure to cold, by venereal excitement, etc. But, when the gorged vessels have drained themselves, and their orifices are plugged by coagula, the bleeding ceases until they are again overdistended, or again injured, and their coats give way anew. There is no regular increasing frequency and gravity of the hæmorrhages. It is different with the blood-vessels of a rapidly enlarging tumour. They are very numerous, have but thin walls, and are ill-supported in the soft cellular tissue, in which the fibrous element is but scanty. In such new structures, the vessels that first give way are plugged, and shrink, while new ones develop rapidly in their place, which are ruptured in a similar manner. Thus, a continual escape of blood from the surface of the tumour is maintained for some considerable time.

Pain.—I have spoken of the *irritable bladder* and of *hæmorrhage* as symptoms of tumour, and how, in their niceties, they vary from the peculiarities of irritability and hæmorrhage set up by stone. The *pain* felt in these cases of vesical tumour closely resembles that due to stone; being felt at the end of the penis, sometimes elsewhere also; but the pain of stone is most acute immediately *after* the bladder is emptied. It is explained by supposing that the bladder's muscular contraction squeezes the stone against the ulcerated patch which it has worn for itself; and that the pain subsides when enough urine has trickled into the bladder to expand its sensitive surface away from the stone. This explanation is probably a true one in many cases, but not in all. The character of the pain in our case of tumour was not exactly of this kind. It was caused by micturition, it is true; but during micturition it was most severe, and culminated in one or two agonising spasms during the ejection of the last drops. It then began to subside, and soon disappeared, until the next act of micturition revived it. Hence the pain was one felt *during*, more than *after*, micturition. In the case of epithelioma, there was ulceration of a great part of the surface of the bladder; in the other patient, there was no ulceration, but there was a foreign body, the villous growth, which was embraced by the extrusor muscles of the neck of the bladder, and prevented their natural contraction. Both conditions accounted for the agonising spasms. These differences in the symptoms were not sufficient to warrant the exclusion of stone as the cause of the patient's sufferings. But they were so far different as to suggest tumour rather than stone. This exclusion of stone was rendered more probable in the case of epithelioma, by failure to detect it with the sound. Sounding is useful to gain information respecting the condition of the bladder, beyond the proof it affords of the absence of stone. The presence even of villous growths sometimes may be felt by the sound, while, when no such growth can be found, the sound forms an useful landmark for the finger in the rectum when searching all that portion of the bladder which can be reached by that means. Sounding should certainly have been performed in the second patient, when the loss of blood had been somewhat checked, and the patient's condition improved by opiates and rest. As it was, instrumentation in both cases obtained positive evidence for us, though in that of villous growth the sound was represented by a soft flexible catheter.

To sum up, then, gentlemen, the remarks which I have made. The symptoms of tumour of the bladder resemble very closely those of stone; this, on reflection, we can see is only what we might expect on *à priori* grounds, for a tumour is—in all that concerns the functional activity of the bladder—as much a foreign body as a stone. The pain in tumour, though like that caused by stone, has its distinctions, which, though not very strong, are useful in diagnosis. It is due in some cases to ulceration; in some, to the efforts at expulsion brought about by grasping of the tumour by the extensor muscles. Hæmorrhage is in tumours an early symptom, and, once established, is the most constantly present; signs of irritation of the bladder are later in their occurrence. With stone, the reverse holds good; bladder-irritation is an early and almost constant symptom, and hæmorrhage, as a rule, is not copious, and is always markedly intermittent: in the cases where stone does produce copious bleeding, this proceeds from an enlarged prostate.

Exercise, perhaps, influences hæmorrhage from stone more than bleeding from tumour; though it has a marked influence over the latter. But exercise is most provocative of pain to the calculous patient; witness the suffering caused by a ride in a jolting cart. On the other hand, exercise seldom causes pain to the patient with tumour. Sudden stoppage occurs with both classes of patients, though more frequently with the calculous ones. Owing to this want of broad distinction between the diseases, it will be proper in every case to sound the bladder, in order to gain all information possible respecting the state of the contents and of the neck and base of the bladder, and the structures in relation with it, by the sound and the finger.

THE BISULPHIDES IN SCARLATINA AND DIPHTHERIA.—Dr. D. H. Sheffield, of Apple River, Illinois, in a recent communication, reports very favourable results from bisulphide of soda in scarlatina and diphtheria. The remedy is given in doses of seven grains and a half, internally, every hour, until an effect on the disease is produced. He alleges that the remedy has a marked effect in cutting short the course of both these diseases. His mortality has been very light, and complications have been unfrequent.

ABSTRACT OF LECTURES
ON THE
ANATOMY, PHYSIOLOGY, AND ZOOLOGY OF THE CETACEA.

Delivered at the Royal College of Surgeons of England.

By W. H. FLOWER, F.R.S., LL.D.,
Hunterian Professor of Comparative Anatomy.

Lecture IV.—The Anatomy of the Lesser Rorqual. (continued.)

The pelvis consists of two bars of bone placed parallel to one another on each side of, and below, the vertebral column, to which it is quite unconnected except by the soft parts. Those bones are situated in the long axis of the body. In the young animal, they are cartilaginous, but become ossified later in life. The upper surface of each is prolonged upwards into a small process which has been thought by some observers to correspond to the ilium of other mammals, while the anterior end of the bar corresponds to the pubis, and the posterior to the ischium. These homologies are, however, uncertain, especially as the whole bone is ossified from a single centre. The under margin is rough, for the attachment of the crus penis. The bony nodules, united by fibrous tissue to the centre of the external surface of the pelvic bones, which represents the femora, and which were first observed by Professor Flower when dissecting a greater rorqual, *Balænoptera musculus*, a few years ago, appear to be absent from the lesser rorqual, since, up till this time, they have not been observed; probably, if they do exist, they are cartilaginous, and, from being of very small size, are lost during maceration. In the Greenland whale, they are much larger and better developed. There is no trace of the presence of a tibia or fibula.

The mouth is remarkable for its great size and width, compared to the size of the body. The tongue, which looks like a large soft pillow or cushion, is flat, and attached to the floor of the mouth all round the tip close to its margin, so that it cannot be protruded beyond the lips. The whole surface is covered with small papillæ, and much grooved. The mucous membrane between the tongue and mandible is thrown into longitudinal folds, which correspond to the folds of the skin under the chin. The teeth are absent in the adult, but, in a fœtus nine inches long Eschricht found a complete set, consisting of forty-four in the upper, and forty in the lower jaw. Those teeth attain their greatest size when the animal is three feet long, but by the time of birth, they have entirely disappeared. The observations of Eschricht have been confirmed by Julin, who has figured and described the dentition of the lower jaw very fully. In his specimen, there were forty-one teeth, which he found to be developed in the same manner as in terrestrial mammals; those situated anteriorly were conical and simple in form, while the posterior teeth were cuspidate, and resembled somewhat the normal mammalian molar teeth. After the transitional teeth have been lost, the dentary grooves of the upper jaw become covered by the mucous membrane of the palate, which is greatly thickened, very vascular, and thrown into numerous folds. These latter become greatly elongated, and are arranged transversely to the axis of the mouth. At their free extremity, they are frayed out into a fringe-like border. Each of the fringe-like projections contains blood-vessels and nerves, for the nourishment and innervation of the whalebone. From the sulci on each side of these folds, a horny substance grows, and extends downwards along the folds into the mouth; this is the baleen, or whalebone, as it is usually called. It consists of a series of blades united to the palate, and united to one another for a short distance, by an intermediate epithelial tissue, which is situated between them. They are much elongated externally, so that, individually, each resembles a triangle, the external edge of which is vertical, that directed inwards towards the centre of the mouth is oblique, while the third is attached to the palate. Each plate is composed of bristle-like hairs united by a connecting substance almost to their extremities, where they are free, and give an appearance, when the plates are in position, as if the sloping surface were covered with pigs' bristles, as Aristotle described it. The hairs are seen, on transverse section, to be formed of a cortical and a medullary portion. Their function is to act as a fine sieve, so as to prevent the smaller animals upon which the whale lives from passing between the plates. It has been suggested by Professor Turner that they act also as tactile sensory organs, since he believes that he has been able to trace nerves passing to them. The whalebone is entirely confined to the upper jaw, along the whole outer border of which it extends. In the *Balænoptera rostrata*, it is continuous all round the jaw, though in some whales it is not continuous in front. Its length diminishes both anteriorly and posteriorly, the longest blades being situated about the centre of the jaw. The homology of whalebone may best be seen by comparing it to the palate of some of the ruminants, such as the giraffe or the roebuck, in which the palate is covered with ridges. Clearly it is not homologous to the teeth, though it is their analogue, as it is a subsequent development from a different part of the mucous membrane of the mouth. The posterior part of the mouth is suddenly terminated by the palate and fauces, so that the mouth-cavity is completely shut off from the larynx and pharynx. The œsophagus is very small in this, and indeed in all the whalebone whales. The stomach is very complex, consisting of five compartments. The first, to which the lower end of the œsophagus is attached, is egg-shaped, and is the reservoir into which, in the adult animal, the food passes, in the first instance, to be partially digested; it is lined by a thick corrugated layer of epithelium. The second compartment is curved and tubular; at the opening into it from the first stomach, the thick corrugated epithelium ceases. Its mucous membrane is thick, corrugated, and very glandular. The third compartment is divided into three divisions, of which the first is the smallest. The pylorus, which is well marked, is situated at the end of the third division, or fifth stomach, as it is called. The intestinal canal is simple, about five times the length of the animal, and possesses a cæcum. In its interior, there are folds of the mucous membrane corresponding to the valvulæ conniventes in man. The testes remain in the abdominal cavity, and never descend into a scrotum. Externally, there is no sign of a penis, that organ being retracted within the abdominal cavity also; the only trace of genital organs to be seen externally in the male, being a preputial aperture. The penis is long and thin. Vesiculæ seminales and Cowper's glands are absent. The uterus is bicornate. The nipples are concealed from view between two slits on each side of the vulva. The mammary gland is very large, and contains large ducts, which act as reservoirs for the milk, from which that fluid can be rapidly injected into the mouth of the young. The spleen is attached to the first stomach. The kidneys are excessively lobulated, each resembling in appearance a bunch of grapes.

MALIGNANT PAPILLARY DERMATITIS OF THE NIPPLE* AND THE BREAST-TUMOURS WITH WHICH IT IS FOUND ASSOCIATED.

ILLUSTRATED BY SPECIMENS EXHIBITED IN THE PATHOLOGICAL MUSEUM OF THE BRITISH MEDICAL ASSOCIATION AT CAMBRIDGE.

By GEORGE THIN, M.D.

A considerable number of cases have been published, during the last few years, in which an obstinate affection of the skin of the areola and nipple had preceded the development of cancerous tumours of the breast—the coincidence having been first observed and described by Sir James Paget. The nature of the affection of the skin, and the pathological significance of the structure of the breast tumours, having given rise to questions regarding which unanimity has not been attained, I believed it would be useful to show, at the meeting of the British Medical Association at Cambridge, the preparations which had suggested the opinions explained in a paper on the subject, read before the Royal Medical and Chirurgical Society during the preceding session of the Society.

The preparations exhibited were obtained from four cases. In all the four cases, the changes in the skin showed the same pathological condition; but the tumours were in no two instances exactly alike. They agreed in being examples of a variety of breast tumours which, I think, will be most conveniently known as duct-cancer. None of them were scirrhous tumours (in the true pathological sense, as equivalent to parenchymatous cancer—the cancer which develops from the secreting epithelium of the acini). In certain points, they agreed in structure; and these were points which they had in common with tumours which are often described in England as adenomata, or adenoid tumours.

Opinions regarding the exact nature of this class of cases, and the connection which they have with the duct epithelium, will probably vary

* This name has been adopted since the paper was placed in the hands of the editor of the JOURNAL. It appeared desirable to select a designation that should, to some extent, have reference to the pathological changes which characterise the disease, and more especially to discontinue in this connection the use of the term "eczema of the nipple", as tending to produce confusion, by giving one name to two distinct morbid conditions.

considerably until full details regarding a considerable number of them have been published. Concerning the nature of the breast tumours, more particularly, opinions will differ on account of the opposite stand-points from which pathologists look at morbid growths of the mammary gland, and also on account of the somewhat confusing effect of the want of a settled nomenclature.

An attempt will be made in this paper to convey an idea of the nature of the growths in these four cases, by showing, pictorially, a few of the more characteristic parts of the sections.

Case I.*—This case was that of a woman, aged 33, the mother of children, a patient, under the care of Mr. Henry Morris, at the Middlesex Hospital. The breast was removed in March 1879, and contained several nodules of recent and rapid growth, which were diagnosed as cancerous. The superficial disease had begun on one point of the nipple, from which it slowly spread, and had existed from four to five years before any tumour was felt in the breast. I had an opportunity of preparing for examination the breast, the skin, and several cancerous glands from the axilla, immediately after their removal. A vertical section through the skin showed the following changes.



Fig. 1.—Section through the skin; magnified fourteen diameters. *a*. The healthy epidermis. *b*. Thickened portion of the epidermis separating the healthy from the diseased part of the skin. *c*. Isolated islands of epidermis surrounded by connective tissue and exudation cells. *d*. Stratum of exudation cells occupying the papillary layer of the cutis. *e*. Ragged remnant of epidermis in the diseased area.

The epidermis was much broken up and disintegrated. A thin remnant of the horny layer, uneven and ragged, lay on the surface of the diseased skin. Below this thin strip of dead epidermis, the contour of a thickened rete mucosum could mostly be distinguished, although, at some parts, it was impossible accurately to define the deep border where it was in contact with the subjacent mass of cell-infiltration; but, even where the rete mucosum maintained its outlines, so many of the constituent cells had perished that the structure existed only in skeleton form. Many cells had disappeared entirely. Of those which remained, a great number showed the usual stages of cell-degeneration—namely, a swollen nucleus, disappearance of the nucleus, and swollen or vacuolated cell-substance, enclosing an altered nucleus or the cavity from which it had disappeared. (Fig. 2.)

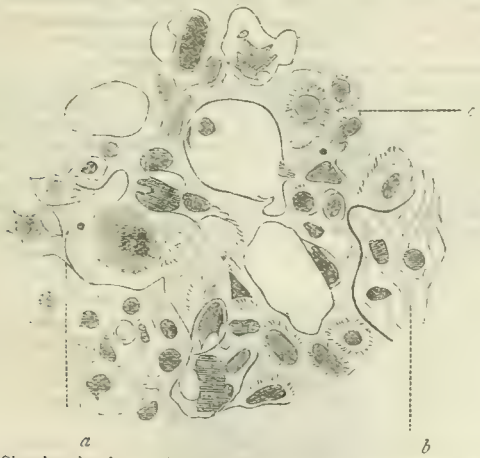


Fig. 2.—Showing the changes in the epidermic cells in the diseased area; magnified 250 diameters. *a*. The deep border of the epidermis. *b*. Connective tissue. *c*. "Prickle cells" of the *rete mucosum*.

* For a full account of the case clinically, see a paper by Mr. Morris in the *Medico-Chirurgical Transactions*, vol. 63, p. 44.

This condition pervaded the entire thickness of the rete. At other parts the destruction of the epidermis was even more advanced, the thin ragged horny layer covering a kind of granulation tissue, in which isolated islands of diseased epidermis were present. (Fig. 3.)

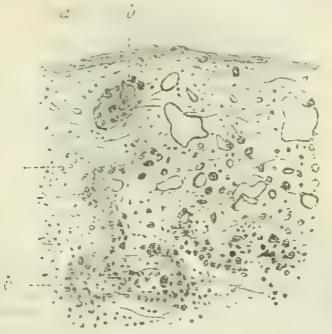


Fig. 3.—Showing detached fragments of epidermis surrounded by connective tissue. *a*. Remnant of epidermis on the surface. *b*, *b*. Fragments of epidermis surrounded by connective tissue. *c*. Cell-infiltration in the papillary layer.

Beneath the diseased rete mucosum, the connective tissue of the papillary layer had undergone extensive changes. In the part nearest to the healthy skin, a considerable amount of cell-infiltration existed amongst the bundles; but, nearer to the nipple, this cell-infiltration became extreme, and occupied the position of the bundles of the white fibrous tissue. The normal bundles of the part had disappeared, and in their place (in so far as the mass of cell-infiltration permitted anything to be seen) an amorphous granular substance was found.

In striking contrast to the condition of the *pars papillaris* (superficial layer of the corium), the bundles of the *pars reticularis* (the strong deeper layer of the corium) were found unaltered, although, between the more superficial bundles of this part of the cutis, there was a certain amount of cell-infiltration.

These changes indicate a morbid process, in which the rete mucosum and the papillary layer of the skin have undergone almost complete destruction; and although, in perhaps both these structures, and certainly in the rete, a certain amount of vitality still existed, yet no signs of a reparative action were detected in either of them. A remarkable feature is the undisturbed condition of the tissues of the skin beneath the papillary layer.

The description which has just been given is sufficient to show, that the peculiar condition with which we are dealing in this case is not eczema (the name by which in these cases it has been usually designated); and this is still more clearly shown by examining the part of the section (Fig. 1, *b*) which separates the sound from the unsound tissues. The line of demarcation is indicated sharply by the projection downwards into the cutis of a rounded wall of epidermis, on the further or healthy side of which the cell-exudation ceases. The epidermic cells of this bounding wall are, many of them, diseased (swollen, vacuolated, disintegrated); but, beyond it, the epidermis presents a normal appearance. This condition of the epidermis contrasts with the changes described by Biesiadecki as characteristic of eczema. (It is superfluous to remark that, in eczema, there is no destruction of the white fibrous tisue.) Superficially, the nipple was affected similarly to the surrounding skin.

Transverse sections, through the deeper parts of the nipple-tissue, showed that some of the lactiferous ducts were diseased. The diseased ducts were distended by an accumulation of cells, which, by the action of hardening fluids, had become agglutinated into a mass, only the outlines of the nuclei being distinct.

In one section (Fig. 4), I found that four finger-like columns of this cell-mass had broken through the wall of the duct, and advanced into the elastic layer, by which, as Henle has shown, the large ducts are surrounded.

The cells in these advancing processes were similar to those which filled the dilated duct. The nuclei were small, fairly uniform in size; and the protoplasm of the cells so feeble in resisting the action of hardening fluids, that the outlines of the individual cells were rarely to be seen. The contours of these outgrowths from the ducts were well defined. (Fig. 5.)

In some sections, there were found in the elastic layer groups of cells similar to those which blocked up the distended duct. (Figures 6 and 7.) The appearance was the same as might be expected if we imagine that the finger-like processes already described had changed

their direction of growth, and turned downwards towards the deeper parts of the breast.

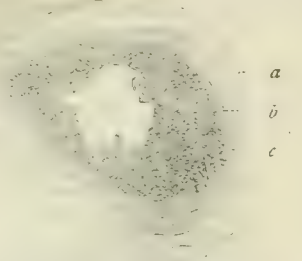


Fig. 4.—Showing a transverse section through a lactiferous duct, which is filled with cancerous epithelium; magnified 22 diameters. *a*. White fibrous tissue of the nipple. *b*. Elastic layer of Henle immediately surrounding the duct. *c*. Finger-like processes of cancerous epithelium which have broken through the membrana propria of the duct and are growing outwards through the elastic layer of Henle.

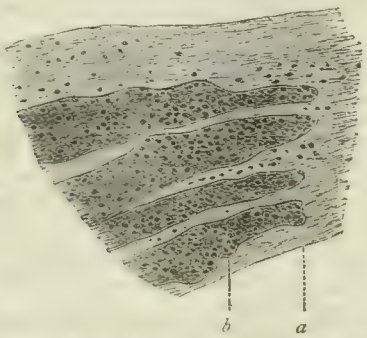


Fig. 5.—Showing the finger-like processes of fig. 4 more highly magnified; magnified 130 diameters. *a*. Elastic layer of Henle. *b*. Cancerous epithelium growing from a lactiferous duct of the nipple into the surrounding connective tissue.



Fig. 6.—Showing a transverse section of a lactiferous duct and columns of cancerous epithelium growing in a direction parallel to the long axis of the duct; magnified 22 diameters. *a*. White fibrous tissue of the nipple. *b*. Elastic layer of Henle surrounding the lactiferous duct; *c*. Contour of the duct. *d*. Column of cancerous epithelium cut transversely.

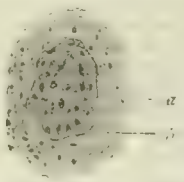


Fig. 7.—Showing a column of cancerous epithelium in the elastic layer of Henle more highly magnified. From the same preparation as Fig. 6; magnified 130 diameters. *a*. Elastic layer of Henle. *b*. Column of Cancerous epithelium.

These appearances show that there is an abnormal growth of epithelium into the lumen of some of the ducts, and that there are points where this growth extends outwards beyond the duct-wall into the connective tissue of the nipple; the further development of these outgrowths taking place in a direction parallel to the duct and downwards into the gland. The epithelial character of the outgrowths is everywhere maintained.

An examination of the nodules in the breast showed that the epithelial growth was developing in two ways. Within the area of a lobule, it was found as an enlargement of its ducts and vesicles (Fig. 8).

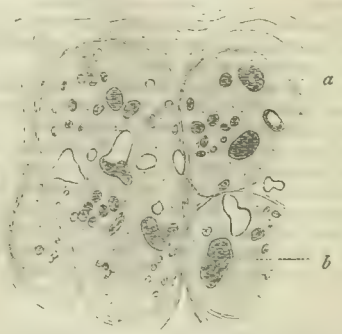


Fig. 8.—Showing the cancerous change in the small ducts and vesicles of a lobule. (The rounded form of the enlarging epithelial growths is characteristic of duct cancer.) Magnified 14 diameters. *a*. The connective tissue surrounding the lobule. *b*. Rounded mass of epithelial cells formed by the coalescence of several enlarging terminal vesicles of the gland. (The dotted area represents the broken-down delicate intralobular connective tissue, in which there was much cell-infiltration.)

This enlargement was produced by a gradual increase in size of the tubes, which became filled with newly formed epithelium. As these columns of cells enlarged, the connective tissue between them disappeared until the circular walls of the growing masses touched. The membrana propria at the point of contact then gave way and disappeared, and the masses coalesced. The columns of cells thus formed retained the tendency to roundness; and, as the coalescing process extended, the area of a lobule was occupied by a few large circular masses. These columns of cells were sometimes hollow, and formed tubes. Sometimes they were filled with cells or cell-*débris*. In many instances, at least, the hollow space in the tube was formed by the disappearance of the *débris*. Sometimes a large cell-column was found filled with it. This *débris*, which is a product of cell-degeneration in its final stages, is a compact granular mass, showing no trace of cell-structures, and stains deeply with eosin. In appearance, it sometimes resembles blood-coagulum, for which, when found in tumours of this kind, I believe it is sometimes mistaken. The distinguishing features in these cell-columns were their roundness, their tubular formation, the frequency with which a membrana propria could be detected, and their comparatively little tendency to destroy the connective tissue. The soft connective tissue of the lobules speedily disappeared; but the firm interlobular tissue of the breast was more resistant, and the cell-blocked areas were found encapsuled by a strong layer of fibrous tissue. This feeble tendency to invade the connective tissue, which characterised the epithelial growths in this tumour, contrasts with the rapidity with which the cell-growth in parenchymatous (scirrhous) cancer infiltrates the connective tissue of the breast.

But the growths were not all in lobule-areas. We have seen that a new epithelial growth from the ducts in the nipple penetrated the connective tissue, and gave rise to newly formed cell-columns. Areas of cell-growth of a circular form, which were entirely of new formation, were found in the nodules. The cell-growth in these cases consisted of narrow columns of a few cells—sometimes only one cell—in depth. These columns rapidly multiplied within the area, and finally coalesced, again giving rise to a more or less circular mass, surrounded by a comparatively normal connective tissue.

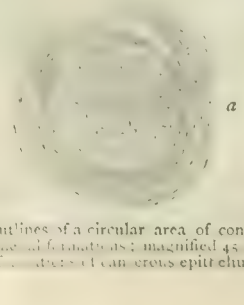


Fig. 9.—Showing the outlines of a circular area of connective tissue becoming filled with new epithelial formations; magnified 45 diameters. *a*. The area of developing new formations of cancerous epithelium.

The round cell-masses formed by the coalescence of the intralobular growths, or by the new extralobular formations, usually showed little tendency to invade the surrounding tissue. They were often represented in sections by rounded holes, entirely or partly empty of epithelium.



Fig. 10.—Showing a rounded hole from which the epithelial contents had disappeared, lying in connective tissue which was free from infiltration; magnified 14 diameters.

These rounded cell-masses grew larger by the accretion of a new layer of cells on the periphery. This new cell-formation was foreshadowed by a change in the surrounding connective tissue; in stained preparations, a deeply tinged curve of fibrous tissue being sometimes found in a position corresponding to the new layer of cells observed in other sections.



a

Fig. 11.—Showing two rounded cell-masses, in one of which (at *a*) a deeply stained curve of connective tissue foreshadowed the formation of new epithelial cells around the mass; magnified 14 diameters.

The cancerous formation in the axillary glands was found as rounded cell-columns having a distinct contour. The outlines of the individual cells could be seldom made out.

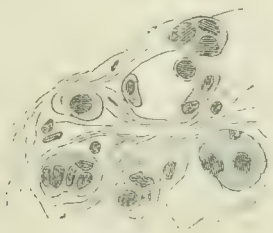


Fig. 12.—Showing the cancerous infiltration in an axillary gland; magnified 260 diameters.

[*To be continued.*]

THE KILLARNEY DISTRICT LUNATIC ASYLUM.—Dr. Oscar Woods, in his report for 1880, again remarks on the objectionable practice prevalent in Ireland of committing lunatics to asylums as dangerous and criminal when they are neither the one nor the other. Because the ordinary mode of securing the admission of an insane patient to a public asylum provided by law is tedious and involves trouble, the officials taking advantage of the special clause intended to meet exceptional cases, secure his speedy and convenient committal as a criminal. In the year 1879, 1277 patients were committed to Irish asylums as criminals, of whom probably not 2 per cent. had in any way broken the law, unless indeed insanity be itself regarded as a crime. The evils of such a system are sufficiently obvious. It brands as gaol-birds those who are merely the victims of disease; it produces agitation and alarm by entailing the interference of the police with those who regard them with repugnance and fear, and who are already probably nervous and apprehensive; and it deprives the medical officers of the asylum of that information which is so essential to successful treatment, for the police who convey the patients to the asylum as a rule know nothing of their previous history, and are at no pains to inquire. Surely in Ireland nothing should be done to obscure in the popular mind the distinction between crime and affliction, and yet this must be the effect of the method of dealing with lunatics that is now tolerated. Stringent orders should be at once issued securing a more faithful observance of the spirit of the Irish Lunacy Law.

NOTE ON THE APPLICATION OF THE ANTISEPTIC METHOD OF DRESSING TO CRANIO-CEREBRAL SURGERY.*

BY GERALD F. YEO, M.D., F.R.C.S.,
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THE object of this note is to give the results of experiments on the applicability of the antiseptic method of dressing to the brain and meninges, which were undertaken under the auspices of the Scientific Grants Committee of this Association.

The dangers which accompany operative procedure on the skull of man are too well known to require comment; and, in the lower animals, operations involving the meninges generally set up inflammation, which it is almost impossible to check.

The use of the trephine has been gradually falling into discredit since the beginning of this century, because the admission of air into the cranial cavity proved to be nearly as fatal as the irritation which the operation sought to remove.

As our knowledge of the important part played by septic agencies in exciting inflammation increases, and our power of excluding them from wounds becomes more perfect, there is every reason to hope that operations on the cranium may be stripped of their terror, and its serous cavity opened with impunity. The greater insight given to intracranial affections, by the localisation of cerebral functions, seems to suggest that surgical aid may be sought in many cases which have hitherto been looked upon as quite beyond its reach. Thus, M. Broca was able to localise the situation of an abscess in the brain, and give exit to the pus; and M. Lucas-Championnère, in an able work, shows how cerebral localisation may greatly help cranial surgery.

In performing these experiments, I had the great advantage of the advice and assistance of Dr. Ferrier, whose knowledge of the function of the cortical centres is so well known.

Assuming—what all who have experience in the matter must admit—that Lister's method, when accurately carried out, excludes the septic vicissitudes to which wounds are liable, the following questions remain to be determined.

First: Is the inflammation, which very constantly follows exposure of the cranial contents, caused by septic agencies? and is it prevented by their exclusion? Or, can we assign other causes for this inflammation, such as the so-called general infection?

Secondly: What is the effect of strong carbolic solution (1 in 20) on the meninges?

The uncomplicated cases, where antiseptic dressings were applied in man, are very few; and, in traumatic cases, so many complications exist, that it appears difficult to answer these questions from the experience gained from the human subject. Hence it appeared advisable to investigate the matter in the lower animals, where one might, at the same time, search for physiological truth. For this purpose, monkeys were chosen—being the animals which, in septic receptivity, as well as their behaviour under chloroform and operation, most resemble man. As far as possible, the animals were treated in the same way as human subjects.

The great difficulty of fixing the dressing was overcome by painting the outside layers of the gauze with flexible collodion. Finding nothing to lay hold of on the smooth surface, the animals soon became used to their cap, and, after the first day, hardly meddled with it.

Before the operation, the scalp was purified with strong (1 in 5) solution of absolute phenol in oil or glycerine. The spray was used in all but four cases, where it was omitted to see if it could be safely dispensed with, because it was difficult to prevent it cooling the animal. The edges of the wound were accurately brought together with sutures—horse-hair being found the best. It was found that the discharge was so slight that drainage was unnecessary, and in the later cases it was omitted. Protective, which was not used at first, was found absolutely necessary to prevent irritation of the edges of the wound. Several layers of loose gauze, damped in a solution of 1 in 40, were placed over the wound, and these were held in position by about twenty turns of a narrow gauze roller, and the entire enclosed in three or four caps of gauze painted with collodion. The trephine was used in all cases for opening the skull, and a small bone-forceps was then applied to shape the aperture to the required size.

In drawing conclusions as to the efficacy of any one method of treatment, its results should be compared with those of other methods. Unfortunately, no statistical comparison can be made in the present research, as there are no records of the clinical history of any complete set of experiments performed without antiseptic precautions. This

* Towards the expenses of this research, a grant was made by the British Medical Association, on the recommendation of the Scientific Grants Committee.

paucity of records of the results of operations on the brain depends on the fact that the animals generally die, or have to be killed, owing to the extensive inflammation.

Many methods of producing a lesion of the brain have been used; but all appear to cause extension of the injury, by setting up inflammation. In the former experiments of Dr. Ferrier, not one animal escaped intracranial inflammation and suppuration of the scalp (except those which died before these changes could take place), and only one recovered from the effects of these changes. As far as can be gathered from the descriptions of Luciani, Tamborini, and Munck, the animals operated on by them were generally attacked with encephalitis, which commonly necessitated their destruction.

Of our twenty-six cases, only seven deaths occurred from all causes; and, if we examine these, we find that four at least may be omitted, because they depended on causes other than the operation or the method of dressing. The intense cold of the winter session, 1879-80, may be blamed for the deaths of three of the animals; one of which survived the operation thirteen days without inflammation, and therefore may fairly be reckoned as a successful case, as far as the antiseptic method is concerned. One death may be assigned to chloroform. This cannot be wondered at, since it is necessary to keep the animals in a state of profound anæsthesia during the entire time of the operation; and, when the bone is being cut, respiration becomes very feeble, and often the respiratory movements cease, so as to make it necessary to suspend the operation, and resuscitate the animal. Of the remaining three fatal cases, one was caused by hæmorrhage six days after the operation. Here, also, as no trace of inflammation could be made out, we may claim the case as an antiseptic success. Another animal died from the shock of the operation, and one only from inflammation.

Hence, in fact, twenty-one of the animals lived long enough for the full development of inflammation. Of these, twenty were treated successfully with antiseptic dressings; and one animal removed the dressing, and had to be treated in an ordinary way (modified antiseptics). Among the cases treated antiseptically, there was not one case of inflammation; and, where this method could not be used, there was intense encephalitis. Or, if these numbers be reduced to a percentage, we find that 100 per cent., under antiseptic dressing, were cured without any inflammation of the meninges; and 100 per cent., without antiseptic dressing, died of acute encephalitis.

ON THE ETIOLOGY AND TREATMENT OF LACERATIONS OF THE CERVIX UTERI.

By MONTROSE A. PALLEN, M.D., LL.D.,
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THE acts of parturition ought to be so thoroughly and completely performed, that no ill effects should ensue, and the woman should rise from her lying-in couch, as perfect anatomically as when she went to her travail. That such is the design of nature, is witnessed in the numbers of women who bear children, without the sundering of a single fibre of the entire genital tract; and, from the vestibule to the internal os uteri, no traces of the labour are to be seen, sixty days after the delivery, with the exception, perhaps, of a slightly increased size in the rugæ of the vagina, and a greater diameter of the external os uteri.

Why so many women suffer from lacerations of the vulva, of the perinæum, and the cervix uteri, is a question worthy of our most serious consideration. I propose on this occasion to call attention to the etiology and lacerations of the cervix uteri.

The neck of the womb, in a large number of cases, is torn during parturition, either from causes residing in the pelvis, or in consequence of neglect or misuse of instruments upon the part of the accoucheur. Of about nine hundred patients treated in the Gynæcological Clinic at the University Medical College of New York during the past six years, more than two hundred had a certain amount of cervical laceration, which either interfered with the generative functions, or produced more or less positive disease. In the vast majority of these cases, the lesion was producing the gravest results; and, in all of them, there were marked symptoms of disorder, not only of the local pelvic regions, but throughout the general system also. This proportion may not be absolutely accurate with regard to all parturient women, more particularly of the better classes, whose financial status enables them to procure the skill and comforts which should be awarded all lying-in women; but it applies to the poorer and labouring classes, whose surroundings necessarily promote accident, in consequence of the ill-trained midwife, or the blundering of the impatient medical man, whose ignorance or neglect contributes largely to the promotion of those factors which enter into the etiology of laceration of the cervix uteri. Skilled obstetrics, based on common sense, and freed from the shackles of "authority", so called, may prevent the accident, as it should always facilitate the woman's complete return to physiological preparturient health. If the science and art of obstetrics were taught more philosophically and practically in all the schools, of both the Old and the New Worlds, and if "society" were instructed up to the point that the acts of maternity should be conducted only by the most learned and intelligent of surgeons and physicians, much could be done towards the prevention of ailments which frequently sap the integrity of the health, or which destroy the fecundity and family usefulness of many mothers subjected to unskilful midwifery, and a want of the due appreciation, upon the part alike of the family and of the medical man, of the supreme importance of the duties of the accoucheur. Lacerations of the cervix uteri are often prevented by facilitating labour and promoting a reasonably rapid delivery, so that certain conditions of the generative organs may be averted, presently to be described.

The causes promoting laceration are more frequently dependent upon slow tedious labours than one would suppose. In former years, I presumed the most active agent to be energetic uterine contraction, which drove the head through an undilated cervix; but a careful clinical study of numerous cases, where each successive stage of labour was noted with accuracy, as well as the histories of very many more, convinces me that retarded, tedious, and laborious labours, in fully 85 per cent., develop conditions which become undoubted factors in the production of the lesion.

The same conditions are not unfrequent causes of perineal laceration, and I have rarely seen a lacerated cervix without a certain amount of perineal rupture, although I frequently see the latter without the former. In rapid energetic contraction, where the placenta is implanted upon either side of the uterus, but which usually induces tedious labour, so as to diminish the force of the contraction at the site of the implantation, thereby awakening a sigmoid wave of expulsive force, one can understand how the effort of expulsion is diverted from the centre of the pelvic planes, with the formation of a folding of one of the cervical segments over the parietal boss. A rupture of tissue at that point ensues, because it is directly below the line of expulsive force, which should normally correspond with the lumen of the canal, and the centre of the external os; and undoubtedly the laceration begins in the cervical tissue to extend towards the os, whereas in those conditions of tedious, retarded, or laborious labour, the rent commences at the oral circumference, and travels upward towards the uterine texture. The majority of single lacerations occur on the left posterior cervical segment, at a point corresponding with the engagement of the fœtal bimastoid diameter, because of the very much greater frequency of the left occipito-anterior position of the fœtal cranial presentation.

Laceration of the right side of the cervix rarely occurs singly. I have seldom seen it unless coexisting with a certain amount of sundering of the left side also. In every hundred cases, as far as my observation extends, laceration on the left is found in about 80 per cent., bilaterally in 15 per cent., and on the right in 5 per cent.

We can readily understand the peculiar tendency to cervical sundering during a prolonged, tedious, or laborious gestation, when we take into consideration the fact that healthy speedy labour only occurs where all the normal factors of parturition exist. The cervix is especially liable to rupture, should, from any cause whatever, the symmetry of contraction be diverted into lines of expulsion, away from the centre of exit, and the head be driven anteriorly, laterally, or posteriorly, to form a capsule of the cervical segment, with production of perivascular ecchymoses, rupture of capillaries, œdema, and actual bruising of tissue. Undoubtedly, under these circumstances, the elasticity and distensibility of the cervix are impaired.

One of the most frequent causes of rupture is in the scleremic condition often following congestion or inflammation -the so-called hyperplasia cervicis—but which is in reality a result of the hyperplasia attendant upon preceding congestion and inflammation. The changes in the parts are actually shrinkage, atrophy, and induration of the connective tissue, with agglutination of the muscular striæ, rendering the whole substance hard, inelastic, and very friable. These conditions of the neck are among the most prolific in the production of tedious labour, as the os is very slow to dilate, and the uterus exhausts itself by repeated efforts towards expulsion. The jamming of the anterior segment of the cervix upon the pubis by futile uterine contractions bruises and congests the already inelastic non-distensible tissue, and further develops its already very great tendency to rupture.

The osseous structures may be too small, or the child's head too large; or deformities may exist, which, recognised too late, render the application of the forceps indispensable; and the dragging of the child

through a bruised and exhausted cervix necessarily produces tearing, the same taking place pending version and head-last delivery. Even when the channels of exit are normal, and the uterus has been inert in consequence of an excessive quantity of liquor amnii, whereby the contractions are lost, because diffused over too much surface, a failure of elasticity, a sort of paralysis, ensues; and, even if we disengage the head without accident, the shoulders are most certain to produce the tearing. Unless a skilled and wise accoucheur recognises the tendency to the development of these conditions, and, by a judicious and expert management of the labour, rapidly terminates it, we may safely say that the accident is almost unavoidable; yet, proper hydrostatic dilatation, followed by version or the forceps, may speedily finish the delivery before the paresis, œdema, or ecchymosis ensues, and the woman thereby saved serious injury. Should, unfortunately, the accident ensue, nothing short of surgical skill rescues her from certain future ill-health, or perhaps death from immediate hæmorrhage, or septic surgical fever—a true puerperal fever from absorption.

Such cases do not recover of themselves, notwithstanding that writers on obstetrics state that very little importance is to be attached to these fissures. They may exist for years without appreciable harm, yet in the end they become sources (however trivial originally) of erosions, of leucorrhœa, of reflex symptoms; and I have known them to be the cause of ultimate degeneration of tissue, and of the formation of epithelioma.

It is needless to say that the cervix is not unfrequently torn by the accoucheur's forceps, or by his hand, when rudely thrust in to make an *accouchement forcé*, or a version.

How is the accident to be recognised? Not positively, until the delivery is completed; yet, in very roomy pelves, it is to be suspected when a sudden bloody bathing of the child's head and the mother's vulva takes place. Hæmorrhage is the chief symptom. If the bleeding persist, which sometimes is quite sufficient to produce fatal results, we require the most painstaking efforts, not only to check it, but to discover whence issues all the blood. Given a hypothetical case, where the labour (either normal, tedious, or laborious) has been conducted to its termination, the uterus well contracted, the perinæum and the vestibule not torn (it should be an inexorable rule to assure ourselves by ocular inspection); and, after thoroughly cleansing the parts with carbolised tepid water, should the blood continue to well out of the vagina, the deduction necessarily ensues, that there must be a rupture somewhere below the thoroughly contracted uterine body, and above the intact vestibule and perinæum. The tactus eruditus soon reveals the vagina to be uninjured, and a sweep of the finger indicates the torn cervix. Should one be in doubt, there should be no hesitancy to place the woman in the semi-prone position, retract her perinæum with a Sims' speculum, cleanse the vagina of clots, and see the point whence issues the hæmorrhage. I always insist on this manœuvre, whatever may be the subsequent treatment, because no tampon can be well and thoroughly applied otherwise than by means of the Sims' speculum; and tamponing, in default of more radical treatment, is sometimes necessary to save our patient from imminent death; besides, it is always advisable to immediately staunch the blood. Under such circumstances, I have not hesitated on several occasions to stitch the rent with silver-wire sutures, for reasons presently to be described.

Just here, I may insist upon the fact that no accoucheur knows, before his patient is delivered, what complications may arise; therefore, no delivery should be attempted upon the part of the medical man, unless he is fully prepared to make any operation likely to arise in obstetrical surgery; and he should always have ready his obstetrical bag, containing not only the forceps, cranioclasts, blunt hooks, cephalotribes, etc., usually recommended by obstetrical writers, but he should have needles, silver-wire, bistouries, scissors, needle-holders, serre-fines, good sponges and sponge-holders, absorbent and styptic cotton, nitrite of amyl, ammonia, chloroform, ether, fluid extract of ergot fit for hypodermic use, a small electrical battery, and a stout wire *écraseur*. With these, he is prepared for any emergency; and they may be packed compactly in rather a medium-sized box, which is not very heavy, and which may be readily carried or put in one's carriage. For years past, I never think of visiting an obstetrical patient without it; and, whilst I seldom open the box, yet I believe I have saved some valuable lives by having it with me, which might have been lost had I been compelled to wait until the necessary instruments were sent for and brought.

When the laceration is positively diagnosed, I am convinced that the best treatment, based on thoroughly philosophic grounds, is to close the wound with silver-wire sutures. Primarily, we thereby check the hæmorrhage; and, secondarily, remove a serious cause of subsequent septicæmia. The torn edges being well fitted together, and the wires twisted sufficiently tight, no suppurative foci remain, as it may be safely said that union by primary adhesion will ensue, and no raw surfaces are left to absorb septic material from the lochial discharge, because it flows over the approximated torn edges—really healthy tissue; nor will they generate the poison of themselves. In addition, the woman utilises her period of lying-in to facilitate the union by her quiescence, and she is thereby saved a future operation, involving, possibly, months of suffering before it is discovered to be requisite, and a subsequent period of more suffering and danger during its performance. More than ten years have elapsed since first I stitched a severe laceration of this kind; and, in a monograph* on the Surgical Accidents of Parturition, I cited several successful results. Whenever this procedure can be performed, I should unhesitatingly recommend it in preference to tamponing, the only other method of arresting the sometimes frightful hæmorrhage. We have but to recall the anatomy of the vascular distributions around and in the cervix uteri, to appreciate the possibility of extreme results ensuing from their disruption.

If, from untoward circumstances, the obstetric surgeon be prevented from accurately sewing up the laceration, only because he has no instruments with him, and the gravity of the hæmorrhage demands it, he should tampon first with styptic cotton, saturated either with alum or the persulphate of iron, then pack the cervix with as many layers of carbolised cotton as he can place in the vagina. This tamponing must invariably be done by means of a Sims' speculum, with the woman in the semi-prone position, and each layer of cotton must be smoothly and accurately placed in position. The usual method of stuffing the vagina, with the patient on her back, is inefficient and painful, resulting in the wads of cotton or charpie very soon becoming rolled into irregular bloody balls, which are sources of irritation rather than smooth layers of compresses. So full must the vaginal canal be plugged, that it is requisite to catheterise the bladder, and sometimes to free the rectum of flatus, prior to the removal of the cotton. No effort at dislodgment of the tampon should be attempted under four or five days, and then with the most extreme care, lest we start the bleeding anew. Notwithstanding the necessities of the emergency which requires tamponing to stay the hæmorrhage, it is attended with dangers of a most serious character, as we lock up the lochia, and bathe the wound with that ichorous discharge, in addition to its own purulent exudation. Fever, in consequence of septic cervico-lymphangitis and cellulitis, is most probable, and fortunate we are if the patient do not succumb to a septicæmia or a metro-peritonitis. After the tampon has been removed (the patient being in the semi-prone position, and the perinæum retracted by the Sims' speculum during the removal), the wound should be irrigated with carbolised or thymolised water, at least every two hours for two or three days, and then every four hours for twelve more; until all possibility of sepsis has been removed by the development of the granulation-process. Even at this period, I see no reason why the edges of the wound should not be approximated by silver-wire sutures, in the strong hope of promoting union by bridging of granulations. I have seen this form of union ensue in the restorative operation (to be described further on), which had not resulted in primary adhesion, but which did close by the granulation-process, after eighteen or twenty days, either from tightening the wires, or in consequence of the passage of new and deeper sutures.

If, however, no silver sutures be used, we must particularly give our patient all the care possible to facilitate involution of the uterus, as fully 95 per cent. of lacerations of the neck are attended with subinvolution of the body of the womb; and in all there is more or less of cervical hypertrophy, because the fracture of the texture seems to paralyse the absorbents, and to arrest the metamorphosis of tissue necessary to a proper involution. These cares also should be directed towards the prevention of retroversion, which I have found to co-exist with cervical laceration in more than 80 per cent. of cases. The retroversion is produced primarily by gravitation from increased weight, the organ toppling backwards into the hollow of the sacrum, as it droops in the pelvic planes; secondarily, because the laceration destroys the symmetry of support given by the surrounding attachments and duplicates of the vagina; and, thirdly, the uterus is very frequently forced downwards and backwards, in consequence of the habit of bandaging the abdomen of every parturient woman.

When silver sutures are used, we may confidently expect union, and their removal is a matter of no special consequence, provided they be permitted to remain at least fifteen days. The wound ought to be examined from time to time, and, should a wire be loosened, it must be tightened. With regard to the application of these sutures, we should recollect that we have an exaggerated surface on which to operate, and

* "On the Surgical Accidents of Parturition", read before the Missouri State Medical Society, and subsequently (1874) published in the *Louisville and Richmond Medical Journal*.

that in the process of healing we must anticipate a marked degree of contraction; therefore, the wires are to be passed fully one-third to half an inch from the margin of the torn surfaces; and, when ready to be removed, they will be separated scarcely more than one line. As many sutures should be passed as are absolutely necessary to prevent any gaping of the wound—enough to insure a smooth surface, close and compact, whereon the lochia may flow without bathing any raw tissue whatever.

Irrigations of carbolised and thymolised tepid or hot water, as the case may require, must be made every few hours. In all cases of confinement, it is the practise now recognised by the obstetric surgeons of the New York Maternity Hospital to wash out the vagina immediately, and every six hours thereafter, with antiseptic, tepid, or hot water, and to continue to use the douche until the water returns colourless and clear. So in the cases after operative interference, exceeding great precaution is taken against septic developments. The result of this prophylaxis has been marvellous, as there was not one single death during the five months preceding July 1st, 1880, no tendency to puerperal epidemics, and but very few cases of high temperature in a hospital exclusively devoted to obstetrics, and constantly filled with the poorest and most abandoned of the population of New York, where about 1,200 deliveries take place during the year.

[*To be continued.*]

A CASE OF PROLONGED FASTING.

By JAMES DOUGAL, M.B.

CHRISTINA MARSHALL was born in the village of Chapelton, Lanarkshire, in the year 1867. While from her father she might have inherited a vigorous and robust constitution, by her mother she could fall heir at best to a system generally weakened, and probably specially tainted, from the fact that its development was coeval with that of pulmonary phthisis, which, six years later, deprived her of a maternal guardian. The family, of which she is the third youngest, consisted, when entire, of nine members. That number has been reduced by three deaths: one from scarlet fever and two from consumption. The remaining six, although by no means the hardiest, have not as yet shown any decided tendency to the development of the mother's fatal complaint; and, further, of those six our patient is decidedly the least strong. They have been provided for through the exertions of the father as a road surfaceman; and the result of the up-bringing has been comparatively favourable, alike mentally and bodily, in the case of Christina. As to her personal history, I am told that, when three years old, she was the subject of a rather peculiar ailment, which was shown chiefly in the development of a strong craving for sugar, and an equally strong aversion to all that had previously been her staple diet. This state of matters extended over three months, and, during this time, life was maintained by beef-tea. From the age of three onwards till last May, no incidents of her life are at present of much interest. She was often a little ill, seldom seriously; and her parents were never made cognisant of any distinct formation of tubercle in the lung or other organs. She had phlyctenular ophthalmia, which left much dimness of vision, and she was harassed with frequent and severe attacks of headache, probably gastric in their origin. Owing to these circumstances, her attendance at school was irregular; but the breaks were of short duration. She was an intelligent girl, was possessed of a disposition which was above the average in its liveliness, and was tempered with a quiet and becoming thoughtfulness, which at no time merited the term melancholy.

Exactly a year ago, she contracted a cold; and, this not seeming to leave her, I was asked to see her about the middle of July. I then found her suffering from bronchitis of a moderate type, and was led by the general symptoms and the local chest-examination to negative any idea of a phthisical element in the case. From this she recovered in the course of a week or ten days, to be immediately tortured with a headache, which has continued more or less ever since. During the autumn, she was able to be out a good deal, and, towards its end, a great change came over her disposition and general condition. She now seldom spoke, almost never except when questioned; and she uniformly maintained a sullen and morose cast of countenance. She became very averse to taking food, extremely constipated, and sleepless; and all those symptoms have since gone on more and more firmly establishing themselves as part of her existence. For some weeks previously to December, she went less out of doors; on the 20th, she went out for the last time, and then only for a few minutes; and, on January 8th last, she lay down on the bed, which she has never since quitted. Eighteen weeks ago, she took a small piece of fruit-cake, and, since then, her parents distinctly assert that no food of any kind has passed into her stomach, and that all their most earnest entreaties to get her to take food have resulted in failure. She takes water freely, and occasionally sweets; but of these only a few, and not by any means frequently; and, lastly, she herself distinctly asserts, when pressed to take nourishment, that she cannot swallow; she begins to cry, and becomes very excited. When deluded into taking a mouthful of water with a little milk in it, she instantly rejects it. When reminded that she will die, she answers that she has the inward feeling of approaching death, but that no efforts of hers are powerful enough to avert the sure though slowly approaching fate.

Present Condition.—Her body is very emaciated, but free from bedsores; the complexion is very sallow, the lips pale and dry, the tongue clean and dry. The throat is abnormally high in colour, dry, and the situation of a choking sensation. Pulse 82, regular, but very weak. On each cornea, there is an albugo. Headache is constant and severe. She has pain over the stomach and bowels, increased on pressure, and severe and continuous in character. The lungs are normal, if I except the slightest suspicion of dulness over the left apex. She has no cough; and the heart's sounds are normal, but the impulse very weak. She occasionally vomits a glairy mucus; and, while the effort entailed leaves much weakness, it gives a transient relief to the gastric pain. The urine is scanty, pale, and deposits some urates, but is free from albumen. The bowels have not been moved for eleven weeks; and previously to that the intervals were five and six weeks. Then the motions were dark, scanty, and very hard. She is quite unable to leave her bed, which is in a small room, and so situated that it is impossible for her to reach any of the food-stores. Her parents have now ceased offering her anything beyond the water and sweets. The only persons who see her are the father and stepmother who alternately sit overnight with her; a sister and brother, respectively eleven and eight years old, who reside in the house; and three older ones, who visit her at longish intervals. When I have named these, and added the clergyman and myself, I have given everyone who has any regular communication with the room.

I have now followed this case carefully from the earliest years of the girl's life up to the present time. I have put on paper the results of my inquiries amongst the attendants, and added thereto my own medical examination of the case. I can vouch for the truth of none of the statements made to me by others; but I may fitly close this rather mysterious record by saying that I have known the father and stepmother for six years, that they are in easy circumstances, that I believe the honesty and integrity of their characters to be above the faintest taint of suspicion, and that I have never, in all my connection with the district in which they reside, heard even the gentlest murmur of gossip pointing in the direction of latent channels of supply of food.

May 5th, 5 P.M. I have just had word from Scotland that the girl Marshall is gradually losing strength, but is quite conscious. There is no other important change.

A CASE OF REMOVAL OF THE UTERINE APPENDAGES.

By LAWSON TAIT, F.R.C.S.

So much interest is being expressed in the operation which has been termed "oöphorectomy", and there is so much of a disposition to prejudge it, that I desire briefly to describe one of my recent cases in which, like many others, my only regret is that, instead of temporising so long with the patient as I did, I did not press the only real remedy which the case admitted. I have reason to believe that many unfounded rumours are abroad, that those who have adopted a wide extension of abdominal section are operating in a reckless fashion. I can only say that in my own practice I think no evidence of this will be found, and the following case will prove much to the contrary.

Mrs. L., aged 34, was sent to me by Dr. McLintock of Church Stretton in September 1878. She had been married four and a half years, and had one child in 1875. Since her confinement, she had never been well, and had suffered from symptoms which clearly were those of subinvolution and retroflexion. She had profuse menstrual hæmorrhage; and, on consulting a physician in July 1878, she was told she had a tumour behind the womb, and that the womb must be dilated and the tumour removed. For this purpose, a sponge-tent was introduced, and left in, according to her reiterated statement, for nine days. She suffered from an attack of acute "inflammation of the bowels", and was in bed for seven weeks. This incident occurred, I am pleased to say, neither in Church Stretton nor in Birmingham. When she came to me on September 24th, 1878, she was in a

wretched state of exhaustion and emaciation. I found a mass on the right side of the uterus, which fluctuated indistinctly. The uterus was retroflexed, and fixed completely by perimetric effusion. I tapped the mass, and removed about four ounces of pus from what I now know was an abscess of the right ovary. She was much relieved, and returned to Church Stretton under Dr. McLintock's care, and slowly gained some strength. She never made anything like a recovery, however; and her medical attendant sent her back several times to me, and together we carried on a great variety of treatment without much benefit. The uterus remained fixed, and all efforts to replace it were so painful that she could not endure them. She could not bear intercourse; she never was a day without pain; and her life was fitly described as a burden to her and her relatives.

Dr. McLintock sent her down to me again at the end of last February, and in his letter he told me he was sure something more must be done if our patient's life was to be saved. I found that the mass on the right of the uterus was just as I had left it; that the uterus was still fixed and retroflexed; that there was now a more clearly defined mass to the left of the uterus; and that the whole roof of the pelvis was exquisitely tender to touch. Her temperature went up at night, and she had night-sweats; and, though I could feel no fluctuation, I had no doubt there was pus somewhere. I therefore advised and performed an exploratory incision on the 6th of March. I found the pelvis roofed over by adherent coils of intestine, which I lifted with much trouble. Below these, the whole of the organs were matted together, and their identification was a matter of the greatest difficulty. Finally, I succeeded in recognising the right Fallopian tube, distended into a cyst, with greatly thickened walls, and full of pus. Below it, and intimately adherent to it, lay the ovary, as large as an orange, and containing some old cheesy matter—the remains, probably, of the abscess I had tapped two years and a half before. The uterus was bound down in the *cul-de-sac* by old adhesions, and from these I relieved it. I found the left ovary adherent below the fundus; and from it the left Fallopian tube ran a circuitous course, like a sausage in appearance, and adherent to the brim of the pelvis, the uterus, and a piece of small intestine. It contained about two ounces of pus. I removed both ovaries and both tubes, cutting the latter off close to their uterine attachments. The hæmorrhage during the operation was very troublesome, but was controlled by sponge-pressure. Mr. J. Raffles Harmar assisted me, and Mr. Wright Wilson gave ether.

The patient has recovered without a bad symptom, and is perfectly free from pain for the first time since the incident of the sponge-tent. The uterus is (to-day) perfectly free, and any movement of it gives her no pain. My only regret about this case is, that I did not operate two years ago.

CLINICAL MEMORANDA.

FROTHING URINE.

Dr. Southey, in his valuable Lumleian Lectures on Bright's Disease, has quoted the aphorism of Hippocrates, to the effect that "Bubbles maintained upon the top of the urine signify a disease of the reins, and likewise its long continuance"; a fact, Dr. Southey remarks, which remained "unimportant until the end of the last century, when it was ascertained that albuminous urine held a froth of bubbles on its surface".

That the persistent presence of air-bubbles on the surface of urine may be noted in most cases of albuminuria is undoubted; but, since the same condition occurs in a variety of other cases, it cannot be relied on as a test of the presence of albumen in urine; and, when so interpreted, it will in many cases prove misleading, and give rise to unnecessary alarm. I have frequently met with urines which have retained a froth on their surface, from the moment of being passed, for twelve and even twenty-four hours, and which have not contained a trace of albumen. I have at the present time two such cases under my care in this town (San Remo); the one of diabetes, and the other of dyspepsia. The froth in the diabetic case is certainly not due to decomposition of the sugar, since the froth forms upon it immediately it is voided; while the only noticeable features in the second case are, that the urine contains an excess of earthy phosphates, and its acidity is below the normal standard. I believe that the occurrence of retained and persistent air-bubbles on the surface of urine is nearly always of pathological significance; and that their presence, when rightly understood, is capable of affording valuable practical information, although, so far as I am aware, the subject has not hitherto been followed out with the requisite care and minuteness. In some cases, the frothing appears to be connected with the high density of the urine; in others, with its feeble acidity or alkalinity; and again, in others, with an excess of mucus.

Arthur Hill Hassall, M.D., San Remo.

THERAPEUTIC MEMORANDA.

ON THE TREATMENT OF IMPETIGO LARVALIS BY POWDER OF IODOFORM.

Although iodoform has long been used with advantage in the treatment of ulcers of various kinds—more especially syphilitic ulcers—I am not aware that it has been employed in any other kind of chronic skin-disease. The idea, however, happened to occur to me to employ it in impetigo larvalis; by which name I mean the mattery yellow-scabbed patches which occur on the faces of children and young adults. I was led to this idea by noting that the raw surfaces concealed by the scabs of impetigo have, although they are not ulcers, certain points in common with that class of ulcers which iodoform is specially successful in healing; namely, that they present a sodden false-membrane-like surface, which discharges copiously a milky pus, and that this surface has to be succeeded by a florid clean raw-beef-like surface before healing. My experiments have been conducted by removing the scabs and drying the sores with rags, and then dusting them over with a mixture of iodoform (in very fine powder) and of starch-powder in equal parts; and then, as the surface improves, I use iodoform powder undiluted. Very rapid improvement takes place under this treatment. The mere dusting over of the raw surfaces with the powder does not of itself suffice; since, if that alone be done, the surface speedily dries up again: that is to say, a thin hard dry scab is immediately formed, and this cracks, and so produces an uncomfortable tense condition of the surface, which is not only extremely irksome to the patient, but also highly unfavourable to rapid healing. I accordingly, in my earlier experiments, coated the powdered-over surface with a film of almond oil, laid lightly on with a camel-hair brush; but this plan, which succeeds very well in the case of ulcers, does not agree equally well with the excoriations of impetigo. What I find to agree very much better than the oil, is a film of glycerine, under which healing takes place much more rapidly. The conditions that have to be observed are these. 1. The scabs are to be softened by bathing them with warm soap and water, and then completely detached and removed, and thereupon the raw surface is to be gently dabbed dry. 2. The iodoform is to be in very fine powder, and freely dusted on. 3. A layer of glycerine is to be lightly laid over it. 4. The process should be repeated, if possible, every two hours by the patient himself; or, if a child, by its nurse. Under these conditions the disease—in many instances, within a day or two—exhibits a very remarkable improvement, and speedily becomes healed. A moderate dilution of the iodoform, with starch-powder, will render it quite a comfortable application in cases where it would otherwise cause irritation.

Balmanno Squire, M.B.Lond., Surgeon to the British Hospital for Diseases of the Skin.

OBSTETRIC MEMORANDA.

THE FORCEPS IN MIDWIFERY.

Dr. Roper records in the Journal for April 23rd, two sets of midwifery cases, giving in each the relative frequency of use of the forceps and the mortality to mothers and children. I presume that he concludes these cases to be unfavourable to the frequent use of forceps. His tables to me seem to prove exactly the opposite. The maternal death-rate could not have been affected by the use of forceps, as two deaths recorded occurred in women who were not delivered by forceps. As regards the children, there are in the first table, two premature and non-viable and six decomposing and also non-viable, which ought clearly to be excluded from the list in calculating the death-rate, as their deaths could not in any way be attributed to the use or non-use of forceps. This leaves only six fœtal deaths which could have been influenced by using forceps, or a death-rate of 1 in 66. In the second table, there were three decomposing, and two premature and non-viable children to be deducted from the list, leaving thirteen, or a death-rate of about 1 in 34. The fœtal death-rate is, therefore, clearly favourable to the frequent use of forceps. There appears to have been only one fœtal death in each set, with a forcep delivery, so that really the two series are equal in that respect. The frequent use of forceps in my experience not only lessens the maternal and fœtal death-rates, but shortens the period of recovery by preventing flooding and exhaustion.

A. Hamilton, F.R.C.S.Ed.

16, Whitefriars, Chester, April 28th, 1881.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MAY 3RD, 1881.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

Molluscum Contagiosum and its Affinities.—Dr. B. G. MORRISON communicated some observations made, conjointly with his brother, Dr. Alexander Morrison, upon the pathology of molluscum contagiosum. He had reported cases at a previous meeting, and expressed an opinion that the tumours were hypertrophied sebaceous glands; but he thought now that other structures besides these might be involved, and believed that the glandular theory of their origin was not absolutely correct. His observations were made from specimens obtained from the buttocks of a female child, aged 3 years. On each buttock, there were eight or ten tumours, presenting the central dimple and other characteristics of molluscum contagiosum. The covering of each tumour consisted of epithelium only, and the whole body was epithelial, and presented, coarsely, a gland-like structure. The hair-follicles and skin of the perinæum, near the anus, were examined in an adult, with the view of instituting comparisons. The normal hair-follicle and sebaceous gland were to be regarded as continuous structures, considered in their relation to their development. In the skin of the perinæum, he found also crypts lined with epithelium—atrophied hair-follicles—some of which still retained the atrophied fragment of the hair. Ingrowing processes from the rete mucosum were also to be seen—hair-follicles in process of development. In the external auditory meatus, the sebaceous appendages of the hair-follicles were greatly developed; so that these glands, after shedding of the hair, much resembled the tumours of molluscum. The sebaceous glands were constructed most externally by cells derived from the rete mucosum, and within these, by squamous-looking cells, whilst centrally the cells held sebum, and might give rise to considerable spaces from degenerative destruction. The periplastic material formed a complete reticulum, supporting and connecting the several structures. In molluscum contagiosum, the epithelial tissue was that alone concerned. The periphery of the tumour-substance was formed of cells like those of the rete mucosum, but a large number of these were vacuolated, and these last cells formed the "molluscous bodies", so named by Dr. Tilbury Fox. The vacuolated elements were more spherical and much larger than the others, and their size increased towards the centre of the tumour, which was constituted by irregular, distinctly walled spaces, holding a homogeneous hyaline-like material. The periplast peripherally encased the cells, whilst more centrally it increased in amount, and most internally formed distinct fibrous-looking septa, which might in parts disappear after degeneration. The essential pathology of molluscum contagiosum, therefore, he considered, was an epithelial overgrowth, conjoined with sebaceous degeneration. No kind of fungus was discoverable in connection with the growths. The horizontal rete mucosum might be uniformly hypertrophied in the disease, but this formed no essential part of the changes; and the disease originated in overgrowth commencing from hair-follicles (obsolete or not), or from sebaceous glands, or the crypt-like processes of epithelium, such as occurred in normal skin. From the degeneration of the more central portion of the overgrowth, resulted the fatty or wax-like material of the tumour. In this view, no special kind of irritation was needed to occasion the disease.—Dr. CROCKER remarked that the specimens examined by Dr. Morrison exhibited an advanced stage of the disease, and that the earliest changes, as seen by Sangster, Thin, and himself, consisted, not in a discoverable epithelial hypertrophy, but in the "molluscous change" of some among the upper of the cells of the rete. In some of the hair-follicles, also, similar molluscous elements could be seen, independently of other change. A foreign observer had shown that the new material was not sebum or amyloid substance.—Dr. MORRISON replied, that such a change as that spoken of by Dr. Crocker was in no way peculiar to molluscum, but common in all cases of epithelial ingrowth. In the ordinary kinds of wart, such a vacuolation of the epithelial cells, and the production within them of such a hyaline substance, was readily observable.

Abscess of the Liver in Dysentery.—Sir JOSEPH FAYRER exhibited two specimens of hepatic abscess. The disease in both cases was contracted in India. In one case, the abscess was multiple, pyæmic as he thought; in the other, it was single. The first occurred in a Hindoo, aged 24, who was attacked with diarrhœa, culminating in dysentery; the temperature varied between 100°, 102°; and the patient passed many dark sloughs. He died in the Calcutta Hospital. At the necropsy, the small intestine was found thin and translucent; the transverse colon adhered by recent lymph to the liver, and the liver to the diaphragm. The liver was of about normal size, and honeycombed with abscesses, varying from the size of a hazel-nut to a hen's egg, the abscesses being distinctly circumscribed. The mesenteric glands were not diseased. Sir Joseph Fayrer thought that such a condition of multiple abscess resulted from circumscribed necrosis of the hepatic substance, the formation of pus being consequent upon this.—The second case which he reported was that of an officer, aged 45, who came to England after contracting dysentery in India, with high fever. Fluctuation was obtainable posteriorly between the eighth and ninth ribs. The abscess was freely incised between the ninth and tenth ribs, and a pint of thick pus evacuated, the cavity being afterwards drained with a tube. After the incision, the edge of the tenth rib was found to be necrosed. Sir Joseph Fayrer remarked that such necrosis of the ribs was not uncommon in those cases where the hepatic abscess pointed posteriorly. The temperature rapidly fell to 99°, but the patient, though doing well for a few days, ultimately died. After death, the diaphragm was found adherent to both the liver and corresponding lung; the liver was fatty, and the abscess, which had remarkably contracted, was lined with shreddy half-purulent lymph. The transverse colon was much atrophied, but not ulcerated. In the ileum, above the ileo-cæcal valve, the epithelium was superficially desquamated; and there was trifling ulceration of the rectum. The pulmonary artery contained a fibrinous coagulum.—Dr. DICKINSON related the case of a man, aged 34, of good health, who was attacked with abdominal pain a few hours after partaking of some raw mussels; at the same time, he had been exposed to cold. Diarrhœa set in within a short time, and continued, in spite of all treatment, for six weeks, at the end of which time the patient died. The evacuations were fluid, mottled with blood, but not characteristic of dysentery. Typhoid was excluded in the diagnosis. A fulness was palpable on the right side, but the liver was not definitely enlarged. After death, the large intestine was found to present the characteristic ulceration of dysentery, the mucous membrane between the ulcers forming tumid lumps. There was a single large abscess in the back of the right lobe of the liver, which held about four ounces of pus. There was right pleurisy, not purulent. This patient had never been in the tropics. Dr. Dickinson was inclined to consider the hepatic abscess in dysentery as due to the absorption of irritating material from the intestine, as Dr. George Budd had taught. It was possible that the poison of dysentery was different from that of pyæmia; and a hepatitis might still be due to absorption in dysentery, yet not be pyæmic. Dr. Murchison believed that the single large abscess of the liver was not necessarily associated with dysentery. Dr. Waring had shown that, in Madras, 72 per cent. of the cases of hepatic abscess were associated with dysentery, which pointed to a causal relation. Again, as in a case which fell under Dr. Dickinson's care in St. George's Hospital in 1852, and was reported in the Society's *Transactions*, the dysenteric affection of the intestine may have healed, whilst the abscess in the liver remained.—Dr. WILKS remarked that hepatic abscess was usually associated with dysentery; he would ask Sir Joseph Fayrer whether it might not occur independently of dysentery.—Sir JOSEPH FAYRER agreed with what Dr. Dickinson had said. He was of belief that abscess of the liver might result from intestinal ulceration, and that, in such cases, it was most frequently multiple, but it might be single; and again, that abscesses of the liver were often not connected with dysentery. The multiple hepatic abscess in dysentery he held to result from circumscribed necrosis of portions of the liver-substance.—Dr. LONGHURST was in accord with Sir Joseph Fayrer. He believed that single abscess of the liver, though often associated with dysentery, was not dysenteric; but the multiple abscess was more frequently so associated. Amongst the native population of India, dysentery was less frequently associated with hepatic abscess, a result probably of a more moderate mode of living. In Turkey and the Crimea, though dysentery was rife, but very few cases of hepatic abscess occurred. In England, dysentery was rarely associated with abscess of the liver.—Dr. NORMAN MOORE remarked that hepatic abscess was almost unknown in England except as a consequence of hydatids; and nearly all cases of hepatic abscess other than those were associated with English dysentery. He remembered a case like that related by Dr. Dickinson; in another, a single hepatic abscess occurred in a man in whom a sinus had long existed in one leg; the leg was amputated, and the stump progressed favourably. The patient died of pulmonary disease. He would connect the hepatic abscess with the sinus.—Mr. ALBAN DORAN observed of the specimen of multiple hepatic abscess brought forward by Sir Joseph Fayrer, that the liver presented distinctly circumscribed areas of necrosed tissue, some of which were not surrounded by pus, but circumscribed by not obviously altered liver-substance.—Dr. TAYLOR recited a case of ulceration of the rectum and bladder from the presence of a dermoid cyst of the ovary, associated with abscess of the liver. The patient had, in addition, a psoas abscess.—Dr. DAY

remarked that hepatic abscess might follow ovariotomy, as part of a general pyæmic condition.—Dr. SAMUEL WEST related a case of hepatic abscess, which followed a large meal of irritant food, and discharged itself naturally, no diarrhœa or dysenteric symptoms being at any time present.—Dr. O'CONNOR related the case of a drunkard, in whom a large abscess of the liver was successfully punctured, there being no diarrhœa or dysentery at any time in the history.

External Hydrocephalus.—Dr. W. EDMUNDS showed the brain from an idiotic child aged 2 years, who died in convulsions. On removing the skull-cap, eight ounces of fluid escaped. The ventricles were distended; the optic thalami were small and shrunken; the optic nerves showed some inflammatory change. Mr. Nettleship found, during life, some pallor of the disc; the pupils acted to light. In answer to Dr. Wilks, he did not think the effusion to be secondary on atrophy of the brain, but *vice versâ*.—Dr. HALE WHITE referred to cases of hydrocephalus in which there was a distinct hereditary history. In some of these, the cranial bones were prematurely united, contrary to the general opinion.—Dr. WILKS remarked that the large head of hydrocephalus was always due to fluid in the ventricles. In Dr. Edmunds' case, the head was not unnaturally large, and no true hydrocephalus existed.

Sarcoma of the Kidney.—Dr. ABERCROMBIE brought forward a case of small round-celled sarcoma, affecting both kidneys, in a child aged 20 months, which came under care for an enlargement of the spleen. There was found, after death, a small button-like purple growth, and the hilus of each kidney, and growths also in the kidneys. No growths existed in other organs.

Spontaneous Disintegration of Vesical Calculi.—Dr. ORD showed this specimen, which was the sixth of the kind that he had exhibited before the Society. He was allowed to do so by the kindness of Mr. Thomas Smith of St. Bartholomew's Hospital, who had sent him the calculi for examination. The fragments, weighing over three ounces, represented a large number of pisiform calculi, and had been removed from a man aged 69, by Mr. Thomas Smith. Their removal was effected at two sittings, by means of Bigelow's apparatus, some of the pieces having been crushed on the second occasion. The fracture, however, of most of them had evidently occurred before, the broken surfaces and edges being smoothed by friction, and covered by new deposit. The calculi were mainly composed of uric acid. They appear to have fallen to pieces from without inward, not to have disrupted from within. Their disintegration appeared to be due partly to their feeble cohesion and their pliability, partly to the presence of a minute fungus, closely allied to, if not identical with, *penicillium glaucum*.

Aneurysm of Cerebral Arteries.—Dr. ORD showed these aneurysms. One was on the anterior communicating artery of the circle of Willis, one on a branch of the right middle cerebral, one on a branch of the right anterior cerebral. The first two were of the size of large peas, the third very small. The basilar and other large arteries were marked with transverse rings of calcareous degeneration; there were no minute aneurysms in the finer arteries. The subject was a woman, aged 50, who was suddenly seized with apoplexy, and died in a few hours, after two attacks of convulsions. The cause of death was rupture of the aneurysm of the anterior communicating artery, with extravasation over the surface of the hemispheres beneath the arachnoid. There was no affection of the valves of the heart; but advanced granular contracted kidney.

Colloid Cancer of the Spleen.—The specimen, also shown by Dr. ORD, was obtained from the body of a man, aged 35, who had enormous colloid cancer of the parietal peritoneum and omentum. The colloid invested the liver and stomach, but did not invade their tissues; the coats of the intestine were not affected, but the spleen was invested and invaded by the colloid, so that little of its proper tissue was left. The colloid had also projected in a hernia-like fashion at the umbilicus, and through other parts of the abdominal wall, displacing the muscles without invading them. Colloid invading the spleen was so rare, that Dr. Ord thought it right to exhibit the specimen. Two cases had been described in the *Transactions* of the Society; one by Sir William Jenner and Dr. Quain, the other by Dr. O'Connor. A third had been reported by Dr. Schweninger, in 1876.

Intussusception.—Dr. TURNER recounted a case of intussusception in a child, suffering under valvular disease of the heart. A typical tumour was felt in the region of the transverse colon, and there were the ordinary symptoms of the disease. Water was injected on four succeeding days into the rectum, with partial success. In consultation with Mr. Hutchinson, no operation was thought advisable. Motions of a scybalous kind were passed, but the child died ultimately of peritonitis. At the *post mortem* examination, the tumour was found in the right iliac region, one inch and a half long, and about the size of a hen's egg. There was no extravasation of fæces; the intestine ruptured on manipulation. The terminal portion of the ileum projected through the ileo-cæcal valve, and the cæcum was extensively ulcerated. Dr. Turner did not think the ulceration was due to the attempts at reduction; in that case, it was the peritoneal surface which first suffered. It was probably due to irritation occasioned by the intussusception itself; and he noticed that Dr. Aitken referred to cases in which the including intestine was perforated.

Sarcoma of the Capsule of the Kidney in a Child.—Dr. DAY related the case of a child, aged 4 years, admitted into the Samaritan Hospital under Mr. Knowsley Thornton for supposed ovarian disease. On puncture, the tumour was found to be solid. The child died within a month after admission. The tumour, which was of remarkably rapid growth, was absolutely confined to the capsule of the kidney, extended to the second right rib, and nearly filled the abdomen; the liver and heart were much displaced. The tumour was of two months' growth. There was complete freedom from pain. Sections of the tumour were shown.—Mr. DORAN remarked that the tumour was a mixed spindle-celled and round-celled sarcoma. Under its capsule was a layer of small round cells, like some in its deeper part, probably lymphoid in nature.

Specimens shown by card:

Mr. SHATTOCK: Atresia of the Aortic Aperture in a child three weeks old.

Dr. ABERCROMBIE: Congenital Cyst in the Larynx: a small tense cyst rather larger than a hemp-seed, arising from the crico-thyroid membrane in the middle line.

Dr. ABERCROMBIE: A specimen of Disease of the Right Shoulder and Right Hip-joints in an infant thirteen months old.

Dr. SAMUEL WEST: Acute Fatty Degeneration of the Heart; a Sequel of Rheumatic Myocarditis.

Mr. SYMONDS: Epithelioma arising in connection with an old Ulcer of the Leg, and extensively invading the Tibia; from a man aged 62.

CLINICAL SOCIETY OF LONDON.

FRIDAY, APRIL 22ND, 1881.

T. SMITH, F.R.C.S., Vice-President, in the Chair.

A Case of Cross-legged Progression.—Mr. W. J. TYSON (Folkestone) read notes of this case. J. W., aged 67, a wagoner for many years, at the age of 14 fell on a barn-floor and injured the right leg; this accident kept him in bed for four months. From this time he could never go astride a horse, and always walked lame. Sixteen years ago, he began to have difficulty in keeping up with his horses, his legs becoming more and more approximated; the last fifteen months, he had walked cross-legged. This latter position was maintained day and night. With some force, the legs could be unlocked and brought parallel, but not without causing pain. There was only the slightest movement in each hip-joint; the surrounding bone appeared thickened. When he arose in the morning, or when he started to walk, a crackling noise was distinctly heard. Both extremities were extremely adducted and everted, the heels far apart, and the toes close together; the legs crossed one another just above the knee-joint, the right being in front. The hip-joints were the only joints at all affected in the body; both knee-joints could be fully flexed, but these were scarcely moved except in sitting or lying down. He could walk with two sticks very slowly and for a short distance, but he nearly always used two crutches. In commencing to walk, the crutches were first placed forwards, and then the body was thrown on to them; the lower part of the spine appearing to take—as, in fact, it really did take—the place of the hip-joints, there being hardly any movement in hip or knee on either side; the body was thus raised by the crutches and swung forwards. The absence of knee-movement in progression constituted a difference between the present case and those exhibited by Mr. Lucas, in one of which the knee-movement was considerable. The following description best explained the cross position of the limbs. In the original accident, some injury to the right hip-joint occurred; and, during its repair, adduction of the right leg took place; this condition then would naturally account for the difficulty he had, as soon as he was able to move about, of sitting across a horse's back. The right hip became ankylosed; and, as time went on and the right leg became more adducted, there was a tendency for the left one to pass across to the right side in order to maintain equilibrium; and as movement in the left hip became less, so ankylosis would gradually come on here, and thus, after a time, both hips would become fixed; the movements lost in these joints being supplied to a great extent by a complementary movement occurring in the lower part of the spine. The cause of the cross position of the legs was discussed when Mr. Lucas brought forward his two original cases before the Society on the 22nd October of last year, but more fully by him

subsequently in a paper to the *Lancet* in the following December. The three theories mentioned in Mr. Lucas's latter communication were called (1) the adduction, (2) the gravitation, and (3) the optional, where the leg on the same side of the injured hip was thrown on the limb of the opposite side for the purpose of rest and relief of pain. It seemed to Mr. Tyson that adduction of the limb must be the commencement of all these cases, it making no difference whether the adduction were at first produced optionally, or whether it came on in the course of the hip-joint disease; and, providing that the limb was sufficiently and permanently adducted, so as to interfere materially with progression, the other leg would naturally be passed across its fellow to keep the body in the erect position, and also as the easiest way for walking. In the commencement of these cases, there was probably the usual inversion accompanying the adduction; but, as soon as the patient attempted to walk, this was slowly changed into eversion, as the latter position allowed greater scope for the movements of the knees and ankles.—Mr. C. LUCAS said he had heard of two cases of this kind since last October—one at Brighton, the other at Tunbridge Wells. The condition was a rare one, and should be regarded as a sequence of double hip-joint disease. The original disease might be one of several different forms. Thus, of his own patients, one was a man in whom osteo-arthritis, and the other a boy, in whom pulpy disease of the joint initiated the pathological changes producing the cross-legged state.—Mr. HOWARD MARSH remarked that the position these patients assumed was one of adduction and fixation of both limbs. This state could not follow adduction of a single limb, else there would occur instances without number in cases of advanced hip-joint disease. He did not think ankylosis of the joint succeeded to adduction.—Mr. SMITH asked if there had been cracking in both joints; and, in reply, Mr. TYSON said it had been made out in one only.—Mr. SMITH continued, that adduction was a common consequence of advanced hip-joint disease, but that it did not lead on to the condition of cross-leggedness, which, moreover, could only be imagined as due to diseased condition of both sides at once. Mr. Lucas's patients could walk alone to some extent; but Mr. Tyson's case was quite unable to move without crutches.—Dr. WILTSHIRE suggested a neurosal origin for the condition. A patient of his own, having been struck on the hand by a cab-door, became subsequently the subject of ascending neuritis, the hand swelling only a little.—Mr. LUCAS wished to know if Dr. Wiltshire's patient progressed cross-legwise.—Mr. TYSON said the original accident inducing the disease happened so long ago that he had been unable to gather more than a doubtful account of it. Ankylosis of the right hip-joint supervened on the injury. He agreed that the rare occurrence of these cases was explained by the fact that, in ordinary disease, adduction was only partial. The subject of his paper had been cross-legged for fifteen months only; in him, all movement was from the lower part of the spine, the knees remaining fixed.

Excision of the Tongue.—Mr. W. STOKES (Dublin) read a paper on a case. The author commenced by alluding to the change that surgical opinion had lately undergone in reference to the merits of excision of the tongue, and mentioned the views of Professor Gross and Mr. Collis on this subject. The particulars of six cases in which the author had excised the tongue were then briefly stated, in which relief from suffering caused by enlargement of the tongue, from difficulty of deglutition and articulation, from discharge, and from pain, was obtained in all as an immediate result of this operation. In two of the cases, a considerable time—twenty-two months and eighteen months—elapsed without any recurrence of the disease; in two others, three months and four months elapsed; in one, the patient was lost sight of immediately after the wound healed; and in only one of the cases was an almost immediate return of the disease observable. The performance of the operation at an early period of the development of this disease, if possible, before glandular complication, was strongly advocated; and Sir J. Paget's views were stated as regarded the small risk attending the operation. The question of unilateral or bilateral ablation was then discussed, and the advantages of the latter pointed out. The question of what was the safest and best method of excision was then considered, as well as the two special dangers of the operation—hæmorrhage and septic complications. The author observed that removal of the tongue by a cutting operation was not only more liable to be followed by hæmorrhage, but also by septic infection, the outcome of which latter was, in a large number of cases, either pulmonary gangrene or septic pneumonia. These were not observable at all to the same extent in the cases operated on by the écraseur. In proof of this, the statistics of Dr. Schläffer and Mr. Collis were considered, in the former of which it was found that the percentage of mortality from septic causes in the cases operated on by incision reached the startling figure of sixty, and in those of Mr. Collis sixty-one. Mr. Barker's cases were also alluded to; but the number of cases (three) operated on by incision, in which there were no septic consequences, was not considered sufficiently large to materially affect the conclusion arrived at. The disadvantages of certain of the écraseur operations were then pointed out, and the author concluded by describing the method of operating he preferred. He commenced by transfixing the cheek at a point corresponding to the last molar of the lower jaw, and made an incision downwards and forwards towards the angle of the mouth, terminating a few lines above it. All bleeding vessels being secured and the parts retracted, a ligature was passed through the tip of the tongue, to facilitate the drawing forwards of the organ by an assistant. This being done, a straight Liston's needle, armed with a double strand of carbolised silk, was passed through the base of the tongue, at a point behind the foramen cæcum. In front of this, the chain of an écraseur was passed around the tongue, and the organ gradually severed. This part of the operation was done very slowly, taking from thirty-five to forty-five minutes. The author never witnessed in any of his cases any secondary hæmorrhage, immediate or remote. The wound in the cheek was then brought together by a few points of interrupted suture. The free ends of the strand of silk, passed through the base of the tongue, were then fastened temporarily by adhesive plaister to the side of the cheek or forehead. The double thread, which, in the event of secondary hæmorrhage or retraction, would be of much assistance in enabling the surgeon to draw forwards the base of the tongue and secure the bleeding vessels, was removed usually on the third or fourth day after the operation. The author believed that, by the use of the écraseur employed in the manner he described, coupled with antiseptic measures during the healing of the wound, the operation was attended with little pain, with the minimum of risk as regarded either primary or secondary hæmorrhage, or those septic troubles which after all cutting operations were so fruitful a means of raising the mortality attending this important operation.—Mr. HEATH believed that younger surgeons were more inclined than Mr. Stokes seemed to imagine to perform this operation, judging from the frequency with which it had been recently attempted. He wished to correct the statement attributed to him, that he had witnessed extensive regeneration of the tongue, by adding that the organ had been less completely removed than he was reported to have said. On reference to notes, he found the real amount to be "more than half". He had discarded the galvanic in favour of the wire écraseur, on account of the bleeding which succeeded when the former instrument was employed. He had never had occasion to incise the cheek in this operation, finding the curve of the écraseur sufficient help in guiding its course. He advocated the unilateral operation, because, as Mr. Morrant Baker had pointed out, it afforded means of free examination.—Mr. M. BAKER said he preferred the unilateral operation, when that procedure enabled all the diseased tissue to be removed. He was surprised that Mr. Heath had found no need of opening the cheek. He thought that external disfigurement should not influence treatment in so grave a disease. The apparent new growth from stumps left after excision, he believed to be due to the fact, that the tongue could be brought forward to the incisor teeth as far as the foramen cæcum. When, as in a patient of Mr. Gant's, the tongue was more completely and wholly removed, articulation was almost impossible. Tracheotomy, he thought, was not often called for. Recently, he had assisted in a case when it was performed on account of hæmorrhage; the urgent symptoms were relieved, but soon trouble again arose from the presence of blood in the trachea. The pharynx should be well plugged to prevent blood from running into the trachea after tracheotomy.—Mr. MACCORMAC inquired by what means Dr. Stokes had removed the diseased glands from his patient. The success of the operation, he considered, depended largely on the completeness with which all diseased tissue was removed.—Mr. BARKER enumerated thirty-four cases of excision of the tongue, performed at University College Hospital, between 1871 and 1879. Fifty-one cases of epithelioma of the tongue presented themselves, but only thirty-four were operated on. Of this number, eleven died from the consequences following operation; five deaths were from septic pneumonia, two from septicæmia, one from œdema glottidis. The galvanic écraseur was employed in twenty-three instances, and of these patients nine died. The wire écraseur was used in seven cases, with one death, due to pyæmia. The knife was the agent of excision in three cases, with one death. The galvanic écraseur, in consequence of these results, had been abandoned in favour of the wire instrument, with the effect of steadily reducing the mortality from operation. Mr. Barker said he had operated in all the ways described, but preferred to split the root, controlling hæmorrhage by forward pressure from behind by the finger on the lingual artery. He considered the danger of septic poisoning was less after a cutting operation than a crushing one, and he defended the prophylactic employment of tracheotomy. He had found no difficulty in plugging the pharynx with sponge in these cases.—Dr. DOUGLAS POWELL suggested that Mr. Barker had unintentionally exaggerated the

deaths from septic influences. Had any other organs, in these cases, shown traces of infection? Septicæmia, he urged, was a blood-disease, in which various organs were affected. Plugging, in the way described, would do much to prevent the occurrence of septic conditions.—Mr. M. BAKER said he could endorse the statement made by Mr. Barker, as to the ease with which the lingual artery could be controlled.—Mr. T. SMITH inquired how the wire had been applied round the tongue, since there was no account, in the description of the operation, of incision of the sublingual tissues. In almost every case of fatality after this operation, there was, he observed, gangrene of the lung, due to septic bronchial pneumonia, set up by blood trickling into the lung. The galvanic écraseur produced a most disgusting slough, which could hardly fail to be a source of mischief.—Mr. MARSH said he had been disappointed with the result produced when he had excised the tongue by the unilateral method: deglutition and articulation were seriously impaired. The galvanic écraseur was, he thought, generally condemned. Mr. Barker's conclusions were not endorsed by the experiences gained at St. Bartholomew's Hospital.—Dr. COUPLAND hoped Mr. Barker would reply to Dr. Douglas Powell's remarks.—Mr. BARKER described the ways in which lung might be affected by septic influences; but this, Dr. DOUGLAS POWELL said, did not meet the question he raised—viz., whether the conditions observed did or did not indicate blood-poisoning; whether, that is, the effects were directly due to the wound products? If purely local, the remedy was ready at hand.—Mr. BARKER knew of only one case in which there was general pyæmia; in this body there were found abscesses in the liver and kidneys. He thought there were not similar evidences in the other cases.—Dr. STOKES said Mr. Barker's reading of statistics did not much affect his general conclusions. He was surprised, however, that Mr. Barker still approved of cutting in preference to removal of the tongue by the wire écraseur. He was glad to have Mr. Marsh's opinion that total removal was the more advisable procedure. He knew of a case in which a patient requested to have the half that had been left after a unilateral operation taken away. Division of the cheek was necessary, as Mr. Barker said, to enable exploration to be made. The sublingual tissues were cut, in his operations, after the manner recommended by Sir James Paget.

REVIEWS AND NOTICES.

UNQUALIFIED MEDICAL PRACTITIONERS IN THE MIDLANDS. By DAVID EDGAR FLINN, M.K.&Q.C.P.I., L.R.C.S.I., Medical Officer of Health, Brownhills Urban Sanitary Authority, etc. Birmingham: Cornish Brothers. 1881.

THIS is a very suggestive pamphlet, though we could have wished that the author of it had been more precise in some of his statements, and more fully informed both as to the means already available for the legal suppression of the nuisance of which he complains, and as to the difficulties which stand in the way of further powers being obtained from the legislature for this purpose. It may, we think, fairly be doubted whether, throughout England generally, the number of unqualified medical practitioners is, as he states, very much on the increase, though no doubt far too many of them are to be found in all parts, and especially in the Potteries and the Black Country, to which the writer principally refers. The author's indignation at finding, within six miles of his residence, no fewer than six unqualified practitioners acting independently (though under cover of qualified medical men), is indeed fully justified; but, when he goes on to state that "this plague-spot" of unqualified practice "is withering the very heart of the profession", he uses a figure of speech which, to that large portion of the profession who practise outside the limits of the Black Country, will appear more strong than suitable. Again, when he says that there is great looseness in the state of the law as regards unqualified practice, and, further on, mentions that the six unqualified men in his district openly seek medical appointments in their own name, and print notes with their names inscribed, "Mr. ———, Surgeon", he surely cannot be ignorant that by so doing they expose themselves to penalties under the fortieth section of the Medical Act of 1858, which enacts that "any person who shall wilfully and falsely pretend to be, or take or use the name or title of, a physician.....surgeon, general practitioner, or apothecary,.....shall, upon summary conviction for any such offence, pay a sum not exceeding twenty pounds"; or that he or any of his qualified brethren in the district can at once take steps, as Mr. R. H. Carpenter has several times done in similar cases occurring in the metropolitan district, to recover penalties from such open infringers of the provisions of this Act.

Turning to the author's suggestions of a remedy for the state of things which he depicts, we note his conviction that "nothing short of the unanimous voice of the profession, in the shape of a petition to Parliament, through the General Medical Council or British Medical Association, and presented by some influential members of the House, will have the desired effect of remedying it". To wait for the unanimous voice of the profession would be, however, even on Dr. FLINN'S showing as regards his own district, to defer the matter to the Greek Kalends. To petition Parliament would, even if the Government had not referred the whole question of medical reform to a Royal Commission, be comparatively useless. To trust to the Medical Council would be to exemplify again the truth of the old adage, "Put not your trust in princes". To the British Medical Association and its Reform Committee, reinforced as this has been of late years by members specially informed on this very point, we must look to guard the interests of the whole profession in any fresh legislation that may take place; and for ourselves, we must confess to not being very sanguine that, with their utmost endeavours, they will be able to do more than just preserve in their integrity the enactments against illegal practice contained in the Apothecaries' Act of 1815 and the Medical Act of 1858. Dr. Flinn's suggestion for the formation of medico-ethical societies in all large towns and districts is a good one; and it has been repeatedly pointed out editorially in this JOURNAL that a committee for the same purpose might well be formed in connection with each of the Branches of our Association. If Dr. Flinn would urge upon the Council of his Branch the desirability of forming such a committee in Birmingham, with power to take legal action in cases where either of the above Acts is flagrantly violated, and to collect evidence to be laid before the Royal Commission on the Medical Acts recently nominated, he would render good service to the cause which he so earnestly advocates.

RINGWORM, ITS DIAGNOSIS AND TREATMENT. By ALDER SMITH, M.B.Lond., F.R.C.S.Eng.

IN this unassuming little work of just eighty pages, Mr. ALDER SMITH gives the general practitioner an amount of useful information which, in less skilful hands, might well have occupied double the space. It is practically a reprint of the author's article published about a year ago in the medical papers, assisted by illustrations. The hints are tersely expressed, and the style that of an observant man dealing with a familiar and favourite subject. Mr. Alder Smith has undoubtedly exceptional opportunities for studying all phases of this disease in the very responsible position of resident medical officer at one of our largest and most important public schools. How well he has availed himself of his advantages, is sufficiently attested by the precision of his remarks. His book will enable the practitioner readily to detect the insidious forms of a very troublesome malady. On the vexed question of treatment, however, there will be diversity of opinion, more especially as regards the advisability of producing artificial kerion, which in some chronic cases is warmly advocated by the author. It is true, he recommends it with reservations, and we think wisely, seeing that it is admittedly productive at times of permanent destruction of the hair-follicles and inevitable baldness. We congratulate Mr. Alder Smith on having the courage to challenge hostile criticism; but we incline to think the chief merit of the work lies in the clear rules for diagnosis in the earlier chapters, and the milder remedies prescribed. Without doubt, the book is an useful addition to our not very ample stock of trustworthy information upon a very intricate subject, and a distinct acquisition to the library of the general practitioner.

MEDICAL MAGISTRATE.—The name of Samuel Griffith, Esq., M.D., President-elect of the North Wales Branch of the British Medical Association, of Portmadoc, has been placed on the commission of the peace for the county of Carnarvon.

ACTION OF BROMIDES IN EPILEPSY.—Dr. A. Hughes Bennett (*Edinburgh Medical Journal*, March 1881), in an interesting paper, sets out the following conclusions. 1. In 12.1 per cent. of epileptics, the attacks were completely arrested during the whole period of treatment by the bromides. 2. In 83.3 per cent., the attacks were greatly diminished both in number and severity. 3. In 2.3 per cent., treatment had no apparent effect. 4. In 2.3 per cent., the number of attacks was augmented during the period of treatment. 5. The form of the disease, whether it was inherited or not, whether complicated or not, recent or chronic, in the young or in the old, in healthy or diseased persons, appeared in no way to influence treatment, the success being nearly in the same ratio under all these conditions. 6. In 66.6 per cent., there was no trace of bromide poisoning. In the remaining 33.4 per cent., this was observed in varying kinds and degrees; but in no case to any serious extent—namely, physical weakness in 28.5 per cent.; mental weakness in 18.8 per cent.; and the so-called bromide eruption in 16.6 per cent.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MAY 14TH, 1881.

THE SCIENTIFIC ASPECT OF COLOUR-VISION.

THOUGH certain physical facts relating to colours are well established, authorities are by no means united in opinion as to how these stand related to their perception. For example, it is a matter of universal acceptance that colours are produced by vibrations of the hypothetical all-pervading medium which we call æther. And that the longest vibrations which the retina is capable of appreciating constitute *red*, and the shortest *violet*: *green* and *yellow* standing intermediate between the two.

But how are these vibrations appreciated by the nerve-elements? Are there nerves in the retina whose function it is to minister principally to one colour; one set, for example, being most occupied with red, another with green, and the third with violet, according to the well known Young-Helmholtz theory? Or, as in the more recent and advancing view of Hering, are there in the retina three chemical substances, each capable of undergoing decomposition by light, such decomposition being followed in its turn by a nutritive renewal of its substance? One of these would produce, by one change, *red*, and, by the opposite, its complemental colour *green*. Another would stand similarly related to *blue* and *yellow*, and the third to *white* and *black*.

Of these two views, the latter, notwithstanding even the powerful adverse criticism of Donders, appears to explain best the phenomena both of normal and of abnormal colour-vision. But there are facts not properly explicable by it; and, as in the other theory, the very existence of the substances and functions upon which it is based has not been established by physical proof.

When the retinal purple formed the subject of the brilliant researches of Kühne, it was thought that it would furnish an explanation of colour-perception, but further inquiries convinced Kühne that such an explanation was untenable. The coloured globules found in the retinæ of many lower air-breathing vertebrata were also assigned to the perception of colours; but their significance remains as yet undetermined.

If we could establish that there are elements in the retina whose length would allow them to be thrown into vibration by the colour-waves, this would, perhaps, furnish the most complete and satisfactory explanation of colour-vision. If, for example, we could find some in and near the yellow spot of a length to vibrate efficiently to *red* and *green;* and others, distributed not only here, but over the more peripheral parts of the retina, capable of vibrating to *blue* and *yellow*, we should have made a great advance, as this would be in accordance with the perception of colours possessed by different parts of the retina.

It will naturally suggest itself that the cones are concerned in the one function, and the rods in the other. Some such view is advocated by Gunn from a study of the anatomy of the retina, considered in relation with certain observations of Cohn and Holmgren. The last named, followed by Dewar and McKendrick, found that yellow light, the brightest in the spectrum, produces the strongest electrical current in the optic nerve, while the comparatively dull red and violet have much less effect. The undulations corresponding to the ultra-red and ultra-violet rays produce no current whatever. They also found that, when the colour-stimulus is long continued, the current becomes gradually feebler, but that it is distinctly increased again directly on the withdrawal of the stimulus. Cohn found that a *yellow* spot is recognised by sunlight as *bright* at a greater distance than all other colours; next follows, first, *orange*, then *green*, and, finally, *red*, *blue*, and *violet* all together.

From these various data, Gunn suggests that the light-perceiving parts of the retina are exactly adapted to convert light waves of a certain definite length into optic nerve-currents; but that they can also convert into feebler currents other waves nearly approaching these in length; and that this power becomes more and more imperfect as the wave-length departs from the standard length. This standard will be the length of the yellow wave, as this produces the most powerful light-stimulus. Indeed, measurements show that its wave-length is exactly intermediate between those of the shortest (the violet) and the longest (the red). The different degrees of stimulation of the visual centre in the brain, caused by these different wave-lengths, are recognised in our consciousness as colours. He points out, in connection with this conversion of the light-waves into nerve-currents, that the superimposed discs, constituting the ultimate elements of the outer segments of the rods and cones, are in thickness equal to the length of certain of the waves constituting light. To carry out such a theory in its logical completeness would require very fine measurements indeed. He also thinks that perception of blue and yellow resides in the rods, while the cones have the power of perceiving all colours.

Further investigations into the colour-vision of different animals and into the minute anatomy of colour-blind retinæ, might throw light on these points; failing these, the whole question must be considered as remaining *sub judice*.

With regard to the distribution of colour-blindness in different races, it is to be regretted that the examinations in different countries have not been conducted in exactly the same manner. For example, the method adopted by Holmgren in his first test is not the same as that employed by the examiners of the Ophthalmological Society; for he leaves among the wools simply the pure greens; and, if the person examined takes out the remaining four of these to match the fifth, which he is given as a sample, he is allowed to pass. But the English examiners exacted a much finer test, viz., that all wools containing *any* green should be picked out. Some idea as to comparative frequency may be gathered by comparing the pronounced cases of the Ophthalmological Society with the red-blinds and green-blinds of others. In this way, the 3.5 per cent. found among males in England corresponds with the 3.5 per cent. of Joy Jeffries in America; with the 1.6 per cent. of Burnett among Negro boys; with the 3.6 per cent. of Cohn among Germans; and, perhaps, with the 3.25 per cent. of Holmgren in Sweden. Their results among Jews are confirmatory of those arrived at by Magnus and Cohn.

It is certain that there are many grades of acuteness for colours within the limits of so-called normal colour-vision. This is well exemplified by the different distances at which Cohn found spots of different colour recognised by the normal eye. From this, it is simply a matter of degree to the non-recognition of a red light up to even a very short distance, as shown in the experiments of the Ophthalmological Society and of other observers.

In connection with the observations of Burnett, it may be noted that Cohn found some Nubians examined by him to recognise coloured spots at a distance greater than the average of persons in Germany.

Professor Wilson noted, in 1855, though he had no statistical evidence, that many members of the Society of Friends were among his colour-blinds. But, though he suspected that this was not an accidental occurrence, he appears never to have carried the idea any further. He also strongly suspected that females were less liable to this defect than males. It is curious to note his somewhat high average (over 5 per cent.), notwithstanding that his investigations were not conducted so searchingly as at present, as regards the first test.

It is much to be desired that the further inquiries promised by the Secretary of the Committee in the direction of Friends and of workers in colour be forthcoming. At all events, those who have conducted the inquiries are deserving the thanks both of the profession and of the public.

IRREGULAR BURIAL OF INFANTS.

In spite of the provisions made in the Act of 1874, known as the Amended Registration Act, to prevent the irregularities too frequent in the burial of infants, cases are frequently occurring to show that the Act is still a dead letter, so far as its prompt enforcement is concerned. Two cases illustrating this have recently occurred: the one at Ford Cemetery, near Liverpool; the other at St. John's Churchyard, Lewes. In the first case, it appeared, from the evidence adduced at an inquest on the body of a child which had been buried in Ford Cemetery, that it has been the practice there to inter bodies without a burial-order, sending notice afterwards to the registrar. This, though not absolutely illegal, is a most irregular and very dangerous practice. It is no answer to say that, if the death has been a natural one, no harm is done; and that, if there has been foul play, an inquiry can be made afterwards. The exhumation of bodies is a proceeding which shocks public feeling, and ought always to be avoided when not absolutely necessary. Besides, the proper time for inquiries is obviously as soon after death as possible. As the deputy-coroner (Mr. Barker), before whom the inquest was held, suggested that the matter should be referred to the Home Office, it will suffice to observe that the officials of all burial-grounds ought to see the desirability of insisting upon the production of a burial-order before burying any body. It is to be hoped, indeed, that such may soon be the law of the land without any exception.

In the Lewes case, it appears that an inquest was held before Mr. Baxter on the body of an illegitimate child, which had been exhumed for the purpose. It was taken to St. John's churchyard for burial by a woman who was present at its birth, and who knew that it was born alive, and lived some days. After its death, a certificate was given by Mr. Grover, a surgeon, not on the usual form, but on a piece of paper, and intended for the registrar. There was some conflict of testimony as to whether it was represented as the body of a still-born child, or not; but the woman admitted that she did not know that it was an offence against the law to bury an infant which had been born alive without a certificate from the registrar. She also said that, in a previous case, the body of a child born alive was buried as a still-birth; and, it being a bigger child than the deceased, she thought there was no occasion to enter the latter in the customary manner. The sexton admitted that he received the body with a certificate, which he never read, and that he buried the body as a still-birth. Hearing rumours afterwards that there was something wrong, he read the certificate, and found that it should have been given to the registrar. The evidence of Mr. Braden, surgeon, went to show that the cause of death was debility, the child being prematurely born, somewhat emaciated, and generally small. The jury returned a verdict of "death from natural causes"; and the coroner impressed upon the sexton the necessity of being very careful in these cases, pointing out that he had assumed what was not the case, viz., that the child was still-born. He read the sections of the Act rendering such burials illegal, and made strong remarks upon the irregularities of the case, intimating his intention of holding inquests on the bodies of all illegitimate children who died suddenly.

While this laudable intention is fully to be commended, it is to be regretted that steps are not taken to enforce the penalty clauses of the Registration Act. One of these is as follows. "If any person to whom a medical certificate is given by a registered medical practitioner, in pursuance of this section, fails to deliver that certificate to the registrar, he shall be liable to a penalty not exceeding forty shillings." In this case, some one was clearly liable to such penalty. Again, the sexton was clearly liable to a penalty for burying as still-born a body without a certificate or declaration that it was still-born. One or two prosecutions, resulting in a conviction with fine or imprisonment, would have a very wholesome effect in diminishing such scandals. Another point seems deserving of notice, viz., the providing of printed forms of certificate of still-birth on some uniform plan, and on a paper of different colour from the burial order or medical certificate of death It would lead to more uniformity of practice as regards the giving and wording of such certificates, which is very desirable; and also as to the burial arrangements in such cases, whether in churchyard or in cemetery. A modified certificate is also required to meet the case of infants dying shortly after birth, when no medical attendant has been present, but where one is called in to certify. Such certificates could be easily framed, and would save much trouble and irregularity.

SARCOMA AND CARCINOMA.

Nothing is easier to understand than a dogma, when it has to be accepted; nothing is harder than the faithful record of practical research, where the very bias of a truly scientific worker makes him distrust his own inferences. It is highly instructive to compare the ready answer of an average third year's student at a London school of medicine, when asked, What is the difference between sarcoma and carcinoma? with the persistent discussions on the subject at societies, and in lectures, monographs, or new books, as recorded or reviewed in the pages of this Journal even during the last few weeks. In this great dispute, as in a battle within a town, every stronghold has to be fought for in detail. Directly we cease to look on "sarcoma" and "carcinoma" as the headings of two definitions to be learnt by heart by candidates for an examination, we remember that they are but abstract expressions, and we must desire to be certain of what they express. What is meant by epithelium, and what is its origin, when we have once recognised its adult condition? What is connective tissue? and, when we have defined it, what do we mean by "connective tissue type"? do we signify something exactly like connective tissue, or differentiated from connective tissue? What becomes of old epithelium and old connective tissue cells in healthy parts? The displacement, as some may hold it to be, of certain cells in a tumour may, after all, be the normal removal of worn-out elements; for, at least until lately, pathologists ran too far ahead of histologists. To add to the confusion of facts and definitions, the complicated science of embryology is invoked, logically enough, but only to increase difficulties. The blastoderm of an impregnated ovum breaks into three layers, epiblast, mesoblast, and hypoblast. Epithelial and other structures are developed from the first, whilst connective and allied tissues arise from the second. Great stress has been laid on this fact by pathologists; it involves one of the main points of difference between Dr. Creighton's new theories and the opinions of his predecessors and antagonists. Only when we talk of what is developed from the epiblast and mesoblast, are we really referring to that which occurs in the normal development of an embryo. As its cuticular structures must be outside, and its muscles, bones, and connective tissue must lie deeper, it is necessary that the outer structures should be developed from the outer, and the middle structures from the middle, layer of the blastoderm. Does it follow, however, that the same order must hold good in disease, in disorder, as we may say? Are structures derived from the mesoblast capable of producing, under abnormal influences, only structures like themselves? It is, at least, admitted that epithelium may "infect" deeper cells. Lastly, different authorities are actually at variance as to the origin of the normal structures of certain glands. If Dr. Creighton derives the entire mammary gland from the mesoblast, whilst others trace its epithelium from the epiblast, it is useless to theorise upon the origin of cancer and sarcoma, in that part, till its normal development is settled.

The nearest road to positive evidence lies in the study of microscopic sections taken from specimens of the same disease in different stages. They would afford actual proof, if only the processes which they demonstrate were not seen merely as caught at any given stage of development, but could be observed in progress—in fact, in motion.

This is, however, impossible, for obvious reasons. Mr. Cripps, at the meeting of the Pathological Society on April 19th, demonstrated a very fine progressive series of sections of rectal cancer. In theory, he is as bold as previous observers, and his inferences are certainly simple. We hear from him nothing about epiblasts, nor mesoblasts, which, considering the great uncertainty about their development, is no great disadvantage. But Mr. Cripps boldly asserts that the nuclei of the epithelial cells of the rectal mucous membrane normally migrate, after more or less subdivision, into the lymphoid tissue beneath the epithelium, and become converted into the nuclei abundant in that tissue. Here is a new histological theory to be proved. Upon it, Mr. Cripps proceeds to trace the origin of cancer. The nuclei, or rather leucocytes, in the submucous lymphoid tissue, may, under morbid influences, develop epithelium once more, epithelium lying deep in tissue instead of bordering on a free surface. As the morbid epithelium degenerates, to be replaced by fresh cellular elements of its own kind, it withers up, and remains as the fibroid stroma of the cancer. The chief objections to this theory are the difficulty of proving that the normal epithelium is not shed, but converted partly into leucocytes; and the still greater difficulty in believing that leucocytes thus developed may form epithelium again, even under morbid influences—a theory against all precedent in biology or pathology. That which in live tissue once changes or degenerates, never returns to its former condition, nor regenerates, excepting in special cases, as the uterus after pregnancy, and the heart in prolonged rest after prolonged activity, which has induced normal hypertrophy; in both these cases, however, the changes are purely limited to degree, and do not involve change of tissue.

The least serious obstacle to this theory is, that it is at variance with all preconceived opinions on the relations of epithelium to connective tissue; but most new theories are more or less at variance with such opinions. Dr. Creighton looks on tumours in quite another light; it is true he reasons from the breast, but his conclusions might apply to any secreting gland or even secreting surface. His belief that the mammary gland is entirely of mesoblastic origin must, if true, destroy any precise relation between cancer of the skin which bears epiblastic epithelium, and cancer of the breast, where the epithelial lining of the acini is, according to him, mesoblastic. If, in all other respects, primary cancer of these two different parts be the same, then it is clear that, in origin, cancer has no relation to any particular layer of the blastoderm. The stronghold of Dr. Creighton's views lies in his doctrines concerning the evolution and involution of the epithelium of the acini before and after lactation. The epithelial cells are of different appearance at different stages; let some morbid influence set up an abnormal stimulus, and cells are produced which only reach an imperfect or incomplete stage of evolution, and continue to be developed at that stage. All permanently incomplete cells he regards as having the power to become, as they sometimes do become, highly dangerous elements of disease. All cells in an incomplete state of evolution are carried away ultimately by the lymphatics, even during lactation; when they are thus removed, after being evolved by morbid action, they may prove most mischievous to other tissues; besides, they may fail to pass into the lymphatics, and simply infiltrate the tissue round the acini. This infiltration, Dr. Creighton believes, may readily occur during the breaking down of the acini of the atrophying breast in women who have passed the climacteric. The stage at which evolution is permanently arrested in any given case determines the nature of the morbid growth which results. The most imperfect cells accumulate outside the acini, and thus originate scirrhus; when more evolved, they may block the acini, and produce a soft cancer. The highest or milk-producing epithelial cells are never formed in disease, where formative activity is always far greater than functional activity—hence the great accumulation of the new products. Only when the stage next to perfection is attained in disease, we find mucus-producing cells, constituting myxoma. Dr. Creighton also believes that epithelial cells at this stage may change into the fusiform type, and, entering the tissue round the acini, form a sarcoma. He appears to consider all displaced cells as capable of infecting other cells which they touch. In other words, he not only traces carcinoma and sarcoma to a common origin, but makes that origin anatomically epithelial, and secretory from a physiological point of view. The researches of Mr. Butlin certainly break down a supposed barrier between the two varieties of tumour, a feature which is of great clinical interest. Affection of neighbouring glands is almost universally held to prove that a tumour is cancerous. If, however, the reader turn to page 558 of the present volume of the BRITISH MEDICAL JOURNAL, he will find, among Mr. Butlin's valuable tables, nine cases of sarcoma of the tonsil, in eight of which the cervical glands were more or less involved.

Dr. S. W. Gross, in his interesting *Practical Treatise on Tumours of the Mammary Gland*, recently reviewed in our columns, is convinced, from examination of numerous sections of at least one hundred specimens, that the exclusive view of Waldeyer as to the derivation of cancer from the glandular apparatus is correct. The acini fill with proliferating epithelium, surrounded by the membrana propria. It must here be remarked that, in the rectum at least, Mr. Cripps denies that such a membrane exists. The irritation causes an infiltration of lymphoid cells in the connective tissue round the acini. This involves an increased formation of that tissue; the acini grow into the new connective tissue, with the epithelium still proliferating, and now devoid of membrana propria. Dr. Gross disbelieves in the infection and conversion into epithelioid bodies of the connective-tissue cells near the new morbid epithelium, a theory supported by Rindfleisch, and defended by Dr. Thin in the discussion which followed Mr. Cripps's demonstrations at the Pathological Society. Lastly, he denies that cancer travels, as a rule, at least, by the lymphatic vessels, but is convinced that infection takes place along the perivascular lymph-sheaths, which he always found "more or less closely packed with young epithelial elements, through which their lumen was frequently diminished or even obliterated". Dr. Gross adheres to the old opinion of the origin of sarcoma. "The histogenesis of sarcoma is very simple. In consequence of the irritation to which they are subjected, the endothelial cells of the connective-tissue stroma of the mamma proliferate; and they, along with the emigrant blood-corpuscles, the fat-cells, and, it may be, the endothelium of the smaller vessels, are converted into an embryonic mass; this mass forms the indifferent small-celled or granulation-tissue, which constitutes the starting-point of nearly all the neoplasms.....The varieties of sarcoma are determined by the prevailing form of the cells." Earlier, he remarks: "For my own part, I regard the lacteal glands as the starting-point of adenoma and carcinoma, and the connective as the matricular tissue of the histoid or simple neoplasms."

When we can see, from the above, how radically these recent observers differ in their opinions, not only as to the difference between sarcoma and carcinoma, but also as to the origin, development, physiological power, and ultimate destiny of all the normal elements whence either or both forms of tumour may or may not arise, we can only conclude that the question is as unsettled as ever. Free from all preconceived opinions, and well versed in practical histology, the next observer, should he honestly desire a nearer approach to the truth, must begin afresh, unfettered by any superstitions about epiblasts or mesoblasts, unprejudiced by any belief as to what epithelium and connective-tissue cells can or cannot do. And, above all, let him be first certain what these cells really are, before he uses such terms as epithelioid or connective-tissue "type".

THE Harveian Oration will be delivered at the Royal College of Physicians by Dr. Barclay on Saturday, June 18th, at five o'clock.

THE Prince of Wales will next month open the new infirmary erected by the guardians at Nottingham. This will be the first occasion on which any member of the Royal Family has taken part in the opening of any Poor-law establishment of any kind.

THE Prince and Princess of Wales will be the guests of the treasurer of St. Bartholomew's Hospital at a *conversazione* to be given on Friday, the 27th instant.

THE Duke of Connaught has signified his intention to support his brother, Prince Leopold, at the festival dinner of University College Hospital, to be held at Willis's Rooms on May 20th.

THE Queen has reappointed Mr. John Simon, F.R.S., and Mr. T. Pridgin Teale, to be members of the General Council of Medical Education and Registration of the United Kingdom for the ensuing five years.

THE Congress of the Social Science Association will be held this year at Dublin, early in October, under the presidency of the Right Honourable Lord O'Hagan, Lord Chancellor of Ireland.

JUDGING from some indications, facilities for bogus diplomas are becoming less, and the market price for such articles is rising. We have before us an account of the desperate audacious attempt to bribe on the part of a person living in South Australia, who writes to an eminent physician at a well known hospital, offering him £100 if he can obtain for him the degree of M.D. at the end of twelve months' hospital practice.

AT the recent Volunteer Review at Brighton, the field hospital was located in bell-tents on Newmarket Hill. Three were erected, each with six beds. The most severe casualty was the shooting off an ear; there were about a dozen cases of syncope; and two or three only of alcoholism. It is perhaps characteristic, that the palliasses were sent down empty and without straw, and that the medical officer could only obtain a supply at the last moment, after much personal trouble. The value of the article may be four or five shillings; but the official correspondence in explanation of obtaining it is not yet finished!

DR. MICHAEL FOSTER'S *Manual of Physiology* has been translated into the German, with a preface, by Professor Kühne. Kühne points out, in his preface, that the abundant material, in spite of the moderate size, is not condensed to systematic shortness, but the whole is related in a narrative style. Farther on, he writes: "To give to students and physicians a book which is not intended merely for reference, but which, by its flowing lively style, invites the reader to go through it, is always useful, especially when the contents, including numerous matters in a state of active discussion, in which physiology is now so rich, instruct with truth and calm impartiality; such the author has preserved throughout." The accomplished German physiologist has skilfully brought out some of the main merits of Dr. Foster's book; the translation of it into German is a well merited compliment, since Germany is the especial home of physiology, and its literature is abundantly rich in text-books, monographs, and periodicals on physiology.

WE particularly desire to draw the attention of members of the English Poor-law Medical Service, to the fact that Mr. Dodson has consented to receive a deputation from the Council of the Poor-law Medical Officers' Association on the question of the amendment of the Medical Officers' Superannuation Act. This Act is, as our readers are aware, merely permissive; and in consequence many old and deserving medical officers have to their sorrow found, on resignation, that their long and faithful services have been ignored by their respective boards of guardians. Many instances of such hardship have come to our notice. We trust that every member of the service who can attend at the office of the Local Government Board, Whitehall, on Tuesday, May 17th, at 2 P.M., will arrange to be there. We further hope that everyone who has any influence with a member of Parliament will write and urge his supporting the originators of the deputation, in their very considerable effort to add to the comfort, and solace the declining years, of many of our less fortunate brethren of the Poor-law Medical Service.

THE ROYAL COMMISSION ON THE MEDICAL ACTS.

THE object of the new Royal Commission, of which we were able to announce the members prior to its being gazetted, is defined in the commission "to inquire into the grant of medical degrees, memberships, fellowships, licences, and other diplomas by universities, colleges, and bodies in the United Kingdom, and the courses of education and examination, payments, other conditions required as a preliminary to such grant, and into the skill and knowledge which such degrees, memberships, fellowships, licences, or diploma represent; and, further, to inquire into the conditions and manner under or in which medical practitioners are entered in and are struck off the *Register* of medical practitioners, and the privileges of registered and the disabilities of unregistered practitioners, and the position of medical practitioners so registered in our possessions out of the United Kingdom, and the position in the United Kingdom of medical practitioners educated in our possessions out of the United Kingdom or in a foreign state. And further to inquire into the constitution, functions, powers, and procedure of the General Council of Medical Education and Registration, and their relation to the above-mentioned universities, colleges, and bodies, and to the medical profession. And further to inquire into the result of 'The Medical Act, 1858,' and the Acts amending the same, and into all matters dealt with by those Acts." Mr. J. W. White, a barrister, is appointed Secretary of the Commission. Royal Commissions usually conduct their proceedings with closed doors; but publish their evidence at the close of the inquiry, together with their report.

THE CORONERSHIP OF CENTRAL MIDDLESEX.

THE medical candidate for the coronership of Central Middlesex, Dr. Danford Thomas, has been elected by 2,043 votes against 361 given to the other candidate, Mr. Bolton. The conclusion was a foregone one; and it is satisfactory that this important prize (the salary of the post being upwards of £2,500) remains in the hands of the medical profession. Dr. Danford Thomas will carry with him the best wishes of the profession for a satisfactory performance of the duties of this important office, which, in the hands of a vigorous, public-spirited, and judicious person, may easily be made one of high public and social utility. An examination of the results of the last three elections of coroners for Central Middlesex indicates a very marked increase of popular feeling in favour of a medical candidate. When, on the death of Mr. Wakley, Dr. Lankester and Mr. Lewis competed for the office, the numbers were: Lankester (medical), 1,131; Lewis (legal), 1,084; majority for Dr. Lankester, 47. At the election in November 1874, the numbers were: Hardwicke (medical), 1,164; Boulton (legal), 818; majority for Dr. Hardwicke, 346; while, at the next election, as is shown above, the medical candidate has a majority of 1,682.

UNIVERSITY COLLEGE, LIVERPOOL.

AT a meeting of the Council of this College held on May 7th, it was arranged that the Liverpool Royal Infirmary School of Medicine should co-operate with the College as its Faculty of Medicine, and that the Lecturers on Medicine, Surgery, Anatomy, and Physiology, should have seats on the Senate of the College, with the title of Professors. The Council of the College have secured the site of the Lunatic Asylum adjoining the Infirmary and School of Medicine; and, as soon as the requisite alterations in the building can be completed to adapt it for educational purposes, the College will be opened. The closing of the Lunatic Asylum has been rendered necessary, by a portion of the land upon which it stands being required for railway purposes.

TREATMENT OF ECLAMPSIA BY BLEEDING AND CHLORAL.

M. GUYOT related to the Société Médicale des Hôpitaux that a child aged 11½ years was seized with an attack of eclampsia on the twenty-second day of an attack of scarlatina complicated with albuminuria. He was in a state of coma, and near death, when M. Guyot bled him to the extent of 300 grammes, and gave him two enemata of chloral. The child recovered rapidly.

DR. GREENFIELD AND THE BROWN INSTITUTE.

LORD GRANVILLE, speaking at the University of London on Wednesday, said that there were losses which were regretted, but which carried some consolation with them, because they testified to the credit of the University. For instance, Dr. Greenfield, who had been identified with Brown's Institution, had left for Edinburgh. His audience were aware, perhaps, that in 1852 Mr. Brown left a sum of over £20,000 for the creation of an institution for the investigation and cure of diseases peculiar to animals useful to man, the donor expressing a desire that the University of London should appoint a committee of their body or of medical men outside to scientifically carry out his views. Ten years ago, that institution was established; and he was told that few cases of interest had since occurred in which the Brown Institution had not taken a leading part. He believed that the investigations of the institution had been carried on in a manner which promised the greatest possible advantage, not only in regard to the diseases of animals, but the diseases of man. During the past year, 3,870 animals had been cured; and, as an example of the great kindness with which the patients were treated, he might relate the following anecdote. A distinguished member of the Senate was driving along the road leading to the institution. Suddenly, the hack cab in which he was sitting came to a dead stop. He asked if the animal were lame or ill. The driver answered, "No, sir; I never can get him past this place. Since he had his corns cured here he likes it so much that he always wants to stop." Professor Greenfield had but a short term of office at the Brown Institute; but the earnestness and marked ability with which he carried out his work more than amply justified his selection, and gave the earnest that he would, in the large and liberal field to which he has now transferred his energies, do excellent work for science and for his university.

ARMY MEDICAL DEPARTMENT DINNER.

THE officers of the Army Medical Department will have their first annual dinner on Saturday, June 4th, 1881, at the Inns of Court Hotel, Lincoln's Inn, at 7.30 P.M. Sir William M. Muir, K.C.B., Director General, will preside. Officers intending to dine are requested to send their names to Surgeon-Major Alfred Clarke, 6, Whitehall Yard, S.W., from whom dinner-tickets can be obtained.

METROPOLITAN WATER-SUPPLY.

DR. FRANKLAND'S report upon the quality of the waters supplied to the metropolis, during April, by the various water companies, states that the quality of the river waters drawn from the Thames and Lea showed a decided improvement upon that of the waters supplied during March; this improvement is attributed partly to the drought that prevailed during the greater part of last month, and partly to more efficient filtration.

CHARGE AGAINST A MEDICAL MAN.

SERJEANT TINDAL ATKINSON gave judgment, in the case of Still *v.* Stainthorpe, at the Wimborne County Court on May 5th. This was an action in which the plaintiff claimed of the defendant the sum of £200 for alleged negligence in the setting of a broken leg, whereby the injured limb had become two inches and a half shorter than the other. His Honour delivered an elaborate judgment, and said the facts which had led to this inquiry were few and free from complication. The plaintiff, Jesse Still, on June 15th, 1880, while carrying a sack of wheat, fell and fractured one of his thighs. The fall caused a simple oblique fracture. The plaintiff's usual medical attendant, Mr. Daniel, being absent from home at the time, the defendant, who is in practice as a surgeon at Wareham, was called into the case, and continued to treat it for five weeks, when he ceased any further professional attendance. At the end of this period, the plaintiff, in attempting to use the injured leg for the purpose of walking as formerly, found that it was shorter than the other. In consequence of the conflicting nature of the medical evidence, His Honour came to the conclusion that the case was essentially one for the judge to have the assistance of skilled assessors; and, by consent of the parties, two members of the medical profession in practice at Wimborne, Mr. C. H. Watts Parkinson, and Mr. Walter Wyke-Smith, were appointed assessors. They said in their report that they were of opinion, upon a careful review of the evidence offered at the trial, that, the fracture having taken place in the manner described, the defendant did not set it in a negligent and unskilful manner; nor did he use improper appliances, but brought a reasonable amount of skill to bear upon the treatment of the case. In conclusion, they said, "that, with regard to the proper or improper treatment of the case by the defendant, they are of opinion that the treatment adopted by him (though possibly a slight departure from the routine of some years ago) was perfectly scientific, in that it aimed at restoring the injured limb to its normal position, and in so maintaining it"; and they agreed with the defendant's witness (Professor Longmore), that the "plaintiff is fortunate in recovering from an oblique fracture of the thigh with so useful a limb; and there is reason to believe that he will not be prevented from following his former employment". His Honour, in summing up, came to the conclusion that, in the present case, the plaintiff proved the existence of the duty, but it failed to satisfy him that it had been negligently performed. A verdict was, therefore, entered for the defendant, with the usual costs.

THE CONTAGIOUS DISEASES ACTS.

THE annual report of Captain Harris, the Assistant Commissioner of the Metropolitan Police, for the year 1880, relating to the working of the Contagious Diseases Acts, has been published, and is, as usual, a very interesting and instructive document. The periodical medical examinations of the women in the subjected places has, it appears, taken place with increased regularity, the average number of examinations being 23.50, against 23.41 in 1879. As the total number could not have been more than 26, the result must be considered as very satisfactory, reflecting much credit on the visiting surgeons and the police. The latter have discharged their duties to the entire satisfaction of the Assistant Commissioner, not a single case of excess or violation of duty having been brought to his notice during the year. The number of women registered for the first time during the year was 1,624, many coming from the unprotected districts; the number of women remaining on the register at the end of the year was 84 more than in the preceding year, this being due to the circumstance that a lesser number was removed from the register during the year as compared with the number registered. A total decrease, however, of 2,973 has taken place since the Acts came into operation. In 5,372 cases, the women signed the voluntary submission form; in 24 cases only were applications for summonses necessary; while in only 11 cases was it necessary to obtain a magistrate's order to bring these women within the provisions of the Acts. In 82 cases, proceedings were necessary to enforce attendance on medical examination after signing the voluntary submission form, or receiving a magistrate's order to attend. It thus appears that every care is taken, on the one hand, to avoid as much as possible all coercive measures; and, on the other hand, to prevent any diminution in the proper working of the Acts. As regards the collateral advantages resulting, we find that 93 young girls between the ages of 12 and 18, 86 women between 18 and 30 years of age, and 7 above that age, who had been found in bad company and improper places, were rescued. In addition to these, 49 young persons between 12 and 18, 94 women between 18 and 30 years of age, and 31 above that age, who had commenced an immoral life, abandoned it on being cautioned by the police; their names were, therefore, not placed upon the register. Captain Harris regrets the continuance of 23 public-houses and 11 beer-houses as brothels, 16 of the former and 4 of the latter being in the Chatham district. The number of brothels in the districts under the Acts has, however, been reduced by 3, showing a total decrease of 781 brothels within the protected districts since the Acts were first enforced. The most interesting part of Captain Harris's report is that which relates to women coming from unprotected places, of whom there were 612 during the year 1880. Of these, 404, or 66.01 per cent., were found to be diseased

on their first medical examination. These women went into brothels, where they commenced a life of prostitution, and continued to do so until they were discovered by the police, and brought up for medical examination. This one fact must, to all unprejudiced minds, be of itself a strong argument, not only in favour of maintaining the Acts, but also of extending them. It would be difficult to exaggerate the evils which these 612 women might have done had they not been brought under the wholesome provisions of the Acts; and it would be interesting to know the names of the localities from whence they came. It is satisfactory to learn that the houses from which they were received have been kept under very strict observation. The total number of cases of disease admitted into the various Lock hospitals during the year was 3,316, this representing only 1,849 individual women. And it may here be observed that, but for the Acts, there would be no sufficient hospital accommodation for these women, voluntary hospitals having been either wholly absent in the districts under the Acts, or so small as to be wholly inadequate. The repeal of these Acts would mean the closing of all the Government hospitals, containing, in the aggregate, 600 beds. This fact ought to be well known and understood; those who advocate the repeal of these Acts being able to show how these 600 beds can be replaced and maintained. Of 1,991 women who were registered during the year, including those re-registered, 785 were found to be diseased on their first medical examination; while 140 only of 1,795 women remaining on the register were found to be diseased. During the year, 927 women have left the protected districts, 67 have married, 262 have entered homes, 629 have been restored to friends, and 22 have died, making a total of 1,907 who have been removed from the register. From all this, it is evident that the repeal of the Acts would be most disastrous to the various districts which have the advantage of their beneficial working; while nothing could be more desirable than their extension at least to all the garrison towns and naval seaports to which they have not as yet been applied.

JOHN HUNTER AND PROFESSOR OWEN ON VIVISECTION.

THE new volume of the *Cyclopædia Britannica* contains an admirable life of Hunter by Mr. F. H. Butler, well condensed, carefully written, and thoroughly appreciative of the value and character of Hunter's work and the picturesque instructiveness of his life. This notice is one of the most valuable contributions to the enormous amount of literature which has collected around the name of the great anatomist. We are glad to see included in it Professor Owen's important history of Hunter's physiological investigations and experiments on living deer and the mode of growth of their antlers, from which he deduced the information and obtained the idea on which was based his famous operation of popliteal aneurysm by ligature of arteries at a distance. This account by Professor Owen of John Hunter and vivisection, which was published by us from Professor Owen's manuscript (Feb. 22nd, 1879, p. 284), is one of those salient facts in the history of the application of experiment on living animals to the advance of surgery and the saving of life, which the antivivisectionists so unfairly and persistently ignore.

OUR INDIAN ARMY.

THE health of the European army of India, according to the report of the *Indian Medical Gazette*, was worse in 1879 than in any year since the mutiny. Service in Afghanistan and cholera are responsible for this result. The statistics of the Afghan campaign have been separately tabulated by the Sanitary Commissioner with the Government of India; but, even excluding these, the result is still unfavourable. Taking the whole European army of India, the admission rate of the year was 1871 per 1,000, the sick rate 75, the death-rate 34.55, the invaliding rate 48.69. The total loss by death and invaliding was therefore 83.24. In 1858, the second year of the mutiny, the death-rate was 111.07, and the invaliding 43.59, giving 154.66. The death-rate of 1879 is almost double that of any year since 1870, except 1872 and 1878. Excluding Afghanistan, the rates come to be: admissions 1,977, constant sick 78, and deaths 24.28. Even this latter rate is unprecedented in the recent experience of the Army of India. The statistics of the armies of Afghanistan were as follows: admission rate 1,315, daily sick rate 57, and death-rate 88.12. Of 837 deaths, 365 were due to cholera, 62 were killed in action, 9 died of wounds inflicted in battle, 46 were drowned, 65 died of enteric fever, 68 of remittent fever, 42 of dysentery and 85 of respiratory diseases. Of the 365 deaths from cholera, 254 (74.03 per 1,000 of strength) occurred among the troops operating from the Peshawar Valley, 21 among those occupying the Kurram Valley, 83 in Southern Afghanistan, and 7 at Cabul.

UNCONSCIOUS MUSCULAR ACTION.

AN exhibition was given this week in London, by Mr. W. I. Bishop, at which, in consequence mainly of the printed letter from Dr. W. B. Carpenter, attesting the interest of the experiments, a large number of physiologists and psychologists, and physicians of eminence, were present. The experiments were described by Dr. Carpenter as follows.

"The experiments you were good enough to show me at my own house some time ago, Professor Huxley also being present, satisfied us, as I know that they had previously satisfied a number of the Professors of the Edinburgh and Glasgow Universities, of your remarkable power of 'thought-reading'; which you derive from your careful study of the indications *unconsciously* given by the subjects of your experiments, and from your peculiar aptness in the interpretation of those indications. And they also showed us that you have acquired (by the like study and practice) a remarkable power of directing, under certain circumstances, the thoughts and actions of others by suggestions *unconsciously* conveyed to them. I regard both sets of experiments of great value to the physiologist and psychologist—quite irrespective of the help they give in the elucidation of various phenomena which have made a strong impression on a certain section of the public, and which, it is maintained, could not be produced without some agency at present beyond our ken. It is clear to me that all *your* work in this direction is done upon strictly scientific principles, and tends to enlarge our knowledge of the automatic interactions of mind and body."

What was actually done was, that, Mr. Bishop having left the room, articles were hidden by some in the room; and then Mr. Bishop, re-entering blindfolded, and placing the hand of the person who had hidden the object in contact with his forehead, moved rapidly about the room in this contact and companionship, and presently went straight to the article. This "experiment" was repeated more than once with success, but was not uniformly successful. Again: he attempted to define the locality of a pain, which the person whose hand he took was either suffering from, or mentally "locating" in any particular position. In these experiments he generally failed. Another example of "thought-reading", more accurately the reading of indications from unconscious muscular movements, was the pointing out letters which spelt a word present to the mind of a person, whose hand he held, and whom he caused to move with himself (both blindfolded) before an alphabet printed on cards. In this, also, Mr. Bishop succeeded once, but failed subsequently. The gentlemen with whom he failed were Mr. Ray Lankester, Dr. Pye-Smith, and others; his successes were scored with gentlemen who were of a more excitable type, and less thoroughly instructed in physiological lore.

RECORDS OF OVARIOTOMY.

MR. SPENCER WELLS has republished a sixth edition of his well known and valuable note-book for cases of ovarian and other abdominal tumours; and he has slightly modified it by improving one of the diagrams, and by adding a note on antiseptic precautions taken during the operation, from which we learn that he began to carbolise the sponges and the silk used for ligatures and sutures, and to keep the instruments in carbolised water, as well as to operate under spray, in January 1878. Since that time, he has had one hundred and thirty-seven cases, with thirteen deaths—a mortality of 9.4 per cent. This diminishing death-rate he mainly attributes to the additional antiseptic precautions. As to subsequent history, he says it is desirable to ask every patient who recovers to write once every year, on the anniversary of the operation, giving full information as to her state. From such communications, and from circulars sent to all who recovered of the first five hundred operations, he ascertained that thirty-five women,

who were unmarried at the time of the operation, had married since. Of these, 14 had each had one child, 6 two, 3 three, and 3 four children; 3 had twins. Of 259 women who were married when the operation was performed, 23 had had one or more children since. Of 25 he could obtain no information. Of three hundred operations performed since the first five hundred, one patient who was unmarried at the time of the operation had married since, and had a child; and of 158 women who were married when operated on, 9 had each had one child, 4 two, and 1 three. One had had twins, and three were pregnant when last heard of. He completed one thousand operations in June 1880, and purposes obtaining particulars respecting all the patients who recovered.

LEGISLATION CONCERNING COLOUR-BLINDNESS.

THE following Act, relative to the employment by railroad companies of persons affected with defective sight or colour-blindness, has been enacted in the State of Massachusetts. 1. No railroad company shall employ or keep in its employment any person in a position which requires him to distinguish form or colour signals, unless such person within two years next preceding has been examined for colour-blindness or other defective sight, by some competent person employed and paid by the railroad company, and has received a certificate that he is not disqualified for such position by colour-blindness or other defective sight. Every railroad company shall require such *employé* to be re-examined at least once within every two years, at the expense of the railroad company. 2. A railroad company shall be liable to a fine of one hundred dollars for each violation of the preceding section. This Act will take effect on July 1st next.

GOUT AND VEGETARIANISM.

ONE of the principal arguments of vegetarians is that, by following the precepts of Pythagoras, we should avoid many diseases, and especially the gout. It would seem, however, that vegetable diet is not always efficacious in the case of parrots, which, although incontestable vegetarians, yet are afflicted with gout. At one of the recent meetings at the Société de Biologie, M. Megnin showed an unfortunate parroquet which had succumbed to gout; the digital and tarsal joints were surrounded by tophi formed of urates. Similar lesions are not uncommon in cage-birds, which can only take but very little exercise in comparison with their habits in a state of nature.

HOMŒOPATHY IN BERLIN.

THE Medical Association of Friedrichstadt (Berlin) has resolved unanimously that the President should bring forward a motion in the Central Committee of the medical associations of Berlin, that it is improper for the members to consult with homœopaths. The cause for such proceedings was a lecture by L. Hoffmann, who is a member of the above Society, in which he pointed out: 1. That the medical press has, in some instances, been opened lately to homœopaths; 2. That the latter were allowed to continue their practice in "allopathic" institutions; and, 3. That even some colleagues did not refuse to consult with homœopaths.

NEW SOURCES OF QUININE.

ALTHOUGH the profit on cinchona plantations is said to be from 70 to 80 per cent., cinchona growers in Ceylon and the East Indies will, the *Pharmaceutical Journal* thinks, need to look closely into the cost and possible profit of their plantations, since they may soon have to compete, not only with the Government plantations, but with enterprise in Bolivia. In 1878, a few private individuals tried the experiment in that country of cultivating the cinchona tree, and now, according to the report of the Dutch Consul, there are on the banks of the Mapiri, at La Paz, four or five hundred thousand young trees of two years' growth. In other places also, new plantations are springing up, chiefly on the mountain slopes, which are cultivated for three-fourths of their height. The cultivation of the cinchona in its original home is, of course, easy, the chief danger being from drought or ants during the first two years, and the only labour necessary is to keep the young plants from weeds during the same time. To give shade to the seedling plants bananas are planted between them. Already excellent yellow bark from Bolivia has been sold in this country, and cultivated South American red bark, yielding 3 per cent. of sulphate of quinine, has lately appeared in the London market.

SCOTLAND.

THE course of "Combe Lectures on Physiology" is at present being delivered in the Church of Scotland Training College by Dr. Andrew Wilson. Two of them have already been delivered, and have attracted considerable numbers.

DURING April, 604 children were treated at the Royal Hospital for Sick Children, Edinburgh, of whom 448 were dispensary patients. There were 38 inmates on April 1st, and 46 new cases were admitted during the month.

THE SCOTCH "FASTING GIRL."

THE fasting girl at Strathaven, having been threatened with confinement in a lunatic asylum, commenced on Wednesday morning to eat freely of porridge, and since then has been supplied with milk, broth, and beef.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.

AT the April examinations for the double qualification of the Colleges of Physicians and Surgeons, Edinburgh, 55 candidates passed the first, and 52 passed the second, professional examination; and these latter received the diploma. At the Royal College of Surgeons, 5 candidates passed the first, and 5 passed the final professional, examination, and these latter received the L.R.C.S.E.; while 7 candidates passed the first, and 6 the final, examination in dental surgery, and received their diploma as qualified dental surgeons.

UNIVERSITY OF EDINBURGH.

ON Monday, the first meeting of the botany class was held in the new class-room, when Professor Dickson gave an opening address, in which he detailed many interesting facts connected with the history of the teaching of botany in Edinburgh. He spoke strongly on the connection that should exist between the teaching of botany and medicine. He also spoke highly of the Emeritus Professor Balfour, under whose *régime* the class had increased from 247 in 1860 to nearly 400 in 1877.

UNIVERSITY OF ABERDEEN.

THE summer session commenced on Monday, May 2nd. The attendance of students beginning the medical curriculum was very large; in fact, larger than on any previous occasion. The class-rooms of the professors of anatomy, botany, and natural history, are actually crowded. This result seems to be largely due to the important improvement regulating graduation in medicine recently obtained by this University.

THE SEWAGE QUESTION AT HELENSBURGH.

AS already noticed in the JOURNAL, a few months ago Dr. Henderson, one of the medical practitioners at Helensburgh, communicated a series of articles to the *Glasgow Medical Journal*, in which he stated that a peculiar disease, which he designated "endemic influenza", afflicted many persons on the Gareloch and its neighbourhood. He further pointed out that the cause of this disease was the pollution of the Clyde by the sewage of Glasgow, which was carried down by the river, and deposited with every ebb and flow of the tide on the foreshores of Helensburgh and the adjoining places, rendering them unhealthy, and subject to this peculiar endemic influenza. The local authorities of these towns appointed a joint committee to investigate the case and report on it. This has been done, and the report has just been issued. It states, generally, that no cases of the so-called "endemic influenza" were discoverable by the committee within the designated area; and that Dr. Henderson, though requested to assist them in their search, did not do so. The report then gives the evidence of chemists and

others, which go to show that the analyses of the river-water and of the mud and sand in the neighbourhood of Helensburgh and Row prove that no ingredients are present from which the alleged disease could arise. We have yet to hear what Dr. Henderson has to say in reply to these statements, but the investigation of the committees seems to have been thoroughly and carefully gone about. Two analysts—Dr. Stevenson Macadam of Edinburgh, and Dr. Wallace of Glasgow—were provided with samples of water and sand taken from the shores of Helensburgh and the Gareloch; and, in the case of Professor Macadam, these were sent with samples from other places beyond the reach of the Glasgow sewage, without any indication being given of the localities which they represented. The result of the analysis shows that the water around Helensburgh possesses great freedom from such organic matter as may be held to indicate sewage pollution, the quantity of albuminoid ammonia present contrasting most favourably with any of the other places chosen. At the same time, it is pointed out that, in none of the selected examples of water, is the total quantity of organic matter other than extremely minute.

ADULTERATION OF MILK.

THE absurdity of one of the regulations of the "Sale of Food and Drugs Act" was exemplified in a case recently tried in Glasgow. The defendant sold threepennyworth of milk, and was tried before the sheriff for having adulterated with 56 per cent. of skim-milk. The counsel for the defendant objected to the complaint, in respect that the purchaser did not state that part of the threepennyworth of milk purchased was to be analysed by the public analyst. This objection was sustained by the sheriff, who dismissed the complaint. What seems a legitimate inference from this is, that anyone can sell diluted milk without fear, so long as the purchaser does not state that it is for analysis; or that, if a purchaser wishes for undiluted milk, he or she should preface the purchase by stating that it is required for analysis.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending April 30th, it appears that the death-rate in the eight principal towns during the week was 21.2 per 1,000 of estimated population. This rate is 3.9 below that for the corresponding week of last year, but 0.3 above that for the previous week of the present year. The lowest mortality was recorded in Aberdeen, viz., 19.3 per 1,000, and the highest in Paisley, viz., 25.4 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 2.5 per 1,000, being 0.8 under that for last week. A female child, aged 6 years, unvaccinated, died of small-pox in Belvidere Hospital, Glasgow. Whooping-cough was the most prevalent zymotic disease, but was nowhere remarkably frequent. Acute diseases of the chest caused 116 deaths, or 19 less than the number recorded last week. The mean temperature was 47.5, being 5.1 above that for the week immediately preceding, and 1.3 below that for the corresponding week of last year.

THE HEALTH OF GLASGOW.

FROM the report of the medical officer of health for Glasgow, it appears that, for the fortnight ending April 30th, there were 520 deaths registered, showing a death-rate of 25 per 1,000 of the population according to the new census. This rate is 2 per 1,000 under the previous fortnight, 4 per 1,000 under the same date last year, and 1 lower than that of two years ago. The number of deaths of persons aged below 1 year was 94, and of persons aged 60 years and upwards, 72, so that the past fortnight has been favourable to both extremes of life. The deaths from pulmonary diseases numbered 196, representing a death-rate of 10 per 1,000 living, and constituting 38 per cent. of the total deaths. There were 8 deaths from fever, viz., 5 enteric fever, 2 typhus, and 1 undefined. The number of deaths from infectious diseases of children was 39, viz., 19 from whooping-cough, 16 from measles, and 4 from scarlet fever. Of the total deaths from measles, 9 occurred on the south side of the city, where this disease has spread rapidly during the past fortnight, probably from some laxity on the part of some teachers in the exclusion of children from infected families. The number of cases of fever registered was 33, viz., 26 of enteric fever, 5 of typhus, and 1 undefined. Three cases of small-pox were registered, all of which were found among the numerous foreign emigrants at present passing through the city. In connection with these cases, the medical officer points out the dangers that arise to the community from cases of infectious disease occurring among this class of people, and he has endeavoured to obviate these by entering into negotiations with the shipping agents and boarding-house keepers who have to deal with emigrants. There are at present in the hospitals, Belvidere, 83 cases of scarlet fever, 69 of enteric fever, 28 of measles, 22 of typhus, 13 of whooping-cough, and 2 of small-pox—in all 217, as compared with 229 this day fortnight, and 277 at the corresponding date of last year.

IRELAND.

IT is stated that steps are being taken to form a medical school in connection with Magee College, a Presbyterian institution in the North of Ireland.

THE King and Queen's College of Physicians in Ireland have contributed a sum of thirty guineas towards the expenses of the International Medical Congress.

DR. GEORGE H. PORTER, Surgeon-in-Ordinary to the Queen in Ireland, and Senior Surgeon to the Meath Hospital, has been appointed Consulting Surgeon to Stevens' Hospital, in place of the late Dr. Christopher Fleming.

FROM the Report of the County Westmeath Infirmary for 1880, we learn that 313 patients were admitted during that period, which with 20 remaining in the house on the 1st January, made a total of 333 under treatment. The daily average number of patients in the infirmary was 21, and the average cost per bed per annum £28 18s. 4½d. The receipts for the year came to £971, which included £85 from subscriptions, and £21 11s. 4d. being the proceeds of Hospital Sunday collections.

THE CORONERS IRELAND (1881) BILL.

THE King and Queen's College of Physicians in Ireland have adopted a report of its Parliamentary Committee on the above Bill recently introduced by Mr. Healy, M.P. for Wexford. It affirms that: "The Bill is objectionable, because it proposes to continue the most objectionable features of the existing coroners' law in Ireland. The present system of appointing coroners by vote of the ratepayers is not calculated to secure men with the requisite judicial qualities and technical knowledge for the efficient discharge of their duties, which are of a most important character. The electors are generally, in Ireland, ruled by political influence, and the fitness of the candidates for the special duties of the office of coroner is generally overlooked. The duties of a coroner are essentially of a judicial character, and coroners should, therefore, be appointed on the same grounds and in the same manner as other judicial functionaries. It has been argued that, inasmuch as the duties of coroners consist, to a large extent, in making inquiries as to the cause of death, that, therefore, medical practitioners would be best qualified to perform these duties. It is, no doubt, true that medical evidence is essential for the efficient conduct of a coroner's inquiry into the cause of death; but it has never been agreed that there should be a medical judge to try cases where similar evidence formed an essential portion of the case. The medical evidence should be provided by a skilled medical expert, who should be a medical jurist and pathologist; and every coroner should have such an officer attached to his court. The present system of employing the practitioner 'at or near the place', as provided by Act of Parliament, or in too many cases a personal friend of the coroner, is a thoroughly unsatisfactory method of conducting such inquiries. Medical men engaged in practice are seldom skilled pathologists or medical jurists; and,

therefore, their evidence on special points is of little value. An instance has recently occurred in Birmingham—where the law in these respects is the same as in Ireland—when, owing to the incompetence and ignorance of the practitioner employed as a medical witness by the coroner, a verdict of manslaughter was returned against a perfectly innocent medical practitioner." The College therefore suggests that any measure for the reform of coroners' law should contain the following among its fundamental provisions: 1. That all coroners should be appointed and paid by the Crown, as other judicial functionaries are at present. 2. That every coroner should be either a barrister or solicitor. 3. That every coroner should have at least two deputies to take his place in case of absence or overwork, and that these deputies should be qualified in like manner as the coroner. 4. That every coroner should have a skilled medical expert attached to his court. Such expert should be appointed by the Government, and should determine in all cases whether a *post mortem* examination is or is not necessary, and should act as assessor to the coroner. 5. That in all cases where a medical practitioner has been in attendance shortly before, at, or immediately after death, he should be examined as a witness, except in cases where he is charged with causing the death.

CORK NORTH INFIRMARY.

DURING the past year, there were 854 intern patients admitted to the hospital, of which number 588 were surgical cases; while 28,912 cases were attended to at the extern department of the infirmary. There was a daily average of 61 beds occupied during the year, and the large number of 4,510 accidents were under treatment at the hospital. Dr. O'Sullivan, for many years assistant-surgeon, has been promoted to the office of surgeon, which gives the infirmary the services of an additional surgeon, "who", as the Committee state, "to great skill in his profession, joins a wide experience of the working of the institution, and a most commendable zeal for its interests". He has been succeeded by Dr. Corby, who for many years was a most efficient house-surgeon of the hospital; while the office thus vacated has been filled by Dr. Cotter. The subscriptions for 1880 were somewhat below those obtained the previous year, and the institution closed the year £452 in debt. As a practical means of permanently doing good, the Committee recommend to the subscribers the founding of beds, which may be done at the moderate outlay of ten guineas a year for each bed.

SANITARY PROTECTION IN DUBLIN.

THE Executive Committee of the Dublin Sanitary Association, believing that a sanitary protection society—like the societies with similar objects now working so satisfactorily in Edinburgh, Manchester, and London—would be of very great benefit to the citizens of Dublin, have proposed to extend the operations of the Association so as to meet a recognised want. The object of the proposed extension is to provide the members of the society, at a moderate cost, with such advice and supervision as shall insure the proper sanitary condition of their own dwellings, and to enable them to procure practical advice as to the best means of remedying defects in the houses of the poorer classes, in which they are interested.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council of the College was held on Thursday, the 12th instant. The minutes of the Quarterly Council, held on the 13th ultimo, were read and confirmed. The Jacksonian Prize was presented to Mr. W. Watson Cheyne, M.B., F.R.C.S., and permission was granted him to publish his dissertation. Reports were received from the Court of Examiners, the Committee on the formula for the alterations in the standing orders relating to the election of members of the Board of Anatomy in Dental Surgery, and the Committee on Examinations in Anatomy and Physiology, in reference to the election of a member of the Dental Section of the Board of Examiners in Dental Surgery. Mr. Tomes was elected an Examiner in Dental Surgery. The usual resolutions regarding the election of members of Council, on the 7th of July next, were adopted. A report was received from Sir James Paget, Bart., as representative of the College, with respect to the proceedings of the General Medical Council at their late meeting.

GUY'S HOSPITAL: DEPUTATION TO THE HOME SECRETARY.

THE long anticipated deputation to the Home Secretary with reference to the mismanagement in Guy's Hospital, took place on Thursday, May 5th. A letter was received on May 3rd, from the Home Secretary, appointing the 5th upon which to receive the deputation, and expressing his wish that it should be limited to about four persons. It should be stated that twenty-five had been appointed by the General Committee. Mr. Baxter and Mr. Rendle, appointed by the General Committee to act, did the best they could in the emergency. Mr. Robins, St. Saviour's Union; Mr. Millar, clerk to St. George's Vestry; Mr. Baxter, secretary to the committee; and Mr. Rendle, as an old student of Guy's (once medical officer of health for Southwark, and a member of the committee), were introduced by the member for Southwark, Professor Rogers, whose remarks on the introduction were very favourable to the objects of the deputation, who had, he said, a strong case.

Mr. RENDLE read a statement, in which he said that, for many months past, the result of long continued mismanagement, difficulties were known to exist at Guy's Hospital, involving serious disagreement between the whole staff and the lay governors. Marks of great disrespect had been publicly shown by the students to the chief lay officer; meetings of students were held near at hand, in which all seem to have joined. There had been almost a battle of the sexes in connection with nursing, and cases before the courts, involving more than mere disapprobation, became known, and excited much feeling in Southwark and elsewhere. This state of things led to the formation of a large committee (list of 100 handed in) mostly of guardians, vestry men, and leading men in South London. A large public meeting was held, and there were numerous discussions, and action taken by the public bodies of Southwark. A deputation was appointed to see the Home Secretary, and to ask for investigation by, if possible, a Royal Commission. It might seem disproportionate to ask for a commission, but the hospital was a large charity, with a revenue of £50,000, ministering to 60,000 people or more in the year, and, although apparently the worst case of hospital mismanagement, was a type more or less of difficulties in other hospitals. The governors were for the most part selected from among noted and honourable gentlemen, who, from their position and other occupations, could not attend to the duties, and the duties therefore devolved upon a much smaller number, who, in their turn, deputed them for the most part to one gentleman. And so gentlemen of the highest standing got the blame for matters of which they had no knowledge. Such gentlemen should resign their position. This state of affairs was strongly condemned by the Charity Commissioners forty years ago, who in their report published strong warnings of the probable consequences of this irresponsible management, which consequence had recently come to pass in a way worse than could have been anticipated: for it came out that more than once the closing of the hospital and dispersion of the school was possible. The medical school at Guy's was one of the largest in the world, of as much importance and public benefit as the hospital itself, and it had all the means for a sound education at hand. There appeared to be no real public responsibility, no representation on behalf of the public in the management; and being mainly in the hands of one gentleman, for whom the governors made themselves practically sponsors, necessary changes and improvements were not effected. The finances were in a doubtful state, and seemed to need an independent examination. The excess of income over expenditure of £4,000 in 1876 became in 1877-8 a deficiency of £8,500. The Act, passed 1724, was a public Act, and had evidently in spirit and in letter been in many ways disregarded in the management of the hospital. For instance, the hospital was partly intended to minister to a special want—namely, to allow time for recovery in protracted cases, and was therefore specially useful to poor working people. It was evident that a capricious subscription to other hospitals, instead of a convalescent hospital connected with this rich foundation, was not providing the accommodation required by the Act. On page 18 of Guy's Act, among the first governors, four doctors of note were appointed to act generally and particularly in the management of the hospital—one of them was Dr. Mead, who might be looked upon as almost a joint founder with Thomas Guy; but at present medical men, who must, of course, be of the very backbone of a hospital, were carefully and obstinately eliminated from the inner and responsible management. On page 15 the Act appointed a committee of twenty-one members for constant and ordinary management of the hospital, and did not empower the committee to depute its duties to any one gentleman. On page 19, the office of matron was a subordinate appointment. The injudicious way in which this official had been lifted above the position intended for her, had led to much evil and disagreement, and from its working would evidently impede that high quality in the education of young men which could alone make a perfect doctor. This deputation

appointed from the public meeting, was empowered to suggest that the medical staff should elect their representatives to act efficiently in working the hospital and school, and that the public bodies of Southwark might, on behalf of public interest, elect one member representing, say, each vestry and district board, to be an efficient governor of the hospital.

Mr. ROBINS and other gentlemen also addressed the Home Secretary:

The HOME SECRETARY, in his reply regretted the inevitable delay in the reception of the deputation; but stated that he approved of the desire for inquiry, even by Royal Commission, as to the London hospitals. He thought the inquiry would have to be, not as to one, but as to all of them. A much more economical way of managing them, and of making them increasingly useful to all parts of London, might be effected; but the bodies connected with them were very strong, and might be difficult to deal with—perhaps as difficult as the guilds.

SELECT COMMITTEE ON THE CONTAGIOUS DISEASES ACTS.

AT the meeting of the Committee on Monday, May 2nd, Surgeon-General Lawson was recalled, this being the fourth day of his examination. He was questioned by Dr. Cameron and Mr. Fowler, and afterwards by Mr. Osborne Morgan and Dr. Farquharson. The examination was first directed to prove the inaccuracy of the stated ratios of secondary to primary disease, by showing that the inspection of troops on entering a protected district would have the effect of putting a large number of primary cases into hospital, and thus diminishing the ratio of secondaries to primaries; similarly, that troops entering an unprotected district from a protected one were not examined, and thus an accumulation of secondary disease acquired in a protected district was debited to the unprotected district.

As to the first point—the examination of the men entering a protected district being complete, and not a mere local inspection—any cases of secondary disease then existing would certainly be detected; though, as Lord Cardwell's order only applied to primary sores and gonorrhœa, the men would have no particular object in concealing their condition. With regard to the second point, Dr. Lawson does not dispute that some cases of secondary disease may be assigned to unprotected districts by reason of soldiers entering such districts from protected stations; but the reverse must be far more frequently the case. For—given two sets of stations, A and B—with men at A contracting primary syphilis at the rate of 100 per 1,000 in the year, and at B only at the rate of 50 per 1,000, it is obvious that men taken from the A stations would carry with them far more secondary disease than men from the B stations. Now, it is not disputed that there is much more primary disease at unprotected than protected stations; therefore men leaving the former for the latter must take with them a far greater amount of secondary disease than when they enter an unprotected district from a protected one.

With regard to the length of service, a few years ago it was ten years, while it is now nominally six; but home regiments are so variously composed of young men and men of longer standing, that it is impossible to arrive at any accurate arrangement in figures. Dr. Lawson thinks, however, that short service cannot have more than the most trifling effect in diminishing secondary syphilis. Of course, in the event of a man contracting primary disease a month or two before his discharge, secondaries might not appear until after he had left the army; but, on the other hand, men enter the army at an earlier age than formerly, and the chance of their infection during at least their first three years of service is generally believed to be greater.

As to the fluctuations shown in the annual returns, Dr. Lawson willingly admits that the incidence of the disease over the country has great influence. For instance, at fourteen stations never under the Acts, the ratio per 1,000 of admissions to hospital for primary sores fell in 1866 to 98, rising again the following year to 115; in 1869, it rose to 128, and then fell to 71; while, on reference to the Registrar-General's reports, precisely the same fluctuations were found in the numbers of deaths returned as due to syphilis.

Dr. Lawson is careful to state that he does not compare large with small stations, as he has been accused of doing: for instance, putting Manchester with one of the camps. He compares Manchester during one period only with Manchester during another period, and finally groups together the protected and unprotected stations to show the general rate of incidence of the disease. He does not admit that, through being allowed to enter unsubjected stations without examination, the soldier becomes at once the chief propagator of disease. By his own calculations, he finds that the soldier is only about one in twenty of the number of young unmarried men of his own age who are doing as he does; consequently only an infinitesimal amount of disease can be considered as due to the soldier, who, unlike the civilian, has every facility for efficient treatment on reporting himself. Dr. Lawson admits that the absence of hospital accommodation for women in unsubjected districts makes the figures tell strongly against those districts; but this is one of the most striking arguments in favour of the Acts—viz., that where the women are made to submit to treatment, the amount of disease has diminished. The apparent anomaly that at thirty-one unsubjected stations, with an aggregate average annual strength of more than two thousand men, there were no admissions for veneral disease, he explains by stating that most of these stations are very small places, with perhaps only ten or twenty men there. These, being on special duty, are selected men, usually married, and little likely to contract disease.

Passing next to the Registrar-General's returns, he pointed out that a large number of deaths set down as due to diseases of special organs were really due to syphilis. The liver, lungs, kidneys, and heart, as well as brain and spinal cord, might all become affected by disease the result of the syphilitic poison; and a liberal margin must, therefore, be allowed in estimating the annual number of deaths from syphilis.

Dr. Lawson is himself in favour of the dualistic theory, but does not attach any importance to it as regards the working of the Acts. Moreover, he considers that the army returns could not be prepared under any other nomenclature than that now in use. In this, as well as in other points, he differed from Mr. Henry Lee, who maintained that the *Nomenclature* of the College of Physicians, having been drawn up by physicians, had no weight on surgical questions. Dr. Lawson pointed out that the College of Physicians, in drawing up their *Nomenclature*, had had the assistance of the most eminent surgeons; and it was, therefore, entitled to every consideration.

He opposed Mr. Lee's statement that a soft sore was a trifling matter—of little importance. On the contrary, he considered soft sores to be most serious for the soldier—even if unaccompanied by bubo—and almost sure to incapacitate him for service during their persistence. Even if it were granted that the Acts had been a failure as regards constitutional syphilis, it would be worth while to maintain them in order to check these soft sores. As to "dirt-sores", he thought they were an invention of Dr. Nevins. He had not heard the term before, and did not know any venereal disease that could be so described.

During a four days' examination, the accuracy of Dr. Lawson's testimony has remained unshaken. His thorough acquaintance with the mass of complicated calculations involved has been most remarkable, while he has dealt with the whole subject in a spirit of the strictest impartiality and fairness.

THE REPORT OF THE MEDICAL OFFICER OF THE LOCAL GOVERNMENT BOARD FOR 1879.

The supplement of the medical officer to the annual report of the Local Government Board for 1879 has just been issued as a Parliamentary paper, fifteen months after the period to which it relates. The continued delay in the publication of this important series of blue-books is greatly to be deplored, if for no other reason than that public interest has altogether evaporated in the matters to which they refer, by the time of their appearance. Thus, the outbreak of parasitic disease on board the *Cornwall*, the Caterham epidemic, and the Fallowfield outbreak of milk-scarlatina, the reports on which appear in the present volume, are now all affairs of the remote past; whilst the report of the Committee of the Pathological Society on Pyæmia and its allied diseases, which monopolises nearly half the blue-book, was criticised in these columns so long ago as January of last year. (See Vol. i, 1880, p. 134.) The only new matters of importance are Dr. Bastian's report on the exact nature of the parasites found in the body of a boy who died during the outbreak on board the *Cornwall*, and Dr. Klein's report on his further study of the lymphatic system of the skin and mucous membranes.

After a graceful allusion to the loss to the Department occasioned by the death of Dr. Seaton, Dr. Buchanan, who now signs the blue-book for the first time as medical officer, comments on the work done in various parts of the kingdom by the medical inspectors in supervision of public vaccinators. A total of 348 unions were inspected during the year, the examination extending to 1,616 vaccination districts, held by 1,520 public vaccinators. The work of 76 per cent. of these vaccinators was found to be of first-class excellence, and awards of money were made to 60 per cent. of the 1,520, who, having been in office for a year and upwards, had in all respects exactly fulfilled their duties. These percentages show a satisfactory advance on the corresponding figures of previous years. The National Vaccine Establishment continued during the year its operations for the collection, examination, and distribution of vaccine lymph to medical practitioners;

and 28,419 charges of lymph were supplied by it to 9,410 applicants. The precautions adopted for securing efficiency and safety in the lymph supply were continued, with results precisely identical with those of the previous year. Doubtless owing to the spur to the question of lymph direct from the calf, which was given by the Conference on Animal Vaccination, held under the presidency of Mr. Ernest Hart in December 1879, the Board caused examination to be made by Dr. Cory, their principal vaccinator, of the effects on children of lymph which had been derived from Dr. Warlomont's establishment at Brussels. Dr. Cory contributes to the volume a somewhat cloudy report on his vaccinations with this lymph, as to which Dr. Buchanan observes that "it will suffice to say of Dr. Cory's results, that in some respects they differed from those which he habitually obtains with long-humanised lymph; that there was no reason for preferring the results of the calf-lymph; and that the humanised lymph had, in its arm-to-arm transmissions, the advantage over the calf-lymph of showing greater uniformity of action."

In speaking of the annual reports received from local medical officers of health, Dr. Buchanan repeats his criticism of last year, that they showed every grade of care about sanitary matters on the part of health officers and sanitary authorities, with strong indications that judgment and zeal on the part of the medical officers have a considerable share in determining the activity of those authorities. Too many instances are found where the reports of medical officers of health fail of giving an adequate representation of the sanitary state of their districts, while the advice conveyed in them is in a corresponding degree unsatisfactory; but for this state of matters it is often too evident that the authorities themselves are in a measure responsible. They have often selected as their officers of health gentlemen with no better qualification for the appointment than the tenure of some other medical office; or they have, in the performance of their sanitary functions, taken no counsel with their officers of health, and have thus encouraged perfunctory work and perfunctory reporting. On the other hand, many distinct proofs of progress are afforded by reports of other officers: progress in the officers' power of research, in the value and importance of their advice, and in the trust in which they are held by their sanitary authorities. The local inquiries made by the medical inspectors as to the prevalence of disease were thirty in number, and had reference to the areas of jurisdiction of thirty-eight sanitary authorities. These numbers are larger than in the preceding year. The occasion for the inquiries arose sometimes from local representations, but more often from the evidence afforded by the Registrar-General's quarterly returns of some exceptional prevalence of disease in the several localities. The usual tabular statement with regard to these inspections appears in the appendix; but they need not be further referred to, since they have all, in some way or other, been already commented on in these columns.

Dr. Bastian's report on the natural history of the nematoid worms found in the exhumed body of the boy who died on board the reformatory school-ship *Cornwall* is instructive, as teaching a lesson of caution in drawing deductions from ill-defined microscopical appearances. It will remembered that Mr. Power, inquiring into a remarkable outbreak of fever on board the *Cornwall*, was able to disprove its identity with enteric fever, and, proceeding to search for direct *post mortem* evidence of its nature, found himself concerned with a parasitic disease, which he regarded as trichiniasis. (See Vol. i, 1880, p. 523.) Some anatomical peculiarities of this *Cornwall* parasite (noted, indeed, at the time by Mr. Power, but by him regarded as of no generic importance) tended to throw doubt on its identity with trichina; and Dr. Bastian, who was consulted on the subject, referred the parasite to the genus Pelodera, which had not hitherto been known to invade the human body. In an able and highly scientific paper, he explains the difference between the true trichina and the *Cornwall* nematoids, and observes that the latter present all the characters which distinguish the free nematoids (Anguillulidæ) from their more habitually parasitic allies. Of the free nematoids already known, the new form is most closely related to those of the genus Rhabditis, as newly defined by Dr. Bastian, and to those of the genus Pelodera (Schneider). Its affinities with the latter genus are, however, by far the most numerous; and Dr. Bastian accordingly names it Pelodera setigera. He adds the following very suggestive remarks: "If future observations should confirm the view that such nematoids as were found in the body of the boy caused the malady from which he died, and were causes likewise of the various other cases of febrile illness on board the *Cornwall*, the importance of the discovery will be increased rather than diminished by the fact that the nematoid in question is not trichina spiralis, but some hitherto unknown form, producing a previously unrecognised disease, whose clinical affinities are almost as strong in the direction of enteric fever as they are in that of trichiniasis. In this case we shall, in future, have to distinguish between two distinct 'fleshworm' diseases in the human subject, the one caused by the trichina fleshworm, and the other by the pelodera fleshworm. The mode in which worms of the latter class, or their allies, gain entry to the body, would still remain to be determined. It is only necessary now to name the eating of raw fruits or vegetables contaminated with such organisms, or with minute slugs that may have swallowed them, in addition to the drinking of unfiltered and unboiled water, which may for some time have been stored in tanks or cisterns containing much organic sediment, as possible modes by which dwellers in towns or other communities might be infected. The young, or the ova, of particular free nematoids might, from time to time (*i.e.*, at particular seasons, or under particular conditions), chance to be brought to such reservoirs in unusual numbers, and they might there find conditions favourable for their still further multiplication. And if disease, in man, does not often result from such causes, this is probably to be ascribed to the general inaptitude of these free nematoids to take on this kind of accidental parasitic existence rather than to the rarity with which they or their ova are able to gain access to the human alimentary canal."

Amongst the scientific investigations undertaken by the Medical Department, those of Dr. Klein on the lymphatic system of the skin and mucous membranes deserve chief mention. Dr. Klein's previous investigations in this branch of research have had reference to the lymphatics of the serous membranes and of the lung, and were calculated to throw light on those chronic processes of infection, which, especially under the name of tubercle, are recognised as the cause of an enormous amount of disease. The researches recorded in the present volume have related to other parts of the lymphatic system, and they contribute much to a recognition of the part that is played, both in health and disease, by the several tissues that compose the skin and mucous membranes. For pathologists, the observations are of singular interest, as indicating the methods by which particulate organisms, such as we are learning to regard as being intimately related to the contagion of acute infectious disease, can obtain access into the tissues of the body. One result of Dr. Klein's careful investigations will, therefore, be to make it easier to understand the processes by which skin and mucous membrane, crowded with such organisms, can spread them abroad in air and water to carry infection to other living bodies.

Another branch of Dr. Klein's work for the department is recorded in a tabular statement of a number of experiments in the inoculation of bovine animals with the material of small-pox, with the view of investigating the evidences of pathological identity of small-pox and cow-pox. Like Gassner, Theile, and Ceely, Dr. Klein attempted to produce vaccinia in the calf by inoculating the animal with human variola; but his results so far differed from theirs, that in thirty-three instances his experiments failed of producing recognisable vaccinia. Dr. Buchanan thinks, however, that there is nothing in these observations that can safely be regarded as disproving the transmutability of one into the other disease. No doubt the conditions for the transmutation are not yet understood; but there are indications that the affirmative result obtained in a certain proportion of cases by the earlier observers may turn out to be an affair of conditions and circumstances of experiment. Particularly a note appended to Dr. Klein's report is of interest in this respect, as showing how some unascertained difference in conditions of experiment have yielded in his hands very different results from those of the French Commission of 1865, when a certain kind of protective influence exerted upon the calf by inoculation of it with human small-pox was under investigation. As bearing on the question whether the inoculation of bovine animals with human variola-lymph produces any constitutional effect, Dr. Klein records that several of the animals were, soon after variolous inoculation, subjected to inoculation with humanised vaccine lymph; and that they appeared insusceptible to it in proportion to the amount of previous "variolation". In two cases the "vaccination" with fresh and good humanised vaccine lymph took place after the animals had been three times variolated; in two others, after the animals had been twice variolated; and in two further instances, the "vaccination" was performed simultaneously with the second variolation. It was found that in the first three animals, no effect whatever was produced by the vaccination; in the fourth, only a very slight result was obtained; and in each of the last two cows, five days after the operation, all (four) places of vaccination were swollen, red, and indurated; they did not lead to vesicles, but passed into small sores.

Dr. Thudichum contributes, as usual, a number of papers on the chemical nature of the nitrogenous principles of the brain, and of the organo-plastic substances; and the report of the Pathological Committee on Pyæmia, Septicæmia, and Purulent Infection (already referred to), completes the volume.

UNIVERSITY OF LONDON.

THE annual meeting of Convocation took place on Tuesday last, Dr. Storrar, Chairman of Convocation, presiding. The Registrar of the University, Mr. A. Milman, laid upon the table the minutes of all sittings of the Senate held since the last meeting of Convocation. Mr. H. E. Allen, LL.B., B.A., was unanimously re-elected Clerk of Convocation for the coming year. Scrutineers of the ballot for the Annual Committee were appointed, and the following members of the Faculties of Medicine and Science were declared duly elected: M. Baines, M.D.; E. B. Baxter, M.D.; G. Buchanan, M.D., B.A.; W. C. Coupland, M.A., B.Sc.; J. Curnow, M.D.; C. H. Fagge, M.D.; W. Flight, D.Sc.; F. J. Hensley, M.D.; W. H. Holman, M.B.; H. G. Howse, M.S., M.B.; B. Kisch, M.A., B.Sc.; P. Magnus, B.A., B.Sc.; H. Morris, M.A., M.B.; G. V. Poore, M.D., B.S.; P. H. Pye-Smith, M.D., B.A.; F. Taylor, M.D.

Dr. POORE and Dr. CURNOW presented the report of the Annual Committee, which was received.

Dr. POORE and Dr. CURNOW moved the adoption of the following resolution, recommended in paragraph 7 of the report of the Annual Committee:

"That it is desirable that the Preliminary Science (M.B.) Examination be held twice in the year—viz., in March and August—and that it be optional for candidates to take up either all four subjects at once, or two at a time, such subjects to be previously specified by them."

In support of the resolution, Dr. POORE said that it would have the effect of bringing more to take the degree. He wished to see as many take their degree as possible, without lowering the standard of examination. Out of two thousand medical students in London, the number who took the London degree was paltry. During the past forty years, the number who passed had only been nineteen per annum, less than one for every medical school in the country. The change, if carried out, would enable men to conduct their studies much more economically, and this would have the effect of bringing more men to their examinations. No city in the world offered such facilities for studying medicine as London, with its four millions of population.

Dr. CURNOW also spoke at length in favour of the proposed regulation, which was fully discussed by a large number of graduates.

Dr. G. C. TAYLOR opposed the resolution. He said that the University of London had hitherto held its own against the world, and he thought it would be a mistake to throw the examination open.

Dr. R. D. Roberts proposed, as an amendment, to leave out all the words after the word "August".

The Rev. W. TIDMARSH, B.A., seconded the amendment, which, after a long discussion, was carried by a large majority.

The resolution recommending the holding of the Preliminary Science (M.B.) Examination twice a year, in March and August, was then adopted.

Dr. POORE and Dr. CURNOW then moved the adoption of the following resolution, recommended in paragraph 7 of the report of the Annual Committee:

"That, instead of honours in special subjects, a general list be made at each examination, as at matriculation."

This was agreed to.

A warm and prolonged debate arose upon the first of a series of five resolutions, in favour of an Act providing for the registration of teachers, and in support of Sir John Lubbock's Bill on that subject now before the House of Commons.

On the motion of Mr. SHAEN, M.A., seconded by Mr. GEORGE SERRELL, LL.D., M.A., the whole five were passed over.

Mr. A. P. HENSMAN, B.A., and Mr. H. A. NESBITT, M.A., moved the following resolution:

"That it is just and desirable that women who are graduates of this University, and of the requisite standing, should be entitled to become members of Convocation, and to vote at the election of the member of Parliament of the University."

Mr. A. M'DOWALL, B.A., B.Sc., proposed, and Mr. A. W. BENNETT, M.A., B.Sc., seconded, an amendment to the effect:

"That female graduates be admitted to Convocation."

After some discussion, the debate was adjourned to the January meeting, on the motion of Mr. T. TYLER, M.A.

The House adjourned, after a sitting of nearly four hours and a half.

TREATMENT OF CYSTITIS.—Dr. A. J. C. Skene of Brooklyn gives the following, which he regards as almost specific in its influence, especially in the earlier stages, affording rapid and lasting relief:—℞ Acidi benzoici, sodii biboratis, āā gra. x; inf. buchu ℥ij. M. Sig. This quantity to be taken three or four times a day. The diet should also be carefully regulated, and the skin and bowels kept in an active condition.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting of the above District will be held on Thursday evening, May 19th, 1881, at the New Town Hall, Hackney, at 8.30; Francis Toulmin, Esq., in the chair. James E. Adams, F.R.C.S.Eng., will relate a case of Rupture of the Middle Meningeal Artery. F. Wallace, L.R.C.P.Lond., will read some Remarks on the Treatment of Empyema; and exhibit a Boy the subject of Ectopia Vesicæ. The arrangements for the annual meeting in June will be made.—FREDERICK WALLACE, Honorary Secretary, 96, Cazenove Road, Upper Clapton.—May 10th, 1881.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.—The annual meeting of this District will be held at the Bridge House Hotel, London Bridge, on Tuesday, May 24th, at 6 P.M. The members will dine together at 6.30; Dr. Habershon, President of the Branch, in the chair. Tickets 5s., exclusive of wine. Gentlemen intending to dine are requested to communicate with the Honorary Secretary as early as possible.—H. NELSON HARDY, Honorary Secretary, The Grove, Dulwich, S.E.—May 10th, 1881.

SOUTH-WESTERN BRANCH.—The annual meeting will be held in Druid's Hall, Redruth, on Wednesday, June 15th, at 2 P.M. President, R. Hogarth Clay, M.D.; President-elect, R. Hudson, M.D. By the kindness of the President-elect, Dr. Hudson, luncheon will be provided for the members at 10, Trearigie Road, from 12 o'clock to 2 o'clock. Dinner at Tabb's Hotel at 6 o'clock. Members intending to make communications, or be present at the dinner, are requested to send notice to S. REES PHILLIPS, M.D., Honorary Secretary, Wonford House, Exeter.

NORTH WALES BRANCH.—The next intermediate meeting will be held in Chester on Tuesday, the 31st day of May. Further arrangements as to time and place of meeting will be duly announced in the JOURNAL. A paper on The Treatment of Pleuritic Effusions has been promised from Dr. Balthazar Foster, Physician to the General Hospital, Birmingham. It is requested that the titles of papers to be read by members of the Branch may be communicated to the Honorary Secretary on an early day. The President hopes for the pleasure of seeing the members of the Lancashire and Cheshire Branch at the meeting.—J. LLOYD ROBERTS, Honorary Secretary.

BORDER COUNTIES BRANCH.—The spring meeting will be held at Penrith, on Wednesday, May 25th. The following communications have been promised. 1. Dr. Taylor: Clinical Observations on the Fungoid Origin of Diphtheria. 2. Dr. Eastwood: On the Working of the Habitual Drunkards' Act, 1879. 3. Dr. T'Anson: Embolism or Burst Hæmatoma? JOHN SMITH, M.D., Dumfries; J. KENDALL BURT, M.B., Kendal, Honorary Secretaries.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of this District will be held at the Royal York Hotel, Old Steine, Brighton, on Wednesday, May 25th, at 3.30 P.M.; Dr. W. A. Hollis in the chair. Papers, etc., are promised as follows: 1. Mr. Penfold: *a*. A Case of Orbital Tumour, with Photograph; *b*. Glioma of Retina. 2. Mr. C. Baber: On Diffuse Inflammation of the External Auditory Canal. 3. Mr. Edwards: Notes of a Case of Diphtheria, with Treatment. 4. Dr. Ewart: Is an Indian Career suitable for Persons inheriting the Tubercular Diathesis? Dinner will be provided at the Hotel after the meeting. The narration of short practical cases of interest, and the exhibition of morbid specimens, is particularly invited. Notice of these should be sent at once to the Secretary, in order that they may be included in the usual circular.—THOMAS TROLLOPE, M.D.Cantab, 9, Maze Hill, St. Leonard's-on-Sea, Honorary District Secretary.—Tuesday, May 10th, 1881.

NORTH OF IRELAND BRANCH.—The annual meeting of this Branch will be held in the Belfast Royal Hospital, on Thursday, May 26th, at 4 P.M. The members will dine together at 7 P.M. Members intending to read papers or send communications will kindly intimate their intention to JOHN MOORE, M.D., Honorary Secretary, 2, Carlisle Terrace.—April 26th, 1881.

BATH AND BRISTOL BRANCH.—The next ordinary meeting of this Branch will be held at the Grand Pump Room Hotel, Bath, on Thursday, May 19th, at 7.15 P.M.; Alex. Waugh, Esq., President.—R. S. FOWLER, E. MARKHAM SKERRITT, Honorary Secretaries.—Bath, April 1881.

EAST YORK AND NORTH LINCOLN BRANCH.—The annual meeting of this Branch will be held at the Infirmary on Wednesday, May 25th, at 1.30 P.M. Gentlemen who desire to make any communication, or to propose any resolution, are requested to inform the Secretary not later than the 14th instant. The time allotted to each communication is limited to fifteen minutes.—E. P. HARDEY, Hon. Sec.—May 6th, 1881.

STAFFORDSHIRE BRANCH.—The third ordinary meeting of the present session will be held at the Bell Medical Library, Cleveland Road, Wolverhampton, on Thursday May 26th, at 3 P.M.—VINCENT JACKSON, General Secretary.—May 8th, 1881.

SOUTH MIDLAND BRANCH.—The annual meeting of this Branch will be held at the Swan Hotel, Newport Pagnell, on Thursday, the 9th of June, at 2.30 P.M.; H. Rogers, Esq., President-elect. The members will dine at 5.30 P.M. Members intending to read papers are requested to communicate with G. F. KIRBY SMITH, Esq., or Dr. BRYAN, Honorary Secretaries.—Northampton, May 9th, 1881.

SOUTHERN BRANCH: DORSET DISTRICT.

A MEETING was held at the County Hospital, Dorchester, on Wednesday, April 20th, 1881; Mr. R. PALGRAVE SIMPSON, President, in the chair.

New Members.—Mr. Alfred J. H. Crespe of Wimborne, Surgeon-

Major Robert Anderson of the Army Medical Department, Mr. Woodruffe Daniell of Wareham, Mr. G. C. Delamotte of Swanage, Mr. W. A. E. Hay, of Bridport, Dr. Thomas Fielding of Melton Abbas, Mr. William McEnery of Cerne Abbas, and Mr. W. H. C. Macartney of the Dorset County Hospital, were elected members of the Branch and District.

Representative Members of Council.—Dr. G. H. Battenbury of Wimborne was elected a representative to the General Council; Dr. E. P. Philpots of Poole, and Dr. R. J. Thomson of Bournemouth, were re-elected. Mr. J. C. Leach of Sturminster Newton was re-elected a member of the Branch Council.

Next Meeting.—It was decided that the next meeting should be held at Wimborne.

Communications.—The following papers were read:

1. The President: Scarlet Fever, Measles, Small-pox, Whooping-cough: period of incubation; modes in which propagated; and the period during which infection continues.
2. Mr. Jumeaux: Two Cases of Abscess of the Liver.
3. Dr. Griffin: Statistics of Revaccination of the Crews of the Channel Squadron in 1871.
4. Mr. Hawkins: Case of Pulmonary Embolism: Recovery.
5. Dr. Battenbury: Case of Idiopathic Pernicious Anæmia.
6. Dr. Lush: Case of Keloid: Patient exhibited.
7. Dr. Lush: Specimen of Ovarian Cyst, with Remarks on Three Cases of Ovariotomy.

Dinner.—The members and friends, twenty-six in number, dined together at the King's Arms Hotel.

CORRESPONDENCE.

CONSULTATIONS WITH HOMŒOPATHS.

SIR,—Mr. Holthouse says very justly, in his letter, page 749 of the BRITISH MEDICAL JOURNAL, speaking of his homœopathic friends, "that we should not go to their enemies for their character, but hear from their teachers in the homœopathic schools what they have to say for themselves". The following extracts from an introductory lecture delivered in the London School of Homœopathy on October 7th, 1878, represent what Mr. Richard Hughes says on the subject of their minute dosage. "The pharmaceutic processes I have described as characteristic of homœopathy have for their main object the reduction of the drug to fractional proportions, of which the third degree already represents the millionth part of a grain or of a drop, while I shall have to speak familiarly of the sixth, the twelfth, and even the thirtieth" (p. 1). At p. 8, he writes: "I must take into account that, from 1808 onwards, Hahnemann is found raising the potencies of several of his medicines far above the third, dealing with billionths, trillionths, quadrillionths, octillionths, at length reaching the decillionth, and, in 1829, fixing this last proportion as most suitable for all drugs. I must recognise the fact that the majority of his disciples have followed him in the employment of these higher fractions, and are using them more or less largely in their practice at the present day." He then alludes to the later development of attenuation up to the two hundredth dilution, and admits its legitimacy. He adds: "Much as I regret the necessity of employing the higher infinitesimals, I cannot but acknowledge it. The testimony in their favour is overwhelming; the evidence of their efficacy undeniable." The writer is a stranger to me, but he evidently is a straightforward, candid, and intelligent man, and cannot, I should think, be denied to be an authority on his subject—materia medica and therapeutics.

It is therefore perfectly certain that Hahnemann's infinitesimal doses—and I might say the same of such drugs as calcarea carbonica and carbo vegetabilis—have not been abandoned, but are used largely at the present day. While this is the case, it is plain that conference between a homœopath and a rational practitioner is impossible. What good could result from men meeting in a case of heart-disease, one of whom wished to give ten minims of tincture of digitalis for a dose, and the other a decillionth of a minim—*i.e.*, a fraction having one for its numerator, and 1 followed by sixty noughts for its denominator? With hybrid practitioners the case is somewhat different; but divided allegiance does not inspire confidence.

It should, I think, be always clearly laid down, that it is not the "*similia similibus*" dogma, but the peculiar dosage which keeps rational practitioners and homœopaths apart. Would that the severance might cease!—I remain, your obedient servant,

C. HANDFIELD JONES.

24, Montagu Square, W., May 1881.

SIR,—As one who has recently passed through the ordeal of having to refuse a consultation with a homœopathic practitioner, I desire to express my concurrence with the views enunciated by Drs. Markham and Fothergill. My own case was peculiarly trying, as I was requested to see an elderly patient on whom, about two years ago, I operated for strangulated femoral hernia. Her complete recovery naturally gave her confidence in me; but, unfortunately, a short time since, for some (as she then considered) trivial ailment, she consulted a professed homœopathist. Becoming worse, she expressed her wish to see me, and this gentleman assented thereto. Accordingly, the son called and asked me to see his mother. I at once explained to him the peculiar difficulties of the case—the more so, because the gentleman in attendance has constituted himself the special champion of homœopathy in this city, by the publication of a pamphlet on the subject, which could leave no doubt on my mind that he had treated the patient by the homœopathic system.

The case of the late lamented Earl of Beaconsfield being so prominent, I did not think it necessary to take other counsel; but at once declined the consultation—stating to the son, that, if he had not perfect confidence in the medical adviser, two courses were open to him: either to request a consultation with another homœopath, or ask him to retire from the case in my favour. I added that, if both of us were honest men, there could be no agreement, as neither could sacrifice his principles. I doubt not that my refusal gave pain, and probably offence; but, although I was grieved at having to decline, I felt that no other course was open to me. Various opinions have been expressed to me as to my proceeding, in private conversation with medical friends, and some have told me that I ought to have gone to the patient.

The illustration of a "privateer", used by Dr. Fothergill, has often been adopted by myself in pointing out the chief cause of professional difference between us and "homœopaths". By this designation, they set forth to the public that there is a wide divergence between our methods of practice, as well as principles; and, if they are right, we must be wrong. There can be no escaping this conclusion; and there can be no doubt that the public mind is clouded. We are all well aware of instances of professed homœopaths prescribing ordinary medicines in ordinary doses; but this the general public does not know, and attributes all the good thus done to the *peculiar* treatment adopted by our opponents.

Of Dr. Fothergill's questions, the first must be answered unhesitatingly "No". Medical men should recognise no such invidious distinction as the social position of the patient. No. 2 requires more consideration; but I think the plan adopted by Dr. Quain was right in this particular instance (as, no doubt, Lord Beaconsfield had a decided partiality for Dr. Kidd, and would have been distressed at being deprived of his aid as an attendant and tried friend), especially as Dr. Kidd entirely surrendered his own special views, and agreed to carry out Dr. Quain's suggestions.

I fully agree with "A Member" that, thereby, homœopathy has received a "death-blow", by Dr. Kidd's practically avowing himself an unbeliever in its efficacy as a system of medical practice. The concluding paragraph of Dr. Fothergill's letter is worthy of serious consideration by the laity. The letter of Dr. Bruce puzzles me. The writer's views are apparently much in sympathy with homœopathists. No doubt, the majority of these gentlemen are "duly registered practitioners", although I entertain strong feelings as to whether their abrogation of those principles they professed on passing their examinations, should not of itself be sufficient cause for their respective colleges requesting them to surrender their licences, obtained on far different bases than their present practice admits as sound. I do not think Dr. Bruce has grown wiser, if he sincerely regrets his course of action in the case of the "hospital physician", who "became a homœopath" fifteen years ago. I hold firmly that, when any medical man arrogates to himself a peculiar designation, as homœopaths do, he cannot expect recognition from regular practitioners, who have no desire to claim the distinctive title of "allopath", but are quite content to be recognised as ordinary practitioners of scientific medicine and surgery.

"A Member" asks: "Is an ordinary practitioner justified in refusing aid in a dangerous case of labour, where a professed homœopath is in attendance?" In such a case, I would go immediately, and should expect to have the conduct of the case. A case of uterine hæmorrhage would leave no time for discussion as to the action of an infinitesimal dose of ergot or nux vomica; and, if operative interference were necessary, unless the gentleman were prepared to act promptly, I would either do so myself, or decline all responsibility in the case—frankly telling the patient's friends so. In a surgical emergency, my line of action would be the same. Had my own case, above referred to, been one of operation, I should not have hesitated to go; and, if my advice had been declined, I should have left at once.

The conditions of urgent surgical and obstetrical treatment are essen-

tially different from those of *ordinary* medical cases.—I remain, sir, your obedient servant, JOHN EWENS.

Bristol, May 3rd, 1881.

P.S.—If homœopathists wish, as they did some time since, to be admitted as members of the British Medical Association, I imagine there would be no objection, if they are prepared to drop their distinctive appellation. Surely, this is not too much to require from them.

THE RECEPTION OF PAYING PATIENTS INTO THE METROPOLITAN HOSPITALS.

SIR,—The attention of all readers of the JOURNAL, who are interested in the question of the admission of paying patients into Hospitals ought to be given to an article by Mr. Burdett in this month's number of *Fraser's Magazine*. Its authorship alone would bespeak the reader's notice, and its intrinsic merit will well repay perusal. Will you permit me to lay before my fellow associates a few considerations connected with this important subject, some of which do not fall within the scope of Mr. Burdett's essay? The need, as far as I understand, for such admission of paying patients, is twofold; arising out of the circumstances of the patients, and those of the hospitals. Every one in London practice must have repeatedly come across instances of persons labouring under grave diseases, or requiring serious surgical operations, who are hardly able to call in a private practitioner, either because they are strangers in town, or because, though moderately well off, they are unable to bear the very great expense which such things often entail; or from some other accidental, but perfectly legitimate cause. And I believe that London is one of very few large cities in which there is no public provision for such persons. Most medical men would agree that institutions for the reception of such persons might very advantageously be founded at the risk of the municipality, provided always that the need is an urgent one. And I think that most of us would also agree that it is only in cases of real urgency that there should be any such provision; that it would be a very poor result of any public movement on this matter, if we were to erect "paying Hospitals", to be filled as some rural hospitals are with cases of hysteria, chronic rheumatism, etc. One of the great defects which strike a critical eye in the schemes which have hitherto been devised for the reception of paying patients into hospitals, whether public or private, is the absence of any security that the cases admitted shall be of real gravity or importance. If this essential point could be ensured, there seems no object more worthy of public or municipal effort than the foundation of hospitals or "Maisons de Santé" at which the many strangers who are taken with grave diseases, and the many persons who require operations, but are hardly able to pay the expenses of lodgings, nurse, surgeon, etc., may be admitted at such a reasonable price as will secure the solvency of the institution. But this is the comparatively easy side of this two-fold need. The other is that which seems to have started the movement at St. Thomas's Hospital, and is that which is chiefly dwelt upon in Mr. Burdett's article—viz., the need which the hospitals themselves find of funds, and the extent to which they are used by persons who are able to pay (at least to some extent) for the treatment they receive. Now this opens a very wide question, and one which, I submit, can only be very imperfectly solved by such an institution as the Home Hospitals Association—cordially as I wish well to that institution. The question, as Mr. Burdett very well puts it, touches the very essence of public medical charity; whether it is wise to bring people up in entire dependence on gratuitous aid during those emergencies which may be pretty surely foreseen; and to what extent such a system tends to pauperise the classes to whom it is applied. But it also touches on another hardly less vital consideration, viz., how far we are justified in withdrawing from the scanty stock of cases, now available for the instruction of students in medicine and surgery, the beds which it is now proposed to devote in public hospitals to paying patients. It may be said that the paying cases might be available for the students, equally with the gratuitous; but will they be so? Will gentlemen and ladies endure exposure before a crowd of students? If not, every bed which in a hospital like St. Thomas's, with a medical school attached, is given up to paying patients, is so much deducted from the teaching power of the hospital. And then comes the difficult question, of exacting payment from the ordinary patients. Mr. Burdett tells us that, in cottage hospitals, about one-sixth of the income is derived from the contributions of the patients. I will not stop to inquire how far these nominal contributions are really paid by the patients themselves. In many instances, I believe they are found for them by charitable friends. But even if we accept Mr. Burdett's statement, it still leaves the hospital, in all medical respects, a purely charitable and gratuitous institution, since the services of the medical officer are never paid for, either by the patient or by anybody else. And here we meet with another startling novelty. If patients are to pay, it is only reasonable that they should pay first for what is most essential and most valuable, and that, to a man in grave danger of his life, is certainly the medical assistance which is to save his life. So long as hospital patients were considered as paupers unable to provide themselves with anything, medical men were willing to take care of them for nothing; not, of course, as everyone knows, from pure charity, though charity is abundantly granted by hospital officers to their patients, but looking also for some return in the position and reputation which hospital office brought with it; and also for some further return in the facilities for teaching, which the hospital offered. But if all this is to be reversed, the conditions of the bargain are completely altered, and common sense surely would dictate that, for medical care, the first person who should be paid ought to be the doctor. This, however, would not only change, it would revolutionise, our whole hospital system; and before so great an innovation is made, a deliberate and public inquiry should be held into all the facts of the case. The experiment at St. Thomas's was commenced obviously with too little consideration, and without any thorough understanding of the matter, and furnishes only an additional illustration of the danger incurred by making lay governors the absolute judges and disposers of questions with which they cannot be familiar. Even in its amended form the scheme is open to objections, which Mr. Burdett has pointed out, and which may throw discredit, though undeserved, on the whole plan of admitting paying patients. And even if it were to succeed as far as it goes, yet it goes so very short a distance, that but little advantage would be gained from its success; for both the institution and the circumstances are peculiar, and what may be practicable at present for St. Thomas's Hospital with its Act of Parliament organisation, its separate empty blocks, and its temporary want of funds, might be quite impossible in another hospital differently situated in all these respects; and looked at merely in a pecuniary point of view, the scheme that may (possibly) put money into the diminished exchequer of St. Thomas's, would almost certainly be the ruin of a voluntary hospital like St. George's; since the subscribers would probably say, "If this hospital has ceased to be a charity, I shall transfer my subscription elsewhere". The formation of institutions like the Home Hospital in Fitzroy Square, admirable as such institutions are, has really nothing to do with the question of admitting paying patients into our public hospitals. Such institutions are more analogous to the co-operative stores, which are multiplying and flourishing to a great extent in London. They are intended to provide for the former of the two needs spoken of above, *i.e.* to enable persons moderately well off to get equally good attendance as the poor do in hospitals; but they have no bearing on the second branch of the question, that of the reform in this particular of our present great eleemosynary foundations. I am, myself, disposed to think that, in the present condition of London, some plan might be devised by which either paying patients might be received at our present hospitals, the payments being shared in equitable proportions between the medical men and the hospital, and the cases being, as now, available for the instruction of students; or hospitals might be divided into two classes; those with medical schools, where the present strictly eleemosynary system might still prevail, and those without schools, where paying patients might be admitted under some adequate regulations, and under public supervision. But the whole subject is a very difficult one, and could only be treated with any prospect of success, by such a body as the proposed Royal Commission, on the result of a careful and extensive inquiry, and after hearing the views of all parties to the scheme. The serious proposal of such a modification of our present system, and the commencement of an experiment to that end by the governors of St. Thomas's, is another motive for a public enquiry, so that the change may not take place haphazard, but may be guided by a full knowledge of the question.

If I have seemed in this letter to dwell chiefly on the difficulties of the subject, it is because its advantages have been pointed out by Mr. Burdett more ably than I could hope to do.—I am, Sir, yours, etc.,

18, Gt. Cumberland Place, April 19th, 1881. T. HOLMES.

THE QUESTION OF CONGESTION OF THE BRAIN.

SIR,—Having recently recovered from a poisoned hand, contracted in performing the operation of craniotomy, I did not read the lectures of Dr. Moxon until last week. In reference to these lectures, I feel it imperatively due to myself to notice the remarks on *congestion of the brain*, which, Dr. Moxon affirms, has been treated as a reality by pathologists; and he then pertinently inquires (apparently presuming that the question is altogether new): "Can you, in any individual case, prove, by *post mortem* appearances, that death was caused by congestion of the brain; or even that a state of congestion of the brain, or overfulness of its blood-vessels, preceded death? I believe that these

questions must be answered firmly in the negative." This opinion, with other of the positions of Dr. Moxon regarding the cerebral circulation, has been anticipated, rather clinically than anatomically, in my papers on "Nervous Apoplexy, Congestion of the Brain, and Serous Effusion", published in the *British and Foreign Medico-Chirurgical Review*, vols. xxxvii-viii, 1866; and also in my work on *Apoplexy*, where the matter is discussed at length (pp. 146-168). In confirmation, I give the following short quotation from the book mentioned: "In briefly considering the subject of cerebral *congestion* as an efficient cause of fatal apoplexy, I would, at the outset, inquire if any practitioner can advance an undeniable example, verified by accurate detail of symptoms and exhaustive necropsy, of death from mere primary sanguineous congestion?" (page 146). I also drew attention to the fact, that "the cadaveric blood-stasis is little criterion of the circulation of the brain during life" (page 17); and, not to be prolix, I finally contend, "that there is not a shadow of evidence that simple modifications in the cerebral circulation are capable of exerting any material pressure on the brain; and, *à fortiori*, that such (hypothetical) pressure has any influence in the causation of apoplexy" (page 132). I also dwell upon the inadequacy of simple, non-valvular, hypertrophous disease of the heart to cause congestion (pp. 18 and 84-87); and also, that the aspect, congestive or other, of the face is no indication of the state of vascularity of the brain (page 161). I likewise notice, which Dr. Moxon repeats, that so-called congestion may be undeveloped scarlatina (page 141); and I refer to the toxemia of rheumatism, etc. (page 193); the experiments of Mr. Durham on sleep—in opposition to Dr. Cappie (page 192); and the influence of anæsthetics, and of the various forms of asphyxia on the supply of blood to the brain (pp. 162-3).

I ask: "Is it permissible to adduce cases of insolatio, cerebritis (?), of tubercular disease of the brain and its membranes, of delirium tremens, of uræmia, of secondary or *post mortem* engorgement of the vessels, etc., as examples of cerebral congestion constituting primary apoplexy?" (Page 152.)

In fact, my whole argument is directed against the assumption of cerebral congestion as a pathological condition or cause of apoplexy (page 154 *et seq.*); and (at page 165) I conclude that "unconsciousness is more frequently attended by a bloodless than a congested condition of the brain".

Briefly to advert to epilepsy, although beyond the scope of my treatise, I venture to reproduce the following extract. "Reference to the *quality* of the vascular supply, toxic or spanæmic, will in all cases satisfactorily elucidate the seeming contradictions, and be equally explanatory of vertigo, delirium, *epilepsy*, puerperal eclampsia, and insanity—*not to mention emotional states*—which are incapable of solution, on mechanical considerations, or supposition of congestion." (Page 168).—I am, yours faithfully,

WM. BOYD MUSHET, M.B.Lond., M.R.C.P.Lond.

New Brighton, April 25th, 1881.

CHARGE AGAINST A HOSPITAL.—The case of "The Queen *v.* Hoggan" was tried in the Queen's Bench Division on Monday. The action was founded upon a letter which appeared in the *Standard* newspaper, alleged to have been written by the defendant, criticising the conduct of the prosecutor, Mr. St. Vincent Mercier, the secretary; of Major Charles Mercier, the treasurer; and of some of the board of management of St. John's Hospital for Diseases of the Skin, in Leicester Square. The defendant, Dr. George Hoggan, was one of the doctors who gave his services for the benefit of the patients of the hospital, which received support by voluntary donations from patients. Some questions arose between the defendant and the managers of the hospital, and the board dismissed the defendant from the medical staff of the hospital. Subsequently the defendant published the letters on the subject upon which the present action was founded; and among them was one published in the *Standard*, dated February 25th, 1880, containing statements in the following words: "The management has got into the hands of a ring, who, I estimate, have put between two and three thousand pounds in their pockets during the past two years." Mr. Mercier, the prosecutor, said he had not been guilty of pocketing any of the funds of the society. Mr. Murphy, after a consultation with his lordship and the learned counsel for the prosecution, admitted his client, the defendant, was in the wrong, and that he had had no intention of making any imputation on the prosecutor. Baron Pollock, under these circumstances, allowed the indictment to be withdrawn, and directed that the prosecutor should not be allowed to suffer from coming into court to vindicate his character.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE NORTHUMBERLAND COUNTY ASYLUM.

THE Northumberland County Asylum contained on December 31st last 432 patients. The commissioners speak in commendatory terms of its condition and management. Dr. McDowall, the medical superintendent, in his report, adverts to the small extent to which the insane poor participate in those charitable bequests which are in this country so liberally bestowed upon the suffering and afflicted. The explanation of this is probably to be found in the popular belief that lunatics of the humbler classes have been taken in an especial manner under State patronage, and protection, and that all their requirements, and even the amusements and indulgences which constitute an important branch of moral treatment are unstintingly supplied out of the rates. Did it become generally known that the inmates of our pauper asylums may have their sad lot alleviated by charitable contributions, there would not long we believe be any lack of gifts or givers. Dr. McDowall requires supplies of books and magazines for the patients who are under his care, and also funds to enable him to afford assistance to recovered patients on their discharge from the asylum, and during that trying time when they are looking for work.

THE WATERFORD DISTRICT LUNATIC ASYLUM.

DR. RINGROSE ATKINS, reporting on the Waterford District Lunatic Asylum for the year 1880, says that in one case only, out of seventy-four admitted into that establishment during the year, was he able to trace the mental disease to the excitement and disturbance resulting from the agitated state of the country. Referring to the recoveries from insanity, he supplies a table which shows that, while 298, or 50 per cent. of 590 persons admitted during a period of ten years, recovered, 67, or 22.4 per cent., of those relapsed—leaving 231, or 39.1 per cent., who presumably remained well. The table also shows that ultimately 29 relapsed persons again recovered, which gives a total of 44.07 per cent. of *persons* who were cured in the period specified, against 50.77 *cases*. From this it is deduced that, if the statistical tables in asylum reports are to exhibit the actual proportion of recoveries from insanity, they must give the percentage of these calculated on the number of persons as well as on the number of cases that have passed under treatment or observation. Coercion seems to prevail in the Waterford Asylum to an extent that is unknown in English institutions for the insane. The inspector notes that, at the date of his visit, "three individuals only, for self-protection, and from a disposition to violence, wore camisoles of a modified character"; and yet, with that obliquity of his department to which we recently called attention, he adds that, of the inmates of the asylum, "none were under restraint, and none in seclusion". The costume of the patients in the Waterford District Asylum must be of an unique description, as the inspector tells us that "the wearing apparel is ample, and suitable for either sex".

DONEGAL COUNTY INFIRMARY.

FROM the medical report of Mr. Robert Little, surgeon to the Infirmary, for the year ending the 6th of last January, we learn that 382 patients were admitted during the year, which, with 35 remaining in hospital at the commencement of the year, made a total of 417. Of these, 288 were discharged cured, 73 relieved, while 14 cases were incurable, and 33 remained under treatment on the 5th January, 1881. The deaths amounted to 9, a number equal to 2⅛ per cent. Fifty-one surgical operations were performed during the twelve months. The infirmary contains 70 beds—40 for males, and the remainder for females; of which an average of 32 were occupied daily. The average expenses of each bed for the year, salaries, etc. included, came to £32 3s. 4½d., and including the salaries to £22 5s. 10½d. The income for the year amounted to £1,673 16s. 2d., which includes a balance from preceding year, and a sum of £800 presented by the grand jury; and the expenditure to £1,029 8s. 4d., leaving a balance of £644 7s. 10d., to credit of the infirmary. The report is a satisfactory one, not alone for the surgical work performed, but also for the financial condition of the institution.

QUEEN'S HOSPITAL, BIRMINGHAM.

THE annual report of the committee for 1880, shows that the number of in-patients treated has been 186 more than the average of the last three years. The cost of each out-patient is estimated at 2s. 6d.; the cost of each in-patient has been £3 2s. 4¼d., as compared with £3 3s. 11¼d. in 1879, and £3 13s. 5½d. in 1878. The annual subscriptions have fallen off

£80 on the average of the last three years; the total income from annual subscriptions is less than two-fifths of the total expenditure. The bazaar held in the Town Hall in the early part of the year realised the handsome profit of £3,704. The total number of in-patients during the year was 1,860; out-patients, 12,762; total, 14,622. These figures show an increase of 154 in the number of in-patients, and a satisfactory decrease of 200 in the out-patients, as compared with 1879. The appointment of Mr. Bennett May, in September last, to the newly created honorary office of consulting surgeon, has conferred much benefit on the hospital. The end towards which the creation of the office was recommended by the medical staff, namely, the thorough and continuous supervision of the treatment of surgical casualties, has been satisfactorily attained. The sanitary state of the institution has continued to be excellent. We are pleased to note that some pains have been taken to exclude unworthy persons from the benefits of the charity. Of the total number of applicants for relief in 1880, 409 were rejected as being able to pay for medical treatment, 235 as cases medically unfit for treatment in the hospital, and 23 as being cases for parochial relief. The average weekly cost of the maintenance of an in-patient has been 4s. 8½d., of each member of the household, 9s.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, May 5th.

The Action of the Contagious Diseases Acts.—MR. HOPWOOD asked the Home Secretary whether his attention had been called to the case of a friendless girl named Elizabeth Burley, who recently, through fear of the police-officer appointed to carry out the Contagious Diseases Acts at Dover, threw herself into the water of the harbour; whether she was, on being rescued, charged before the magistrates with attempting to commit suicide, but the case against her was dismissed; whether the officer in question was acting under any warrant of a justice; and whether the police under the Acts in question had been informed that there was no authority given to them in those laws to accost, question, or molest any woman, but only to proceed against those suspected of prostitution, under a summons or order of Justices of the Peace.—SIR W. HARCOURT replied: I have caused inquiries to be made as to this case, and I have had a report upon it from the police. The girl in question had been under the observation of the police for three weeks in consequence of the fact that she was leading an immoral life. This fact she herself admitted to the chaplain of the Sailors' Home. It was, therefore, the duty of the police to ascertain her name and address with a view to caution her. In endeavouring to ascertain these particulars the police seem to have shown a want of discretion and judgment, for which they have been reprimanded. The girl, to avoid the police, threw herself into the water, from which she was rescued, and there is reason to believe further that she will be rescued from the unhappy life to which she had committed herself.

The Small-pox Epidemic.—BARON HENRY DE WORMS asked the President of the Local Government Board whether, seeing that the small-pox epidemic was very much on the increase in Greenwich and other parts of the metropolis, and that the hospitals of the Asylums Board were overcrowded and incapable of dealing with the emergency, any and what steps would be taken by the Local Government Board to secure extra accommodation for small-pox patients, whose confinement in crowded dwellings must tend greatly to increase the spread of the epidemic.—MR. DODSON said: The Board have been earnestly pressing both upon the guardians and the vestries and district boards the necessity of supplementing the hospital accommodation for small-pox patients at the disposal of the Asylums Board, and I am glad to state that in several instances effect has been given to the Board's representations. At the same time there is no doubt of the need for further provision for the isolation of these cases, and the Board are endeavouring to secure it; but it is scarcely necessary to state that the subject is one of great perplexity and difficulty.

Monday, May 9th.

Small-pox Tents.—In answer to COLONEL MAKINS, MR. DODSON said: Dr. Bridger, one of the inspectors of the Local Government Board, visited the place, and found that there are two tents, surrounded by a high wooden paling, placed on the river bank on a piece of waste land. The nearest buildings are the works of the Imperial Gas Company, nearly three hundred yards distant. The hospital is at the end of the Imperial Road, which, he believes, belongs to the Fulham Board of Works; but with the exception of the hospital there are no buildings whatever there. It is right to add that the tents have been erected to meet a pressing emergency, and the inspector considers that there is not sufficient ground for the complaint against their position.

OBITUARY.

RANDLE WILBRAHAM FALCONER, M.D., F.R.C.P., D.C.L.,

VICE-PRESIDENT OF THE BRITISH MEDICAL ASSOCIATION.

WE regret to have to announce the sudden death, from disease of the heart, of Dr. R. Wilbraham Falconer, for many years Treasurer, and in succession President of Council and President of the British Medical Association. Dr. Falconer attended the last meeting of the Committee of Council, and appeared then in good health. He was in active professional work up till the last day of his life. His sudden death, while yet full of physical and intellectual vigour, has cast a gloom over the city of Bath, in which he was a prominent figure, both in professional and in municipal circles, and of which he was one of the most respected citizens. In this Association, Dr. Falconer has long been known as one of its most active, able, steadfast, and influential friends and leaders. The *Bath Herald*, in a sympathetic notice of this sad event, furnishes us with the following particulars.

Dr. Falconer inherited a name which for more than a century has been honourably distinguished both in the medical profession and the paths of literature. His grandfather, Dr. W. Falconer, was the son of the Recorder of Chester, and came in 1770 to Bath, where he practised as a physician. Becoming officially connected with the Mineral Water Hospital, he wrote a valuable work on the Bath waters; and died in Bath in 1824. His son was the Rev. Thomas Falconer, who became a Fellow in the University of Oxford in 1794, and entered Holy Orders. Subsequently, he took at the same University the M.D. degree and practised medicine besides officiating as curate at St. James's Church, Bath. He was an accomplished scholar, and among other works edited the *Geography of Strabo*, which was printed by the University of Oxford. He left five sons and two daughters, the younger son being Dr. R. W. Falconer. Dr. Falconer attended the medical classes at Edinburgh, and received the degree of M.D. in 1839. Commencing his professional career at Tenby, he remained for several years at this well known watering-place; but, preferring his native city, he returned in 1847 and soon acquired a prominent position, both in his profession and as a citizen. Deeply versed in the antiquities and lore of Bath, he was chosen one of the local secretaries during the meeting of the Somerset Archæological Society in 1852, while he also took an active part in securing the visit of the British Association, and published at the same time an abstract of the old charters in the archives of the Corporation. Anxious for the reputation of the city, he was a zealous advocate of sanitary reforms, but interested himself particularly in maintaining the prestige of its mineral springs, in connection with which he wrote one or two works, the chief being entitled, *The Baths and Mineral Waters of Bath*. For many years down to his decease he was the senior physician at the Mineral Water Hospital, besides being consulting physician at the Royal United Hospital, of which he has been also successively elected president since the death of the Rev. Prebendary Kemble, and undertaking the medical oversight of the Institution for Idiot Children. Among his other accomplishments, he was an excellent botanist, and assisted Mr. Babington in preparing *The Bath Flora*.

With all this activity, Dr. Falconer found time to participate in the administration of the affairs of the city. Elected for St. Michael's ward, he entered the council in 1852, where his abilities as a speaker, combined with his excellent business habits, made him one of the most influential members of the corporation. Clear-headed and firm, and with a commanding presence, he soon brought the unreasonable to book, and often by his tact prevented waste of time both at the council meetings and in committees. Chosen mayor in 1857, he discharged the duties in a manner to secure the tribute of an unanimous re-election. On the death of Mr. Norman in January 1861, he succeeded his life-long friend in the post of alderman; but at the close of his term of office, he retired from the council. In the interval, he had been made a justice of the peace for the city, in addition to which he was a governor of King Edward's school, one of the trustees of St. John's Hospital, and president of the Bath and County Club. Notwithstanding these demands upon his time, and his professional avocations, he not seldom found opportunities to prepare and read papers before the Literary Club and the Bath Naturalists' Club, upon topics of literary and antiquarian interest. Truly, indeed, has he well sustained the honours of his name, and in doing so has made the city his heavy debtor by his long devotion to its interests in so many different departments. These will know him no more; and long, we fear, will it be before, "take him for all in all", his equal will be found again. Besides a widow and four children whom he leaves behind him, his

brothers, Judge Falconer and Mr. Alexander Falconer, as well as his sister, Mrs. Roebuck (wife of the late member for Sheffield), also live to mourn his loss. His age was, we believe, sixty-five.

An old and attached friend of Dr. Falconer writes as follows.

As an ordinary member of the Association from an early period (I think, 1840), Dr. Falconer has proved himself a faithful and active guardian of its interest.

Of him it may be said, and perhaps of no other except the founder of the Association, that he has filled every office of trust and honour in its management. This, more surely than by any other form of laudation, speaks unmistakably of the excellence of his work, of his ability and worth; and shows that in these different positions he had gained so surely the approval and confidence of his fellow-members, and of those, more especially, who watched and were conversant with the more intimate management of its affairs, that, step by step, every office of trust, importance, and honour came to be committed to his charge.

It is not simply justice to the memory of Dr. Falconer to record that he filled the office of Treasurer for a considerable number of years. It must also be remembered that it was under circumstances least grateful or encouraging to the occupant of such a position. It was when the funds of the Association were barely adequate to the simple necessities and requirements of its management. To him was not vouchsafed the gratifying reward of annually devoting, as is at present happily the case, considerable sums for the encouragement and advancement of medical science. And yet, under much discouragement, he so laid the foundation of the Association's present prosperity, as to warrant the highest encomiums of those who best know its intimate concerns.

His urbane and yet business-like occupancy of the chair as President of Council lives in the memory of a large number of the members. Here his long connection with, and steady attention to, the affairs of the Association, as an ordinary member, greatly availed him. Strengthened by this, in the most complicated matters under discussion, his quiet and dignified self-possession made him master of his position.

And still more recently, when, at the annual meeting in his native city, he was called upon to occupy the post of highest dignity the Association can confer—that of President—his general and diffuse hospitality, his genial courtesy, his complete and dignified self-possession, in promoting the social enjoyment, and in presiding over the complicated business of such a congress, will cause that meeting to be registered in the memories of all who were present as one of the happiest and most successful of our annual gatherings.

Nor should it be forgotten, as speaking most emphatically in honour of our departed friend, that, at the last Committee of Council, a few weeks ago, though manifestly suffering much from that malady which has so shortly terminated his valuable life, his determined will, and his devotion to the interest of the Association he had so efficiently cherished, enabled him to take an intelligent and far-seeing part in the important matters then under deliberation.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF OXFORD

EXAMINATION FOR THE DEGREE OF M.B.—Candidates are informed that examinations for the Degree of Bachelor of Medicine will be holden in Trinity Term, as follows:—The first (or scientific) examination will commence on Monday, June 27th, at 10 A.M.; the second (or final) examination on Monday, June 13th, at 10 A.M. Candidates for either of these examinations, and candidates for the certificate in subjects bearing on preventive medicine and public health are requested to send their names, on or before May 30th, to the Regius Professor of Medicine, Medical Department Museum.

WE are asked to state that Dr. Drummond, of Rome, will practise at Homburg during the summer season.

BEQUESTS AND DONATIONS.—Mr. J. Heyland, of Kingstown, has bequeathed £500 to St. Michael's Hospital, £250 to St. Joseph's Orphanage, and £500 to the Mater Misericordiæ Hospital, Dublin.—The Charing Cross Hospital, the East London Hospital for Children, and the Royal Hospital for Diseases of the Chest, have each received £1,000 under the will of Mr. Samuel Courtauld.—St. Leonard's Hospital, Sudbury, has become entitled to £100 under the will of Mr. James St. George Burke, Q.C.—Mr. William Brodie has given £100 to the Cancer Hospital.—The Lady Jane Taylor has given £100 to the building fund of the Royal Hospital for Diseases of the Chest.

MILITARY AND NAVAL MEDICAL SERVICES.

NAVAL MEDICAL SERVICE.—The following appointments have been made at the Admiralty:—Staff Surgeon Henry Clerke, to the *Duncan* in lieu of a surgeon, vice O'Sullivan; and Surgeon Christopher Pearson, M.D., to the *Boscawen*, additional, for the *Seaflower*, during cruising season.

RETIRED FLEET-SURGEONS.—In accordance with the provisions of Her Majesty's Order in Council of the 1st of April 1881, the undermentioned fleet-surgeons have been placed on the Retired List from the 1st instant, with permission to assume the rank and title of deputy inspector-general on the Retired List:—William Ross (*b*), M.D., James Lillburne, M.D., John Rudall Holman, M.D., William Patrick, Henry Loney, Robert Irvine, William Forrest MacClinton, B.A., M.B., Samuel Clift, John Chamberlayne Ingles, William Telfer, Marmaduke Philip Smyth Ward, Francis Yeates Toms, William James Hamilton, M.D.

THE ARMY MEDICAL SCHOOL, 1860-1880.

SIR,—The Army Medical School having last year completed the second decade of its existence, I compiled the following table for the purpose of showing how many medical officers were gazetted to the British Medical Service during each of the forty sessions that have passed since its formation, and numerically to account for the casualties which subsequently reduced those numbers. I have arranged the casualties under three heads, as shown by the table, which explains itself.

British Medical Service.

Session.	Date.	Candidates Gazetted.	Subsequent Casualties.			On Full Pay September 1st 1880.
			Deaths.	Resignations.	Half Pay.	
1	Winter, 1860	29	7	5	4	13
2	Summer, 1861	13	0	2	1	9
3	Winter, 1861	No candidates		Twenty medical officers attended.		
4	Summer, 1862	18	4	2	1	11
5	Winter, 1862	27	7	4	0	16
6	Summer, 1863	15	1	1	3	10
7	Winter, 1863	33	6	5	1	21
8	Summer, 1864	39	10	4	1	24
9	Winter, 1864	71	17	15	6	33
10	Summer, 1865	38	11	2	3	22
11	Winter, 1865	16	2	0	1	13
12	Summer, 1866	25	5	1	1	18
13	Winter, 1866	21	4	3	0	14
14	Summer, 1867	25	6	2	1	16
15	Winter, 1867	40	12	6	3	25
16	Summer, 1868	38	2	3	0	33
17	Winter, 1868	21	3	4	1	13
18	Summer, 1869	No candidates for Army Medical Department.				
19	Winter, 1869	No candidates for Army Medical Department.				
20	Summer, 1870	No candidates for Army Medical Department.				
21	Winter, 1870	No candidates for Army Medical Department.				
22	Summer, 1871	36	3	4	1	28
23	Winter, 1871	14	0	2	0	12
24	Summer, 1872	12	0	0	0	12
25	Winter, 1872	No candidates for Army Medical Department.				
26	Summer, 1873	No candidates for Army Medical Department.				
27	Winter, 1873	10	0	0	1	9
28	Summer, 1874	16	1	0	1	14
29	Winter, 1874	10	0	0	0	10
30	Summer, 1875	8	0	1	0	7
31	Winter, 1875	14	1	4	0	9
32	Summer, 1876	No candidates for Army Medical Department.				
33	Winter, 1876	33	2	1	0	30
34	Summer, 1877	17	3	3	0	11
35	Winter, 1877	24	1	1	0	22
36	Summer, 1878	19	1	1	0	17
37	Winter, 187	No candidates for Army Medical Department.				
38	Summer, 1879	No candidates for Army Medical Department.				
39	Winter, 1879	71	0	0	0	71
40	Summer, 1880	34	0	0	0	34
Totals	40	804	115	76	30	583

Your obedient servant,

J. P. H. BOILEAU, M.D., Surgeon-Major.

Woolston, April 1881.

SIR,—May I ask, through your columns, if any gentleman who has passed the examination for volunteer surgeons will be kind enough to give me some idea of the nature and extent of the examination, and also what books should be read for it?—I am, sir, yours very faithfully, A MEMBER.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology, at a meeting of the Board of Examiners on the 9th instant, and when eligible will be admitted to the pass examination.

Messrs. Thomas Birt and Henry Simms, students of the Birmingham School; Matthew Johnston, and Charles N. Bensley, of St. Bartholomew's Hospital; Edward H. Armitage, and James C. Bates, of Guy's Hospital; John T. Walker, and Edwin Roberts, of the Leeds School; and John F. L. Whittingdale, B.A. Cantab, of the Cambridge School.

Fourteen candidates were rejected.

The following gentlemen passed on the 10th instant.

Messrs. Morris J. Williams, Francis J. Stevens, and Alfred O. Lankester, of St. Bartholomew's Hospital; Arthur C. Deare, and Hugh Lamb, of Guy's Hospital; John F. Vince, and Edwin W. D. Kite, of the Birmingham School; Frederick W. Weir, and Cadwallader E. Evans, of the Bristol School; William Turnbull, and James M. Robson, of the Newcastle School; Robert K. Peacock, of the Edinburgh School; Francis de C. Skeete, of University College; Langton P. Mumby, of the Westminster Hospital; John Williams, of the Liverpool School; and Walter Dowson, B.A.Cantab, of the Cambridge School.

Eight candidates were rejected.

The following gentlemen passed on the 11th instant.

Messrs. William C. Dalley, Thomas Jones, Alfred D. Edginton, and James H. Menzies, of St. Bartholomew's Hospital; Francis Heatherley, George E. Stewart, and Alfred E. Taylor, of Guy's Hospital; Thomas G. Parrott, and Edward S. Hassell, of King's College; Frederick M. Blackwood, of the Newcastle School; Robert C. Bruce, of the Edinburgh and Charing Cross Hospitals; Richard A. Jackson, of St. George's Hospital; and Edward Stewart, of the Middlesex Hospital.

Eleven candidates were rejected, including three who had an additional three months.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, May 5th, 1881.

Damania, Bhicajee Jivajee, Bombay.
Wilde, Frederick, 126, Euston Road, N.W.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.—The following gentlemen passed their first professional examination during the recent sittings of the examiners.

Ernest James Flynn, Dublin; John Schofield, Rochdale; Kenneth Joseph Campbell, Yorkshire; Walter Stannes Snell, Plymouth; James Gunning, Castlerea.

The following gentlemen passed their final examination, and were admitted Licentiates of the College.

Allan MacLean, Lincolnshire; Robert McKenzie Johnston, Edinburgh; James Andrews, Glasgow; Alexander Mallagh, County Down; Michael Joseph Moylan, Galway.

The following gentlemen passed their first professional examination for the Licence in Dental Surgery of the College.

Henry Wyles, Leeds; James Lindsay, Edinburgh; Edward Innes Ayton, Edinburgh; Thomas Gaddes, Carlisle; Joseph Smithson Thomson, Dublin; Hume Purdie, Alford; Robert Peel Thomson, Dublin.

The following gentlemen passed their final examination, and were admitted Licentiates in Dental Surgery.

Thomas Gaddes, Carlisle; Edward Innes Ayton, Edinburgh; Maximilian Frank Simson, Lee, Kent; Hugh Fraser, Largs, Ayrshire; Henry Wyles, Leeds; Ernest Burt, Weymouth.

MEDICAL VACANCIES.

THE following vacancies are announced :—

BIRMINGHAM PROVIDENT DISPENSARIES (Balsall Heath Branch)—Medical Staff of four in number. Applications by 1st June.

BOOTLE BOROUGH HOSPITAL—House-Surgeon. Salary, £80. Applications by May 25th.

BRADFORD FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION—Resident Medical Officer. Salary, £200 per annum. Applications, with photo., by 24th May.

BRAMTREE UNION—Medical Officer and Public Vaccinator. Salary £100 per annum. Applications by May 21st.

CROYDON GENERAL HOSPITAL House-Surgeon. Salary, £100 per annum. Applications by 1st June.

CUMBERLAND INFIRMARY—Assistant House-Surgeon. Salary, £60 per annum. Applications by 24th May.

DROGHEDA UNION—Medical Officer for Monasterboice Dispensary District. Salary, £110 per annum, with £20 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 31st instant.

DURHAM COUNTY HOSPITAL—House-Surgeon. Salary, £100 per annum, with board and lodging. Applications by May 16th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST—Assistant Physician. Applications by 25th May.

HULL AND SCULCOATES DISPENSARY—House-Surgeon. Salary £150. Applications by May 18th.

LIVERPOOL DISPENSARIES—Assistant House-Surgeon. Salary, £108 per annum. Applications by 23rd May.

MIDDLESEX HOSPITAL, W.—Ophthalmic Surgeon. Applications by 21st May.

MULLINGAR DISTRICT LUNATIC ASYLUM—Visiting and Consulting Physician. Candidates should lodge their testimonials with the resident medical superintendent. Election on the 12th proximo.

NETHERFIELD INSTITUTION FOR INFECTIOUS DISEASES, Liverpool—Resident Medical Officer. Salary, £80 per annum. Applications by 1st June.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.—House-Surgeon. Salary, £70 per annum. Applications by 1st June.

QUEEN'S HOSPITAL, Birmingham—Honorary Surgeon. Applications by 30th May.

RADCLIFFE INFIRMARY, Oxford—Honorary Surgeon. Applications by 21st May.

ROYAL FREE HOSPITAL, Gray's Inn Road—Ophthalmic Surgeon. Applications by 1st June.

ROYAL VETERINARY COLLEGE—Demonstrator and Lecturer on Anatomy. Applications without delay.

SCARBOROUGH FRIENDLY SOCIETY'S MEDICAL ASSOCIATION—Assistant Medical Officer. Salary, £140 per annum. Applications by May 25th.

SHERBURN HOSPITAL, near Durham—Medical Officer of Ancient Foundation. Salary £250. Applications by May 20th.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck Street, Cavendish Square—Obstetric Physician. Applications by May 22nd.

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, 54, Berners Street, W.—House-Surgeon. Applications by 16th May.

ST. THOMAS'S UNION—Medical Officer. Salary, £46 per annum. Applications by 19th May.

STANLEY HOSPITAL, Liverpool—Junior House-Surgeon. Salary, £60. Applications by May 26th.

STONEBRIDGE DISPENSARY—House-Surgeon. Salary, £130. Applications by May 21st.

THE BROWN ANIMAL SANATORY INSTITUTION—Professor-Superintendent. Salary, £300. Applications by May 21st.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY—Senior House-Surgeon and Provident Medical Officer. Salary, £100 per annum. Applications to be sent in by Monday, May 30th.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY, Torquay—Junior House-Surgeon and Dispenser. Salary £90. Applications by June 6th.

TOWCESTER UNION—Medical Officer. Salary, £60 per annum, exclusive of vaccination, midwifery, and surgical fees. Applications by May 16th.

WESTMINSTER HOSPITAL MEDICAL SCHOOL—Lecturer on Histology and Practical Physiology. Applications by May 21st.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Surgeon. Candidates to attend the House Committee at 10.30 A.M. on the 16th instant.

YOUGHAL UNION—Medical Officer for Killeigh Dispensary District. Salary, £120 per annum, exclusive of sanitary, registration, and vaccination fees. Election on the 17th instant.

MEDICAL APPOINTMENTS.

BRIGGS, H., M.B., M.R.C.S., appointed Resident Medical Officer to the Liverpool Royal Infirmary, *vice* R. H. Jones, L.R.C.P., M.R.C.S., resigned.

GLAISTER, John, M.B., L.R.C.P. and L.R.C.S.Ed., appointed Lecturer on Medical Jurisprudence in the Royal Infirmary School of Medicine, Glasgow.

NEWSHOLME, Arthur, M.B., M.R.C.S.E., appointed House-Surgeon to the Tottenham Training Hospital, *vice* Wm. H. Burton, M.B., L.R.C.P.E.

ORMSBY, George H., L.R.C.S.I., appointed Medical Officer to the Odd Fellows' Dispensary, Hull.

SWAIN, William Paul, F.R.C.S.Eng., appointed Surgeon to the South Devon and East Cornwall Hospital, *vice* Francis Fox, M.R.C.S.Eng.

THOMPSON, A. H., L.R.C.P., appointed Medical Officer to the Great Ouseburn Union, *vice* J. G. McCaskie, L.R.C.P.

WHITEHEAD, Hayward R., F.R.C.S.Eng., appointed Assistant-Surgeon to the Charing Cross Hospital, *vice* J. Astley Bloxam, F.R.C.S., appointed Surgeon.

PUBLIC HEALTH MEDICAL APPOINTMENTS.

MASON, John W., M.B., C.M., M.R.C.S.Eng., appointed Medical Officer of Health for the Borough and Port of Kingston-upon-Hull, *vice* J. Fearne Holden, M.R.C.S.Eng., deceased.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

DAVIES.—On May 4th, at Cwm Dows House, Newbridge, near Newport, Monmouthshire, the wife of W. H. Davies, Surgeon, of a son.

DEATH.

NEVILLE.—On the 8th instant, at Chorley, Lancashire, in her 29th year, Amy, the beloved wife of J. J. Neville, L.R.C.P. and S.Ed.

THE will of Mr. William Hardwicke, M.R.C.S.Eng., coroner for the Central District of Middlesex, has been proved, and duty paid on £4,000 personalty.

ACTION AGAINST A DRUGGIST.—George Day Horton, a chemist, was sued, at the Birmingham County Court, by Thomas Proctor, a retired butcher, for £50 for personal injury resulting from the improper making up of a prescription. Plaintiff, while suffering from gout, copied a

prescription, the ingredients of which were two parts rhubarb and one part calcined magnesia, and sent it to the defendant to be made up. The entry in the defendant's book was rhubarb, calomel, and magnesia. The plaintiff took the powders and was badly salivated. He incurred a surgeon's bill of twelve guineas. The jury returned a verdict for £13.

ST. MARY'S HOSPITAL.—At the annual dinner, Earl Stanhope spoke of the hospital as one of the most important and best managed in the metropolis, and its operations as extending throughout the populous district comprised in the west of Marylebone, the whole of Paddington, Notting Hill, and neighbourhood. Since its establishment thirty years ago, over half a million patients had been relieved. At present, there were 190 beds, 88 being devoted to medical and 102 to surgical and accident cases. During the past year, 2,126 in-patients, 9,586 out-patients, and 248 maternity cases had been treated at the comparatively small cost of £67 16s. 8d. per bed, and £5 14s. 3d. per case. The largeness of the grant from the Hospital Sunday Fund was a proof of the efficiency with which the institution was conducted. A bequest of £25,000 had been left by the late Mr. J. F. Stanford, for the improvement and extension of the building; and, in view of the enormous pressure on the hospital generally, he suggested that paying-wards should be established for the better maintenance of the new wing. He made that recommendation because persons who were capable of paying for medical attendance were not now admitted, and because the experiment had lately been tried at St. Thomas's Hospital with marked success. And, as many people who could afford to pay applied for out-relief, he advised that a charge should be made for medicines obtained at the dispensary by persons in that position.

HEALTH OF FOREIGN CITIES.—The following facts, derived from a table in the Registrar-General's last weekly return, afford some indication of the recent health and sanitary condition of various foreign cities. The death-rate in the three chief Indian cities averaged 39.5 per 1,000, and was equal to 34.4 in Calcutta, 36.7 in Bombay, and 49.2 in Madras; small-pox caused 82 deaths in Madras and 21 in Calcutta, the latter number showing a further increase upon those returned in recent weeks. In Alexandria, the rate was 46.0, partly due to the fatal prevalence of whooping-cough. According to the most recent weekly returns, the average annual death-rate in nineteen European cities was equal to 31.4 per 1,000 of their aggregate population; this showed a marked excess upon the average rate last week in twenty of the largest English towns, which did not exceed 20.1. In St. Petersburg, the rate was no less than 58.9; and the fatal cases of typhus and typhoid fever, which had increased from 82 to 122 in the five preceding weeks, further rose to 123. In three other northern cities—Stockholm, Copenhagen, and Christiania—the death-rate did not average more than 24.7, the highest rate in the three cities being 25.5 in Stockholm, where two fatal cases of scarlet fever were reported. The Paris death-rate was 29.7, almost identical with that which prevailed in the previous week; 46 deaths were referred to diphtheria and croup, 40 to typhoid fever, and 21 to small-pox—the fatality of typhoid fever showing a considerable increase. The deaths in Brussels included 6 fatal cases of measles, and were equal to a rate of 24.2; while in Geneva the rate did not exceed 22.8. In the three chief Dutch cities—Amsterdam, Rotterdam, and the Hague—the rates were, respectively, 24.7, 24.2, and 30.0. The Registrar-General's list included seven German and Austrian cities, in which the death-rate averaged 30.7, and ranged from 24.2 and 26.4 in Berlin and Hamburg, to 40.0 and 44.1 in Buda-Pesth and Munich; diphtheria caused 30 deaths in Berlin, and small-pox 9 in Buda-Pesth and 29 in Vienna. No returns appear to have been received from Turin or Naples; while the rate was equal to 28.7 in Rome and 23.2 in Venice; the 168 deaths in Rome included 6 from typhoid fever and 4 from small-pox. In four of the largest American cities, the death-rate, based upon the population numbers enumerated in 1880, averaged 26.4 per 1,000: it was equal to 17.8 in Baltimore, 21.7 in Brooklyn, 24.8 in Philadelphia, and 30.0 in New York. Small-pox caused 37 deaths in Philadelphia—an increase of one upon the number in the previous week; while diphtheria showed more or less fatal prevalence in New York, Brooklyn, and Baltimore.

PUBLIC HEALTH.—The annual rate of mortality last week, being the eighteenth week of this year, in twenty of the largest English towns, averaged 20.1 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Brighton 12, Leicester 14, Sunderland 16, Birmingham 16, Oldham 16, Portsmouth 16, Salford 17, Bristol 17, Norwich 18, Bradford 19, Manchester 19, Sheffield 20, Newcastle-on-Tyne 20, Leeds 20, London 20, Plymouth 20, Liverpool 22, Hull 23, Nottingham 24, and Wolverhampton 28. Measles showed the largest proportional fatality in Sheffield, Bristol, and London; scarlet fever in Wolverhampton and Hull; and whooping-cough in Sheffield and Salford. The 22 deaths from diphtheria in the twenty towns included 12 in London and 4 in Portsmouth. The deaths referred to fever (principally enteric) in the twenty towns were exceptionally few; the death-rate from this cause was highest in Liverpool. Small-pox caused 94 more deaths in London and its outer ring of suburban districts, one in Oldham, and not one in any of the eighteen other large provincial towns. In London, 2,515 births and 1,472 deaths were registered. The deaths were 87 below the average, and gave an annual death-rate of 20.7. During the past five weeks of the current quarter, the metropolitan death-rate averaged 21.9 per 1,000, against 25.7 and 20.7 in the corresponding periods of 1879 and 1880. The 1,472 deaths included 88 from small-pox (35 above the average), 81 from measles (42 above the average), 32 from scarlet fever, 12 from diphtheria, 27 from whooping-cough, 8 from enteric fever, 2 from ill-defined forms of continued fever, 10 from diarrhœa, one from dysentery, and not one either from typhus or simple cholera; thus, 261 deaths were referred to these diseases, being 18 above the average. The deaths referred to diseases of the respiratory organs, which had been 395, 338, and 328 in the three preceding weeks, further declined last week to 297, and were 17 below the average; 152 were attributed to bronchitis, and 99 to pneumonia. Different forms of violence caused 56 deaths; 49 were the result of negligence or accident, among which were 17 from fractures and contusions, 6 from burns and scalds, 6 from drowning, 3 from poison, and 13 of infants under one year of age from suffocation. Seven cases of suicide were registered. At Greenwich, the mean temperature of the air was 51.0°, and 1.5° above the average. The direction of the wind was variable, and the horizontal movement of the air averaged 12.2 miles per hour, which was 1.6 above the average. Rain fell on three days of the week, to the aggregate amount of .41 of an inch. The duration of registered bright sunshine in the week was equal to 32 per cent. of its possible duration. The recorded amount of ozone was above the average during the week, especially on Sunday and Friday.

THE NIGHTINGALE FUND.—The Council of the Nightingale Fund held their annual meeting on Friday, May 6th, at the "Nightingale Home", St. Thomas's Hospital, when the report on the Nurse-Training School for the year 1880 was read, and addresses were delivered to the probationer-nurses. Sir Harry Verney, Bt., B.A., M.P., the Chairman of the Council, who was accompanied by Lady Verney, presided, and was supported by Mr. W. Bowman, F.R.S., Sir William M. Muir, K.C.B., Mr. W. Rathbone, M.P. (members of the Council), Mr. Henry Bonham-Carter (the Secretary), Mrs. Wardroper (the Lady-Superintendent of the School), and Mr. Croft, F.R.C.S. (the Medical Instructor), one of the surgeons of St. Thomas's Hospital. There were present also the Treasurer of St. Thomas's Hospital, Mr. Alderman Stone, and several of the Governors, Dr. Barker, Dr. Bristowe, F.R.S., and Dr. Bernays (members of the hospital staff), and other visitors. Besides the probationer-nurses resident in the School, many of the former pupils were present who are now employed in various institutions, including many of the ward-sisters of St. Thomas's Hospital. The report mentioned that, during the year 1880, twenty-five probationer-nurses had completed their training, so as to entitle them to be placed on the register as certified nurses, and had been appointed to situations. Thirty-nine admissions to the School had taken place; and, some having resigned or been discharged, there were thirty-two in residence at the end of the year. The course of instruction, it was mentioned, consists mainly of practical work in the wards, under the direction of the ward-sisters, supplemented by class-teaching from the Home Sister, Miss Crossland, and by short courses of lectures, both in class and clinical, from some of the medical officers. Among the superior appointments obtained during the year by former probationers, were those of Matron to Westminster Hospital; Matron to the Lincoln County Hospital; Lady-Superintendent to the Metropolitan and National Nursing Association, Bloomsbury Square; and Assistant-Matron to the Liverpool Workhouse Infirmary. Sir Harry Verney, after reading an interesting letter addressed to the probationers by Miss Nightingale, referred to the cordial relations which existed between the School and the authorities and staff of the hospital, and the obligations which the Council were under to the Matron of the hospital, Mrs. Wardroper, for the efficient state of the School. Mr. Bowman expressed the thanks of the Council to the medical officers of the hospital who had taken part in the instruction of the pupil-nurses, which was responded to by Dr. Bristowe and Mr. Croft. The Treasurer spoke of the advantages which the hospital derived from the connection with it of the Nurse-Training School; and, after remarks by Mr. Rathbone and the Secretary, the meeting closed with tea and general conversation, in which the nurses took part with the visitors.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 2.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th. 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Pathological Society of London, 8.30 P.M. (Last meeting of the session.) Specimens, etc. Dr. Turner: Case of Intestinal Obstruction. Dr. N. Moore: Tumour of Brain, with Polyuria. Dr. R. W. Burnet: Heart with Calcareous Plates. Dr. S. West: 1. Aneurysm of Pulmonary Artery; 2. Aneurysm of Middle Cerebral; 3. Aneurysm of Posterior Communicating; 4. Heart with Aneurysm. Dr. Goodhart: 1. Case of Pylephlebitis; 2. Ulcer of Stomach in Infant. Mr. H. Morris: 1. Partial Dislocation of Astragalus; 2. Fracture of Astragalus; 3. Dissection of Genu Valgum. Mr. W. Anderson: 1. Syphilitic Disease of Cerebral Vessels; 2. Case of Pseudarthrosis. Dr. Thin (for Dr. Manson, of Amoy): 1. Lymph-scrotum showing Filariæ; 2. Keloid Tumours of Ears. Dr. F. Taylor (for Dr. Curran): Specimens of Elephantiasis, etc. Dr. Tirard: Malformation of the Heart.

WEDNESDAY.—Association of Surgeons practising Dental Surgery, 7.45 P.M. Council. 8.30 P.M., Ordinary Meeting.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

HOSPITAL MATRONS AND MEDICAL STUDENTS.

UNAMELES of good-will between matrons and medical students, and evidence that well guided devotion to nursing duties is respected and admired by the students, are not devoid of public instruction just now. Miss Mansen (we read in the *Students' Journal*) for some time "Sister Charlotte" at the London Hospital, has been appointed to the post of matron at St. Bartholomew's. The authorities at the latter hospital are very much to be congratulated on their selection, and the London Hospital loses a lady whose nursing ability and efficiency are excelled only by her kindness and urbanity. "On hearing of this appointment, a spontaneous, though necessarily a hurried, movement was set on foot by those house-physicians and students who have been most intimately associated with Sister Charlotte in hospital work, to present her with some tangible, though inadequate, proof, not only of their good wishes for her future happiness and success, but as an expression of the high opinion that they entertain for her in her official capacity, their esteem of her bright and charming personal character, and lastly, but not least, as a memento of her only too short sojourn at the London. The present consisted of a drawing-room table, with china tea-service and all necessaries for afternoon tea."

VACCINATION IN CHRONIC ECZEMA.

SIR,—The following extracts from an old work entitled *Practical Observations on the Inoculation of Cow-Pox*, second edition, with appendix, by James Bryce, F.R.S., M.R.C.S.Ed., etc., published in Edinburgh, 1809, will be of interest to those who lately discussed in your pages the effects of vaccination in chronic eczema.

At page 34 Appendix, after quoting Jenner's opinion that certain skin-diseases (scald-head, ringworm, and other eruptions), interfere with the efficacy of vaccination in some cases, Bryce goes on to say: "On the other hand, Dr. Jenner gives an instance of a child whose face was involved in one continued crust, in whom, however, the progress of the symptoms of vaccination was quite correct, and effected a cure of the herpes, which had, for nearly two years, resisted every application made for that purpose. On the decline of the vaccine vesicles, the incrustation (on the face) began to be less coherent and to drop off; and at the expiration of a fortnight, the face was smooth, no vestige of the disease remaining, except a slight inflammation of the eyelids." Dr. Jenner adds: "Cases of this sort have become familiar; Mr. Rinn, has given several in his very copious treatise on cow-pox, and they have been mentioned by other authors, both here and on the Continent." And also: "I have in like manner sometimes seen pustulous eruptions, which had long proved troublesome, speedily swept away."

Bryce considers these eruptions (scald head, crusta lactea, or milk-blotches, and various other eruptions), as consisting of two stages—acute and chronic—and says (Appendix, page 87): "During the former of these stages, inoculation for the cow-pox is improper....while, in the latter stage, the inoculation may not only be done with safety, but with a fair prospect of curing the former affection by changing the state of the skin, or of the constitution by means of the vaccine action: on the subsiding of which the natural or healthy state of the skin will again be established."

The above quotations from a work published early in the century (1809) prove that the beneficial effects of vaccination on various skin-eruptions had already been distinctly noted, and, I think, interfere very considerably with the claim of Dr. Hill Drury (JOURNAL, October 16th, 1880) that "the relation of such cases is something new, and that vaccination, as a cure for eczema in children, is only now brought out through the publicity you kindly gave my letter in the JOURNAL of September 4th".—I am, sir, yours faithfully, M.B.EDIN.

DR. HARRIS, F.R.C.S.—The retiring members will be Sir James Paget, Mr. Wheelhouse, and Mr. Walton. It is stated, but we cannot vouch for it, that Mr. Wheelhouse, of Leeds, will not seek re-election, in which case Mr. Reginald Harrison, who so gracefully retired before, will offer himself in the provincial interest, with Messrs. Hulke, of the Middlesex Hospital; Mr. Christopher Heath, of University College; and Mr. John Croft, of St. Thomas's Hospital. Sir James Paget will, of course, be re-elected.

HOSPITAL FOR INFECTIOUS DISEASES.

SIR,—I shall feel obliged if you will inform me of any literature on the establishment of infectious hospitals "under an urban sanitary authority"; and especially as to the cost of maintenance of such.—Yours truly,

CHAIRMAN OF A SANITARY COMMITTEE.

*** There is virtually no literature on the question. The Local Government Board are now engaged, through their inspector, Dr. Thorne Thorne, upon a general inquiry as to infectious hospitals, and it would be well to refer to them for information on the subject.

ADHERENT PREPUCE.

SIR,—I should feel obliged if any of your readers, with experience of the subject, could give me some information as to the treatment of adherent prepuce (congenital). I have, within the last year, attended at the birth of two infants, in whom the prepuce is completely adherent to the glans up to half-way between the corona and the tip of the penis. Will it interfere with the function of the organ, so as to render it necessary to be operated on? and, if so, what is the best age? Is there anything special in the mode of operation?—Yours truly, A. B. C.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

FLUKE IN SHEEP.

SIR,—The question put by your correspondent, At what stage of fluke-disease does a sheep become unfit for human food? is one very difficult to answer with even a semblance of precision. The general opinion seems to be that, in the early stages of the disease the carcase is wholesome. Indeed, in view of the fact that flukes are often found in livers from the best prime mutton, the inspector would be a bold man who condemned a sheep merely because it harboured a few of these parasites. I think, also, that the judgment of the profession is against passing cases of advanced fluke-disease, when the subjects are much emaciated, or puffed out with œdema and emphysema. It is the class of cases intermediate between these two, respecting which it is next to impossible to draw a hard-and-fast line. I have felt the difficulty so much myself, that, when asked for a rule, I have advised that the most practical course is to take no notice of the fluke, and judge of the carcase simply on its merits. Thus, if a little jaundice and slight falling-off in condition would not of themselves be regarded as justifying the condemnation of a carcase, they need not be so regarded because the carcase was the host of a few flukes, and these probably caused the jaundice and falling-off. This appears to me quite a reasonable course to pursue in coming to a decision; as, when a carcase is condemned, it is because it is ill-nourished and dropsical, and not because we fear that flukes or their ova might, if ingested, produce fluke-disease in man.—I am, sir, yours sincerely, FRANCIS VACHER.

Municipal Offices, Birkenhead, April 25th, 1881.

MEDICUS.—1. The tractate on Vaccination issued by the National Health Society for distribution by boards of guardians and others interested in public health, may be ordered from the offices of the Society, 44, Berners Street, London, W.C. 2. We cannot undertake, unless in exceptional circumstances, to correspond upon matters of the kind.

ATTENDANCE ON FAMILIES OF MEMBERS OF CLUBS.

SIR,—I would feel obliged to any member of the profession for information as to what would be a fair charge for medical attendance on the wives and families of men who are in Foresters' and Odd Fellows' clubs, the members of which pay four shillings a year each.—I am, sir, your obedient servant, ENQUIRER.

GONORRHŒAL RHEUMATISM.

SIR,—I shall be much obliged if some of your many readers will tell me of the most successful remedies for gonorrhœal rheumatism; also the length of time it lasts. I have a case of the above in a young man, on whom I have tried almost everything laid down in books, and up to now have failed to make any impression on the disease.—Yours very truly, A PARISH DOCTOR.

THE NATURAL HISTORY OF LEUCODERMA.

SIR,—In the JOURNAL of April 2nd, 1881, I recorded a case of leucoderma affecting the backs of the hands, in which spontaneous disappearance of the disease took place within six years of its first appearance; and I asked for information from readers of the JOURNAL on the question as to whether this was an usual course for leucoderma to take. This inquiry has called forth a letter to me from a surgeon, who gives the following account of himself. His age is twenty seven; at the age of sixteen, leucoderma appeared on the backs of both hands. He was a stock specimen of leucoderma for the clinic when acting as clinical assistant to Dr. McCall Anderson, of Glasgow; so there can be little doubt about the diagnosis. At the age of twenty-five, his leucoderma had begun to disappear; and at the age of twenty-six, nothing was left of it. Hence, in this case, the disease lasted as long as ten years before spontaneous disappearance took place.—I am, etc.,

BALMANNO SQUIRE, M.B.Lond.

A CLINICAL DIFFICULTY.

SIR,—May I ask your correspondent, Dr. F. H. Thompson, to read a paper in *St. Bartholomew's Hospital Reports*, 1874, vol. x, p. 39? I have there published an account of three children who died with symptoms like those he has related in his interesting case. A *post mortem* examination of two of these children showed the disease to be acute yellow atrophy of the liver. May I, further, ask him if there had been slight jaundice, without symptoms other than those of catarrh, for a week or ten days, before the onset of the violent head-symptoms, and before he saw the child?

It is a disease of extreme rarity in children. Dr. West told me that he had only once seen it in all his practice; and in the many books on diseases of children that I searched through, at the time I wrote my paper, I could not find any account of it. Dr. Murchison, in the second edition of his *Lectures on Diseases of the Liver*, alludes to this rarity and to my paper. It is a most deadly disease, resisting all kinds of treatment. I am, sir, yours truly, H. M. TUCKWELL.

Oxford, April 26th, 1881.

ATTENDANCE ON FAMILIES.

SIR,—A gentleman desires to provide medical attendance upon his out-door servants, their wives, and families: in all about twenty. They all live within about a quarter of a mile of my residence. What would be fair remuneration *per annum*? The children of one family, five in number, often very unwell. Advice will be very acceptable.—Yours truly, F. J. J.

OBSTINATE SNEEZING.

SIR,—A young lady, suffering from inveterate sneezing, which began in Germany, was at once greatly relieved, and ultimately cured, by the frequent use of a cold douche (continuous) used for a few minutes at a time four or five times daily. Perhaps it would be well to commence by using tepid water.—Yours truly,

32, New Cross Road, S.E., May 3rd, 1881. ROBERT BARKER.

ALCOHOL AND MIDWIFERY.

SIR,—An intimate friend of mine, who is, I think, in fined to take more alcohol than he is entitled to, alleges, as a reason, the amount of midwifery he attends. He is of opinion that the quantity of beer, etc., consumed, should be regulated by the amount of work performed; the more midwifery the more beer, etc. My friend is, moreover, of opinion that beer, as it contains comparatively little alcohol, may be consumed in considerable quantity, even by middle-aged persons, without doing harm. I should be glad to know your opinion on the above points, and whether the more hard-worked general practitioners among your readers find it beneficial to take stimulants, except as an accompaniment to a substantial meal, or before retiring to rest.—Yours truly. CERES.

OVOID PILLS.

SIR,—I observe with satisfaction the high commendation bestowed upon the ovoid pills of McKesson and Robbins by some of our leading English pharmacists. I have had opportunity of trying several of these pills, and have been much impressed by the wonderful facility with which they are swallowed. Young children, about six or seven years old, are able easily to take the small ovoid pills; and those of more mature years, whom I have known utterly unable to get down a round pill, have no difficulty whatever with one of the ovoid form. In the case of a little girl with enlarged tonsils, I have certainly found benefit from the use of McKesson and Robbins's sulphide of calcium pills, one quarter of a grain twice a day. The fact that these coated pills dissolve if held a few minutes in the mouth is worth notice; for it is possible for a pill to be so thoroughly enveloped in a hard coating as to cause it to pass unchanged through the bowels.—Yours obediently,

London, W., April 1881. F.R.C.P.

A MEMBER OF THE BRITISH MEDICAL ASSOCIATION makes a statement to us of a serious character affecting the conduct of another gentleman, without signing his communication. If the matter is one which he desires noticed, he must be good enough to send us a signed statement, which statement can be referred by us, in the first instance, to the gentleman mentioned, in order that his answer may be received before judgment is arrived at.

WASHING-OUT THE STOMACH.

A TUBE of very flexible India-rubber, about five feet long and half an inch in diameter, is adapted to a glass funnel, capable of containing sixteen to eighteen ounces. The funnel is held with the left hand, whilst the free end of the tube, coated with glycerine, is introduced into the pharynx with the right hand. It is gently pushed down, until it has penetrated to the extent of twenty inches, whilst the patient performs the action of swallowing. At this moment, the funnel is raised above the patient's head, the liquid intended for the washing-out is poured into it, consisting of some water with fifteen or thirty grains of bicarbonate of soda to the litre of water previously boiled in it, or Vals water (Vivarais No. 1) previously heated to the temperature of 98 Fahr. The tube having been filled up to the socket of the funnel, the apparatus is left in this position for one instant, then the funnel is lowered below the stomach. The India-rubber tube then acts like a syphon, and gives passage to a liquid charged with mucosities and residua of digestion. If the washing-out be repeated several times, a nearly clear liquid is obtained. The patient should be fasting at the time of the operation. The washings-out may be repeated daily for some time. In cases of acid dyspepsia and gastralgia, slightly alkalised water should be used. If the pharynx be too sensitive, efforts should be made to subdue this sensibility by means of a gargle of bromide of potassium.

X.X.—We neither understand the question nor its object; and, therefore, must decline to insert the communication.

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ABSTRACT OF A CLINICAL LECTURE

ON A

CASE OF INTRAMURAL FIBROID TUMOUR OF THE UTERUS.

CAUSING INTERMITTENT RETENTION OF URINE, AND LEADING TO SUPPURATION IN THE LEFT OVARY AND ALONG BOTH FALLOPIAN TUBES; TO DILATATION OF URETERS, ACUTE DOUBLE NEPHRITIS, AND TO PURULENT PERITONITIS AND DEATH.

Delivered at the Middlesex Hospital.

By HENRY MORRIS, M.A., F.R.C.S.,
Surgeon to the Hospital.

ELIZABETH B., aged 32, single, an upholsteress, was admitted on October 26th, 1880, for complete retention of urine. Her usual medical attendant, Dr. Ayling, sent her to me with a letter to the effect that, on May 20th, 1880, he was summoned, and found her suffering great agony from not having micturated for nineteen hours. He introduced the catheter, and drew off over three pints of urine. Next day, catheterisation had to be repeated. She then went on for a week before the catheter was next required; then she continued well for three months before she again required help. Of late, it had become necessary to pass the catheter twice daily; and as she had suffered acute pain at times about the pelvis, calculus or some other serious affection of the bladder suggested itself.

On admission, there was complete inability to micturate, so that the catheter had to be used at regular intervals. The urine was acid, of specific gravity 1015, and free from blood and albumen. She was anæmic, of a dark complexion and nervous temperament, with twitchings of the face when spoken to, and a hysterical look and manner. Her general health had been good; but she had had much mental trouble of late, and to this she attributed her illness. When I examined her on October 28th at 2 P.M., though her urine had been drawn off at 8 A.M., her bladder was distended, and formed a large prominent ovoid abdominal swelling to the right of the middle line, and inclining very obliquely outwards and upwards. In the left iliac fossa there were marked fulness, dulness, and increased resistance, quite distinct from the abdominal tumour formed by the bladder, and suggesting the presence of a solid or tense cystic tumour of rounded outline. A male catheter was easily introduced, and passed a long way before urine began to flow; the catheter took a very oblique course, and it was found possible to introduce it, without resistance, so far into the bladder that the bone ferrule was hidden by the vulva. The bladder being emptied, an examination *per vaginam* was made; but, as a fairly perfect hymen existed, a satisfactory exploration of the pelvis could not be effected without causing pain. It was ascertained, however, that the vagina was markedly inclined to the left, but that its wall was projected on the right side for a short distance upwards, so that the idea of a bifid vagina was for a moment suggested to the mind of the examiner. The uterus was so much drawn up, and to the left side, that at this examination the os and cervix were not felt. The rectum was found flattened by a smooth, round, hard, unyielding tumour in front, which did not feel like the os or enlarged fundus of the uterus. The mass was clearly inclined to the left side, whether examined with the patient on the back or on the side. A simple enema was ordered to be given every morning. Subsequently (October 30th and November 2nd) she was seen by Dr. Hall Davis, who found the uterus considerably drawn up, the os being felt as a mere depression close to the upper border of the symphysis pubis; and the uterine sound passed for four and three-quarters inches into the cavity of the uterus.

From October 28th to November 10th, the catheter was not required.

On November 3rd, and the following day, she had intense thirst, and the catamenia appeared on the 3rd, and lasted till the 7th. In the night of November 6th, she sweated a great deal; and on the afternoon of November 7th, she had nausea, her temperature went up to 102.6°, and she felt considerable pain in the left iliac fossa. These symptoms continued during the night and the next day.

On November 9th, there were the same symptoms, except that the pain in the abdomen was a little more diffused, and there was now tympanites. She also complained greatly of a parching thirst; she had had rigors during the morning and the preceding evening, was very lachrymose in manner, and had an unaccountable and alarming apprehension that she would soon die. For the first time, too, there was on this day a slight purulent discharge from the vagina. Hot fomentations, with opium and turpentine, were continuously applied to the abdomen; opium, in half-grain doses, was given every four hours; and milk-diet and ice to suck were ordered. The enemata had been discontinued.

On November 10th, the catheter had again to be used. The temperature was 99.8°, the pulse 96, and respirations 25. She had had a bad night, owing to frequent retching. There were distension and slight general tenderness of the abdomen, the girth of which was twenty-seven inches.

On November 11th, the patient complained of spasms and tenderness in the abdomen. The tongue was red, dry, and beefy, with prominent papillæ. The temperature was 101.6°, and the pulse 120; the respirations were 28, and shallow. The catheter was not required.

On November 12th, she lay with her knees drawn up, complaining of pain in the abdomen, the girth of which was now twenty-nine inches. There was much tympanites, but no marked tenderness on pressure. The tongue was in the same state as on the previous day. She experienced parching thirst, and vomited occasionally. The pulse was 126, not hard, but thready, and very compressible. There was marked muscular tremor, especially of the hands. She was very restless, talkative, and excitable. Towards the latter part of the afternoon, she was troubled with loud hiccough and retching. The temperature was 99.2° in the morning; 99.6° in the evening. During the night, she slept for intervals from 12 till 2 A.M.; she then awoke, complaining of increased pain and fulness in the abdomen. Fresh fomentations seemed to relieve this; but about 4 A.M. on the morning of the 13th, she died quietly within a few minutes. Her death was quite unexpected by the nurse, who had been closely watching by her side.

At the *post mortem* examination, made ten hours after death, Dr. Fowler found recent general peritonitis glueing together the coils of intestine, and in the peritoneal cavity about one pint of turbid fluid, with floating flakes of lymph. The inflammation was most marked about the brim of the pelvis. Recent adhesions bound the structures in the broad ligaments to the neighbouring parts on each side. It seemed probable that the peritonitis had commenced at the left ovary, in which were several small collections of pus, one of them communicating directly with a sloughy point, surrounded by a patch of purulent membrane, on the surface of the ovary. The liver and spleen were congested. The right ureter was somewhat distended, as were also the pelvis and calyces of this kidney. The inner surface of the pelvis showed signs of violent and recent inflammation. The surface of the kidney was mottled; and, on section, the cortex appeared diminished. The left ureter and pelvis were more dilated than the right, and contained purulent-looking urine; and in the left kidney the inflammation was more extreme, and had extended along the uriniferous tubules. The bladder was pushed up and towards the right iliac fossa; and, though quite empty, reached one inch above the upper border of the os pubis. Its walls were hypertrophied, and sacculated, and beneath the mucous membrane there were small extravasations, but no appearance of cystitis. The vagina was elongated; and, owing to the upward traction of the uterus, the vaginal part of the cervix uteri was obliterated, so that the os was a mere slit in the posterior vaginal wall. The uterus and its appendages were displaced upwards and to the left by a large tumour, which almost filled the pelvis, and was growing in the right wall of the uterus. The cavity of the uterus was found to measure four and a half inches; its axis was oblique, being directed upwards and to the left. Both the Fallopian tubes contained pus. The right ovary was healthy; but the left, though of nearly normal size, was suppurating at various points. The tumour in the right wall of the uterus somewhat resembled the uterus in shape, but far exceeded it in size, and measured six inches in its long diameter and three inches transversely. The uterine tissue was plainly seen on the surface of the tumour, showing it to have been of intramural origin. On section, it had all the characters of uterine fibroids. At the upper part of the uterus, two small fibroid tumours, about as large as chestnuts, were seen sessile upon the peritoneal surface. The left pleura was normal; but there was recent lymph over the lower half of the right pleura, but no fluid in the pleural cavity.

REMARKS.—The first step was to ascertain by vaginal and rectal examination the cause of the displacement of the bladder, and of the intermittent retention of urine; and to connect it, if possible, with the fulness in the left iliac fossa. The next question was as to the character and connections of the tumour, and whether it could be removed, or in any other way dealt with, so as to allow the bladder to resume its place and functions. This was a question of real difficulty in the case. As a rule, I believe it may be assumed that, in the female, a pelvic tumour which pushes the bladder out of the pelvis

and to one side of the median line, which causes lateral and upwards displacement of the uterus, and is felt *per rectum* as a large mass on the front aspect of the bowel, is, in all probability, either an enlargement of the uterus itself, or of one of the appendages of the uterus. I have seen, however, in one instance, the bladder pushed right out of the pelvis into the abdomen, by a hydatid cyst. In E. B.'s case, it was possible to exclude certain other not uncommon forms of pelvic tumours. Thus (1) pelvi-peritonitis (which M. Nonat, as well as Bernutz and Goupil, tell us, have not unfrequently been mistaken for fibroid of the uterus), and (2) pelvic cellulitis, were negatived by the absence of any co-existing or previously existing affection of the generative organs, by the absence of all pregnancies or confinements, and by taking into consideration the sudden commencement of her illness, marked by the single symptom, retention of urine. (3) Hæmatocele was excluded by the freedom from all previous catamenial disturbance, of sanguineous discharge, and of febrile symptoms; and by the altered condition of the os and cervix uteri, the increased dimensions of the uterine cavity, and the mode of onset of the illness. (4) Certain morbid states of the uterus itself could be excluded, such as flexion of the womb; because, though these may either cause retention of urine or difficult defæcation, the tumour in this case was large enough to flatten the rectum and displace both uterus and bladder, and the uterine sound could be passed, and turned easily in the uterus. (5) Cancer of the body of the uterus sometimes occurs without the os or cervix being affected, at any rate for a long while; in cancer, too, the uterine cavity may be markedly increased, and the uterus itself is commonly fixed, and presses considerably upon the rectum. But cancer was negatived by the entire absence of uterine hæmorrhage and of vaginal discharge, by the comparatively unimpaired state of her general health, and by the great displacement of the bladder to one side, and of the uterus to the other—a condition which, so far as my experience goes, is not met with in cancer of the fundus uteri.

Thus the diagnosis was brought down to a question between fibroid of the uterus and ovarian tumour. The reasons for thinking it a fibroid, rather than an ovarian tumour, were the firm hard texture, the absence of any elasticity or fluctuation, the displacement of the uterus in the direction of the tumour, the altered condition of the os and cervix uteri, the enlargement of the cavity of the womb, and the slight degree to which the tumour had risen out of the pelvis. The retention of urine, too, was more in favour of fibroid than of ovarian tumour; for, though ovarian tumours, when retained in the pelvis, have in some instances given rise to retention of urine, dysuria, and other bladder-symptoms, yet there is a great and frequent tendency for fibroids to irritate and mechanically obstruct the bladder. It is even said (West, *Diseases of Women*, p. 289) that retention of urine is occasionally the first symptom of uterine fibroid; and the accuracy of this statement is verified by this case. On the other hand, the elongation of the cavity of the uterus is not at all inconsistent with ovarian tumour, and is commonly stated to be not very unfrequently associated with it.

The reasons for thinking the tumour ovarian, rather than fibroid, were, first and chiefly, the absence of hæmorrhage. Hæmorrhage being one of the most characteristic signs of fibroid, its absence is of itself sufficient to lead one to suspect the ovary, rather than the uterus, as the seat of the tumour; but this case shows that the most complete immunity from hæmorrhage ought not to influence us too strongly against the possibility of fibroid. Secondly, the one-sided situation of the tumour, the high position of the uterus, the smooth and even surface of the tumour as felt *per rectum*, the apparent solitariness of the tumour (fibroids being generally multiple), and perhaps, also, the age of the patient, were all in favour of ovarian tumour.

Nothing could be inferred from the rate of growth of the tumour, since nothing wrong was suspected until the first attack of retention, five months before admission. One means towards a more positive diagnosis was purposely withheld, until after the approaching catamenial period had passed; and very fortunately, as the case terminated, this was so. I refer to puncturing with the aspirator. This, by yielding a negative result, would have been another factor in favour of fibroid, and would doubtless have clinched the diagnosis.

After thus establishing the non-cystic nature of the tumour, no treatment could have offered any prospect of permanent or real relief. Ergot, which has been found useful in some cases, would have been tried, but one cannot think with much if any good result. Even if an exploratory abdominal section had been ventured upon, the operation must have been abandoned, owing to the firm connections of the tumour, and the way in which it was wedged into the pelvis. The patient, therefore, would have been doomed to a life of misery, had not an acute intercurrent disease mercifully carried her off.

The attack of peritonitis was, at the outset, quite local, beginning in the left iliac fossa, *i.e.*, the situation of the fulness felt at the time of her admission. From this it spread over the whole abdomen. As the attack followed immediately upon a catamenial period—indeed, commenced before the period was quite over—it was supposed to have been excited by inflammation of the left ovary; and on the hypothesis that the tumour was ovarian, it was thought that the whole, or a part, of the cyst had suppurated (Case by M. Nonat: Bernutz and Goupil, vol. ii, p. 145)—suppuration being indicated by the variable temperature and repeated rigors. Still, on the other hypothesis, it had to be borne in mind that fibroids of the uterus may set up fatal purulent peritonitis without the ovaries, Fallopian tubes, or vagina being affected. (Case by Bernutz and Goupil in *Diseases of Women*, vol. ii, p. 156.)

The immediate cause of the peritonitis was doubtless the extension of inflammation from the ovary, or along the Fallopian tubes to their fimbriated ends; whilst the cause of the abscess in the ovary (itself a rare condition), and of the suppuration in the Fallopian tubes, as well as of the dilatation of the ureters and the acute inflammation of the kidneys is to be looked for, I think, in the irritation, displacement, and compression exercised upon these various structures by the uterine tumour.

ABSTRACT OF LECTURES
ON THE
ANATOMY, PHYSIOLOGY, AND ZOOLOGY OF THE CETACEA.

Delivered at the Royal College of Surgeons of England.

BY W. H. FLOWER, F.R.S., LL.D.,
Hunterian Professor of Comparative Anatomy.

LECTURE V.—THE ANATOMY OF THE LESSER RORQUAL—(*concluded*).

THE nostrils of the lesser rorqual, which are quite separate from one another, pass downwards and backwards in front of the brain-cavity. The superior end of each is encircled by a compressor muscle, which, when it contracts, closes the external opening of its nostril. Situated deeper in each nostril is a valve, which can also be closed at will. When the animal dives, it closes both the external openings and the valves, so that no water can pass through the nares into the deeper parts of the respiratory passage. The velum palati is long, and so completely shuts off the mouth-cavity from the naso-pharyngeal passage, that no water passes into the latter when the animal is feeding, which it does by swimming after its prey with its mouth open, taking in large quantities of water, and straining it out through the plates of whalebone, as described in the first lecture.

The opening of the larynx is guarded by a very long tongue-shaped epiglottis, behind which is the large thyroid cartilage. Above the thyroid is the cricoid cartilage, which is long antero-posteriorly, but, from being deficient inferiorly, does not form a complete ring, as it usually does in other mammals. To its anterior border on each side of the mesial line are attached the arytenoid cartilages, which are much elongated and tongue-shaped, and which, with the epiglottis, form a mouth- or rostrum-like projection into the pharyngeal cavity. When the animal is about to respire, the larynx is drawn forwards and upwards, and its elongated anterior extremity passes across the pharyngeal passage into the posterior nares. During deglutition, the larynx is drawn backwards, and the epiglottis is approximated to the arytenoids. As an additional safeguard against the passage of food into the larynx. Professor Macalister has found a hood-like fold of the mucous membrane which contracts over the opening in this *Balænoptera*, and completely occludes it.

Below the larynx is a pouch situated in the middle line, which is the analogue of the ventricular saccule found in front of the larynx of the howling monkeys. With this pouch, the larynx communicates, but hitherto no satisfactory explanation of its function has been given. It only exists in the whalebone-whales, being absent entirely in the toothed whales. There are no vocal cords developed in the rorqual, but it is possible that the edges of the arytenoid cartilages supply their place, and enable the animal to produce the bellowing sound which it does when stranded. The trachea divides into two large bronchi, but there is a third division, of small size, which goes to the upper lobe of the right lung, as in several other mammals. The heart and large vessels are quite mammalian in conformation and distribution; the only peculiarity in the circulatory system being the large plexuses into which some of the arteries are broken up. The chief plexuses are those of the neck, tail, and intercostal arteries.

The brain is large in proportion to the size of the body. The convolutions on its surface are small, but very numerous. Some of the sensory organs are, however, peculiarly modified. The lacrymal glands are very small, situated on the outer sides of the eyes. There is no lacrymal apparatus for conveying the tears from the eyes. The eyeball itself is flattened from before backwards, and has the sclerotic coat much thickened, probably to resist pressure; the cornea is flattened. There are four recti and two oblique muscles. The eyelids are stiff, and cannot be closed with the same facility as in other animals. There is no nictitating membrane or third eyelid present.

THE GREENLAND WHALE (*Balæna mysticetus*).

Although the Greenland whale has been hunted by sailors from this country for more than two hundred years, little was known of its anatomy till quite recently. Hunter, who was very anxious to procure a skeleton, only succeeded in getting its skull; and it was not till about twenty years ago that a skeleton was first procured for this Museum through Professor Reinhardt. When one of those animals is captured, it is brought to the side of the ship, and the blubber and whalebone are secured; the carcase is then allowed to drop into the water. Its ponderous size, and the consequent great cost of transport, have been serious obstacles to the investigation of its anatomy. Eschricht first succeeded in obtaining skeletons from the Danish settlement of Holsteinborg, on the west coast of Greenland, where the fishing is prosecuted, and had them prepared by the inhabitants. They were then sent to the Copenhagen Museum, from which one was purchased by the College, and mounted in the Western Museum in 1863. The name *Balæna mysticetus* was given to this species by Linnæus, *mysticetus* being the name applied by Aristotle to a large whalebone-whale described by him, but which probably was an entirely different animal The term Right Whale is applied to it by the whalers, from its yielding a much larger quantity of oil and whalebone than other species; but there are several species of large whales to which they give the same name. It was first discovered by the Dutch, in Arctic seas north of Europe, about the end of the sixteenth century, when they were trying to find a north-east passage by Spitzbergen to China. The first expedition to the whale-fishing set out from London in 1611. From that time the animals were hunted, till they became extinct on the northern coasts of Europe. Now they are almost entirely confined to Baffin's Bay, the west coast of Greenland, and the extreme North Pacific. They seem to inhabit the seas in the regions of perpetual ice all round the North Pole; though they have been found as far south as the Labrador Coasts of North America. They never occur on our coasts.

The most striking peculiarity of this whale is the large size of its head and of the cavity of its mouth. It differs from the *Balænoptera* in having no dorsal fin, in there being no folds of skin under the lower jaw and on the under part of the body, and in its pectoral fins being larger and broader. Its body is of a dark colour, but the chin is mottled. The lower lip is of large size. The great size of the head and mouth is to enable the animal to procure a sufficient quantity of food, which consists of the minute cephalopods, pteropods, ctenophora, and medusæ, which are extremely abundant in the Arctic Seas.

The Skeleton.—The anterior part of the head is greatly elongated and arched; this is due to the great length of the premaxillary and maxillary bones, and to the curved shape of the former. The general conformation of the back of the skull is similar to that of the other whalebone-whales. The foramen magnum is directed upwards and backwards. The occipital bone is very large, and projects so far forwards as to completely cover the parietals. The brain-cavity is comparatively small. The nasal bones are well developed. The rostrum is formed by the vomer, maxillæ, and præmaxillæ. The great breadth of the head is produced by the enormous widening of the frontal bones that takes place in this species. The orbits are situated at the extreme ends of the frontals. Between the brain and the nasal cavities is a great mass of bone, in which are situated the nasal passage and the rudimentary turbinal bones. This bony mass has been described in a former lecture as being present in the *Balænoptera;* but in the *Balæna* it is of very much larger size, as are also the nasal passage, the turbinated bones, and the canal for the olfactory nerve. The length of the head is about one-third that of the whole body, which probably never exceeds more than about fifteen mètres (forty-eight feet). The skeleton articulated in the museum measures 13.93 mètres in a straight line from the tip of the rostrum to the terminal caudal vertebra, and the head measures 5.18 mètres in length.

The whalebone is developed to a much greater extent in this than in any other kind of whale. The mass of it attached to each side of the upper jaw consists of about three hundred plates, each of which has recently been discovered to have a branch from the superior maxillary nerve passing to it. In front, it is deficient; that is to say, it is not continuous around the anterior extrem of the rostrumity, as in the *Balænoptera*. The blades situated about the centre of the jaw are the longest; towards each end, they become shorter and somewhat narrower. The hairs on their sloping internal margins are finer and longer than in the *Balænoptera*. Till recently, it has been difficult to understand how the immense plates of whalebone, which exceed in length by one-third the height of the skull, from the top of its arch to the floor of the mouth, could be packed away when the mouth was shut. With the assistance of those who have seen the animal alive, it has been satisfactorily shown that, when the jaws are approximated, the plates, which are very flexible, are bent backwards towards the throat. As the mouth is opened, they straighten, and, when fully opened, fill the whole space between the upper and lower jaws. When the animal is feeding, therefore, the water, charged with myriads of small invertebrata, passes into the mouth at the anterior part, where the whalebone is deficient and short; and, after being strained of the food it contains, is driven out between the long middle and the posterior plates.

TWO CASES OF CEREBRAL EMBOLISM, MARKED BY THEIR RAPID COURSE AND FEBRILE SYMPTOMS.

BY W. HOWSHIP DICKINSON, M.D.,

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CASE I.—Rachael E., aged 13, was brought into St. George's Hospital, on January 16th, 1879, with symptoms which were suggestive to those who first saw her of either tubercular meningitis or typhoid fever. It was said that she had been quite well until two days before, when she woke up in the night with severe pain in the head generally, rather than at any particular spot, and in the region of the heart. She afterwards complained of "pins and needles" in the left arm and leg; and the mother noticed that the child could not move her left hand. No squinting was noticed, but the eyelids were thought to droop. She did not appear to recognise those about her. No affection of speech was noticed previously to her admission. There was no vomiting, excepting once after some ginger-beer, and no constipation. There had been slight bleeding at the nose.

On admission, she was delirious; tossing about wildly, and struggling much when lifted for the purpose of examination. The eyes were closed, the pupils dilated and equal; no paralysis could be made out. She could not be got to swallow food, biting at the spout of the feeder when it was presented to her. She appeared to be generally unconscious of her surroundings, and was for the most part speechless, though she used a few words articulately, and not wholly without correctness of application. She often put her hand to the right side of her head with the cry, "Oh, dear!" She repeatedly called "Mother", though, when spoken to by her mother, she gave no sign of recognition; and once, shortly before her death, she said "No, thank you", in refusing some ice which was offered to her. I mention these details to show that her speechlessness was more akin to delirium than to aphasia.

She vomited yellow matter frequently, independently of food; there was much grinding of the teeth; the pulse was quick and full; the temperature 102°, both morning and night. On listening to the heart (a matter of some difficulty by reason of her incessant movements), a loud mitral systolic murmur was heard; and, upon this, a further inquiry into her antecedents elicited the statement that she had been a patient in the hospital, nine years before, with vomiting of blood and bleeding at the nose; that, since that date, she had been, as was thought, the subject of heart-disease; and that the epistaxis had recurred, under mental excitement, three months before her admission.

With regard to diagnosis, typhoid was contraindicated by the height of the fever at so early a date; tubercular meningitis, by the abruptness of the attack. Taking the concurrent circumstances into consideration, I had no difficulty in forming the conclusion that the mischief was cerebral embolism; and that its declaration by general fever, rather than by hemiplegia, or other local paralysis, was probably due to the emboli being disseminated rather than localised. Bicarbonate of potash and nitre were ordered in this view, and the patient was fed by the rectum, as it was impossible to get her to swallow. The child rapidly grew worse; she became quite unconscious; the masseters were hard, and the teeth firmly clenched; the chest became full of loud *râles*; there was much exaggerated thoracic movement, and evidence of dyspnœa; the pupils became widely dilated, and the eyes quite insensitive; and she died on the day after her admission, the fourth day of her illness.

On *post mortem* examination, it was found that the heart was exten-

sively diseased; it weighed eleven ounces. The mitral and aortic valves presented thickening of old date, and there were two rough fibrous patches covered with fine granular fibrine—one on the wall of the left auricle, the other on that of the left ventricle. The meningeal vessels were full of blood, and the brain in general slightly congested. Upon the surface of the pia mater were numerous minute red spots, some consisting obviously of small extravasations, requiring a magnifying glass to display their character. These small spots of hæmorrhage were always disposed upon the course of an artery; and it was made out with regard to many of these, that in the artery, just where the point of blood was outside it, was a minute clot of decolorised fibrine. The minute spots of hæmorrhage were on or in the substance of the pia mater; they had no tangible thickness. A few very minute embolisms were found in the substance of the brain; but the larger arteries were examined in vain for evidence of any larger obstruction. There was no softening. The appearances presented by the brain are shown in a drawing, for which I have to thank my friend Dr. Drewett. I need not describe the other organs in further detail than to say that the lungs were congested, and that well-marked embolic blocks were found in the liver, spleen, and kidneys.

CASE II.—The second case is nearly parallel to the first. The subject of it was a girl named Constance S., aged 18, who came under my care at St. George's Hospital on April 9th, 1879. She had had the usual infantile complaints, but never rheumatic fever, so far as was known; and passed for well until three days before admission. On Sunday, she was noticed as pale. On Monday, she was giddy, drowsy; had severe pain in the frontal region, and vomited whenever food was taken. On Wednesday, she was very feverish, with a temperature, as was reported, of 105°, and on this day was brought to the hospital. She had hitherto been perfectly sensible.

On admission, she lay in a drowsy condition; from which, however, she could be easily roused. The skin was hot (temperature 104.8°), dry, and dusky. There was much intolerance of light; the eyelids were partially closed; the pupils contracted and sensitive. There was external strabismus of the right eye; but no other evidence of paralysis could be detected. There was slight frontal headache, but no twitching or convulsion. The pulse was at the rate of 120; the tongue red in the centre and at the tip; elsewhere coated with white. The urine presented a trace of albumen. There was no diarrhœa; no abdominal fulness or gurgling; no typhoid spots. Although there was nothing to draw attention to the state of the heart but the cerebral symptoms, a loud systolic mitral murmur was detected on examination, together with an excess of impulse and a marked præcordial thrill. The sudden beginning of the febrile symptoms, their rapid advance, the co-existence of the heart-disease, and the close resemblance which this case presented to the one previously recorded, led, as in that case, to the diagnosis of disseminated cerebral embolism, and to the use of alkalies; bicarbonate of potash being ordered in doses at first of eighty grains every three hours, together with carbonate of ammonia.

Next day, she was in much the same condition, except that there were paroxysms of severe pain in the frontal region, and more or less constant aching behind the head. Bronchitic wheezing was heard over both lungs. The temperature was only slightly lower, ranging from 103.2° to 104.6°; sordes collected about the mouth; the tongue became red and dry; and the general aspect of the patient was almost exactly that of typhoid. No *tache cérébrale* could be elicited. The urine was now alkaline. The potash was diminished, and quinine added. Without any further symptoms or abatement of the fever, the drowsiness deepened into insensibility; and in this state she expired on the morning of April 12th, on the seventh day of the disease, the third after admission.

On *post mortem* examination, the heart was found to be the subject of both old and recent disease. The mitral valve was greatly thickened, and its opening narrowed by about one-third. On the auricular surface was a patch of roughness due to granular fibrine; and at this position was attached a long thin semi-gelatinous vegetation, which hung loosely from the valve, and was probably more recent than the granular fibrine at its base, and dated, perhaps, not much before the completion of the act of death. On exposing the membranes of the brain, a number of small hæmorrhages, which varied in size from a pin's head to a sixpence, were found on the pia mater under the arachnoid, mostly over the convexity of the brain. In the centre of these, a small white speck could be seen, which minute examination proved to be a small pale clot within an artery. In connection with several such spots, were small localised effusions of yellow lymph on the pia mater external to the affected vessel. There was no lymph at the base, nor any on the convexity, except in connection with the vessels affected as described. These changes were confined to the surface of the brain; all the internal parts were natural, as far as could be seen. There was no softening, nor any excess of blood in the ventricles. The lungs were congested. Many small embolic blocks were found in the spleen, with one patch of softening, which apparently had a similar origin. In the liver were several minute white deposits, surrounded by congestion, evidently of the same nature; and several embolic obstructions were found also in the kidneys.

REMARKS.—The two cases were similar in almost every particular. The subjects of both were girls; the leading symptoms in both were high fever and delirium, without any—or with scarcely any—definite paralysis, or the aphasia so common with cerebral embolism. The temperature in one case was always between 102° and 103°; in the other, generally between 103° and 105°. In both, there was much evidence of pulmonary congestion with the progress of the disease, and rapid death by coma. With both, there was a resemblance to meningitis in the headache, the vomiting, and the mental disturbance; while in neither was there the constipation which is general at least with the tubercular form of this inflammation. In both, the resemblance to a specific fever, especially to typhoid, was superficially evident; but the fever was too high, and the cerebral embarrassment too great, for so early a date in the course of that disease. The resemblance to an acute specific fever was indeed striking, and might have been misleading, had the cases been observed hastily, or in disregard of the concomitant circumstances. The pathological condition was, in a word, the distribution through the brain of embolic dust, which was so fine as to traverse without hindrance the larger arteries of the base and substance, to be finally arrested in the minuter channels of the pia mater.

OPTIC NEURITIS IN CHLOROSIS.*

BY W. R. GOWERS, M.D., F.R.C.P.

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THE occasional occurrence of optic neuritis in chlorosis—due chiefly, at least, to the state of the blood—is a fact of great interest both to the ophthalmic surgeon and the physician, which has scarcely received due attention.

In my work on *Medical Ophthalmoscopy*, I have recorded one case which is certainly, and another which is probably, of this character. I have now only one fresh case to narrate, but my apology for bringing it forward is, that its history is very significant.

One of the cases which I have already published has had lately a second slight attack, and I will, therefore, briefly narrate it first.

CASE I.—A girl, aged 17, came under treatment in November 1878, with all the well-known symptoms of chlorosis; amenorrhœa, dyspnœa, and extreme pallor. The hæmoglobin was reduced to 30 per cent. of the normal, the blood-corpuscles being 60 per cent. She complained of failure of sight, and near vision was found to be, right $\frac{1}{3}$, left $\frac{1}{3}$. Colour-vision was normal. There was $\frac{1}{20}$ hypermetropia. The ophthalmoscope showed distinct optic neuritis. The discs were red, with edges blurred on all sides to direct examination, to indirect examination on all except the temporal side. There was sufficient swelling to alter the curve and reflection of the veins. The patient was treated with iron, and very slowly improved. As the anæmia lessened, the neuritis slowly subsided, and vision improved to $\frac{1}{2}$ each eye (without correction). When she left the hospital, on February 5th, the discs were much clearer. All swelling had disappeared; the edges could be seen in almost the whole circumference, but were scarcely so sharp as normal. She was seen again five months later. She still looked pale, and the hæmoglobin had fallen to 65 per cent., the red corpuscles being 79 per cent. Vision for near objects was now normal ($\frac{1}{1}$) each eye. The discs were perfectly clear and sharp; the cup, however, being scarcely so white as is common in a normal state. The catamenia were still absent. They returned in August, and continued regular during the next four months. During this time, the patient was not seen. In the beginning of February of 1880 she applied for advice, having become weaker. She was again extremely pale, and had only 30 per cent. of the normal amount of hæmoglobin, and 46 per cent. of corpuscles. She complained of pain at the back of the eyes, ringing in the ears, shortness of breath, and the usual symptoms of anæmia. The optic discs again presented blurred edges, with slight prominence, and the physiological cups were concealed; sight was unaffected. Under the chloroxide of iron, she rapidly improved; in three weeks' time, the left disc had entirely cleared, and the right had almost cleared. A month later, she left the hospital, the hæmoglobin having risen to 80

* Read in the Section of Ophthalmology at the Annual Meeting of the British Medical Association at Cambridge, August, 1880.

per cent., and the red corpuscles to 96 per cent. of the normal. The discs were then natural.

CASE II.—On October 1st, 1879, a younger sister of this patient, aged 16, was brought to me by her mother, who stated that the girl's sight had become bad, just in the same way as did her elder sister's. The girl was well until a year before, when she had gradually become weak and pale. Her breath had become short during the last six months, and for the same time she had complained frequently of frontal headache, and the catamenia had been absent. She presented considerable pallor, and examination of the blood showed that, although the corpuscles were 72 per cent. of the normal, the hæmoglobin was only 38 per cent. Although she complained of her sight being bad, vision was $\frac{1}{4}$ and $\frac{1}{10}$ each eye; there was no defect in the field of vision, and perception of colour, tested with Holmgren's wools, was perfect. The pupils were equal, and acted quickly to light. There was slight hypermetropia in each eye, $\frac{1}{40}$ in the right, $\frac{1}{50}$ in the left. The ophthalmoscope, very much to my surprise, revealed in each eye a well-marked optic neuritis. In each, the edges of the disc were invisible, being concealed behind a swelling about two and a half times the diameter of the disc, and of a prominence which gave a difference, between the top of the swelling and the fundus, of two dioptrics. The veins were distended, and curved down the sides of the swelling. The arteries were small. There was a good deal of striated whitish tissue about the surface of the swelling, but there were no conspicuous white spots. At the upper edge of the swelling in the right eye was a striated hæmorrhage. There were no white spots on the fundus. The appearance of the two papillæ, and the degree of swelling, were similar, but on the left there was less striation, and there was no hæmorrhage. The patient's urine was free from albumen and sugar.

The girl was admitted into University College Hospital, placed on the chloride of iron, and kept at rest in bed.

Ten days later (October 10th), her pallor was about the same, but she felt better. There was a striking improvement in the condition of the discs. The swelling in the left, though still marked, had so far subsided, that the position of the edge could be made out by the indirect examination, and the swelling now extended only a little distance beyond the edge. The veins were smaller; the hæmorrhage had disappeared. The subsidence in the right disc was still greater than in the left. The edge could be seen, with the indirect examination, all round, and the physiological cup was reappearing in the middle. In each eye, the edge of the disc was still concealed to the direct examination.

Five days later, on October 15th, there was further subsidence of the swelling, so that in the left eye, the edge of the disc, on the temporal side, could just be seen by the direct method of examination. By the indirect method, the position of the edge could be discerned all round. The central cup was now reappearing in the left eye, as well as in the right. Vision remained normal.

On October 22nd, three weeks after the commencement of treatment, the hæmoglobin had increased to 55 per cent., and the corpuscles to 86 per cent. The edge of the left disc, on indirect examination, was still somewhat blurred, and the surface of the disc reddish; surrounded, beyond the edge, by a pale halo; but the swelling had almost disappeared. To the direct examination, the edge was still indistinct on the nasal side, the appearance being nearly that of the disc of her sister when the drawing was made. The edges of the right disc were fairly sharp, and the physiological cup clear; it might have been passed as within physiological limits. The vessels were normal.

A fortnight later (November 5th), the hæmoglobin had risen to 66 per cent. of the normal, and the corpuscles to 85 per cent. The left disc had become clear, and the central cup was somewhat depressed, although still red.

On December 10th, the hæmoglobin had risen to 80 per cent., and the corpuscles to 96. The patient looked and described herself as being quite well. The right disc was perfectly normal in appearance; the left nearly normal. The edges were still not quite sharp; least so on the nasal side, and still presented a somewhat "filled in" look, the centre being less depressed than that of the right disc. The patient then ceased attendance. I have lately heard that she remains quite well, and is now in a situation as nurse.

On my first examination, the degree of neuritis was so great, and its characters so exactly such as are commonly seen in cases of cerebral tumour, that I could hardly believe that the patient was not suffering from encephalic disease, although she presented no symptoms which were not explicable by the anæmia. I gave to the mother a very guarded prognosis. The progress of the case, however, does not afford the slightest ground for suspicion of intracranial disease, and the subsidence of the neuritis on the administration of iron, a subsidence more rapid than I have almost ever seen, even in cases of syphilitic disease, seems conclusive evidence of its dependence on the anæmia.

I show now the drawings of an intense neuro-retinitis, *i.e.*, papillitis involving the adjacent retina. The figures present its appearance during the active inflammation, and after this had subsided. As the case is published in *Medical Ophthalmoscopy*, I merely mention the chief points, which are of interest in connection with the case last described. The patient was a young woman, with well-marked chlorosis, and the neuro-retinitis developed with extreme rapidity. The degree of intensity shown in the first drawing, a swelling extending as far as the macula lutea, with abundant hæmorrhages and extensive disturbance of the retina, was developed in about ten days, the discs having previously been normal. Iodide of potassium was first given, on the supposition that the patient, a good-looking domestic servant, might possibly be suffering from syphilis, of which, however, there was no history. No improvement occurred, however, until iron was substituted, and then subsidence at once commenced; but, unfortunately, the amount of damage was so great that consecutive atrophy resulted. The stellate group of spots around the macula suggested the possibility of Bright's disease; but of this there was no indication, the urine being repeatedly examined, and this appearance distinctly resulted from the damage to the retinal elements by the inflammation, as it is well-known to do in such cases. The patient was watched for two years after the subsidence of the neuritis, and, except an occasional headache, there was never the slightest symptom to suggest intracranial disease. I have never known neuritis of cerebral origin develop to such a degree with such rapidity; and the rapidity of development, in conjunction with the entire absence of intracranial symptoms, exclude, I think, such a source.

Hesitation may be felt in ascribing to the state of the blood an affection so intense as that shown in the last case. But the difference between it and the second case is scarcely more than between the degree in the second and in the first case described.

In all the patients, there was amenorrhœa. It may be thought that the neuritis was due to the suppressed menstruation; but amenorrhœa is almost invariable in the degree of chlorosis which these patients presented. To suppose that an amenorrhœa of six months' duration, the result of the anæmia, would cause optic neuritis, appears to me unwarranted, when we have in all the cases the present anæmia, a pathological element of known potency, and of continued activity; and which has been proved, in pernicious anæmia, to be capable of causing the effect observed.

It is worthy of note that all the patients presented a slight degree of hypermetropia. I have observed the same coincidence in the neuritis observed in rare cases of functional diseases of the brain. The strain on accommodation in hypermetropia is generally admitted to be capable of causing a transient congestion of the disc, or slight neuritis, quickly subsiding with rest. This my own observation fully confirms. It is, I think, possible that, in these cases of chlorotic neuritis, the hypermetropia may act as the excitant of the change in the papilla, which, owing to the state of the blood, reaches a much more intense degree than it would otherwise attain.

It is needless to point out the practical importance of the recognition of the nature of these cases. In iron, we possess a remedy which is apparently capable of effecting improvement with great rapidity. I fear that, in the last case mentioned, the permanent damage to sight was in part due to the delay in the administration of iron, under the idea that the affection might be syphilitic; and I cannot doubt that, in the second case, sight would have suffered had not iron been promptly given.

One other point in therapeutics: Absolute rest to the eyes is, of course, essential, but absolute rest to the body and mind is of not less importance. The oxygen-carriers of the blood, reduced in number and in power, can scarcely convey enough oxygen to keep up the nutrition of the protoplasm-tissues; and, if any of the oxygen be used up in muscular or other exertion, the protoplasmic tissues suffer, and their degeneration is increased. Hence, I have found confining the patient to bed for a week or ten days of the greatest service at the outset of the treatment of all cases of profound anæmia. The subsidence of such symptoms as headache, vomiting, etc., under its influence, before iron is given, sufficiently attests the value of absolute rest; and its influence must be purely beneficial in the case of such tissue-changes as occur in optic neuritis.

DR. ROBERT ELLIOT has been re-elected to the post of Officer of Health for the city of Carlisle, but his appointment is for one year only. Looking to the terms upon which all the other city officials are appointed, it seems very hard that the medical officer of health should alone be singled out for the annual anxiety and trouble of re-election. Other municipal appointments being permanent ones, held during the good behaviour of the officer, it is not easy to understand why the post of medical officer of health should be made an exception to this rule.

MALIGNANT PAPILLARY DERMATITIS OF THE NIPPLE AND THE BREAST-TUMOURS WITH WHICH IT IS FOUND ASSOCIATED.*

ILLUSTRATED BY SPECIMENS EXHIBITED IN THE PATHOLOGICAL MUSEUM OF THE BRITISH MEDICAL ASSOCIATION AT CAMBRIDGE.

By GEORGE THIN, M.D.

I AM indebted to Mr. George Lawson for the opportunity of investigating another case in which the appearance described as "eczema of the nipple" preceded the development of a cancerous tumour in the mammary gland.

The patient,† a widow, aged 52, had been four years under treatment for the so-called eczema. Mr. Lawson, who examined the breast in the summer of 1878, after the skin-affection had lasted three years, satisfied himself that there was at that time no breast-tumour; but when he next saw the patient, in July 1879, a year afterwards, a tumour of considerable size was detected. The breast was then removed.

The diseased portion of skin was oval in form, and had a distinct well-defined border. It measured two inches and three-quarters in its long, and two inches in its short diameter. The nipple, which was small and depressed, was situated excentrically in the oval.

The diseased area was rough, and covered with uneven epidermis; the roughness almost amounting occasionally to a warty condition. The border of the area was raised, and at some parts it distinctly overlapped a slight sulcus which formed the line which separated the healthy from the diseased skin.

Microscopical examination showed a condition of the skin similar to that which was observed in Mr. Morris's case. In the diseased area, the epidermis was broken up, but still existed as a covering for the cutis. As compared with that of the adjacent sound skin, the epidermic membrane was thicker towards the border of the area, the interpapillary processes having become longer and broader than in the normal skin of this part. The cells of the rete mucosum were found in various degrees of degeneration; and many of them had disappeared, leaving a vacuole in their place. A fairly compact thin border of the horny layer covered this broken-down Malpighian layer. The diseased rete was sharply defined towards the healthy epidermis by a groove which corresponded to the sulcus seen in the skin of the breast, the degenerative changes extending to the border of the groove. The deep broad mass of epidermis, which separated the healthy from the diseased area in Mr. Morris's case, did not exist in this one, at the part which was examined.

The bundles of connective tissue in the *pars reticularis corii* were normal; but, in the *corpus papillare*, changes similar to those described in Mr. Morris's case were found. The fine bundles of the papillary layer must have been to a great extent destroyed as their place was occupied by a dense mass of exudation-cells. (Fig. 13.) Towards the healthy skin, this mass became less dense, connective-tissue elements being mixed with the cell-infiltration. In the diseased or nipple-border of the part I examined (which was from the external portion of the area), this cell-mass touched the broken epidermic cells of the rete mucosum on the one side, and the large, strong bundles of the *pars reticularis corii* on the other. Some of the vessels in the *pars reticularis* and in the papillary layer on the healthy side of the groove were surrounded by a narrow zone of exudation-cells; but in neither of these situations were cells found between the bundles.

The epidermis over a small portion of the nipple which was examined showed similar changes to those found in the areola.



Fig. 13.—Showing the condition of the skin in Case 2; magnified 45 diameters. *a*. The epidermis, its integrity being broken by vacuoles and disintegrated epithelium. *b*. A dense mass of exudation-cells taking the place of the connective tissue of the papillary layer. *c*. The connective tissue of the pars reticularis corii in a healthy condition. *d*. Blood-vessels. *e*. Bundles of involuntary muscle.



Fig. 14.—Showing the formation of masses of cancerous epithelium in duct cancer of the breast by increase of the normal epithelial elements of a lobule; magnified 30 diameters. *a*. Section of a terminal vesicle of an acinus of the normal size. The larger columns and circles in the lobule represent the increased size produced by diseased epithelial development. *b*. Duct through which the impetus to morbid epithelial development has been conveyed to the epithelial elements of the acini of the lobule. *c*. Large epithelial mass formed by fusion of smaller masses, and by subsequent growth on the circumference. *d*. Deeply stained curve of connective tissue, foreshadowing increase in the epithelial growth.

Ths mammary tumour was formed by an epithelial growth which had the following characters. The connective tissue of the nipple

* Concluded from page 763 of last number.

† For a more complete clinical account of the case, see Mr. Lawson's paper in the *Clinical Transactions*, vol. 13, p. 30.

was permeated by numerous epithelial columns, mostly several cells thick, almost up to the epidermis. The hard centre of the tumour contained a dense epithelial growth lodged in alveoli; but it also contained epithelial elements arranged in the same manner as those found on the borders of the tumour. It was on the deep edge of the growth, where normal epithelial elements were still found, that a special examination was made, in order to determine the precise relations of the morbid epithelial development to the lobules of the gland. The epithelial growth in this situation, in its final stage, consisted, as seen in sections, of large circular masses of cells. (Fig. 14.) These masses were surrounded by connective tissue, with which they sometimes seemed to be in direct contact; but sometimes a thin membrana propria intervened between the connective tissue and the epithelial elements. Sometimes one unbroken circle was found alone in the midst of apparently unchanged connective tissue; sometimes a group of three, four, or five such circles were found closely associated. Sometimes, again, a circular bud was found close to a mass; its origin in such cases being explained by sections in which the bud was found connected by a pedicle with a large circle. The features of these groups by which the special character of the tumour is shown are the circular form of the cell-masses, which was comparatively seldom interfered with by epithelial offshoots; the absence of infiltrating epithelial growths in the surrounding connective tissue; and the comparative absence of inflammatory or irritative changes. (Fig. 15.)

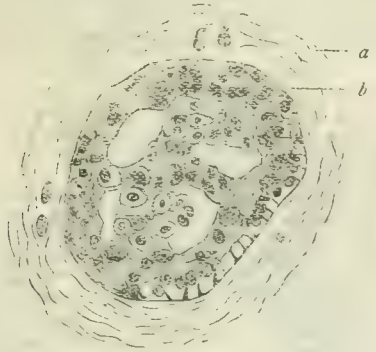


Fig. 15.—Showing the rounded form of the growing cell-masses in some parts of the tumour, and the manner in which a tube is produced by breaking down of the central cells of the growing column. (That this appearance does not point to a normal distended duct was shown by the fact, that it was one of a group all the members of which were close together, and nearly of the same size.) Magnified 265 diameters. *a*. Connective tissue. *b*. Membrana propria surrounding the growing epithelial column (therefore formed *pari passu* with the epithelium). This part of the tumour had the structure to which many pathologists apply the term "adenoma".

The nature of the epithelial element was further illustrated by a special tendency occasionally shown in its development. In some of the round masses, the border-cells were formed by a typical columnar epithelium. (Fig. 16.) The peculiar columnar form of the cells must

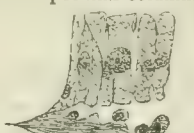


Fig. 16.—Showing columnar epithelium (with subcolumnar cells) formed on the outer border of a growing cell-mass. (Typical of duct-cancer, the impetus to the formation of columnar epithelium being derived from the columnar epithelium of the ducts in which the morbid changes began.) Magnified 265 diameters.

be attributed to inheritance of the developmental character of the lining epithelium of the lactiferous ducts, as distinguished from that of the secreting cells of the mammary gland.

The origin of some of the spherical masses of cells by a further extension of the adjacent newly formed cell-conglomerations was directly observed; but no less was a primary and other mode of development a matter of direct observation. In this tumour, the development of cancerous epithelial masses from the small or terminal lactiferous ducts could be traced in all its stages. The first stage was the dilatation of the duct of the lobule, attended by the formation of cells in its walls and in its cavity. The dilatation extended downwards until every vesicle had become a tube formed by a double layer of cells; the circle seen in section being twice to three times that of the normal vesicle, the outermost ring of cells resembling in size and arrangement the cells described as subcolumnar in columnar epithelium. In some lobules, the growing cell-columns were more or less solid; whilst, in an adjoining lobule, the development of the epithelial border was attended by a corresponding disappearance of the cells in the centre, giving rise to a group of cystic cavities lined with epithelium (Fig. 17). We have thus, in the same tumour, two modes of epithe-

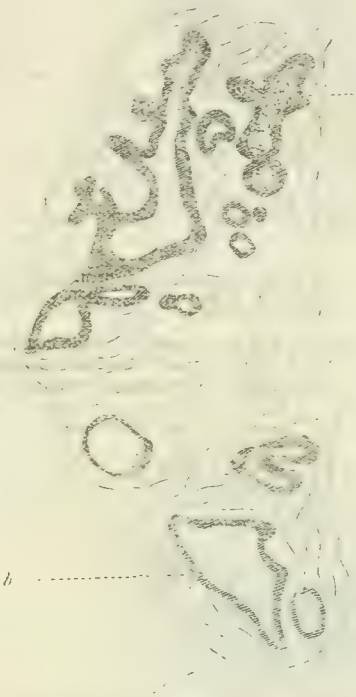


Fig. 17. Showing the formation of cystic cavities lined with epithelium in a lobule of the mammary gland in duct-cancer (in some lobules in the same tumour all the growths remaining solid). From Case 2. Magnified 30 diameters. *a*. Dilated vesicle, in which the remains of the newly formed cells are still present in the cavity. *b*. Cystic cavity lined with epithelium, the central cells having disappeared.

lial development, each of which is sometimes found exclusively in a breast-tumour, but neither of which is found in parenchymatous (scirrhous) cancer.

CASE III.—An instance in which a superficial affection of the nipple was followed by a tumour in the breast has been brought under my notice by Mr. Alan Reeve Manby of East Rudham. The patient had always had trouble with the nipple when suckling, the last two or three babies getting "as much blood as milk". In August 1876, what Mr. Manby describes as "the superficial ulceration" caused the patient so much uneasiness as to lead her to seek his advice. At that time, the skin "used to scab and heal". In the spring of 1877, she first noticed a lump, which he removed on April 22nd of that year. At the time of the operation, the woman was forty-seven years old; and the catamenia, though irregular, had not ceased. She died in July 1879, with obscure symptoms of general pain, traceable, Mr. Manby believes, to the fear of a second operation he had suggested some months before her death, for the removal of a line of cancerous nodules recurring along the old cicatrix.

The tumour had been preserved in spirit, and was sent to me by Mr. Manby. On cutting through it, I found that the growth had a circular form, the centre being under the nipple. It had a breadth of about three inches, and a thickness of six-eighths of an inch. It was of a pale pinkish colour, permeated by a network of white streaks of connective tissue, continuous with the connective tissue surrounding the tumour. The pinkish tissue contained a great number of minute cavities, the largest being about the sixteenth of an inch. The cavities were the sections of canals or tubes, which admitted a bristle for some distance. Some of the cavities were empty; others were filled with a plug or mould of the same colour as this part of the tumour. A section through the nipple, which was of the full size, revealed the fact that several lactiferous ducts were filled with the same pinkish substance.

Microscopical examination showed that the surface of the nipple was covered by a ragged, broken-down epithelium, similar to that described in Mr. Morris's and Mr. Lawson's cases. Beneath the epidermis there was also, as in these cases, a dense small-cell infiltration,

with partially destroyed connective tissue, large spaces being found between the disintegrated bundles. These changes, which were limited to the epidermis and the papillary layer, were continued only for a very short distance to the skin of the areola, and gradually shaded off into the healthy tissues. The tumour was formed by tubular epithelial growths. (Fig. 18.)

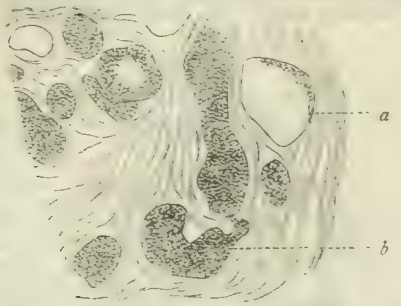


Fig. 18.—Showing the tubes filled with epithelium which permeated the tumour in Case 3; magnified 14 diameters. *a*. Cavity left by disappearance of the epithelium. *b*. Large tubular cavities filled with epithelium.

The tubes grew in clusters, and were formed by the coalescence of the smaller tubes which formed the cluster. In the least advanced clusters, each small tube was surrounded by connective tissue (Fig. 19).

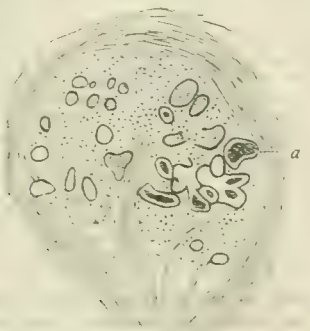


Fig. 19.—Showing the early formation of the epithelial masses in Case 3 by the enlargement and coalescence of tubes and vesicles; magnified 45 diameters. *a*. Enlarging tube filled with epithelium. (The intralobular connective tissue between the round epithelial structures was densely infiltrated with exudation cells.)

In those which were more advanced, the connective tissue within the zone of growth was partially or nearly entirely obliterated—the contours of the small tubes being, however, still distinct. In the most advanced stage, the area of the cluster was either filled with a rounded mass of cells or was found empty, the boundary being formed by an even-contoured ring of connective tissue.

These appearances lead me to believe that the growth was another example of the class of tumours to which, in consideration of the epithelium from which they spring, the term *duct cancer* may be appropriately applied.

Case IV.—I showed at Cambridge a section from another tumour excised by Mr. Morris, which had been also preceded by this affection of the nipple. An account of the case was read before the Medical and Chirurgical Society on December 10th, 1879. (See *Medico-Chirurgical Transactions*, vol. 63, page 38.) The patient, a woman aged 40, and the mother of children, had suffered from the disease of the nipple for six years before anything was felt in the breast.

This tumour was examined by Dr. Goodhart; and, as a full report by him on its structure is contained in Mr. Morris's paper, it is unnecessary for me to describe it in detail here. As, however, Dr. Goodhart had been so good as give me a portion of the tumour, preserved in spirit, from which I had prepared the section shown at Cambridge, and as it is of some interest to bring together an account of the four tumours, Figures 20 and 21, representing drawings made from one of the sections, are added to this paper.

The sections show lobulated areas of epithelial growths in the connective tissue. In these lobules, all the stages of the formation of epithelial tubes or cysts, which I have described in connection with the previous tumours, were observed, and are shown in Fig. 21. The larger tubes, formed by the coalescence of the smaller ones, were sometimes found full of agglutinated epithelium, and were sometimes seen as spaces lined

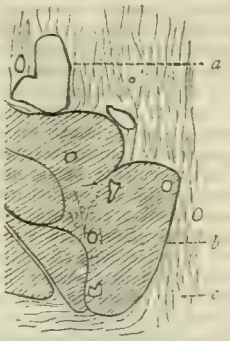


Fig. 20.—Showing the outlines of the areas of cancerous epithelium in Case 4; magnified 14 diameters. *a*. Cavity left by the disappearance of an epithelial mass of new formation. *b*. Contour of the epithelial area (sharply marked off from the surrounding connective tissue which contains no cancerous infiltration). *c*. Connective tissue of the breast.

by a single layer of cells. In the latter case, the epithelial *débris* had probably fallen out in the preparation. The drawings are sufficient to show that this tumour is not an ordinary scirrhous (parenchymatous)

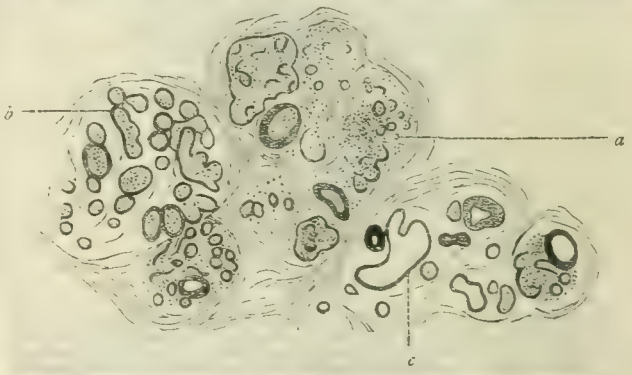


Fig. 21.—Showing the mode of formation of the epithelial areas from the normal epithelial elements of the breast in Case 4; magnified 45 diameters. *a*. Section of a vesicle of an acinus of the mammary gland of the normal size. *b*. Enlarging tubular structures containing newly-formed epithelium. *c*. Cavity lined with epithelium, formed by the disappearance of the epithelium from the centre. (The rounded form of all the epithelial growths, and the absence of diffuse cancerous infiltration in this case, are characteristic of duct-cancer.)

cancer. I believe that it belongs to the same class as the first three cases. An examination of a portion of the diseased skin, which Dr. Goodhart was kind enough to give me, showed similar appearances to those described in the three preceding cases.

The microscopical examination of the skin in these four cases has established one point of great practical importance. The patients suffered from an affection that has hitherto been described as eczema of the nipple. The diagnosis of eczema from the purely clinical side was, I believe, a fair subject of discussion; but I have never been satisfied that the evidence in favour of eczema was convincing. In two cases of the disease, which I have had an opportunity of examining before operation, the clinical evidence was, in my opinion, against eczema, and in favour of an infiltration in the superficial layer of the cutis. The microscopical examination is decisive on this point, and proves definitely that the disease is not eczema—the connective tissue in eczema, even in the most severe cases, remaining undestroyed.

The publication of this evidence, in sufficient detail to afford a basis for independent judgment, becomes, therefore, a matter of the first necessity; and, in writing this paper, and in selecting the drawings, I have kept this object in view. Full evidence of the kind, with a detailed account of additional cases, was much to be desired. Instances of the disease are not numerous; but it is to be feared that confusion will arise as regards this affection and true eczema of the nipple. Cases have already been published of a speedy cure of the disease, which there is no reason to believe were anything more than simple eczema. When it is considered that the diagnosis of this malignant dermatitis

would immediately raise the question of operation—whilst, so far as we know, a true idiopathic eczema need not—it is evident how important it is to collect all available data which may render the recognition of the difference between the two conditions more easy.

The idea that cancer might develope on long-standing eczema has, analogically, much to recommend it. There are well-known authenticated cases of the development of epithelioma in lupus tissue; and the development in cicatrices, and in tissues subject to special causes of irritation—as in the chimney-sweep's cancer, and in cancer of the lower lip in smokers—is well known. All that is wanting to establish a similar fact for eczema is a well-authenticated case; but, common as eczema is, such a case does not seem to have occurred.

In distinguishing, clinically, this malignant dermatitis from eczema, the chief points to be borne in mind are the well defined margin in the former, and the evidence, when the tissue is grasped between the fingers, of infiltration in the papillary layer. An eczema of the areola, that had the thickening and moist redness which have characterised some of the cases of this affection, would be so acute in its nature that the zone of inflammation would pass off gradually into the surrounding skin, would probably become widespread, and would give rise to very active symptoms. The overlapping margin forming a veritable ridge, with a sulcus behind it, which characterised another case, would of itself be sufficient to exclude the diagnosis of eczema. The history of the case may be found useful in establishing the diagnosis. In two cases which have come under my notice, there was clear evidence that the disease began in a position corresponding to the openings of the lactiferous ducts, and remained limited in that position for some time before extending over the surface of the nipple.

This malignant dermatitis has neither the symptoms nor the pathological anatomy of any known skin-disease. It is characterised by destruction of connective tissue, and by a permanence of the destructive influence; for repair of the destroyed elements does not occur. In other words, a destroying agent extends from the mouths of the lactiferous ducts into the surrounding papillary layer. The condition of the breast, in the early stage before a tumour can be felt, requires further investigation. In a case, examined and described by Mr. Butlin, in which the breast was removed (*Medico-Chirurgical Transactions*, vol. 59, page 108) simply on account of the condition of the skin, there "not being at the time of operation any evidence of cancer", the lactiferous ducts were found, "for an inch or more beneath the nipple", completely filled with epithelium. But, from what we know of the slow changes that frequently mark the earlier stages of cancer of the skin (in rodent cancer, for example), there can be little difficulty in accepting it as probable, that cancerous changes are developing in the ducts long before they have given rise to sufficient induration to produce a palpable tumour.

Irreparable destruction of connective tissue of the areola argues, of necessity, in favour of the continued action of a connective tissue poison, if the term may be allowed. Cancerous epithelium—as distinguished from normal epithelium—is such a poison: and the development of malignant papillary dermatitis of the nipple is suggestive of the escape of fluid through the mouths of the ducts, possessing the corrosive qualities which such an epithelium would give it. The hypothesis is confirmed by the subsequent development of palpable cancerous growths in the breast, which are formed by an abnormal development of duct epithelium.

What I believe is most clearly shown, by the preparations and drawings, regarding the nature of the breast tumours, is, that these cases are not cases of ordinary scirrhous or parenchymatous cancer. In all of them the tendency of growth was in round columns, which as they grew larger coalesced into round masses, the tendency to penetrate and infiltrate the interlobular connective tissue being comparatively feeble. In scirrhous or parenchymatous cancer, the terminal vesicles of the acini, after they begin to enlarge, rapidly lose their symmetery, and offshoots pierce the connective tissue in all directions. In the tumours which I have been describing, on the other hand, the tendency was to regular symmetrical growth on the circumference, and occasionally to the formation of cystic cavities, by simultaneous breaking down of the central cells. The tendency was more or less pronounced towards the formation of structures that, in England, it is usual to describe as examples of adenoma. In Case II, for example, in some parts of the tumour the epithelial growths consisted of parallel columns (seen in section as groups of circles), one of which is illustrated in Fig. 15. A tumour in which the growths were found of this character, and in which, as was the case with some parts of this one, a membrana propria was found enclosing the new epithelial formations, would certainly be considered by many pathologists as "adenoid". The cases described in this paper support the view, that, between duct cancer (fibro-carcinoma cysticum mammæ, Waldeyer), of which they are examples, and the mammary growth known in England as adenoma, the difference is one of degree and not of kind. When an epithelial growth in the mamma takes its origin in the duct epithelium, if the development of columns and tubes is localised and encapsulated by a growth of connective tissue, the ordinary adenoma is produced; if, on the other hand, there is progressive destruction of connective tissue and continued growth, we have a duct cancer as the result. But the stamp of origin in the duct epithelium is always retained; and in some parts of the tumour round-cell masses, with columnar epithelium, will eventually be found, marking the radical distinction between this kind of tumour and scirrhous or parenchymatous cancer.

The evidence regarding the nature of the breast tumours associated with disease of the nipple, which has been brought forward in this paper, should be taken in connection with that given in Mr. Butlin's papers in the *Medico-Chirurgical Transactions* (vol. 59, page 107, and vol. 60, page 153). Setting names aside, and examining the drawings with which Mr. Butlin has elucidated his memoirs, I believe evidence will be found that the tumours he has examined, and those which I have described, belong to the same category. In Figures 8 and 10, plate 6, vol. 59, and Fig. 4, plate 7, vol. 60, I recognise the structure of duct cancer. The appearances figured are similar to those found in my own cases, and are essentially identical with those described by Waldeyer as characteristic of his fibro-carcinoma cysticum mammæ. The blocking up of the lactiferous ducts in this affection, by newly-formed epithelium, is clearly described in Mr. Butlin's paper. Further investigation has, however, shown that the cancerous epithelium may break through the wall of the duct into the connective tissue of the nipple; and that the diseased skin has pathological characters irreconcileable with the conception that the affection is eczema.

In the portion of Dr. Thin's paper published in last week's JOURNAL, Fig. 6 was accidentally reversed. It should have been put thus.

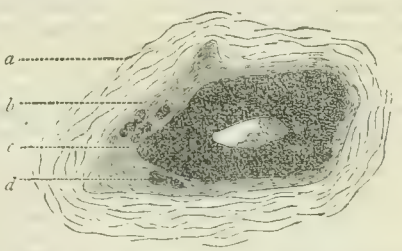


Fig. 6. Showing a transverse section of a lactiferous duct and columns of cancerous epithelium growing in a direction parallel to the long axis of the duct; magnified 22 diameters. *a*. White fibrous tissue of the nipple. *b*. Elastic layer of Henle surrounding the lactiferous duct; *c*. Contour of the duct. *d*. Column of cancerous epithelium cut transversely.

ON THE ETIOLOGY AND TREATMENT OF LACERATIONS OF THE CERVIX UTERI.*

BY MONTROSE A. PALLEN, M.D., LL.D.,

Professor of Gynæcology in the Medical Department of the University of the City of New York; Obstetric Surgeon to the New York Maternity Hospital, etc.

HITHERTO no surgeon has given any special attention to the immediate treatment of laceration of the cervix; but quite a number in the United States have made studies in the description of the indications for, and methods of, the operation, for the restoration of a laceration long after the lying-in period. It was my province to first describe the operation, as performed by myself in 1866, when I believed myself to be the pioneer, in a paper entitled Fissure of the Neck of the Womb, and published about that time in the *St. Louis Medical and Surgical Journal*. I had been preceded, however, by Dr. Thos. Addis Emmet, the then chief surgeon of the New York State Woman's Hospital, who first performed the restorative operation in 1862, although he did not publish anything until 1869 or 1870, or even later.

An extended study of the plastic surgery of the cervix, vagina, and perinæum, and the performance of very many operations for their restoration after injury from parturition, has given me an experience which warrants somewhat of positive statement. In the Clinic at the University, I have closed at least fifty lacerated cervices during the past six years, and very many more in private practice, which, added to the total number performed since 1866, gives a very large field from which to draw deductions and rules for operating.

* Concluded from page 766 of last number.

When we peruse the works of those great masters who preceded us—and I mean by "us", the generation of gynæcologists which dates its epoch from the culmination of the fame of that great Scotchman, Sir James Y. Simpson—we readily understand the numerous amputations of the cervix by Lisfranc for so-called cancer; the frequent "meltings-down" by Bennet with the potassa fusa; or the actual destruction of the cervix, by Jobert (de Lamballe), in his exhibitions of uterine pyrotechnics at the Hôtel-Dieu. Except for epithelioma proper, or perhaps for some rodent or lupus-like ulceration, we now find other means than mutilation, for the restoration of the integrity of the diseased cervix. We may almost lay it down as an axiom that the so-called *ulceration with patulous* os never existed, save in the descriptions of our predecessors, who mistook the un-united ragged laceration, with edges covered with hypertrophied papillæ and cicatricial tissue, for a gaping ulcerated mouth of the womb. No wonder so many of the women of the past generation succumbed to the amputating knife, the potassa fusa, and the cautery iron: they were mutilated, and were deprived of the intravaginal cervix uteri. If death did not fortunately relieve them, subsequent pelvic cellulitis, uterine displacements, and general broken-down health attended them through life, because mistaken "authority" had decreed suffering, sterility, and uselessness, when a simple plastic operation, the analogue of that for hare-lip, would have restored them to health, maternity, and happiness.

What are the symptoms of laceration of the cervix? Whenever a patient presents herself, who has borne one or more children, and who complains of leucorrhœa, precordial malaise, or pulsation, neuralgic pains in either iliac fossa, hemicrania, or intercostal neuralgia, menorrhagia in a greater or lesser degree, co-added to the usual reflex symptoms of rectal or vesical disorder, we may safely anticipate cervical lesion. Knowing, as we do, that in the mother, the most frequent of cervical lesions is laceration, we are certainly warranted to suspect such a condition: more particularly if her abdomen be comparatively free from tenderness. To positively reach a diagnosis, both digital and ocular inspections are necessary. One sweep of the finger is sufficient in the skilled diagnostician to detect the breach of tissue, however small or great it may be; and in about 80 per cent. of all cases it is found in the left posterior vaginal fornix, on a line corresponding with the sacro-iliac synchondrosis. All doubt is removed when the patient is placed on her left side, in the semiprone position, with the perineum retracted by a Sims' speculum, and the cervix exposed. After cleansing the surfaces of mucosities, a red irregular rent is seen, generally extending from the tip of the intravaginal structure to the insertion of the vagina; or the entire cervix seems to be lost, nothing remaining but two teat-like projections at the upper end of the vagina, the laceration, in this instance, having equally sundered the anterior from the posterior segment. With a couple of tenacula, the torn edges may be easily approximated, the extent of the lesion indicated, and the cervix re-adapted to its pristine shape and integrity. All cases should be operated upon, however slight the lesion, as the laceration is sure to eventuate in alteration of structure, either in hypertrophy of papillæ, or, by involving some nerve-fibrils in the cicatricial tissue, to beget all manner of neuralgiæ and neuroses. We may, to all appearances, thoroughly cure the erosion, or the so-called ulceration, with iodine, hot-water injections, and a properly adjusted pessary to prevent vaginal friction; yet, as soon as we desist from treatment, there will be a re-accession of the former symptoms, in consequence of attrition of the edges of the fissure, and maceration from leucorrhœal discharge; and particularly rapid are these returns of trouble, if the patient have retroversion, which certainly exists in about 80 per cent. of all cervical lacerations. After an operation, it is quite rare for the retroversion to persist, as a restoration of the cervix usually re-establishes the normal uterine position, in consequence of rectification of the symmetry of support; and the withdrawal of reflex irritability (by the cure of the erosions, as well as the ablation of cicatricial tissue) does away with the frequent fluxions and congestions to which the womb and its annexes are so liable, pending the existence of the laceration.

As to the proper time to perform the operation, four or five days after the cessation of the menstrual flow should be the chosen period; in fact, all surgical procedures about the female generative tracts should be made at that time, as there is more pelvic vascular quiescence then, than at any other period: the organisms are resting from the labours of the oviposit.

After the operation has been determined upon, a question of some importance arises, as to its earliest practicable performance, or if the patient should undergo a certain amount of preparation. Very excellent authority counsels preparation in regulating the hygiene, hot water douching *per vaginam*, the application of a pessary to lift the uterine cervix from the vaginal walls, etc. This process of training usually takes from thirty to ninety days, and the benefits accruing are hardly commensurate with the time lost. My experience is, that a reasonable amount of hot water douching, the daily replacement of the displaced uterus* for a fortnight prior to her next succeeding menstruation, accomplishes all that is requisite; and a very much more permanent and rapid gain is obtained after, than before, the performance of the operation. All the hot water, iodine, and pessaries we can use for ninety days will not close up the wound; and the sundering of cervical tissue is the cause of all the other ailments. Temporising is not the method of success—the effect must be eradicated by removing the cause. To make the operation, the patient should be placed on the table, lying in the left lateral semiprone position, with the perinæum retracted by a Sims' speculum, or one of its modifications. I prefer my own adaptation, as the assistant can hold it with more facility, and with less fatigue.† The question of anæsthesia is one, simply, of choice upon the part of the patient, as the operation is less painful than any other of its gravity, many women would rather submit to it without ether, as the subsequent nausea is much more trying than the pain. In the Clinic of the University, I frequently perform the operation without the anæsthetic; but I always submit the question to the patient herself, when I think she is sufficiently courageous to undergo the ordeal—otherwise, I administer ether, although I fancy I shall hereafter use the nitrous oxide, as I have done quite often latterly, for operations which do not require more than three-quarters of an hour; in fact, I see no reason why it should not be used for any length of time. The only drawback is in having a sufficiency of gas: this difficulty is overcome in New York by the manufacture of the compressed liquefied nitrous oxide gas, which gives to surgery the complete control of this, the safest of all anæsthetics.

The instruments used for paring the edges of the laceration are scissors, about seven inches in length, of a variety of curves, to be able to squarely cut off the cicatricial and eroded tissues. The length of these scissors is of great importance, as it is proper to make the denudation with the uterus *in situ:* any dragging or pulling downwards of that organ being unskilful, unsurgical, and possibly dangerous by disrupting old adhesions around the uterus, which might light up a cellulitis. Whilst the dissection is being made, the cervix is steadied with a tenaculum, equally as long as, or longer than, the scissors, the point being very hard, and bent at a very acute angle, to avoid slipping. An assistant sponges rapidly and thoroughly, with very small sponges firmly pressed upon the bleeding surfaces. Dr. Emmet describes a tourniquet, by which he controls the bleeding. I find that a very hot douche, just prior to the operation, blanches the tissues sufficiently to modify, if it does not control, the hæmorrhage. As a general thing, the amount of blood lost is very trifling, hardly ever exceeding an ounce. Sometimes, however, we cut very large vessels; and when they are found ramifying in the dense, hard cicatricial tissue, the bleeding goes on until the edges are firmly approximated by the silver wires. If this cicatricial tissue be not all cut away, it may interfere with the healing entirely, or may retract after the process of healing has commenced, to set up a secondary hæmorrhage—three such accidents happening within a period of forty days of each other, in May and June, 1880: the first in the service of Dr. Emmet, at the Woman's Hospital of New York; the third in the same institution, in the service of Dr. Lee; and the second in a private patient of my own, where, on the sixth day after the operation, the nurse, in facilitating an evacuation of the rectum, stretched and reopened the union, which was followed by such profuse bleeding as to endanger the life of the lady in question. The hæmorrhage was only checked after all of the sutures were removed, the uterus emptied of clots, and nine new and deeper wires placed. Fortunately, her life was saved, and the operation succeeded. It is sometimes very difficult to make a smooth dissection, more particularly when the angle of the wound follows a very tortuous and sinuous route upwards towards the uterine body, and under the vaginal duplicature. Should we fail to clean up this angle, the success of the operation is endangered. After the paring is done, we should apply the sutures, which are passed by means of short, straight, well-tempered needles, with trocar or pyramidal points, very sharp and very hard. Sometimes it is more convenient to use a needle shaped like a fish-hook, as it is very difficult to

* By putting the woman in the knee-chest position, the femora at right angles to the pelvis, and the spinal column at an angle of forty five with the plane of the table, the sternum resting flat, and the perinæum retracted sufficiently to permit the vagina to be ballooned with air, whereby the intestines gravitate towards the diaphragm, and the womb rolls upwards and forwards.

† This instrument was devised in 1866, and fully described and figured in the *Transactions of the American Medical Association* for 1867. I find one sold in London to be very similar; and it is alleged to have been gotten up without any knowledge on the part of the makers of anything like it in existence. Whilst I do not allege that my principle has been copied in the construction of the London instrument, I wish to place myself on record as having first devised, described, published, and used this form of speculum long before it was utilised in Great Britain.

pass the straight ones through the upper angle. These needles are rarely an inch in length, and are held in the ordinary Sims' forceps needle-holder, whilst the tissue is steadied with a tenaculum. Most of the American gynæcological surgeons bend the wire on a silk thread, which is placed in the eye of the needle; but for many years I have dispensed with the silk, and place the wire directly in the eye of the needle, which is purposely made larger. Great care should be exercised in passing the needle, lest it snap just at the critical moment. The needle-holder should never grasp the eye, and the needle should be placed at such an angle as to be pushed straight through. I am rather particular about these technical details, as upon their proper manipulation depends the complete success of the procedure. The trocar, or pyramid-pointed needles, penetrate without cutting; and, the body of the needle being larger than the point, somewhat of stretching takes place, and there is less oozing of blood than with any other form of needle. I have used them for fifteen years, and they have never yet disappointed me.

Before the wires are twisted, all clots should be sponged away, and the edges of the wound accurately approximated without strangulation by the sutures, which are to be bent on the flat, curved on the cervical tissue, and cut off about two lines from the wound-line.

For many years, I was in the habit of passing only as many wires as were necessary to bring the raw surfaces accurately together; latterly, I rather multiply the sutures, as the presence of good silver wire does no harm, and a surplus insures success, as well as prevents accident. The patient is kept in bed ten days or so, when the sutures are removed, provided union is perfect; otherwise, they are to be tightened, or some additional ones passed, to remain as long as it may seem proper—ten or twelve days more. During the presence of the sutures, the carbolised or thymolised hot douche should be constantly used.

In the whole range of gynæcology, there is nothing so satisfactory as the successful issue of an operation for the cure of laceration of the cervix. Symptoms of the most rebellious nature succumb to the closure of divided tissue, and reflex phenomena often disappear as the mist before the sun.

The rules I would lay down are, to close the laceration at the time of the accident, just as we do habitually for similar perineal lesion, and, in default of making the immediate restitution, to perform the plastic restorative operation as early as practicable. The stitching of the neck of the womb upon the immediate accident is not only necessary, sometimes, to stop the hæmorrhage, but it occasionally is the sole method left to us to save life; besides, it prevents septicæmic trouble pending the lying-in, and union avoids all subsequent breaking-down in health. When the woman arises from the parturition with a division of the cervix, she will, sooner or later, be subjected to more or less of menorrhagia or metrorrhagia, or she will be the prey to the inconveniences and miseries of bad health, as evidenced by leucorrhœa, neuroses of various manifestations, dyspepsia, frequently sterility, and uterine displacement. The operation for the cure of this condition, whilst it is difficult in performance, is comparatively free from danger; and now that we know there is danger of secondary hæmorrhage, not before anticipated, we can take due precautions to guard against it.

The chief deduction in the study of laceration of the cervix is, that the prophylaxis of skilled obstetrics will do much to diminish its frequency, particularly if, in the management of the pregnant woman, the accoucheur directs special attention to its histological status; and should any condition exist which is liable to impair the progress of a normally rapid labour, the hydrostatic dilator should be used, to open the cervix before there is a possibility of the production of œdema, perivascular effusion, ecchymosis, or tissue-bruising. These preventive measures are not only necessary in the scleremic cervix to save it from rupture, but the benefits to the general condition of the woman are most apparent, by saving her the additional dangers of a tedious and exhaustive labour.

The hiatus yet to be filled in obstetrical and gynæcological literature, is a thorough and complete treatise on the management of the pregnant woman, more particularly with regard to the prophylaxis of accident and disease at parturition, as preventives of subsequent pelvic trouble. The skilled accoucheur must forecast his patient's horoscope of health by common sense, and the dictates of the tenderest humanity.

CENTRES OF VISION IN THE CEREBRAL HEMISPHERES.—Dr. J. C. Dalton (*New York Medical Record*,) concludes a paper on this subject thus. 1. Extirpation of the angular convolution causes loss of visual perception on the opposite side. 2. This operation is not followed by any disturbance of the intelligence, attitude, power of locomotion, or general sensibility. 3. It does not interfere with the general sensibility of the retina or conjunctiva, the reaction of the pupil to light, nor with the normal consentaneous movements of winking. Its effects are therefore confined to the exercise of visual sensibility.

CASE OF STRANGULATED CONGENITAL HERNIA IN A CHILD TWO MONTHS OLD: OPERATION: RECOVERY.

By J. M. COTTERILL, M.B., F.R.C.S.E.,
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THE following case is interesting, from the extreme youth of the patient, as also the contradictory nature of the symptoms, which rendered the diagnosis more than usually difficult.

On July 2nd, 1880, a child, nine weeks old, was brought to the Royal Dispensary, Richmond Street, Edinburgh, for advice. The mother stated that the child had for ten hours been suffering great pain, which had come on suddenly after a fit of coughing. The pain was increased by pressure on the scrotum, which was swollen to about the size of an egg. The mother stated that the child had had a swelling in that position since its birth, which she could always cause to disappear gradually by continued pressure, and which gave the child no apparent discomfort, though it always filled again slowly when the pressure was removed. It was evident, from her description, that the child had suffered from a congenital hydrocele. Since the appearance of the acute symptoms, the patient had been unable to pass urine; the bowels had been freely moved, and there had been no vomiting; the chief symptoms being the apparently intense pain, and the pinched and exhausted expression of face. With these apparently conflicting symptoms in view, I put the child under the influence of chloroform, in order to make a more careful examination than was otherwise practicable. The right half of the scrotum was tense, shining, and full of fluid. Though the neck of the tumour felt somewhat thickened, I could distinguish nothing that felt like intestine; nor was there the least impulse noticeable on the child crying or coughing. Thinking it just possible that the swollen and painful state of the scrotum might be due to some blow or fall upon the previously existing hydrocele, I inquired of the mother whether the child had sustained any such injury. She assured me that such was not the case. I then concluded that the symptoms were due to a minute strangulated hernia, complicating the hydrocele; though the absence of vomiting, and the particularly free movement of the bowels since the supervention of the acute symptoms, apparently contradicted such a conclusion. Such, however, turned out to be the nature of the case; for, having failed in attempts at taxis, on making an incision over the neck of the tumour, and opening the sac, there escaped about two ounces of dark blood-stained serum, and in the uppermost part of the sac there lay a small knuckle of intestine, not much larger than a pea, and deeply congested. This was easily returned on division of the neck of the sac. Having then gathered up the funicular portion of the sac as tightly as possible round the cord, I put two deep catgut sutures through the sac and the surrounding textures, in such a way as to bind it down to the cord, and lessen as much as possible the liability to return of the hernia. I sewed up the superficial parts of the wound closely, and covered the line of incision with a thick layer of collodion.

The child made an excellent recovery, and has now dispensed with any retentive apparatus, though I recommended one to be worn for the first few months, as the child was suffering from a severe attack of whooping-cough.

In infants, where the antiseptic dressing is unsuitable, the collodion dressing will be found useful in preventing the urine from coming into contact with the wound, and thus preventing the healing process.

CASE OF CROUP TREATED BY PASSING CATHETERS INTO THE TRACHEA BY THE MOUTH.

By J. WILSON PATON, M.D., M.R.C.S., Rockferry.

IN the BRITISH MEDICAL JOURNAL for July 24th and 31st, 1880, are two papers by Dr. Macewen, on the Value of Tracheal Tubes introduced by the Mouth in Œdema Glottidis, etc. The cases he records are all in adults. I am not aware that this treatment has been used in children; but its simplicity and advantages are so great, that a few notes of a case of croup in which catheters were used may be interesting.

H. J., aged three years and ten months, had measles, the rash appearing on February 15th, 1881. On the disappearance of the rash, a hard cough supervened, which gradually increased in severity till March 1st.

On this date, I found him, at 1.30 A.M., suffering from intense dyspnœa, quite unable to speak, and his lips of a dark livid colour. His cough was constant, brassy, and without expectoration. The respira-

tions were thirty-five per minute, the cartilages of the ribs and sternum being drawn in at every effort to breathe, and crepitation existing over both lungs. The fauces were healthy. The pulse was 144, very weak.

Having a No. 11 prostatic catheter with me, I determined to pass it into the trachea instead of performing tracheotomy. Watching an opportunity, while the tongue was depressed with a spoon, the catheter, curved a little more than usual, was passed into the trachea, during an attempted inspiration, and without the slightest difficulty. A severe struggle followed, lasting perhaps a minute or two, the face becoming purple, and the eyes staring with fully dilated pupils. The paroxysmal efforts to expel the tube being unsuccessful, a pretty full inspiration, partly through the tube and partly through the larynx, followed; about two ounces of frothy, bloody, and purulent mucus were ejected by the tube and the mouth; the livid colour disappeared, and he lay down breathing easily through the tube. The presence of the tube did not prevent his swallowing milk, although sometimes a little of this was ejected from it during a cough. The tube was retained *in situ* by a strip of plaster; and the teeth were prevented from closing on it by means of a pear-shaped piece of hard wood.

Six hours afterwards, he was much easier, and could say "Yes" and "No" distinctly. The cough continued at intervals of ten minutes, and did not seem altered in character by the presence of the tube. Crepitation still existed over both lungs, an abundant muco-purulent secretion being passed both by the tube and the mouth. Hitherto he had been kept in a warm room; but now a bronchitis-kettle maintained a moist temperature of 70° Fahr. The tube was removed without any inconvenience after it had been in the trachea for eleven hours, as he had bitten it, and no air was passing through it. Shortly after its removal, symptoms of obstruction gradually reappeared. During the same evening, another ordinary gum-elastic catheter No. 12 was introduced, only a slight momentary struggle and cough supervening. The presence of the tube led again to a very free expectoration of mucus. In the course of a few hours, the respirations and pulse became lower, and crepitation and dyspnœa ceased. When the tube had been in for forty-eight hours and a half, it was removed, and not again introduced. On March 8th, the voice and chest sounds were normal; and he was not seen after the 10th.

This case was a severe one, and would soon have ended fatally, had no operation been performed. Tracheotomy seemed inadmissible, neither the case nor the surroundings being favourable for it. *Primâ facie*, it would be expected that the introduction of a tube into the trachea of a child against its will would not be so easy as in a consenting adult. That may be so; but it is certain that the operation is extremely easy and simple, and does not take more than two or three seconds from touching the tongue with the spoon till the tube is in the trachea. Had tracheotomy been performed successfully, when would the child have been out of danger? Certainly not so soon as here recorded; for, at the end of the third day, the child was so well as to be able to breathe freely without the tube, and was quite well before the tenth day after the operation.

ABDOMINAL SURGERY.—In 1876 Professor E. Porro, of Pavia, first performed the operation which now bears his name, and has become fairly established. The results were completely successful, both mother and child surviving. The operation, performed for the delivery of pregnant dwarfs with narrow pelves, has been briefly described as follows, in a recent valuable paper by Dr. R. P. Harris. "After the evacuation of the uterus, its neck is constricted until all hæmorrhage is arrested, the organ drawn out, and cut away, and the stump secured like the pedicle in ovariotomy in the lower part of the abdominal wound. The operation has in almost all instances been performed under the spray of dilute carbolic acid, and the Lister method of dressing and management strictly carried out. Drainage-tubes through the Douglas cul-de-sac and the abdominal wound have also been employed, sometimes to the number of three or four, but in almost every case, at least one through the cul-de-sac and vagina." The Müller modification, sometimes also called the "Rein and Müller method," is thus described by Dr. Harris. "Dr. G. Rein, of St. Petersburg, Russia, proposed, in 1877, that the uterus should be ligated to avoid all hæmorrhage before it should be opened for the removal of the fœtus. Müller added to this the turning out of the uterus from the abdominal cavity by a long incision, before the ligature, and then evacuating it, so as to avoid the risk of the entrance of its fluid contents into the abdomen, after which the operation is to be completed as in the Porro method." Dr. Harris, having collected a total of thirty-six cases of Porro's operation, found that in seventeen cases, the mothers, and in five cases the children, had died; the others, nineteen mothers, and twenty-six children, surviving. In the last twenty cases of his list there were twelve recoveries, and eighteen children were delivered alive.

THERAPEUTIC MEMORANDA.

ARTIFICIAL HUMAN MILK.

I SHOULD like to direct the attention of practitioners to the artificial human milk now prepared by the Aylesbury Dairy Company, at a cost little over that of the best nursery milk. This valuable method of treating cow's milk was first brought under my notice, some years ago, by Dr. Frankland, the eminent chemist, who devised it for one of his own children who was ill; and I have since used it extensively in my practice.

Its composition is absolutely identical with that of human milk; and under its use the risks and disadvantages of the bottle-feeding of infants are reduced to a minimum. I have been in the habit of instructing nurses how to prepare it at home from Dr. Frankland's recipe, but the trouble and difficulty of making it stood seriously in the way of its general adoption; and, unless the nurse happened to be exceptionally intelligent, failure very frequently followed. For this reason, I suggested its manufacture to the Aylesbury Dairy Company, and the specimens with which they have since supplied me have been perfectly satisfactory, and require no further treatment than heating to the proper temperature. I look upon it as immeasurably superior to asses' milk, than which it is much cheaper; and if this valuable preparation were more generally known and used, much illness, in the case of children who cannot be brought up at the breast, would be avoided.

W. S. PLAYFAIR, 31, George Street, Hanover Square.

ACUTE URTICARIA FROM A SINGLE DOSE OF IODIDE OF POTASSIUM.

THE following case is of unfrequent occurrence, and illustrates very well one of those peculiar idiosyncracies often met with in the administration of certain drugs.

W. K., aged 30, contracted syphilis some time about Christmas last. He was treated for seven or eight weeks by his medical attendant at Coventry, developing, during that period, a severe attack of roseola and sore-throat. At the end of this time, he was advised by a friend to take iodide of potassium in water. The quantity of the drug in each dose I have calculated as being four grains. About three hours after taking the first dose, he experienced smarting and burning pains about the face, back, neck, and arms, and soon observed a "rising up of a lot of hard lumps" in the localities named. He took no more of the medicine during the day; and by the following morning, the "lumps" had entirely disappeared. He again took the medicine, which was followed during the next day by the same train of phenomena. This occurrence took place on several occasions afterwards, the rash invariably appearing whenever he resorted to his iodide of potassium.

On April 29th, he came under my care, the roselous rash having disappeared from the skin; he was suffering from extensive condylomatous patches about the lips and mouth, and had a few circles of rupia on the front of the chest. Without a knowledge of the previous effects of drugs upon the patient, I ordered him three-grain doses of the iodide of potassium, combined with small quantities of the perchloride of mercury, in an infusion of cinchona. I saw him about three hours after taking the first dose of the medicine, when he at once told me that he was in the same condition as when he took the iodide two months ago. He was very depressed in spirits, and complained of a burning pain in the face, neck, back, and arms. These localities were thickly covered by round and elevated indurations, varying in size from a threepenny-piece to a florin; the skin over them was faintly reddened. He had neither gastric disturbance, petechiæ, coryza, nor running from the nose. He had not eaten anything which might have brought on the rash. A discontinuance of the iodide was followed, on the next day, by an entire disappearance of the discomfort and of the rash.

JORDAN LLOYD, F.R.C.S.Eng., Birmingham.

FUMING INHALATIONS IN ASTHMA.

IN an annotation in the JOURNAL for April 23rd, reference is made, in general terms, to the composition of "the many preparations which evolve fumes when burnt", which have been recommended as palliatives in asthma; one of these, evidently a proprietary medicine, has been referred to recently in the daily press as having given relief to the late Earl of Beaconsfield. Some years ago, a very intelligent gentleman, who had long suffered from paroxysms, almost nightly, of bronchial asthma, consulted me, and informed me that he had seen many doctors and tried many remedies, but that nothing relieved him like the inhalation of the fumes of an "anti-asthmatic powder", which could only be obtained at a particular place in London. Shortly afterwards,

another patient, suffering similarly, told me he had tried many things, but that nothing eased him like the smoke from a powder he was accustomed to burn; he had come a long distance, and had some of the powder in his pocket, as he did not feel safe without it. On comparing the two powders, which bore different names, I thought they appeared identical. One of them was analysed for me by Messrs. Southall, with the result of furnishing the following formula, which I have prescribed with frequent success. ℞ Potassæ nitrat. ℥ss; pulv. anisi fructûs ℥ss; pulv. stramonii folior. ℥j. Misce. A thimbleful of the powder, placed on a plate, is pinched into a conical shape, and lighted at the top. It burns like a pastile, and is held near the patient, who inhales the fumes.

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OBSTETRIC MEMORANDA.

PUERPERAL EMBOLISM (?) WITH HÆMORRHAGE: RECOVERY.

MRS. B., aged about 28, and recently recovered from a severe attack of hæmorrhoids, was delivered, unaided, of her fourth child, on January 18th (the night of the great storm). The pains during the last quarter of an hour appear to have been very severe. The child was born just as I entered the apartment. The placenta was removed easily, a quarter of an hour later. With the exception, about the eighth day, of rather troublesome constipation, which was relieved by warm-water enemata, the case was an ordinary one. On the twelfth day, my patient was up and in her front room. Ten days later, a number of well-defined reddish spots, of various sizes, had appeared about the neck and upper part of the chest. The feet and ankles were likewise covered with what looked like a dusky lichenous rash. The gums and buccal mucous membrane were sore, ecchymosed, and bleeding, as in a case of scorbutus. On the front of the right forearm, in the course of the median vein, there was a large, fairly defined, mulberry-blue patch, which was reported to have appeared suddenly; it was quite painless. Mrs. B. vomited blood the previous day, and about the same time blood, supposed to be menstrual, appeared at the genitals. On the following morning, another mulberry-blue patch of discoloration was found, just below the internal condyle of the right arm. Upon passing the tip of the finger slightly over this patch, an unevenness was detected, with a sensation as though there were a chip of cartilage underneath. The temperature under the tongue was 99°; pulse 84. On February 10th, I ordered my patient to keep her bed. Three or four more blue patches were discovered on the inner side of both thighs; one over the saphenous opening of the left side. The glands in the immediate vicinity were slightly enlarged. The uterine hæmorrhage had increased. Temperature 99°: pulse 90. Evening temperature 99.4°. On the 13th, the patient, on two or three occasions, fainted and vomited. On the 19th, as hæmostatic remedies failed to be of much service, when given by mouth, the uterus was thoroughly irrigated with warm water; the whole length of the cervical canal mopped with liquor ferri perchloridi; and a laminaria-tent introduced. Temperature 99.4°; pulse 102. The mulberry-blue patches had entirely disappeared on the right forearm. The patient became now very pale and cachectic. On the following morning, the tent was removed. It had sufficiently dilated the canal to admit of a thorough digital exploration of the uterine cavity, which proved the absence of any portion of the placenta or membranes. The patient was greatly exhausted by the operation. On February 24th, the hæmorrhage had diminished. On that morning a clot was removed; it was a perfect cast of the uterine cavity. The fundal portion of the clot was pale and fibrinous. Temperature 99.6°; pulse 103. Evening temperature 100.3°; pulse 114. I carefully examined the clot, and did not discover the least sign of decomposition. On the following morning the patient complained again of having vomited twice. The hæmorrhage had stopped. At noon, the temperature was 100.3°, and pulse 104; at 8 P.M., the temperature was 101.4°, and pulse 104. On the 26th, she complained of bad headache. Another clot passed, also in the shape of the uterine cavity. There was not the least sanious discharge. She vomited twice. Morning temperature 100.9°, pulse 102; evening temperature 101°, pulse 98. On the 27th, the hæmorrhage slightly returned. She vomited twice, at 10.30 A.M. and 1.30 P.M. On the 28th, the hæmorrhage had increased since yesterday. The patient was looking very worn and cachectic. Morning temperature, 98.9°; evening temperature 100°. March 1st. The patient had slept well. Severe vomiting came on about 11 A.M., and again shortly after 1 P.M., preceded, for the first time, by ill-defined rigors. Headache was very severe, and the patient greatly depressed. For the last three days, a fluid extract of *hamamelis Virginica* had been applied, by means of a linen pad, over the pubes and in front of the vagina, together with rags soaked in vinegar. After this date, my patient improved daily. The temperature seldom rose higher than 99° in the morning, and 99.5° in the evening; and the pulse ranging from 102 to 108. Another mulberry-coloured patch suddenly appeared on the inner side of the right knee; as it grew larger, its colour slowly disappeared. Early in April, another dark blue spot appeared in the skin over the back of the distal end of the fifth right metacarpal bone. The portion pointing towards the wrist was much darker than the broader distal part expanded over the condyle. The colour could not be dispersed by pressure. In about seven days, this patch, like the others, had entirely faded away; but another soon appeared, according to the patient's account, on the inner side of the left thigh. Very small petechial spots, about the size of a pin's head, also appeared at different times and places.

REMARKS.—It may be asked, were the mulberry-blue patches the results of emboli, proceeding from the gradual disintegration of a thrombus? And would the location of the thrombus in an uterine sinus account sufficiently for the hæmorrhage? Or may not the case be one of purpura following child-bed? Against the latter suggestion, there was an utter absence of previous cachexia and bad health, and likewise the social position of the patient. I have failed to obtain from obstetrical records anything at all analogous to this case, which I have ventured to term an instance of "puerperal embolism".

THOMAS P. HARVEY, M.R.C.S.Eng., L.R.C.P.Lond., L.S.A.,
St. Leonard's-on-Sea.

CLINICAL MEMORANDA.

GANGRENE OF THE LOWER EXTREMITY IN A NEWLY BORN INFANT.

I WAS called in on Friday, April 17th, to a male child, aged three weeks, who I found suffering from gangrene of the right lower extremity. The leg was enormously swollen, but not at the time black, except the great toe. It differed from the case reported in the JOURNAL of April 24th, in that the scrotum and penis were similarly affected, the scrotum especially being of the size of a small orange, and of a blackish hue. After the application of linseed and charcoal poultices, the swelling of the leg somewhat subsided, but the scrotum turned black and sloughed away, and the child died in great agony on the 19th, two days afterwards. The mother had a perfectly natural labour, as far as the child was concerned (being attended by a woman), but had adherent placenta, which I removed with some difficulty. She died of puerperal fever nine days afterwards, the cause not being known, as there had been no case anywhere in the neighbourhood. There was no history of any accident to the mother or the child; the latter, at the time of birth, looked perfectly healthy. Unfortunately, no *post mortem* examination could be obtained.

FREDERIC T. B. LOGAN, L.R.C.P.Ed., M.R.C.S.Eng.,
Eastfield, Southville, Bristol.

KANDAHAR SORES.

ON the arrival of General Sir D. Stewart's force at Cabul in July last from Kandahar, I observed a few cases of ulcer amongst the European soldiers who had been quartered some months at the latter place, and whose characters and histories were similar to those of the Delhi ulcer. This information may be interesting to some dermatologists. As the medical officers may be unaware of the only known plan for the cure of these sores, I beg to make the following remarks regarding their nature and treatment, and thus hope that much suffering may be avoided.

1. They are contagious, and purely a local affection of the skin, and are not owing to any constitutional condition.

2. When the disease is recognised in its early stage as small, flat, reddish-brown, painless growths in the skin, apply strong nitric acid or potassa fusa until they are destroyed, and then the resulting ulcers can be treated in the ordinary way. The unhealthy surfaces and edges of chronic sores can be treated in the same manner successfully and rapidly. *Vide Army Medical Reports* for 1869, vol. xi, page 511, for more detailed information.

J. FLEMING, M.D., Surgeon-Major A.M.D., India.

BELFAST HOSPITAL FOR SICK CHILDREN.—The gold medal, offered annually for competition to the students attending the hospital clinique, has just been awarded to Mr. Thomas Sinclair, for distinguished answering in an examination on the diseases of infancy and childhood.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

ROYAL EDINBURGH INFIRMARY.
CASE OF CANCER OF THE KIDNEY.
(Under the care of Professor MACLAGAN.)

FOR the notes of this case we are indebted to J. W. ANDERSON, M.A., M.B., C.M., Resident Physician.

D. F., aged 59, a labourer, was admitted on January 3rd, 1881, complaining of great enlargement of abdomen, swelling of lower limbs, and shortness of breath; occasional pains in the bowels, in the front of the chest, and in the urethra on micturition.

This disease seems to have commenced twelve months ago; the first event noticed being the passage of blood-coloured urine, the quantity of which gradually diminished until it almost entirely ceased. At this time, he had great pain in the urethra on micturition. His skin had a slight yellow discoloration. Then he noticed his ankles beginning to swell, especially towards night. This swelling gradually extended up the limbs, and then commenced in the abdomen. The latter increased so much that, about eight months ago, he had to give up work and take to bed. He was then attended by a doctor in Glasgow, and was afterwards admitted into the Royal Infirmary of that city, which he left, after a time, improved; he went then to the Convalescent Home at Lenzie; while there, he had an attack of bronchitis. Becoming worse again after this, he came to Edinburgh, and was taken into the Infirmary. In the course of the year during which his illness had lasted, he occasionally had stoppage of urine for a day or two, and frequently passed bloody urine, sometimes clots, with great difficulty and pain, and always in small quantity. He had been often troubled with cough and expectoration, and had occasionally had heartburn and epigastric pain, but no other gastric symptoms. A small reducible ventral hernia appeared on the right side of the abdomen about eighteen months ago.

During his early life, he had some of the usual diseases of childhood, and at twenty-four a gonorrhœa. With the exception of one or two other slight and temporary complaints, his health had been good. He has always lived comfortably, and was never addicted to excess in the uso of spirituous liquors. His father died of senile decay; his mother died, when he was a child, of *some unknown disease*. All his brothers and sisters are still living.

On admission, he was found to be greatly emaciated in the face and upper part of the trunk; he was confined to bed, and had to be supported in a sitting posture. The emaciation, wrinkling, and faint muddy-yellow discoloration of the face at once suggested a cachexia. There were great œdema, almost solid, of the lower limbs, and extreme distension of the abdomen. The temperature was normal, or subnormal; the pulse averaged about 80; the quantity of urine varied from ten to thirty ounces in the twenty-four hours. In the alimentary system, there was no morbid symptom worthy of note, beyond some irregularity in the bowels, and he was sick only once. The stools were yellow, and not formed. The abdomen was greatly distended, bulging out at a right angle to the ensiform cartilage. All the superficial veins were greatly enlarged, especially on the right side—this enlargement extending high into the axilla, where, on both sides, the tributaries were gathered into one large trunk of half an inch in diameter. The small ventral hernia was seen a little to the right of the normal position of the umbilicus. This depression itself was carried very low down, to within two inches of the pubes. A sense of resistance was felt all over the abdomen, but was greatly increased in the right flank, where there was the feeling of a solid body extending forwards about two inches over the front of the abdomen. A thrill was felt unequally over the greater part of the abdomen, but the wave lost some of its force in the right flank, over the site of greater resistance to pressure. Percussion in the right flank yielded an absolutely dull note, which could not be separated above from the hepatic dulness; there was a somewhat less decided dulness in the right hypochondrium, epigastrium, and in part of the left hypochondrium. There was an area in the umbilical region, on a line with the ventral hernia, which, when the patient was sitting erect, gave a tympanitic note. In the right iliac region, the dulness was not so decided as elsewhere. There was slight tenderness in the right hypochondriac and epigastric regions, and in no other. Examination of the urine showed a large quantity of blood; some pus, epithelial cells from the bladder, triple phosphates, and many large round cells—some with a single large nucleus, others with two, most with many nuclei. Under treatment, the blood ceased to appear; but there were still pus-cells, and the peculiar cells described above. The urine had a neutral reaction, and no ammoniacal odour. The examination of the chest showed diminished vocal resonance and fremitus, and impaired expansion; no dulness, but musical *râles* all over. The expectoration never contained any blood, and consisted of watery frothy mucus. Examination of the heart gave a soft systolic mitral *bruit*, a muffled second aortic, and weak sounds generally. The arteries were thickened and tortuous. The pulse was perfectly regular. The area of cardiac dulness was slightly diminished, owing to an unimportant amount of emphysema. The nervous and hæmopoietic systems presented nothing abnormal.

The patient lost weight rapidly, and the treatment was entirely supporting and symptomatic. On January 13th, he was aspirated in the left iliac region; there was obtained only about an ounce of fluid. The abdomen being drawn up, the trocar was again entered in the short space between the umbilicus and pubes; the result was equally unsatisfactory, only about an ounce of frothy serum coming away. On January 14th, he was aspirated in the right hypochondrium, in a dull area just above the ventral hernia, and fifty ounces of bloody serum was drawn off. Fluid continued to drain from the opening all night; therefore, next day, the cannula was again entered, and one hundred ounces of a similar fluid withdrawn, to the great relief of the patient. After aspiration, the dulness in the epigastrium and right hypochondrium and right flank remained unaffected; the former was resistant, smooth, and felt like the thin anterior edge of the liver. Over the rest of the abdomen, the note became tympanitic; and a lumpy tumour could be obscurely felt, extending across the umbilical region. The fluid drawn off contained blood; and, besides this, cells similar to those in the urine—some globular and multinucleated, others with a central constriction and two nuclei, others caudate, and these aggregated in groups.

January 25th. Aspiration was repeated in the right hypochondrium, and two hundred and seventy ounces were drawn off—of a similar nature to the last, but with flakes of lymph in addition. At this date, Professor Maclagan held a clinique on the case, and diagnosed:

1. Primary cancer of the right kidney; from *(a)* the history of the commencement; *(b)* the persistent hæmaturia, in excessive amount; *(c)* the peculiar cells in the urine, different from those of the urinary tract; *(d)* the tumour in the right flank, notwithstanding the fact that no colon-note was got over it; *(e)* the signs of pressure on the inferior vena cava; *(f)* the rapid progress of the case, the great emaciation, and the extreme cancerous cachexia.

2. Secondary cancer in the peritoneum: from *(a)* the great amount of ascites; *(b)* the blood and peculiar cells in the serum drawn off; and *(c)* the lumpy hardness that was felt, after aspirating, in the region of the colon.

3. No cancer to any extent in the liver: from *(a)* absence of decided jaundice; *(b)* the fact, that, although the liver was enlarged, the surface was smooth, and margin thin.

4. Probably some obstruction to the superior cava, on account of the great dilatation of the veins in the axillæ.

5. Absence of any serious pulmonary or cardiac disease—beyond bronchitis in the former, and some thickened pleura, causing diminished fremitus; and slight lesion of mitral valve in the latter.

He died ten days after this, and the necropsy was made by Dr. Hamilton, thirty-six hours after death. The body was emaciated; rigor mortis was slight; there was great dropsy of the abdomen and lower limbs, numerous hæmorrhages over the shoulders, and numbers of small warts about the neck, chest, and groins. The abdomen, opposite the umbilicus, measured thirty-eight inches in circumference. A hundred and eighty ounces of bloody serum were found in the peritoneal cavity. The liver protruded two and a half inches below the ensiform cartilage (which was bent at a right angle), and one and a half below the ribs in the nipple line. The whole of the great omentum was infiltrated with cancer, and corrugated into a cable-like mass, which stretched across the abdomen, one and a half inches above the umbilicus. Between the lower border of the liver and this omentum, there was a trench-like interval, across which protruded the distended gall-bladder, adherent by its lower edge to the cancerous omentum. There were fibrous adhesions of both pleuræ. Both sides of the heart were collapsed; the weight of the heart was 15¼ ounces. The aortic valves were competent. There were one or two atheromatous spots on the mitral valve. Both right cavities were dilated; the muscle was poorly nourished. In the posterior mediastinum were enlarged glands, which pressed on the pulmonary artery. The lungs were congested. There was at the left base a small cancerous nodule. The right kidney was converted into a huge cancerous mass, weighing 8 lbs. 12 oz., partially softened at the upper part, and apparently in a state of colloid degeneration. The whole renal structure was destroyed; and in many places hæmor-

rhages had taken place into the cancerous mass, which in parts was cystic. The veins on its surface were enormously distended, and filled with thrombi. The inferior vena cava was found with some difficulty, passing through and compressed by extension of the cancer, and adherent tissues, in front of the vertebræ. The vertical length of the tumour was nine and a half inches; the transverse, seven inches. The mesenteric and prevertebral glands were enlarged and cancerous. The stomach was almost healthy. The liver weighed 5 lbs. 8¼ oz. A small cancerous tumour, umbilicated, was found at the right lobe posteriorly. The gall-bladder was distended with dark bile. The cystic and common ducts were obstructed. The spleen was congested, but otherwise healthy. The rectum and bladder were healthy; the prostate was a little enlarged.

A scraping from the cancer showed cells similar to those found in the peritoneal fluid and urine—only more fatty; and numerous crystals of cholesterine.

CANCER HOSPITAL, BROMPTON.

THREE CASES OF EPITHELIOMA UTERI TREATED BY THE LOCAL APPLICATION OF SOLID PERCHLORIDE OF IRON.

(Under the care of Dr. HERBERT L. SNOW.)

CASE I. *Epithelioma of Fundus and Cervix Uteri.*—Mary G., a married woman, aged 43, was admitted on June 5th, 1880. Several of her relatives had suffered from cancerous affections. She herself had had children, and had enjoyed good health up to within the last three years, with the exception of some ulceration of the womb after her last confinement, twenty-three years ago. Menstruation was regular until three years before admission; since then, the recurrence of the periods had been regular, but the loss had been profuse, and accompanied by pain.

In February 1880, a profuse watery discharge, occasionally accompanied by hæmorrhage, came on, and had continued up to admission. When admitted, the patient was well nourished, and in fair general health. From the patulous os uteri protruded a soft, roundish, polypoid growth, attached to the cervix, just within the anterior lip, elsewhere quite free. There was no induration, and the uterus was freely movable. In the left breast, just below the nipple, was a tumour as large as a walnut, very hard, not adherent to the skin, freely movable, and not painful. The axillary glands were not enlarged.

On June 7th, part of the tumour was removed with the écraseur armed with whipcord, but the disease extended far up within the uterus, and it was not possible to remove the whole of it. Two pieces, each about the size of a filbert, of solid perchloride of iron were passed up into the uterus, and left to dissolve; a couple of sponges soaked in oil were left in the vagina for a few hours. She went on well up to June 19th, when a severe attack of pelvic cellulitis was brought on by exposure to cold.

On August 3rd, the os was described as healthy, a little patulous; there was no discharge, no pain, but much induration, remains of the cellulitis about the fundus and upper part of the cervix; her general health was good. She was then discharged, but readmitted in October with a view to the removal of the tumour of the breast; this was successfully done, and the growth proved to be an exceptionally hard adenoid tumour. At that time there were no uterine symptoms, but, three weeks later, a little vaginal discharge was noticed, and a small granular mass could just be felt within the os. Disregarding the advice to return in a few weeks, the patient did not again present herself until March 5th, 1881; she then suffered from pain in the back; there was a watery discharge, the os was very patulous, and a round granular polypus protruded slightly from the uterine cavity. A repetition of the treatment was advised.

CASE II. *Epithelioma of Cervix Uteri* (*Cauliflower Excrescence*).—A. A., a married woman, aged 39, was admitted on May 3rd, 1880. Beyond that an aunt was said to have died of cancer of the breast, there was no family history. The patient had miscarried at the fourth month eighteen years ago, and had never since been pregnant. Her general health had been good, and menstruation had been regular until ten months before admission. From that time, the periods recurred every fortnight, and there was an almost continuous profuse discharge, sometimes clear, sometimes sanguineous. There was no emaciation and no anæmia. The cervix was short, and, surrounding the os, was a soft papillomatous mass, which bled, and was adherent to the vagina posteriorly. On May 11th, as much of the diseased mass as its sessile disposition allowed was removed, and two pieces of solid perchloride of iron were placed in the vagina as high as possible. A pledget of oiled cotton-wool was then introduced, and was removed three days later. On June 1st, the perchloride was again applied. On June 15th, the margins only of the os were elevated, warty, and bled easily; the application was repeated on this date, and again on June 29th. On July 19th, she was discharged. With the exception of one suspicious looking spot, which was touched with potassa fusa, the warty growth was entirely replaced by healthy-looking cicatricial tissue. In September, she was reported to have become much worse, and she died in the following month.

CASE III. *Epithelioma of Cervix Uteri.*—M. W., a married woman, aged 40, was first seen on July 11th, 1880. She had one child, aged 10. Four months previously, severe flooding came on; and a hæmorrhagic discharge had, with short intervals, during which it was watery, persisted from that date. For two or three months, she had suffered from severe pain down the right hip, and from back-ache. On July 11th, she was very anæmic. The whole of the margin of the os was soft and spongy, and bled profusely when touched. Tissue of this character could be felt for about one-third of an inch all round the outside, and as far as the finger could reach within the uterus. Solid perchloride of iron was placed as nearly as possible in contact with the diseased structure, and retained in position by oiled cotton-wool. Hæmorrhage ceased, and pain diminished after the first application. The medication was repeated at weekly intervals for five weeks. She continued in fair health after this, suffering occasionally a little pain (relieved by morphia and belladonna at once) until October, when the hæmorrhage recurred. It ceased after another application of the perchloride, repeated again a week later. On November 5th, she was in every way better. When next seen, in January 1881, pain had returned, and there was a profuse watery discharge; there was irregular ulceration around the os, but no papillomatous growth, so the perchloride was not again applied. In March 1881, the patient was gradually growing weaker.

REMARKS.—This treatment is adapted only to papillomatous growths, for masses of soft spongy tissue; in the later stages of epithelioma, where ulceration has removed all the papillomatous tissue, it is of little use. The iron salt appears to "tan" the soft vascular fringes; its use is attended by little or no pain, and appears to be free from danger. In the first and third of these cases, it was of unquestionable use; in the second case, induration had advanced too far to allow much improvement. This treatment is especially adapted to cases in which the uterine cavity is filled by a villous growth, and obviates all danger from the use of tents, as the os is usually sufficiently patulous to allow the pieces of perchloride to be placed in contact with the growth; a pledget of oiled cotton-wool will then keep them in place. Staining of the fingers may be avoided by previously thoroughly oiling them.

GUEST HOSPITAL, DUDLEY.

FOUR CASES OF TRAUMATIC TETANUS: TWO AFTER ABDOMINAL SECTION.

(By THOMAS UNDERHILL, M.D., Senior Surgeon to the Hospital.)

THE following cases of tetanus have occurred recently at the Guest Hospital; and, as they seem to possess some points of more than usual interest at the present time, I am induced to put them on record. I give them in chronological order, and as briefly as possible, from notes taken by the Resident Surgeon, Mr. Walford.

I would premise by stating that the hospital is situated in a large open space, and forms three sides of a quadrangle of a hundred yards in width. The principals wards are of one storey, lofty and well ventilated, having windows on each side above and below, with fire-places and ventilating columns in the centre of each ward. The hospital has seventy-three beds, sixty-four of which are usually occupied.

CASE I.—J. S. was admitted under the care of one of my colleagues, Mr. A. Jones, on March 7th, 1880; age 35; of intemperate habits. Two hours before admission, the sole and sides of the left foot were badly burnt by stepping into a pan of molten iron. Shock was very severe. The foot was wrapped in cotton-wool. The following day an attack of delirium tremens came on, which was treated with opium and chloral. From the fourth day he progressed favourably, only being dull and stupid. On the morning of the 17th (ten days after the injury), he complained of difficulty in swallowing. At 9.30 P.M., there were spasms of the laryngeal muscles, during the night opisthotonos, and general convulsions, which continued until death at noon on the 18th. No *post mortem* examination was allowed.

CASE II.—M. B. was admitted under my care on March 3rd, 1880, with a large ovarian tumour, from which she had been suffering for the last seven years. Her general health tolerably good, but she complained of morning sickness.

On March 17th, I removed the cyst, which was thick, and contained five hundred and sixty ounces of fluid. The adhesions were extensive, especially to the fundus and the back of the uterus, some requiring division by cautery. There was a small cyst in the left ovary, which

I also removed. Both pedicles were secured with catgut, and the wound closed with wire sutures.

March 21st. The dressings were removed for the first time. They were scarcely soiled; the wound was united.

March 22nd. She complained of some pain in the abdomen, but no tenderness.

On the morning of the 23rd, she had nausea and twitchings, especially when swallowing. During the day, tetanic convulsions set in, and she died at noon on the 24th. Until the day of death, the temperature did not rise above 100.4°. The pulse did not exceed 100.

Necropsy (March 25th). The wound was healthy, and adherent throughout. On opening the abdomen, there was noticed some slight discoloration at the back of the uterus, where the adhesions had been separated, but no effusion or sign of peritonitis.

CASE III.—L. G., aged 21; fairly nourished; nervous temperament. She first menstruated when fourteen years of age, since which time she had scarcely been free from pain, which was much increased at her catamenial periods. She was not able to follow any occupation; and had been treated by several medical men, but without benefit. She had also been an in-patient of one of the Birmingham hospitals, where an operation was proposed. She was in this hospital, under my care, four months in the winter of 1879-80. On June 20th she was admitted, anxious to submit to any operation, and at any risk, with a prospect of being relieved, as her life was a life of misery. She complained of great pain in the lower part of the abdomen, which was increased on assuming the erect posture; and she had difficulty in walking across the ward. On examination, the uterus was found to be antiflexed, with the right ovary lying behind it, and which was exquisitely tender to the touch. The left ovary was in its normal position, but very sensitive. On June 22nd, I performed oöphorectomy, removing both ovaries through an incision three inches in length, using catgut ligatures. There was no difficulty whatever about the operation, and the whole proceedings were strictly antiseptic. The patient progressed satisfactorily until the 25th, when, as she felt an inclination to a movement of the bowels, a simple enema was administered. On this day, she asked the nurse, "Whether she had passed the time at which tetanus might occur?" The next day, she complained of uneasiness about the throat and difficulty in swallowing. At 9 A.M. on the 27th she had a tetanic convulsion, which continued with but little intermission until death, at 5 A.M. on the 28th, about twenty hours after the first alarm.

Necropsy (29th). Dr. Saundby kindly assisted. He removed a portion of the spinal cord from the cervico-dorsal region, and noticed numerous wandering leucocytes; but, beyond this, the results of the examination were negative. There was no peritonitis, and the abdominal wound had united.

CASE IV.—G. R., aged 27, was admitted under Mr. A. Jones on August 23rd, 1880, suffering from severe burns on the right foot, caused, as in Case II, by molten iron. The case progressed satisfactorily until September 6th. The superficial sloughs had separated, and the wound looked healthy. On that day, tetanic symptoms came on. Mr. Jones amputated below the knee, and prescribed chloral, bromide of potassium, and belladonna, both separately and combined. The symptoms were in abeyance for three days, when they returned, and continued until death, on the morning of the 12th. No necropsy was allowed.

REMARKS.—The history of the foregoing cases is suggestive of a few points worthy of note. 1. Although the Guest Hospital has been in full work for ten years, and, from its being in the centre of a large manufacturing and mining district, has more than an average share of grave surgical cases and operations, yet there has not been a case of tetanus until March of last year. 2. The two cases of burn were both of the same character and situation, were caused by similar accidents, and the two patients were fellow-workmen at the same iron-works. 3. Only seven days elapsed between the first case of tetanus from burns, and the second after ovariotomy. 4. The patient on whom I performed oöphorectomy knew of the fatal termination, and of the cause, in the ovarian case; hence the inquiry, on the fourth day, if the danger of tetanus was passed.

The whole subject of this dire malady is at present involved in mystery. We know little of its pathology. Our treatment is empirical. It is not considered as epidemic, and it is not infectious. It occurs at all seasons and in every quarter of the globe, and in the infant as well as the aged, and seems to be subject to no recognised laws. Some may perhaps infer, from the foregoing cases, that the hospital was in an unsanitary state. On the contrary, we are satisfied that the whole sanitary arrangements are exceptionally good. That we had more than our share last year is manifest; but this may be a matter of coincidence. Both the operations were performed in lofty well ventilated wards, used for none other but ovarian cases, and almost disconnected from the other wards; and special nurses were set apart in each case. They were done under the steam-spray, and with the other best recognised antiseptic arrangements. The statistics of Guy's Hospital show that during seven years, of 1,364 operations, one only was followed by tetanus, and that during the same time it occurred in three out of 456 burns and scalds. Intense anxiety of mind is quoted by Willan as a cause; but whether that could have had any influence in either of the above cases, is conjectural. We can only wait for closer investigation and more matured observation to solve the enigma.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MAY 17TH, 1881.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

Reports of Morbid Growths Committee.—Mr. BUTLIN, for himself and Dr. Goodhart, read the report on Mr. Moullin's case of cystic degeneration of the breast. The Committee considered that the case was really one of ill-developed carcinoma, and were unable to support Mr. Moullin's theory of the formation of the cysts.

Dr. PAYNE, for Messrs. Beck and Godlee, read the report on Mr. Rushton Parker's case of adeno-fibroma and carcinoma in the same breast. It fully confirmed the accuracy of Mr. Parker's description.

Intestinal Obstruction.—Dr. TURNER showed the strangulated intestine. Symptoms of obstruction had existed for three days when the patient was admitted. There was a history of antecedent attacks of severe pain. Mr. Rivington operated, and found several congested coils of intestine strangulated by a band which passed upwards from a loop of intestine to the umbilicus. At the *post mortem* examination, the whole of the upper part of the abdomen was occupied by numerous coils of distended intestine; on the congested coils was some lymph, but not elsewhere. There was a diverticulum in the ileum just above the band, which contained a plum-stone; it was above this point that the distension had occurred.

Tumour of the Brain.—Dr. NORMAN MOORE showed a tumour occupying the optic tracts and chiasma. With the exception of a small patch of lymph under the chiasma, the whole of the brain was healthy. The patient was a man aged 34, under the care of Dr. Church. He had extensive white atrophy of the left optic disc, and of the right to a less degree. While under observation, he passed from five to eleven pints of urine, having a specific gravity of 1004° to 1006°, but contained neither sugar nor albumen. In a collection of cases of diabetes following injury, made by Lancereaux, those in which there was diabetes insipidus were those in which the injury involved the front of the brain.—Dr. BUCHANAN BAXTER wished to ask what was the condition of the right optic disc. Had there been evidence of neuritis?—Dr. MOORE said that Mr. Vernon had not been able on the first examination to say whether there was more than anæmia of the right disc; when seen after blindness had come on, the right was in the same condition as the left. In reply to a further question, Dr. Moore said there was no correspondence between the growth of the tumour and the quantity of urine passed.

Heart with Calcareous Plates.—Dr. BURNET showed this specimen, taken from a woman aged 34. When first seen, the patient suffered from ascites and bronchitis. There were a rasping fremitus over the cardiac area, a peculiar click at the left third cartilage, and a systolic murmur at the apex. The heart presented four calcareous plates—two larger, one in each ventricle, and two smaller.—Dr. MOORE thought that possibly the two plates might have a different origin: one, he thought, was in connection with the pericardium; the other with the valvular fibrous ring.—Dr. BURNET could not admit this explanation.

Pylephlebitis.—Dr. GOODHART showed a specimen, taken from the liver of a patient (under the care of Mr. Howse) who had, for a year or more, abscesses in the groin of an obscure nature. *Post mortem*, there were found empyema and lardaceous disease: in the pelvis was an old abscess. The portal vein was obliterated by an old, breaking-down clot; in some parts of the liver were scars, and at one point was a cold abscess; in the centre of many of the scars was a yellow spot (of commencing suppuration apparently). This was a very unusual result; suppurative pylephlebitis led to abscess, but plastic pylephlebitis seldom led to any liver-disease.—Dr. WILKS said that the process was somewhat analogous to that occurring in surgical kidney.

Perforating Ulcer of Stomach in an Infant.—Dr. GOODHART showed a specimen in which a small perforating ulcer, occupying the cardiac end of the stomach, had occurred in an infant a few days old.

Aneurysm of Pulmonary Arteries.—Dr. S. WEST showed specimens from two cases: in both cases the aneurysms were in cavities, and in

one case the cavity was almost filled with laminated clot.—Dr. WILKS remarked that sudden fatal hæmoptysis, in his experience, occurred in chronic and quite localised disease; that is, the hæmorrhage was a consequence of a secondary disease of the arteries.

Aneurysm of Cerebral Artery.—Dr. S. WEST showed an aneurysm taken from the body of a woman who presented few symptoms before a sudden attack of unconsciousness, which preceded death by about four hours. At the *post mortem* examination, blood was found effused at the base of the brain and in the fourth ventricle. The blood proceeded from a sacculated aneurysm of the posterior communicating artery. Another specimen was taken from a boy who had mitral disease: he, too, became suddenly drowsy, and then unconscious. In his case, there was effusion in the lateral ventricles, on the surface of the cerebellum, and at the base of the brain. The blood came from an aneurysm on the middle cerebral artery, which was atheromatous.

Syphilitic Disease of Cerebral Vessels.—This specimen was shown by Mr. W. ANDERSON. It was taken from a patient who died of tetanus with hyperpyrexia.

Encapsulation of an Ivory Peg used in the Operation for Pseudarthrosis.—The peg had been retained in the tissues for four months, and showed no signs of change.

Lymph-Scrotum: Elephantiasis of Scrotum.—Dr. THIN showed (for Dr. MANSON of Amoy) a small lymph-scrotum, with part of the female (parent) *Filaria sanguinis hominis* still *in situ*, lying in a dilated lymphatic; the male being probably, Dr. Manson believed, in some part of the growth. He also showed an elephantiasis tumour of the scrotum, in which the condition had supervened on that of lymph-scrotum.

Keloid Tumours of Ear.—Dr. THIN also showed for Dr. MANSON two keloid growths excised from the lobules of the ears of the same woman, growing from the ear-ring punctures. The symmetrical character of the growths produced a peculiar effect, which was well seen from a photograph of the patient which had been sent with the specimens. Dr. Thin had examined part of one of the tumours, and had found the usual keloid tissue.

Mr. HENRY MORRIS showed the following cases:

1. *Subastragaloid Dislocation of the Foot outwards, with Fracture of the Neck of the Astragalus, the Head of which remained in the Scaphoid Fossa.*—Five years ago, the patient had fallen about twenty-five feet. There had been much contusion, and subsequent suppuration. The wounds eventually healed, but the limb was of so little use, that recently the patient insisted on amputation. The extreme laceration of all the tendons was a prominent feature.

2. *Dislocation with Rotation of the Astragalus on its Antero-posterior Axis.*—The deformity was produced by a fall, and during life apparently presented a good instance of equino-varus.

3. *Genu Valgum.*—There was an enormously hypertrophied internal condyle, with a mass of cartilaginous tissue on the external condyle. The patient was a boy who had received a severe blow on the leg some years before, which had led to wasting, to deformity, and to the formation of sinuses. The fibula could not be traced through the limb. After amputation, it was found that the tibia had been fractured, and had never united, and that the fibula had undergone an extraordinary bending, but had supported the tibia, and so allowed some power of walking with a stick.

Sarcoma of Lower End of Femur Bursting into the Knee-joint.—Mr. EVE showed this specimen, taken from a girl, aged 23, following an injury to the knee. There were at first redness, pain, and swelling of the joint, which presented all the appearances of synovial inflammation. Later on, it became evident that the disease was malignant. The growth sprang from the end of the femur, and burst through into the joint. The tumour was a small spindle-celled sarcoma.

Dr. WILKS said that this was the last meeting of the session. The discussion on Rickets had rendered the year memorable. Among other questions raised, the subject which had most interested him had been the advance made in the mode of treating the subject of new growths. He had been struck by the efforts made to grasp the whole life-history of these growths. In the earlier days of the Society, it had been content to determine the nature of the growths, whether malignant or not, and had not troubled itself to inquire into their mode of origin. Here was a distinct advance.

Specimens shown by card:

Mr. FURNEAUX JORDAN: Gummatous Disease of Brain, Cranial Bones, and Spinal Cord.

Dr. CROMBIE: Ainhum (from Eastern Bengal). The fourth toes only of both feet affected.

Dr. MACNAUGHTON JONES (by Mr. HUTCHINSON): 1. Osteo-sarcoma of Lower End of Femur. 2. Cancer of Mamma following Eczema of Nipple. 3. Drawing of a Case of Cheiro-pompholyx. 4. Sequestrum of Clavicle. 5. Sarcoma of Clavicle.

Dr. TIRARD: Extensive Malformation of Heart. The specimen was obtained from a child aged 5 months, who presented no cyanosis during life, though the opposite sides of the heart freely communicated.

Surgeon-Major CURRAN: 1. Large Vesical Calculus from a woman; said to have been passed spontaneously. 2. Long finger-like Calculus, which had occupied the bladder and the prostatic portion of the urethra. Extracted by lithotomy.

Dr. CARRINGTON: Mitral and Tricuspid Stenosis; the latter recent.

Mr. CHURCHILL: A Skull affected with an early stage of Craniotabes; Two Ribs from the same case showing well-marked Rickety Beading. No history of syphilis could be obtained.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

WEDNESDAY, APRIL 6TH, 1881.

Sir JOSEPH FAYRER, M.D., K.C.S.I., President, in the Chair.

Scrofula, Tuberculosis, and Phthisis in India.—Dr. JOSEPH EWART read a paper on this subject. Prior to the year 1840, we did not find much mention made of these deviations from health. Green, in 1845, proved the existence of phthisis among natives at Howrah and Midnapore; and Edward Goodeve, in the same year, made similar observations among patients attending the civil hospital and dispensary at Cawnpore. Since then, the prevalence of scrofula and tuberculosis in various phases had been recognised by Allan Webb, T. W. Wilson, Morehead, and the author, who, in his Address on Medicine delivered at the annual meeting of the Bengal Branch of the British Medical Association (1867-68), gave a brief summary of sixty preparations preserved in the Medical College Museum, Calcutta, demonstrating the development of "tuberculosis in the lungs, larynx, trachea, mesenteric glands, subperitoneal connective tissue, intestinal glands (solitary and agminated), liver, spleen, arachnoid, kidneys, and testes, of natives of pure descent; and also of a few East Indians born and reared in the country". Latent tubercle was often found in persons cut off by malarious fevers, cholera, dysentery, and diarrhœa. Still, admitting all these facts, there was, nevertheless, evidence in Bryden's statistics to show that phthisis was not nearly so frequent among native troops as among European soldiers and their families. This observation was upheld in drawing a comparison between the jail population and the British soldiers—somewhat modified, it was true, in Lower Bengal and Assam, by excessive overcrowding. Thus, the ratio of admissions per 1,000 of strength with phthisis, during the six years ending 1876, amounted to 9.0 among the soldiers of the European army of India, to 8.8 among those of Bengal, to 10.8 among those of Madras, and to 8.0 among those of Bombay; to 9.6 among women of the European army of India, to 10.4 among those of Bengal, to 8.0 among those of Madras, and to 8.7 among those of Bombay; to 8.3 among the children of the European army of India, to 8.2 among those of Bengal, to 8.7 among those of Madras, and 8.2 among those of Bombay. In the British army during 1861-62, the ratio of admissions with phthisis per mille was from 9 to 10 of mean strength; and in the American army, during 1861 to 1863, from 8 to 9 per 1,000. In the native army of the Bengal Presidency, the corresponding ratio, during 1871 to 1876, amounted to 2.5, of Bengal proper and Assam to 3.9, of the Gangetic Provinces to 2.9, of Rohilcund and Meerut to 3.0, of Agra and Central India to 2.6, of the Punjab to 1.6, of the Punjab Frontier Force to 2.1, and of the Central India Irregular Force to 0.8. For the same period, the ratio of admissions with phthisis per mille of native prisoners in Bengal amounted to 4.2, in Lower Bengal and Assam (where overcrowding is excessive) to 8.9, in the Gangetic Provinces and Oude to 3.2, in the Central Provinces (excluding Sangor and Jubbulpore) to 1.5, in Agra and Central India to 2.1, in Rohilcund and Meerut to 2.8, and in the Punjab to 2.1. The comparative unfrequency of tubercular disease among natives was attributed (1) to the open-air life led by the people, and the respiration of air uncontaminated to an unusually great extent with the products of that which had already been breathed; 2. to the wholesomeness of the food consumed, which is well cooked and seasoned, and is composed of a large proportion of vegetable with a minimum of the animal aliment, in which the albuminous, amylaceous, saccharine, and oleaginous principles are presented in a most digestible form; 3. to the general temperance of the people, and the habit of protracted suckling of the young, often beyond the completion of the first dentition, or even longer; 4. to the influence of high temperature in mitigating the severity of bronchial, pulmonary, and pleuritic disease; 5. to the greatly diminished prevalence of measles, whooping-cough, scarlatina, mumps, etc.; 6. to the comparative exemption of native children and youths from inherited scrofula. The paper concluded by answering the vexed question as to whether longevity was promoted by transferring persons predisposed to scrofula, or suffering from tuberculosis or confirmed phthisis, from this and other temperate

latitudes to India. There was an impression that persons born of tubercular parents, but in whom there was no evidence of tubercular growth, did better in India than at home. They certainly escaped to a marked extent the frequent attacks of bronchial catarrh, pneumonia, and pleurisy, which were rightly associated with the origin of tubercular growth in the bronchial glands and pulmonary parenchyma. In so far as this was so, such persons were benefited. The greater exemption of children and youths from measles, scarlatina, whooping-cough, and mumps, was also a clear advantage. Again, the warmth of the climate is soothing to the pulmonary mucous membrane, and the free action of the skin, so long as it was not profuse, and the greater expansion of the chest, due to rarefaction of the air might also be regarded as favourable. But these advantages are, to a great extent, counteracted by repeated attacks of malarious and seasoning fevers, which not only lighted up tuberculosis in the predisposed, but in the course of time produced anæmia and cachexia, also conducive to its development in such individuals. The dampness of the climate in many parts, together with the great and exhausting heat, contributed to this dyscrasia. Add to these an unusual proclivity to serious bowel-complaints, and then not much would remain to be said in favour of advising those descended from consumptive parents to exchange a career at home for one in India. When there was evidence of tubercle in one or both apices, or especially when phthisis had become unmistakably pronounced, experience clearly showed that Europeans so affected did not derive any benefit from a prolonged residence in India. The causes already mentioned, which were potential in exciting tuberculosis in those persons inheriting a scrofulous diathesis, operated with redoubled energy where tubercle, whether hereditary or acquired, had been formed. Rightly understood, they went far to explain why, in such cases, the tendency was rather to the progressive augmentation of tubercle in the lung, than to its arrest or diminution, with or without, as the disease advanced, tubercular ulceration of the solitary glands of the large and small intestine, and of the assimilated glands of the ileum.—In the discussion which followed, Dr. Murray, Dr. Gordon, Dr. Russell, Dr. Lilburn, Dr. Douglas Powell, Dr. Dickson, Dr. Buchanan, and the President, took part.

Dr. BUCHANAN read, for Dr. Squire, an account by Dr. Léon Colin of the destruction by small-pox of a troupe of Esquimaux who recently visited Germany and France.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

MONDAY, APRIL 4TH, 1881.

THOMAS ARNOLD ROGERS, M.R.C.S.Eng., President, in the Chair.

Eligibility of Members.—The meeting was first made special for the purpose of passing a resolution to the effect that, in future, no one should be eligible as a candidate for the membership of the Society unless he was either a licentiate in dental surgery, or a qualified practitioner of medicine or surgery, or possessed such diploma or degree as the Council might approve. It having been pointed out by the President and Dr. Walker that the adoption of some such by-law was rendered necessary by the changes which recent legislation had brought about in the status of the profession, the resolution was agreed to without opposition.

Paralysis after Extraction of a Tooth.—Mr. HENRY SEWILL related a case in which paralysis of the parts supplied by the inferior dental nerve followed the extraction of a lower wisdom-tooth. There was complete anæsthesia of the skin of the lip up to the middle line in front, and all the teeth on that side were completely insensitive. He had ventured to give an encouraging prognosis as regards the restoration of sensation.—Mr. COLEMAN mentioned a similar case, in which sensation had remained greatly impaired even after the lapse of two years. Mr. BROWNE-MASON of Exeter said that, in a case which had occurred in his own practice, the paralysis had passed off in a few weeks.—The PRESIDENT remarked that it was important that such cases should be reported, since they were sometimes made the ground of an accusation of unskilful treatment.

The Value of Certain Remedies in the Constitutional Treatment of Inflammatory Conditions of the Vascular Tooth-Structures, and of the Neuralgia arising therefrom.—Mr. STOCKEN read a paper on this subject. The remedies to which he specially directed attention were chloride of ammonium, sulphide of calcium, and gelseminum. He had selected these, because their action was not so generally known as that of many other agents. He gave a full description of the therapeutic effects of these drugs, indicating the class of cases in which each would be likely to be most serviceable. His conclusion was that, in simple neuralgia of the fifth pair, gelseminum, with or without aconite, would effect a cure, or at least afford considerable relief. If the pain were due to congestion or inflammation of the pulp or periosteum, he would prescribe also chloride of ammonium; whilst in chronic periostitis, with suppuration, sulphide of calcium gave results which were in the highest degree satisfactory, cutting short the attacks in a most remarkable manner. He was of opinion that dental surgeons did not generally give sufficient attention to the constitutional treatment of the cases under their care.—Mr. S. J. HUTCHINSON said he thought it was a mistake for dental surgeons to undertake constitutional treatment. If this appeared to be necessary, he should communicate with the patient's ordinary medical attendant, leaving the details of the treatment to him. Any other course would inevitably lead to strained relations between medical and dental practitioners.—The PRESIDENT said it was difficult to define the exact border-line between medical and dental practice; but he thought that, so long as there was any prospect of saving a tooth, the dental surgeon was justified in using any means at his disposal with this object. At all events, he thought that every dental practitioner ought to have a thorough knowledge of the value of constitutional remedies in dental practice; and, in order to promote this, he should be glad to see a chair of pharmacology attached to every dental school.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

JOHN S. BRISTOWE, M.D., President, in the Chair.

FRIDAY, APRIL 22ND.

The Distribution of Diphtheria in West Sussex.—Dr. C. KELLY read a paper on this subject, the object of which was to give an account of the conditions under which diphtheria appeared during the past six years in West Surrey, and to show the influence of soil and weather on its distribution. After describing the geology of the district, Dr. Kelly pointed out, by a series of statistical tables, that diphtheria was far more frequent upon a stiff clay-soil than upon more porous formations; the disease-rate showing the difference much more forcibly than the death-rate. Omitting the gault, where the facts were too few to be of value, the weald clay stood first as being the formation on which the disorder was chiefly prevalent, while the porous Folkestone and Sandgate beds of the lower greensand were nearly free from the disease. On the pervious chalk, very few cases were met with; while on the upper greensand, lying to the north of the chalk-hills, cases frequently occurred. There was a general relation between the rainfall and the prevalence of diphtheria. The years in which the greatest rainfall took place were accompanied by a greater number of cases. A comparison between the rainfall and the number of cases of diphtheria of different years could only be roughly approximate, because, when once the disease had become epidemic, its continuance would extend beyond a period of wet weather. The year 1879 was the wettest year known since 1860, and there was a marked increase in the number of cases of the disease. Most of the outbreaks of diphtheria in West Sussex had occurred round commons or village greens, a cold damp air appearing to favour the spread of the disease. Tables were shown by Dr. Kelly, in which it appeared that half the cases of diphtheria were between three and nine years of age. Very few infants were attacked, even when other members of the family were suffering from the disorder. The death-return was not a good criterion of the prevalence of the disease in different years. In one year, a large number of cases was attended by a very low mortality; while in another epidemic, although but few persons were attacked, they nearly all died. The number of new cases in each month varied very much. In 1875, the greatest number occurred in May; in 1876, in September, October, and November; in 1877, in July, August, September, and November; in 1878, in March, April, and November; in 1879, the number was high in every month except August and September; and in 1880, the greatest number occurred in July and September, while there were none in the last three months of the year. The occupation of the people was chiefly agricultural; there was no material difference in the mode of living in the different parts of the district. Some of the cottages were good; but the disorder had not fallen with greater severity on the very poor than on those who were more comfortably housed. Intermarriage was very common, and an infusion of fresh blood was not often noticed. In such districts, the children were fairly fed; but they did not seem able to resist any acute attacks of disease. They were not intelligent, and seldom made much progress with their education. Diphtheria was distinctly a disease of rural districts, and differed from other catching disorders in being most prevalent in those areas where the people were thinly spread, and where isolation existed naturally. Children who were attacked were generally those who had to go long distances to school; and the condition of the roads was such that they were invariably exposed to wet and cold. Finally, Dr. Kelly had found no relation to exist be-

tween animals and vegetables on the one hand and diphtheria on the other.—In the discussion which followed, the President, Dr. Tripe, Dr. Bond, Mr. Corner, and Mr. Shirley Murphy took part.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

WEDNESDAY, APRIL 20TH, 1881.

THOMAS EDGELOW, L.R.C.P., President, in the Chair.

Cleft Palate and Hare-Lip.—Mr. FRANCIS MASON exhibited two patients from St. Thomas's Hospital. The first was a child, aged 9, upon whom he had operated successfully for cleft palate. The patient had been operated upon previously at another hospital; and, not only had no union taken place, but the right side of the soft palate had completely disappeared, and from what cause it was difficult to determine. This circumstance rendered the case peculiarly unpromising for operative procedure; but, by free incisions, the parts came well together, and the result was most satisfactory. Two operations were required, the soft palate being closed first; and, after an interval of a month, the hard palate was dealt with by the so-called Langenbeck operation. There was no hare-lip in this case.—The next patient was a young woman, aged 24, the subject of a single hare-lip on the left side, complicated with a fissure extending completely through the hard and soft palates. Mr. Mason was indebted to Dr. Evan Jones of Aberdare for the case. One point of interest vested in the fact, that no operation had been performed on the lip in early life. In dealing with this case, which was by no means a promising one, Mr. Mason operated first on the palate, believing that the fissure in the lip would facilitate, as indeed it did, the steps of the operation. The soft palate was closed; and, in order to relieve tension the bony palate was perforated and divided with a chisel, somewhat after Dieffenbach's plan. Partial union only took place; and this untoward result was probably attributable to the cold air entering the mouth through the fissured lip. He, therefore, thought it best, before doing anything more to the palate, to close the fissured lip; and this operation he performed, about a fortnight ago, with marked improvement to the patient's personal appearance. He added, that he hoped, in a short time, to complete the closure of the palate; and, in conclusion, referred to a fact he had frequently noticed in connection with hare-lip in children and adults, that, when a tooth is exposed to the air at the fissure in the lip, the tooth generally undergoes caries. In this instance, the lateral incisor of the left side had become carious, and had broken off at its neck.

Impacted Teeth.—Mr. JACOB of Birkenhead exhibited a second lower molar tooth, into which the wisdom-tooth had become impacted into its posterior aspect.

Irregularity of Teeth.—Mr. CRAIGIE brought forward a remarkable case of irregularity of the teeth in the upper and lower jaw, occurring in a young lady, aged 13; and made some remarks on the treatment, etc.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

TUESDAY, APRIL 12TH, 1881.

HECTOR CAMERON, M.D., President, in the Chair.

Adeno-sarcoma of Breast.—Dr. CAMERON showed a mammary gland, with a large oval tumour growing from its posterior surface. It had grown for twelve months, and latterly with great rapidity. On section, it presented a somewhat œdematous pinkish appearance; and, on microscopic examination by Dr. Foulis, it was found to be an adeno-sarcoma.

Transplantation of Bone.—Dr. MACEWEN showed a patient on whom transplantation of human bone had been performed, whereby over two-thirds of the shaft of the right humerus were restored. The grafts were taken from six wedges of bone removed from six limbs of patients affected with anterior tibial curves, and were reduced to very small fragments previously to insertion. The patient was formerly shown to the Society, after the first graft had been completed, when there was a restoration of the upper part of the shaft to the extent of an inch in length. Now the shaft was completely restored, and the right humerus only measured one-half inch shorter than the left.

Behaviour of Animal Substances inserted into Living Tissues.—Drs. FLEMING and FOULIS reported two experiments on the behaviour of foreign aseptic substances inserted into the bodies of living animals. In the first, some pieces of catgut, prepared in various ways, and decalcified bone, were inserted (under antiseptic precautions) into the peritoneal cavity of a rabbit. Twenty-seven days afterwards, the animal was killed, and the foreign bodies were found embedded in vascular lymph, but were not themselves eroded or acted upon. In the second experiment, part of a kitten's skull had been embedded in the dorsa muscles of a dog. After five months the dog was killed, and the inserted bone carefully examined. The bone had not grown, but had rather diminished in size. This was shown to be due to a minute excavation of the surfaces of the bone, the pores so formed being filled with round-celled tissue. The bone felt rough and sharp, and was closely covered by a fibrous tissue, which was firmly adherent.

Splenic Leukæmia.—Dr. WOOD SMITH showed a female patient, aged 22, with a large splenic tumour, nearly filling the abdominal cavity, and extending into the pelvis. The disease was marked by diarrhœa, anæmia, emaciation, and slight feverishness. It commenced about the time of the patient's last parturition, and had lasted about seventeen months. There was a large preponderance of white blood-corpuscles; the pulse was full and soft; and there was a slight hæmic murmur. There was no affection of the lymphatic glands.

DUBLIN OBSTETRICAL SOCIETY.

SATURDAY, APRIL 2ND, 1881.

JOHN A. BYRNE, M.D., President, in the Chair.

Case of Ovariotomy.—Dr. MORE MADDEN read the history of a case of ovariofomy, in which he had operated last December in the Mater Misericordiæ Hospital. The patient was a woman aged 32, who had been three years married. The tumour began before marriage, as a fulness immediately below the ensiform cartilage. After marriage, the swelling increased more rapidly, and she was believed to be pregnant. Medical advice being sought, the double condition was diagnosed, and the tumour tapped, a large quantity of fluid being removed. Six weeks later, she was delivered of a seven months' child. As soon as she became convalescent, she again noticed the abdominal swelling, and applied to Dr. Madden, who admitted her to hospital. Her abdomen was then equilaterally distended, measuring thirty-eight inches at the umbilicus. The operation was performed on December 13th, the patient being under the influence of methylene. The tumour was multilocular; the fluid contents were gelatinous, and amounted to eighteen pints. The result was satisfactory, and in a month she was discharged perfectly well.

Uterine Polypi.—Dr. ROE exhibited an uterine polypus, which he had removed from the inside of the uterus of a woman aged 65, by means of an écraseur modified by his direction. The instrument consisted of an ordinary écraseur, in which, instead of the traveller being a hook, it consisted of a single piece of steel with two holes, through which a wire might be passed and secured by a screw, thus facilitating the mounting of the steel wire, and doing away with the necessity for the endless screw.—Drs. ATTHILL and MORE MADDEN considered the instrument a valuable and ingenious simplification.

Two Specimens of Cystic Degeneration of the Chorionic Villi.—Dr. NEVILLE showed, for his colleague Dr. Poole, the two recent specimens, which had occurred during the past month in the Coombe Lying-in Hospital. The first case occurred in a married woman, aged 27, who had previously had three normal pregnancies. Her last child she nursed until July 1880. While suckling that child, she for the first time suffered from continuous ill-health—nausea and vomiting, "weaknesses" and wasting. There were, however, no special symptoms of uterine or peri-uterine disease. She menstruated at intervals until the second week of November, from which time she dated her fourth pregnancy. She was admitted to hospital on March 16th, stating that since November she had been in a wretched state of health. On March 3rd, after a severe attack of vomiting, she noticed a "show" of blood, and from that time till her admission there was a constant slight trickling discharge of blood. The uterus, at her admission, was as high as the umbilicus, and the enlargement presented the characters of a gravid uterus at six months; with, however, a peculiarly tense and resisting feel over its whole surface. No fœtal parts or movements could be felt; nor were there any auscultatory signs. The cervix uteri was small, firm, and well defined, not at all corresponding to the size of the uterine enlargement. The os externum was closed, only admitting the tip of the index finger on pressure. The lower zone of the uterus was broadened out, and filled up unnaturally the pelvic inlet, and felt very resisting and hard. No *ballottement* could be obtained. Early on the morning following her admission, she was seized with sudden uterine pains, and expelled about three pints of a matter resembling boiled sago-grains, mixed with clotted blood. The loss of blood was not great, and the uterus contracted well. She left the hospital much improved after a fortnight. The uterus was even then, however, commencing to enlarge again. The second case occurred in the fourth pregnancy of a woman aged 26, who had been seven years married. Her last child was born three years ago. She men-

struated normally until December last; since January, she lost her health utterly, became wasted, and suffered from sanguineous discharge, etc. A few days ago, she had sharp uterine pains, which in a few hours expelled a mass differing from that expelled in the first case recorded, in the cysts being larger, many of them being of the size of a plum. Shreds of the decidua which were discharged appeared to be healthy, and were not notably hypertrophied. In the former case, there appeared to be no traces of the decidua. In neither case was there what seemed to be any portion of a fœtus.—Dr. McCLINTOCK thought that both the cases served to confirm the opinion entertained by the majority of writers, and which he himself always held viz., that hydatids discharged from the uterus dated at some time or other from conception. He did not think that hydatid disease could arise independently of pregnancy.—Dr. MORE MADDEN, while acknowledging that he had never seen a case in which such growths were not the result of cystic disease of the chorion of a blighted ovum, still held it reasonable to suppose it possible that, under certain circumstances, the unimpregnated ovule might be arrested in its passage through the uterus, and there undergo a monstrous development or vesicular degeneration.—The PRESIDENT considered that the pathology of such growths was established to be a degeneration or metamorphosis of the fœtal chorion, and did not think it possible to have a fœtal chorion unless impregnation had taken place.

Report of 660 Cases of Midwifery in Australia.—Dr. SAMUEL T. KNAGGS read an analytical report of the cases of midwifery which he had attended personally while practising in Newcastle, New South Wales, from December 21st, 1871, to October 21st, 1880. The total number of cases was 660, producing 668 children—354 males and 314 females; 160 cases were primiparæ, giving birth to 163 children—79 males and 84 females; 500 cases were pluriparæ, giving birth to 505 children—275 males and 230 females. There were 8 cases of twins—2 in primiparæ, 6 in pluriparæ. Maternal deaths from all causes amounted to 6—*i.e.*, 1 in 110. There were 91 operations: forceps, 88—24 with long, 64 with short; vectis, 1; version, 2. *Post partum* hæmorrhage occurred in eleven cases. In none of the cases except one was the hæmorrhage sufficiently alarming to threaten the patient's life; and it submitted to the usual remedies. In one instance, in which hæmorrhage persisted after the expulsion of the placenta, a small lump of ice inserted *in utero* acted like a charm. In the one alarming case, where a copious flooding from inertia followed the rapid extrusion of the after-birth, he plugged the vagina with a wet cloth, and firmly compressed the uterus by the hand, grasping it through the abdominal parietes for half an hour, at the end of which time uterine contraction was restored, and a firm clot was pressed out. There was no more hæmorrhage, and the case did well. He would, therefore, be inclined to adopt a similar, though, according to most authorities, unorthodox line of treatment, if a similar case arose. From puerperal fever, he had five deaths. It was his practice in late years, when epidemics of erysipelas, scarlet fever, or septic fever were present, or, indeed, when any puerperal woman appeared to be in a deteriorated state of health, to saturate the system with sulphurous acid, which he prescribed as an acidulated drink, sweetened and flavoured with syrup of orange-peel. He considered that, in so doing, he had guarded against septic infection; and since adopting that treatment he had seen fewer feverish attacks following childbirth than previously. The forceps was used 88 times, and the frequency of its use increased rapidly with his experience. Thus, in his first year, he did not use it once in 51 cases. In his second year, he used it 7 times in 78 cases; and in the third year, 17 times in 111 cases—*i.e.*, an average of 1 in 6½. Since then, his average had somewhat diminished, being now 1 in 7·3 cases—a percentage the results of which he had no reason to be dissatisfied with.—Dr. McCLINTOCK, Dr. ATTHILL, Dr. DILL, and Dr. HARLEY, took part in the discussion which followed.

NEWINGTON.—Dr. Iliff's report for 1879 has been greatly delayed in appearance, and its interest, therefore, has now to a large extent evaporated. The total number of deaths was 2,664, of which 645 were under one year, and 639 over the age of sixty. There was a decrease in the mortality from small-pox, whooping-cough, enteric fever, and diarrhœa, but an increase in each of the other zymotic diseases. Sixty-three inquests were held and in 25 of which death from natural causes was recorded. The out-door poor medical orders continue to increase, having risen from 4,870 in 1878 to 5,219 in 1879. The total number of uncertified deaths was 79, 39 of which were under twelve months of age, and 17 over 60 years. Sanitary work is reported as having been "steadily carried on during the year, and as presenting no very striking features, it having been a continuous, quiet, but not the less efficient, warfare against sanitary evils and sanitary defects."

REVIEWS AND NOTICES.

ATLAS OF PATHOLOGICAL ANATOMY. By Dr. LANCEREAUX. Translated by W. S. GREENFIELD, M.D. London: J. and A. Churchill.

IN the preface to this important work, Dr. GREENFIELD remarks that he had intended to give a complete translation of the text, which forms a separate volume; but that he abandoned this purpose, because it was found that the whole work would require remodeling, and a consequent delay in publication would ensue. This, we think, is scarcely doing justice either to M. LANCEREAUX or to Dr. Greenfield himself as a distinguished pathologist. Surely the delay even of a year in the publication of this work would have been amply compensated for, had the profession been supplied with "the valuable clinical and pathological material" contained in the accompanying text. The Atlas contains, in all, seventy chromo-lithograph plates, including ten which were added by the translator. The original plates are, as a whole, exceedingly well executed and very accurate representations. The English plates, which are partly original and partly from drawings by Dr. Sutton, compare, however, not altogether favourably with their fellows. In some, the colouring is far too vivid and untoned; whilst in others it has a washed-out indefinite appearance. The paper, too, on which the figures are represented, is not uniform with that used for the original plates. This spoils the symmetry of the work, and is by no means pleasing to the eye.

Many, if not most, of the figures are concerned with the naked-eye appearances of disease. This feature of the Atlas, it seems to us, might have been sacrificed to a large extent in favour of the microscopical characters of disease. Morbid anatomy can only be learned in the *post mortem* room, and hence we fail to appreciate the utility of numerous plates having reference to such appearances as can be satisfactorily acquired by practical work only. On the other hand, the expediency of illustrating the morbid anatomy of affections which, from their rarity, may never enter into the experience of the student, is evident.

As a whole, the work is of high merit and pathological interest. The plates relating to the various affections of the stomach and intestine, and to the varieties of peri- and endo-carditis, deserve great commendation for their accuracy and artistic qualities. The varieties of acute and chronic nephritis are given in a very praiseworthy manner; but the artist has not been so fortunate in portraying the diseases of the pulmonary system. By far the best plates in the Atlas are those devoted to cerebral and spinal affections; these reflect high credit both on the author and artist. In particular, we must mention that the distinctive features of alcoholic, tubercular, and syphilitic meningitis are represented with great fidelity. Equal praise may be accorded to the plates on sclerosis or proliferative encephalitis, and on the various forms of spinal affections. It would have been little loss to the book had the two plates devoted to skin-affections been omitted. This subject is one that cannot be treated in anything like an exhaustive manner in such a work as the present.

In the English plates, which are to supplement certain deficiencies of the original Atlas, no attempt has been made to represent the microscopical characters of disease. This is the more to be regretted, as Dr. Greenfield is an accomplished histologist and high authority on these subjects. A work like the present rests in a great measure on its artistic merits, and hence our remarks have had reference mainly to this point. We regret that the translator has seen fit to sacrifice the accompanying text, which is admittedly of great merit, in order to anticipate the publication of a work which is not, after all, of very pressing urgency; but Dr. Greenfield deserves the thanks of pathologists for the pains and labour which he has bestowed in editing and improving this Atlas—time and labour which could have been ill spared from his original work and the heavy task which he so successfully accomplishes as a teacher, on a great and practical scale, of pathological histology to a large class. Dr. Greenfield's abilities and industry are alike of a high order, and anything which has passed through his hands receives an added value. This edition of Lancereaux is no exception, and will be received with the greater favour in this country for having received his *imprimatur*.

THE Committee appointed to raise a fund for the reimbursement to Mr. A. O'Brien Jones, of Epsom, of his expenses in the trial of Howell v. West and Jones, are about to close the account. We are requested to say that they will be greatly obliged if gentlemen who have not yet paid in their subscriptions to the fund will kindly send the amount with as little delay as possible to the Treasurer, Dr. E. Hart Vinen, 17, Chepstow Villas, Bayswater, W.

NOTES ON BOOKS.

MESSRS. H. K. LEWIS AND CO. have published a new issue of their Library Catalogue. Although a library catalogue, it is calculated to be of considerable value to readers of medical and scientific literature, as it is a fairly complete list of the principal works on medicine and collateral sciences published during the last thirty years. It is furnished with an analytical index and supplement, under which the authors' names are classified. It is one of the most complete catalogues extant, and will, no doubt, be found valuable to medical readers, and especially to those of a literary turn.

MESSRS. SILVERLOCK have republished the appendix of their *Medical Practitioner's Visiting List* in a separate and convenient form, as a medical reference-book. It has a great number of very useful little tables, and much valuable information of the sort that is constantly wanted by medical men as to doses, weights, measures, addresses, etc. It is arranged by Mr. George Brown, and is very conveniently and cleverly compiled. It has, however, one defect, amounting, indeed, to a serious sin against the proprietors, into which we are not a little surprised that a medical man of some public experience should have fallen into; and that is the addition of what purports to be a "List of Consulting Surgeons and Physicians", which classifies consulting medical men in London, in the most offensive manner, under separate heads, making selections of short lists in a manner which is utterly indefensible. The first head is that of "Nervous Diseases", under which is given a list of seventeen medical men, many of them of great eminence in the metropolis, and one provincial medical man. We cannot imagine that the permission of these gentlemen has been asked to include them in this classification; but we believe that, on the contrary, most of them will feel grossly insulted for the use which has been made of their names. The next head is that of "Insanity", under which are given the names of seven medical men only. As to the completeness of this list, it may suffice to mention that we observed, for instance, that Dr. Bucknill, Dr. Harrington Tuke, and Dr. Maudsley are not included among the list of persons practising in insanity. Under the head of "Heart-Disease", the following list is given: Drs. Cockle, Dobell, Fothergill, Peacock, Sansom, Semple, and Walshe. The classification is so minute as to give a list under "Suprarenal Capsular Disease", with the names of Dr. Duckworth and Dr. Greenhow; and under "Traumatic Fever", under which a solitary name is entered, that of Mr. John Croft of St. Thomas's Hospital. Under "Surgical Diseases of the Bladder", Mr. John Wood is quoted as the solitary authority. We are surprised that Mr. Brown—who is, if we mistake not, the secretary of a well-known Medical Association—should not have seen the impropriety of such a list. We feel sure that, on reflection, he will consider that he has no right to use in this way the names of eminent medical men without first asking for their permission, which most assuredly would not be granted. A little more than a quarter of a century ago, the publication of similar lists in a medical periodical excited great indignation, and, having been severely condemned at a large professional meeting held in London, was soon abandoned.

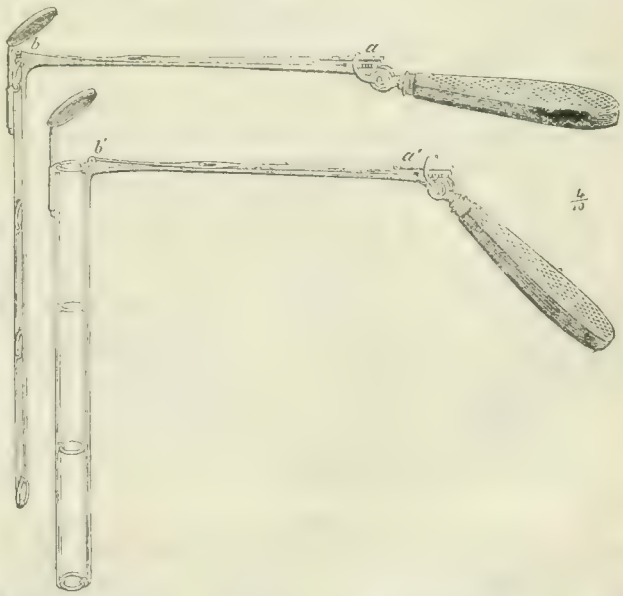
Stricture of the Male Urethra: its Radical Cure. By FESSENDEN N. OTIS, M.D. (New York: Putnam's Sons. 1880.)—In the second (American) edition of this work, Dr. Otis reiterates his views on the capacity of the male urethra, the dependence of gleet on stricture, and the propriety of treating strictures of even the largest calibre by incision. "The slightest encroachment", he says, "upon the calibre of the urethral canal is sufficient to perpetuate" a discharge; and, holding this view, he is perfectly logical in urging that, in every case of gleet, a careful examination of the urethra should be made, and in advising the division of any pathological narrowing that may be found to exist. The average calibre, according to Dr. Otis, is about No. 18 on the English scale; the diameter of the meatus is no certain guide to that of the canal, which, however, does bear a definite relation (expressed in a table, page 89) to the circumference of the flaccid penis. He further insists, that, in the great majority of the cases in which strictures of the deep canal are supposed to exist, the contraction in this situation is merely spasmodic, secondary to structural strictures existing in the penile urethra, and that the deep stricture disappears on removal of the anterior obstruction. It is to the recognition of this fact, and the consequent avoidance of any incision of the bulbo-membranous urethra, that Dr. Otis attributes the remarkable immunity from serious hæmorrhage which has attended the operation of internal urethrotomy in his hands. Where there is "close organic stricture within or beyond the membranous urethra", Dr. Otis, in view of the probability of coexisting disease of bladder and kidneys, and the danger of hæmorrhage, advocates external perineal section. He believes, that, by dilating internal urethrotomy, stricture of the penile urethra may be radically cured; and relates two cases, in which the full capacity of the urethra was retained eight years after the original operation. In an appendix is given a report of a case, operated on by Dr. Eldridge of Yokohama, in which, three years after the incision of a close stricture, absence of any contraction was demonstrated *post mortem*.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

A NEW ŒSOPHAGOSCOPE.

THIS instrument consists of two parts, a stem and a skeleton tube. The stem is made up of a handle and a shank, between which there is a hinge. The skeleton tube is only formed when the instrument has been introduced into the gullet; before that, it consists of two flattened wires placed anteriorly and posteriorly, connected above and below, and at certain intervals between these points, by rings. When the rings lie in the vertical position, the wires are separated from each other only by the thickness of the rings; but when the latter are thrown into the horizontal position, the two wires become separated, and, with the rings, constitute a kind of skeleton speculum. At the top of the back wire, there is a slot into which the stem of a laryngeal mirror is fitted.

The figure to the left shows the instrument ready for introduction; it will be seen that the handle and shank are almost in a line, a position which greatly facilitates the introduction of the instrument. When the "body" has been passed down the œsophagus, the operator holding the handle in his hand, but leaving the index finger free, presses with the latter on the upper part of the shank near the handle. The result of this is, to turn the rings from the vertical to the horizontal position, and thus to open the speculum and expand the gullet. With a view of causing as little irritation as possible, before withdrawing the instrument, the operator should close the speculum by pressing the under part of the shank with his thumb. Tubes from three to five inches in length can be bolted so securely to the end of the shank, that they are as safe as if the whole instrument were made in one piece. This instrument has been made by Messrs. Mayer and Meltzer, Great Portland Street, W., under the direction of Dr. Morell Mackenzie, who has been using it for nearly a year.



The left-hand drawing shows the instrument ready for introduction into the throat; the right-hand one, the same instrument after introduction.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MAY 21ST, 1881.

THOUGHT-READING.

FEW of the medical men or physiologists who witnessed Mr. Bishop's performances in "thought-reading", on the evening of Monday, the 9th instant, or who have carefully read the accounts given of them, will have any hesitation in forming an opinion as to their real nature, or will await with the slightest curiosity the result of the test experiments to which Professor Croom Robertson proposes to submit Mr. Bishop. To those accustomed to observe the functions of the nervous system, these performances are but transparent affairs, and ought to be called by a name very different from that applied to them. Boswell's father was indignant with the man who kept a school and called it an academy; but to ennoble a common parlour-trick by the title "thought-reading", is to indulge in a more unpardonable hyperbole. And this was really all that Mr. Bishop had to show the large audience of scientific and literary men, whom, by the magic of a great name and seductive promises, he drew from their laboratories, and studies, and social engagements, to Bedford Square on the evening of the 9th instant. The phenomena which he desired the assistance of learned and trained intellects to investigate resolved themselves into the old house game of "hide and seek", the guiding indications "hot and cold" being given by the digital instead of by the vocal muscles.

Mr. Bishop performed two tricks. The first consisted in finding an article hidden during his absence from the room; the second in spelling out, on an alphabet, a name or word thought of by some person, the hand of the thinker being held by Mr. Bishop and used as a pointer. The first of these tricks, it is obvious, may be performed in a variety of ways; and the simplest explanation which suggests itself is, that a confederate in the room conveys to the performer, by means of a prearranged code of signals, the information necessary to conduct his search to a successful issue. In this way, professed conjurers are constantly in the habit of accomplishing feats much more marvellous than any that Mr. Bishop had to exhibit. As it is understood, however, that Mr. Bishop repudiates confederacy, and has repeatedly and successfully performed the trick under circumstances where he could have no accomplice, and as the theory of confederacy affords no solution of the second trick, we may safely infer that he trusted entirely to conscious and unconscious muscular suggestion in both; pointing out in passing, however, that a clever combination of the revelations obtained in this way, with the cues supplied by an unsuspected ally, might contribute some startling and perplexing characters to entertainments like those of Mr. Bishop. Muscular suggestion alone, however, was adequate to the explanation of everything that Mr. Bishop showed his visitors at Bedford Square; and it would be unphilosophical, therefore, to go beyond this, and assume gratuitously that he was aided by hypnotism, nervous induction, unconscious cerebration, or any occult power.

What is precisely meant by "thought-reading"—that faculty or power which Dr. Mortimer Granville tells us really exists, but to which Mr. Bishop has, according to him, not yet attained, being only in the preliminary stage of "picture-reading"—we cannot pretend to know. Such things are too high for us; the only "thought-reading" with which we are acquainted being the interpretation, more or less rapid and subtle, of the outward and visible signs of thought, as manifested in the voluntary and involuntary muscular apparatus. We have heard of strange states of mental induction and sympathy, and of communications passing between the minds of persons far distant from each other, independently of telegraphy or the penny post; but we have hitherto relegated such beliefs to the limbo of ignorant superstitions; and certainly there was nothing in Mr. Bishop's performances to lead us to modify our views respecting them, or to open up any new pathway of research. There is more just and clever thought-reading, above and beyond mere speech, during five minutes of animated conversation between two persons of mobile features, than there was in all Mr. Bishop's elaborate experiments. The absurdity of calling these experiments "thought-reading" will be apparent if we examine them a little more in detail.

The first experiment was performed on Mr. Moncure Conway, who was selected for its subject by Mr. Bishop himself. Mr. Bishop having left the room under the espionage of Professor Ray Lankester and Dr. Burdon Sanderson, Mr. Moncure Conway concealed a Turkish-bath ticket behind a box on a side-table. Mr. Bishop was then brought in, his eyes bandaged with a pocket-handkerchief; and it must here be remembered that he was not thoroughly blindfolded, but could have seen to some extent had he been minded to do so, as any expert in "Blind Harry" could have testified. Led into the centre of the room, Mr. Bishop took Mr. Moncure Conway's hand in his, pressed it against his forehead, and, after swaying to-and-fro for a few seconds, moved off towards the side-table where the ticket was concealed. Arrived there, he hung his head, with Mr. Moncure Conway's hand still pressed against it over the table, speedily came to a standstill at the hiding-place of the ticket, lifted it, and handed it to Mr. Moncure Conway.

Now, in analysing this experiment, we must ask, What thought of Mr. Moncure Conway's did Mr. Bishop read? Mr. Moncure Conway was repeatedly and emphatically instructed to concentrate his attention on—what? Not on the place where the object was hidden, but on the object itself. And this he promised to do, and no doubt did. If, then, Mr. Bishop had been able to read Mr. Moncure Conway's thoughts, he should have intimated that his mind's eye was fixed on a Turkish-bath ticket, without moving from the spot on which he stood. How he came to move off towards the box on the side-table is still a mystery of "thought-reading"; for Mr. Moncure Conway was not thinking of that at all, if he adhered to the conditions of the game. And it was the same in all subsequent experiments of this class. In each of them, the person operated on was conjured to think of the object, nothing being said of the hiding-place; and, when failures occurred, it was argued that attention had not been sufficiently concentrated. But the concentration of attention on an object means the shutting out from mental vision of all extraneous or collateral circumstances and surroundings; and hence the alleged necessary condition of "thought-reading" implied in each case the absence and exclusion of the very thought which was read. According to his own showing, Mr. Bishop read anything but the thought which was uppermost in the mind of the person operated on, and was guided by ideas and images which had no existence. But what thought was it that Mr. Bishop actually read? He read nothing, and knew no more of Mr. Moncure Conway's thoughts than he did those of Prince Bismark. Placing himself in an attitude of receptivity, he invited suggestions, and acted promptly on those which Mr. Moncure Conway kindly but unwittingly afforded him. With some circumlocution, hesitation, and a firm belief that he was doing nothing of the kind, Mr. Moncure Conway pointed to the ticket, and Mr. Bishop went and picked it up. Why is it that, with all the infinite variety of human thought, Mr. Bishop could read no thoughts save those that are connected with hide and seek? He was asked if he could read the number of a £5 note on which the attention was rivetted, or name a flower that was vividly recalled, as a mental image, but on these experiments he declined to enter, and from first to last he read no thought which could not be readily translated into a few muscular movements, or which might not be safely inferred from a few vague

hints. And even in doing this, Mr. Bishop was not particularly expert. His first experiments on Mr. Moncure Conway and Dr. Lyon Playfair were swiftly and artistically carried out; but his subsequent operations, when he had less susceptible subjects to deal with, and when the murmurs of scepticism were heard around him, were clumsy and unsuccessful. We have seen several young lady amateurs who would throw Mr. Bishop quite into the shade by their skill in interpreting faint muscular suggestions, and in finding by their means hidden articles.

Mr. Bishop's second trick—that of spelling on an alphabet a name or word thought of—is simply the old spiritualistic imposture, which, if we mistake not, he has himself exposed, under a new guise. In it advantage is taken of an involuntary muscular pause or twitching, which takes place in sensitive people as the hand passes over the letter which is next wanted. With nervous and sanguine subjects liable to incontinent discharges of nervous energy, and strung up to a high pitch of expectation, Mr. Bishop succeeded very well in this trick; but with persons of calmer constitution and great inhibitory strength, capable of shutting off all leakages, like Dr. Charlton Bastian, he failed lamentably.

The experiment which made most impression on Mr. Bishop's scientific spectators at the Bedford Square *séance* was that of which Professor Ray Lankester was the subject. Professor Lankester is known to have no leaning towards the dark arts, and is not of a temperament likely to yield to that tremulous excitement in which muscles emancipated from the control of the will betray the expectations or apprehensions of the mind. When, therefore, Mr. Bishop, after some devious gropings, fixed with tolerable correctness on a point in front of his right ear as the seat of a pain from which he was actually suffering, in one of his right bicuspid teeth, a momentary curiosity was felt as to how this localisation had been arrived at. The curiosity was but momentary, however; for reflection speedily convinced that, if Professor Lankester gave no muscular hint (and we believe he is not satisfied on this point himself), a guess might have been hazarded as to the seat of his pain with a fair chance of success. He admitted that he was suffering pain, and stood up before a large assemblage to have the place discovered in which he suffered it. Now, under such circumstances, large tracks of the body may be at once excluded from consideration, as it is highly improbable that the victim of colic or sciatica, for instance, would submit himself to ordeal by touch in the face of his fellow men. The chances seem to be ten to one that a pain in a person who is willing to acknowledge it in public is in the head or face; and if in the head or face, then they are a hundred to one that the pain, at this season of cold east winds, is of the nature of toothache or neuralgia. A touch over the points of exit of the sensory nerves of the face, and along the dental arches, and the shrinking which sudden pressure on a tender point would occasion, would serve to complete the localisation; and it is noteworthy that Mr. Bishop did probe Professor Lankester's face with his finger before coming to a decision as to the site of the pain. The only other experiment in the divining of pain was performed on the person of Dr. Pye-Smith, who offered himself as a singularly suitable subject for Mr. Bishop's purposes. He was suffering from a sharp pain, which he had described to some friends with whom he had been dining, so that its precise seat was capable of subsequent verification, but which he had not mentioned in the room, nor to anyone known to Mr. Bishop, so that collusion was out of the question. Mr. Bishop took much trouble with this experiment, and lingered long over it, and his proceedings were very instructive. It was, of course, tolerably certain that Dr. Pye-Smith's pain was not like that of Professor Ray Lankester, who had been just previously submitted to experiment, in the head and face; and, accordingly, Mr. Bishop altogether ignored these parts, and travelled downwards with his passes and manipulations, until he ultimately fixed upon the foot as the place in which pain was felt, which was about as far as possible from being right, as the actual pain was in the back of the hand, which he pressed against his forehead, and to which Dr. Pye-Smith could scarcely have pointed had he desired to do so. On being informed of this, Mr. Bishop said (and his words were most significant): "When I first took your hand, I thought the pain might be there, as you kept your fingers slightly bent; then it occurred to me that you would not give me your hand if it hurt you." Surely this explanation of a failure throws immense light on Mr. Bishop's whole procedure, and makes it abundantly clear that he is on the watch for indications, and that his "thought-reading" consists in drawing inferences from these, and not in any mysterious reproduction in his mind of the ideas dwelling in the mind of the person on whom he operates. Had he been *en rapport* with Dr. Pye-Smith, and in such sympathy with him as to feel faintly some reflection of his pain, then the position of his fingers, and the probabilities of his giving or not giving a painful hand, would have had no interest nor importance to him.

Much has been made of the fact that Mr. Bishop told Mr. Moncure Conway, during his first experiment, when he closed his eyes and when he opened them. This seems somewhat wonderful, until we are familiar with associated muscular movements, and learn that there is, in the outstretched hand of very nervous persons, a slight movement of adduction of the fingers when the eyes are forcibly closed, and of abduction when they are opened again.

It may appear that we are somewhat severe in our strictures on Mr. Bishop and his performances, but we feel it incumbent on us to give no uncertain verdict on an alleged discovery for which scientific patronage has been sought, and to which great publicity has been already given. Had Mr. Bishop adhered to the programme sketched out in Dr. Carpenter's letter, which he circulated with the invitations to the meeting at Bedford Square, and exhibited his peculiar aptness in interpreting the indications unconsciously given by the subjects of his experiments, we should have followed his demonstrations with interest, although we might not have agreed with Dr. Carpenter in his estimate of his powers. Unfortunately, however, Mr. Bishop, while taking advantage of the introduction of the veteran physiologist, seems disposed to indulge in speculations and practices with which he could never have desired his name to be connected; and it is essential, therefore, that Mr. Bishop's relation to scientific medicine should be at once and clearly defined, as it is obvious that "thought-reading", in the sense in which it is understood by some, is capable of gross abuse, and that its power for evil would be vastly augmented if it were currently believed that the leaders of the medical profession had given their sanction and approval to anything beyond the very restricted kind of "thought-reading" described in Dr. Carpenter's letter, a kind of thought-reading which, be it remembered, Mr. Bishop entirely repudiated at the meeting on the 9th instant. Commencing his performance without any definite statement of his position, or of the nature of the phenomena which he was to exhibit; leaving everyone to form his own notions about them, and thus giving free play to credulity, he discarded absolutely, as he went on, the theory of muscular suggestion. He is possessed, he declared, of a power that is inexplicable to himself; he cannot say how he finds out the hidden articles, but he is sure he is not guided to them by muscular leadings on the part of the subject of his experiments. Towards the close of the evening, he went so far as to assert that he can, by gazing into the retinæ of certain persons, with whom he is not in any contact, and from whom, therefore, he cannot possibly receive muscular suggestions, ascertain the thoughts that are passing in their minds, and possess himself of some of their ideas of the most specific description. The eyes and their appendages have doubtless a large range of expression; and any telegraph-clerk could instantly organise a system of single and double winks by which an ocular conversation might be carried on. But it is not in this way that Mr. Bishop professes to read thought through the windows of the soul. Scorning all ophthalmoscopic appliances, he gazes on the retinæ, and on their glaring surfaces reads off the secrets of the brain-cells behind.

Some of Mr. Bishop's actions were almost as well calculated as his declarations to induce an attitude of very distant reserve on the part of the medical profession. Before operating on Mr. Moncure Conway, he stroked that gentleman's hands impressively; and, when inter-

rupted in his waltz round the room with Professor Croom Robertson, he staggered, rubbed his eyes, looked round bewildered, and did not seem to understand what was said to him for a few seconds, creating the idea that he had just awakened from a trance or state of unconsciousness. These actions, and others of a like kind, as well as some remarks which fell from him when interrogated, pointed towards a modified belief in hypnotism or clairvoyance, or some variety of physiological obscurantism, which need expect no tolerance in these days from the practitioners of medicine.

THE DISCUSSION AT GLASGOW ON THE PATHOLOGY OF PHTHISIS PULMONALIS.

THE discussion on the pathology of phthisis pulmonalis, held in the Pathological and Clinical Society of Glasgow in February and March last, is both interesting and opportune. It would be highly interesting, if it were only for the able exposition of his own views on this important subject which were contributed to the discussion by Dr. Gairdner. The mature opinion of so competent and careful a clinical observer, and so sound a pathologist, is of no inconsiderable value. It is opportune, for it adds additional force to the opinion which has been gathering strength and authority, especially amongst all the ablest pathologists in France, during the past ten years, as well as with many in Germany and in our own country, that the so-called "new" or "German" views, as represented, especially by the writings of Niemeyer, with regard to the pathology of phthisis, are inconsistent with clinical observation and further anatomical research. These latter views found an able exponent and advocate in Dr. D. J. Hamilton of Edinburgh. The very clearness and positiveness with which he stated his views brought their vulnerable points into distinct prominence.

The discussion was opened by Dr. Gairdner. He said that the question was the relations of tubercle to inflammatory processes; were these secondary to tubercle, as Laennec had taught, or were they primary, and tubercle secondary, as Niemeyer and others of the German school maintained? Then, again, what was the truth with regard to the theory involved in the phrase "phthisis ab hæmoptoë"? Was it true that the bleeding was the first step, and consumption the second? Was it true that the blood sucked into or effused into the alveoli there underwent caseation, and in that process gave rise to products which infected the system, and set up miliary tuberculosis? or was the opposite view, as taught by Laënnec, the correct one: viz., that the tubercles were already there, or, at any rate, the tubercular tendency, and that the blood-vessels of the lung bled as a result?

After relating the particulars of a case of apparent "phthisis ab hæmoptoë", and pointing out in what respects it seemed to agree with, and in what respects to differ from, the views entertained by Niemeyer, he proceeded to urge, in opposition to these views, the frequent occurrence of hæmoptysis and hæmorrhagic condensations without being followed by tubercle. "Hæmoptysis as the result of mitral disease, 'apoplexy of the lung', is the very type of a case where one would expect, on this theory, the blood stagnating in the air-cells of the lungs to caseate, and thus to give rise to secondary or miliary tubercles; and yet it is very rare to find mitral disease associated with tubercular disease. Then, again, hæmorrhage often occurs in other organs or parts in which tubercle never follows, as in bruises, in scurvy, in embolism, even pulmonary embolisms, etc.; or in hæmorrhage into the brain, where the rupture of a blood-vessel and the formation and organisation of a blood-clot is often survived for many years, and where caseation hardly ever does result as a consequence, and tubercle is still more rare; .....yet, on the theory that extravasated blood *per se* is apt to caseate and give rise to tubercular disease, one would expect tubercle in one form or another to be among the well known and familiar pathological incidents of cases where an apoplectic clot has remained for years, has undergone gradual fatty degeneration, and has, by slow degrees, become, to a great extent, removed. So, also, it is not rare to find hæmorrhagic condensation in the lungs, from cardiac disease or embolism, undergoing a great variety of chronic changes, more or less allied to inflammation, and even to ulceration and gangrene; but caseation in such cases is almost unknown, and tubercles, whether primary or secondary, are extremely rare."

Dr. Coats, who followed Dr. Gairdner, said it was necessary to find an answer to these three questions. 1. Is phthisis pulmonalis a tubercular disease? 2. What are the characteristics of tubercular disease? 3. How are we to recognise tuberculosis? After an able description and analysis of the anatomical characters of acute general tuberculosis, and of a local tuberculosis, such as is observed in the kidney, the so-called renal phthisis, he concluded that, in either case, there was an "infective" process, *i.e.*, a process "in which lesions are to be traced to the direct action of a virulent agent, introduced from without or formed inside the body. Acute miliary tuberculosis was an infective disease, because each miliary tubercle owed its origin to the action of an infective particle. So, also, local tuberculosis was infective, because there was again evidence of some infective material acting directly on structures, and producing the particular form of lesion called a tubercle." He pointed to the symmetrical distribution of the lesion in acute miliary tuberculosis as indicating a "blood-disease"; and maintained that it was "impossible to escape from the conviction that there was some virus carried by the blood to the various organs affected. And, although in almost every case there were evidences of concomitant inflammation; and although tubercles, in some respects, were analogous to inflammatory structures, they were not to be regarded as simply inflammatory, any more than syphilitic gummata were to be so considered, although presenting at least as much analogy in structure to inflammatory products." Dr. Coats next described the anatomical characters, and the processes of the formation of cavities in the two distinctly recognisable forms of phthisis pulmonalis. The first, the more common, was, in its purely anatomical aspects, to a great extent, but not entirely, a catarrhal inflammation of the lung. The products accumulated in the air-cells, together with the portions of lung-tissue involved in the condensation, underwent caseous metamorphosis; and that was "not merely the drying in and fatty degeneration of inflammatory products, but actual death, not only of those products, but of the piece of lung in which they were contained"; and the process warranted the name of caseous necrosis; and this caseous necrosis was sometimes "almost an acute process". This marked necrosis of these products, and of the lung-tissue besides, was not explicable on any assumed mere degenerative tendency on the part of the inflammatory products. The chief anatomical characters of the second form—that commonly designated cirrhosis of the lungs—consisted in a new formation of connective tissue, followed by contraction of this tissue; in fact, it was an interstitial inflammation of the lung. By the contraction of the connective tissue, there was great destruction of the proper vesicular tissue of the lung; the bronchial mucous membrane became the seat of inflammatory catarrhal changes; to compensate for the great shrinking, there were not only depression of the chest-wall, but also local emphysema, and cavities formed by dilatation of the bronchial tubes. But, in some parts of lungs so affected, "isolated patches of condensation, in the form of groups of nodular projections", might be seen; and these were found to present "rounded bodies supposed to be tubercles, and containing distinct giant-cells". The relation of these two conditions to tuberculosis had next to be considered. Was tuberculosis associated with these processes, and in what way? The presence of an infective virus, in the first form, was evidenced by the almost constant presence (after the formation of cavities) of tubercular ulcerations of the bronchial mucous membrane; and, when lung-tissue containing the tubercular virus was swallowed, infective tubercular ulceration of the intestine might be found. He had not found these bronchial or intestinal ulcers in the cirrhotic form of lung-disease. But he had found equally good evidence of the presence of the tubercular virus in this form, as in the other, in the shape of miliary tubercles in the presumedly sound lung, as well as in the liver and in the spleen. All admitted that tubercles occur in phthisis pulmonalis; but the point really in debate was this: Was tuberculosis an integral part of the

processes in ordinary cases of phthisis? or, was it always secondary? It was also admitted that the presence of tubercle was an evidence of the existence of an infective process—the presence of a virus or ferment. But it was maintained, on one side, that "the tuberculosis was secondary to the inflammatory process, and the ferment or virus was produced by the caseous material"; while, on the other hand, it was held that "the whole process was a tubercular one from the first, and that inflammatory products and tubercles were equally the result of the irritation of the tubercular virus". Dr. Coats had commenced the study of phthisis strongly imbued with the first of these views; and he had examined the lungs in phthisis with the definite object of finding a non-tubercular catarrhal process; but he had been driven to the conclusion that, "in all cases of caseous phthisis, tubercles were inseparably mixed up in the morbid process; and it was the same with cirrhotic phthisis: tubercles were inextricably mixed up in the process, and might be found when no caseous material could be discovered after diligent search." After some forcible objections to the view that the caseous necrosis was due to occlusion of the alveolar capillaries from pressure, he went on to state that, in the cirrhotic forms, he found that tubercles took part in the transformation into connective tissue; that, "wherever there was cirrhosis, there were tubercles; and, wherever there were tubercles, there was cirrhosis". In both forms, the tubercles and the inflammatory products were both the result of the irritation of the tubercular virus. In the catarrhal form, the tubercles underwent caseous metamorphosis; in the cirrhotic form, they underwent fibrous transformation.

Dr. Foulis agreed, in the main, with Dr. Coats, and called special attention to the possibility of the transmission of the tubercular virus from the lower animals to man.

Dr. D. J. Hamilton commenced by defining and describing the typical tubercle nodule, and by stating that, "so far as he had seen, it was always preceded by a softening caseous mass, either in the tubercular organ itself, or situated in some distant part"; also by defining phthisis, which for him had an exclusively local sense, and indicated a local destruction of the lung of a peculiar nature; viz., that resulting from caseous catarrhal pneumonia. All other forms of destruction of lung were not, for him, cases of phthisis pulmonalis. Tubercle in the lung might be primary, as when it occurred in children in connection with caseous inflammation of the cervical glands; or it might be secondary to some caseous deposit, which was not in itself tubercular, the most common source of such being a catarrhal pneumonia, or caseous bronchial glands. The caseous irritant, whether it entered a blood-vessel or a lymphatic vessel, would equally give rise to a tubercle; in the former, it would be distributed generally; in the latter, it would have a local distribution in the lung. "All that seems necessary for the growth of a tubercle is the caseous irritant, and an endothelium or connective fibrous tissue. The reaction of the one on the other is capable of developing this neoplasm." Phthisis had three distinct stages, as distinct as those of croupous pneumonia: 1, acute or subacute catarrh; 2, caseation; 3, phthisical softening. The caseation was caused by the gradual obliteration of the capillaries of the part, from pressure exerted on them by the accumulated catarrhal products. He held that it was an error to suppose phthisis of the kidney and tubercle of the kidney to be different stages of the same disease. On the contrary, phthisis of the kidney, like phthisis pulmonalis, commenced as a renal catarrh. The accumulated epithelial products underwent caseation and subsequent softening, just as in catarrhal pneumonia. Primary deposit of tubercle in the kidney did not lead to phthisis of that organ, any more than did primary deposit of tubercle in the lung lead to phthisis pulmonalis. Contrast the so-called "fibroid phthisis" with the preceding; this was a chronic interstitial pneumonia, and the so-called phthisis nothing more than a bronchial dilatation. When destruction of lung-tissue occurred in such a case, it was from obliterative thickening of a branch of the pulmonary artery. A cavity so formed might be closed by contraction of surrounding cicatricial tissue; rarely, if ever, did a truly phthisical cavity close in this way. An analogous account might be given of the production of cavities in the "coal-miner's lung" and the "stonemason's lung". It was absurd to include all these different sources of formation of cavities under one common designation. With regard to the hereditary character of phthisis, he did not believe that any special poison was transmitted from parent to child, but a peculiarly sensitive character of the pulmonary epithelium was transmissible; and, with such a person, the slightest undue exposure was sufficient to excite a bronchial or a catarrhal pneumonia. If the catarrhal products should accumulate and dry, as they had a tendency to do, then caseation occurred, succeeded by disintegrative softening, and followed by pulmonary phthisis.

Dr. Gairdner, in reply, after giving a rapid survey of the various views that had been current since the time of Bayle and Laënnec with regard to the pathology of phthisis, said there were some practical and clinical questions which appeared to be left undecided after all that pathology had told us? What was that "vulnerability", according to Niemeyer, or "undue susceptibility to proliferation of epithelium", according to Dr. Hamilton, which rendered certain persons prone to repeated attacks of catarrhal pneumonia, leading to caseation, and thence to miliary tuberculosis? What was this morbid susceptibility? Many persons were constantly having catarrhs—some never extended beyond the larynx; these appeared to be in no danger of pulmonary tuberculosis, yet they were all more or less "vulnerable". Others were constantly getting bronchial catarrhs, from boyhood to manhood; they were very "vulnerable", some of them rarely ever free from catarrhal symptoms; yet they were never likely to fall into tuberculosis. They became the subjects of emphysema and, probably, dilated heart. Others, on the other hand, could not suffer one or two attacks of pulmonary catarrh without showing signs of infiltration of the apices, and the case taking the course of a more or less chronic phthisis. And in other cases, there was no complaint of the chest at all, and the most careful scrutiny failed to detect any liability to catarrh; but, for some other reason, an examination of the chest was made; and "there, at the apex of one lung, or possibly of both, you find dulness, harsh or hollow respiration, and, perhaps, just a minute click or two of *râle* confined to that single spot; all the rest of the lungs being apparently sound. Why should that spot in this person's lung caseate, with a catarrh absolutely insignificant? And why, on the other hand, should a certain number of persons, eminently vulnerable to catarrh, escape caseation?" Was it not justifiable to assume that a tuberculous disposition existed in the one class of cases and not in the other? So, with regard again to "phthisis ab hæmoptoë", blood was extravasated daily in every region and tissue of the body without its being followed by inflammation in any such sense as to produce either suppuration or caseation; yet when a young man, with perhaps a bad family history, had hæmoptysis as a first symptom, and phthisis followed, we were told that it was because of the strong tendency that blood drawn into the lung had to excite inflammation there, and thus lead to caseation, and, in due course, to miliary tubercle. He thought, with Laënnec, that this view of the sequence of events was rather more difficult than the opposite; and that it was easier to suppose, not, perhaps, that actual tubercle was necessarily there beforehand, but that, when caseation or tubercle followed hæmoptysis, there had been usually some previous constitutional infirmity, which he should continue to call, provisionally, a tubercular predisposition, one effect of which had been to weaken or disturb the pulmonary circulation, and so to lead to hæmoptysis, and then to phthisis.

Dr. Finlayson took exception to, and pointed out the inaccuracy of, several of Dr. Hamilton's statements. His definition of tubercle was very arbitrary, and his definition of phthisis pulmonalis excluded one-half of the cases commonly regarded during life as phthisis. He had found it impossible, although he had diligently striven to do so, to discriminate clinically cases into tubercular and non-tubercular phthisis. He pointed out the fallaciousness of Dr. Hamilton's opinion, that neither tuberculosis nor phthisis pulmonalis was hereditary; and he quoted instances to show that Dr. Hamilton was in error in stating

that phthisis and tuberculosis were never congenital. Dr. Scott Orr supported the view taken by Dr. Gairdner. Dr. McCall Anderson thought there was a tendency nowadays to allow the physician to be overridden by the pathologist, so that doctrines became current which were altogether inconsistent with clinical facts. He held there were four kinds of phthisis: 1. Acute tuberculosis; 2. Pneumonic phthisis; 3. Pneumonic phthisis complicated with tubercles; and 4. Fibroid phthisis; and he gave what he conceived to be the diagnostic criterion of these four forms. Dr. Alex. Robertson supported the view taken by Dr. Hamilton. The discussion was closed by some additional remarks from Dr. Coats, who concluded by saying "that pathology undoubtedly points to a virus as the cause of phthisis, and clinical facts point to a state of the system as at the bottom of it".

We have already said that we think this discussion most important and opportune, for it gives public and authoritative expression to a feeling that has been rapidly gaining ground of late years, both with pathologists and practical physicians, that the theory which teaches that all pulmonary phthisis has a purely inflammatory origin, and that all tubercle springs from infection through the caseous degeneration of pre-existing inflammatory products, is unsatisfactory and inconsistent with facts. The great defect in this argument is in the premisses: the advocates of the inflammatory theory make their own premisses, and thus they can deduce their conclusions with logical strictness. The conclusions follow naturally and clearly from the premisses; and the argument has, at first sight, an attractive and logical clearness and precision; but, on close examination, the premisses are found to be faulty and untenable. We cannot pursue this subject further at present; but we shall conclude our notice of this discussion with a quotation from the recently published first volume of the new edition of Cornil and Ranvier's *Histologie Pathologique*, which is now in course of publication. The opinion of these distinguished pathologists, remarkable alike for the completeness of their work and the caution of their conclusions, should carry great weight, not only with those who approach the study of pulmonary phthisis from a clinical point of view, but also with those who take their stand on the revelations of morbid anatomy.

"The question of tuberculosis, bristling with contradictory opinions, is still obscure, though light is beginning to be thrown upon it..... We are disposed to range tuberculosis near syphilis and glanders, less on account of their infectious nature, than because of the analogy in the anatomical characters of their morbid products.....The fact of the coincidence of special inflammations with the occurrence of tuberculosis and the grey granulations struck Niemeyer, and suggested to him a theory which we cannot admit. He took, for his starting point, what takes place in the intestine and in the lung, when the intestinal ulcers and the pulmonary cavities present tuberculous granulations at their periphery. Connecting this fact with the caseous condition of the lymphatic glands in children, as a result of cutaneous eruptions, and with the frequent appearance of tuberculous granulations in the subjects that were so affected, Niemeyer concluded that tuberculous granulations are always the consequence of infection of the organism by a caseous nodule, even when this has been purely inflammatory in its origin. So, according to him, tuberculous granulations have no specific cause; and every product of inflammation, acute or chronic, which has undergone caseous change, may give rise to them. *But a theory stated in this absolute fashion is destroyed by a single contradictory fact.* Now, there is no lack of anatomico-pathological observations of general tuberculosis, collected precisely by those authors who were looking everywhere for, and desirous of finding, caseous nodules—by Virchow and Buhl, for example, and we may mention ourselves—where they were not able to find any. Miliary tuberculosis is altogether primary in these cases; and, if so, there is nothing to prevent one from supposing that it habitually is primary; or that, at any rate, the granulations and the inflammations are developed under the influence of the same disease, in the same parts or in different parts of the organism."

THE first meeting of the Royal Commission on Medical Legislation was to take place yesterday (Friday).

WE are informed that, owing to the library of the Royal College of Surgeons being required for examination purposes, it will be closed on Friday and Monday the 27th and 30th instant.

MR. CHRISTOPHER HEATH has announced his intention of coming forward as a candidate at the next election for members of the council of the College of Surgeons.

AT a meeting of the Council, held at the Royal College of Surgeons of England, on May 12th, Mr. Charles S. Tomes, F.R.S., a member of the College, and a Licentiate in Dental Surgery, was elected a member of the Board of Examiners in Dental Surgery.

APPLICATIONS for the post of Professor-Superintendent of the Brown Institute, vacant by the resignation of Dr. Greenfield, must be sent in to the Senate of the University of London not later than Saturday, May 21st.

THE Treasurer of St. Bartholomew's Hospital, Sir Sidney Waterlow, and the medical and surgica staff, will give a *conversazione* on Friday, the 27th instant, at which the Prince of Wales, the President of the hospital, will attend, accompanied by the Princess of Wales.

THE Registrar-General notifies, that all the calculated rates of mortality, in this week's return, are based on the estimated populations which have been in use since the commencement of the year. These estimates will shortly be revised in accordance with the results of the recent census.

WE hear from one of his London friends that, although Professor Billroth has some hope of attending the International Congress in August, he is still doubtful. He adds that, "four days ago, I did another resection of the pylorus, and also burnt off a piece of the liver with Paquelin's cautery. This piece of liver was inseparably adherent to the carcinoma. So far, all goes on well".

AT a quarterly meeting of the trustees of the museum of the Royal College of Surgeons on the 13th instant, the Earl of Ducie in the chair, Professor Allen Thomson, F.R.S., was unanimously elected a trustee of the Hunterian Collection in the vacancy occasioned by the decease of Professor Sharpey, F.R.S. Another vacancy was declared, caused by the death of Sir Philip de Malpas Grey Egerton, M.P., which will be filled up at the next quarterly meeting.

ON Friday evening of last week, Dr. Habershon, the President of the Metropolitan Counties Branch, received the members of the Branch and other visitors at a *conversazione* in the South Kensington Museum. Many ladies were present; and the attendance was large. Selections of music were performed by the band of the Coldstream Guards, under the leadership of Mr. Godfrey; and a company of hand-bell ringers gave much gratification by their excellent performance of various pieces. The entertainment passed off most pleasantly; and the generous hospitality of the President of the Branch was evidently much appreciated by all who were present.

THE following notification appears in the *Gazette*, under date of May 13th:—"The Queen has been graciously pleased to direct letters patent to be passed under the Great Seal granting and declaring that the degrees of Bachelor and Master of Arts, and Bachelor and Doctor of Medicine, of Laws, of Science, and of Music, granted or conferred by the University of Adelaide, South Australia, on any person, male or female, shall be recognised as academic distinctions and rewards of merit, and be entitled to rank, precedence, and consideration in the United Kingdom and in the colonies and possessions of the Crown throughout the world, as fully as if the said degrees had been granted by any university of the said United Kingdom."

HOSPITAL SATURDAY IN BIRMINGHAM.

HOSPITAL Saturday, May 14th, yielded £2,948, an increase of £234 upon the receipts of last year; 620 works contributing, against 586 in 1880. The success of the present collection is mainly due to the more general adoption in the manufactories of the system of weekly contributions continued throughout the year, instead of the old haphazard method of collecting a day's, or part of a day's, earnings from the workpeople on one day only. Last year, upwards of £700 came in after the day fixed for Hospital Saturday had passed. As much or more may be looked for this year, so that the present collection may be expected to reach not far short of £4,000. The proceeds of the movement are divided amongst all the medical charities of the town, in sums strictly proportionate to their respective annual expenditures.

CHARLES MURCHISON MEMORIAL CLINICAL SCHOLARSHIP.

ANOTHER anonymous donation of £100 has been transmitted to the honorary treasurer of this fund, through Mr. T. H. Hills. This, with additional subscriptions, interest on deposit account, and the balance of the fund collected for a bust at St. Thomas's Hospital, brings the total amount up to £1,000. When the trust deed is completed and sanctioned by the authorities of the University of Edinburgh and the Royal College of Physicians, this money will be handed over for investment to the College of Physicians. The first award of the scholarship is fixed to take place in London in April 1882.

"CHARITY" OR INSURANCE AGAINST SICKNESS.

A MEETING was recently held at Croydon, under the auspices of the Metropolitan Provident Medical Association. A pamphlet is published by Dr. Alfred Carpenter, containing a full report of the proceedings. Anyone who wishes to get an insight into the object and method of the Association will do well to read Mr. Stansfeld's able and exhaustive address; the following clear statement of the *raison d'être* and principle of the Association by one of its organising secretaries, Mr. C. J. Radley will explain the objects of its work.—"They would at once see," he said, "that the movement did not ask those who joined it to depart from their habits of self-dependence. This plan did not ask the people to depend upon charity, but, on the contrary, it sought to make them more independent than, generally speaking, they were at present. Unfortunately, charity hitherto, especially medical charity, had been absorbed largely by persons who could afford to pay for what they wanted or needed. He wished to be guarded, in speaking of charity, against the supposition that he at all desired to say a word against the principle of true charity—and true charity was seen when persons gave necessary and deserved aid, adequate help out of their own bounty and compassion for human suffering. Then, indeed, charity 'is twice blessed—it blesseth him who gives and him who takes'. There was, however, another sort of so-called 'charity', which consisted of indiscriminate patronage on the one side, and of the receiving of charity by those who did not need it, on the other; and this was a different kind of thing altogether—for it was honourable to neither side—those who gave it, giving perhaps from a desire to patronise, and those who received it taking it without gratitude, excusing themselves by saying that those from whom they accepted it 'could afford to give'. Now if all the charity which was existing were properly bestowed, it would not be more than sufficient to meet the wants of the necessitous; hence those who took charity they did not need really deprived some poor famishing fellow-creatures of the means of life. He held that, given the means of being provident, most people with properly constituted minds would be glad to save the stream of charity—in whatever form it might flow—from being diverted from its purpose of assisting the necessitous; and, therefore, he urged upon the consideration of those before him, the means now open for preventing their having to accept charitable help in matters which they might provide for themselves. It was necessary that the 'means' should be provided to enable persons to be provident. It was all very well for people to say that the time of illness could be provided against; but, without the way being opened, it could not be done by the industrial classes, and the way to this end could only be opened by means of the insurance principle. He defined the insurance principle for providing medical attendance and medicine in sickness to be in the combination of a certain number of persons, among whom there would be a certain amount of illness. When persons were insured, this evil did not fall upon persons only to whom it happened, as the cost attending it was shared over the larger number; so that a misfortune which would be crushing to one or to a few was felt in an infinitesimal degree when shared by very many. People insured themselves against fire and against death; and why should they not insure themselves and their families against a 'doctor's bill', which would come, and most likely would come when the man could worst afford it? This was the proposal and purpose of the Metropolitan Provident Medical Dispensary Association."

ST. THOMAS'S HOME FOR PAYING PATIENTS.

WE are glad to learn that the St. Thomas's Home is receiving an amount of support which is, if not all that its most sanguine promoters anticipated, at the least most encouraging. During the last two months, there has been a steady increase in the number of applicants; and, at the date of our visit (May 13th), there were twenty-seven patients in the wards. Ophthalmic surgeons will be glad to learn that arrangements have been made by which the nursing of patients who are to undergo any operation on the eye can be undertaken; two cases of cataract-extraction have already, we understand, been conducted to a successful termination.

SCARLET FEVER SPREAD BY MILK.

A STRIKING instance of the dangers to which our milk-supply as at present regulated is exposed, is afforded by a case tried a few days ago at the Wolverhampton Police Court. It appears, from the information which has been courteously forwarded to us by Mr. Love, the medical officer of health, that, on the 29th ultimo, he received information of the existence of scarlet fever in the house of a milk-seller in that town. Mr. Love at once gave instructions for an inspector to visit the place, and to give the necessary warning against the further distribution of the milk. Finding the milk-seller was not at home, the officer left instruction as to what was to be done, and especially stated that she must not do anything with regard to the supply of milk if she had been in contact with any of the sick children. He afterwards met the woman in the street, and told her what was the effect of the law; and subsequently, in the afternoon of the same day, he went again to the house, and the woman, who came downstairs, told him that she had been washing her children. Early on the following morning, Mr. Love himself visited the house, and found four children suffering from scarlet fever. The eldest of these had been ill over a week, and no medical attendant had been called in. The mother of the children was gone out, and Mr. Love met her on her rounds, distributing milk. He stopped her from delivering any more milk, and gave her a written notice prohibiting her doing so. Meanwhile, however, some fresh cases, easily traceable to this milk-supply, had occurred. The medical officer of health duly reported the facts to the Town Council, who gave directions for the woman to be summoned under the Contagious Diseases (Animals) Act, as a warning to others. A heavy penalty was not pressed for; but the magistrate very properly said that, if any other persons were found guilty of similar conduct, a severe penalty would be imposed. The promptitude with which the notice of the existence of scarlet fever at the house of the milk-seller was followed up, has no doubt saved her customers from a serious spread of that disease; and too much praise cannot be given to Mr. Love and his subordinates for the energy which they have displayed.

VIOLENT DEATHS.

THE deaths during last quarter in England and Wales referred to different forms of violence were 4,511, and exceeded the numbers returned in recent corresponding quarters; they were equal to an annual rate of 0.71 per 1,000 of the estimated population, and to 3.3 per cent. of the total deaths. In the twenty large towns, the deaths

from violence were equal to an average rate of 0.85 per 1,000, and the rates in the several towns ranged from 0.46 and 0.47 in Norwich and Portsmouth, to 0.93 in Newcastle-upon-Tyne, 1.18 in Birmingham, and 1.38 in Liverpool. The death-rate from violence in England and Wales, exclusive of the twenty large towns, was equal to 0.65 per 1,000. The rates in the several counties ranged from 0.27 and 0.30 in the rural population of Buckinghamshire and Hertfordshire, to 0.98 in Cumberland and 1.29 in South Wales.

LIGATURE OF THE EXTERNAL ILIAC ARTERY WITH A KANGAROO-TENDON LIGATURE.

ON April 20th, at St. Thomas's Hospital, we had the opportunity of seeing Mr. Croft tie the external iliac artery for ilio-femoral aneurysm. The patient, a man, was in a most exhausted and debilitated condition, and the aneurysmal sac showed signs of suppuration. Mr. Croft made use of a carbolised kangaroo-tendon ligature, which had been placed at his disposal by Mr. Thomas Smith; and strict antiseptic precautions were observed. On tightening the ligature, the operator felt it cut through the inner coats of the artery, and pulsation immediately ceased in the sac. The case has gone on most favourably. The man's general health has improved; the wound has entirely healed; the signs of inflammation about the sac have disappeared; and there has been, at the time of writing (twenty-two days after the operation), no return of pulsation in the sac. Feeble pulsation can be felt in the posterior tibial artery, and in small branches in the thigh. The new ligature, therefore, has come out of this trying ordeal most successfully; and it has, as Mr. Croft observed at the operation, several manifest advantages. It is easily prepared, and does not, it is said, alter with keeping; it is tough; it is flexible; and it is flat. As to its toughness and flexibility we can bear evidence; the utmost strain that we could put upon it with the hands failed to break it, and a knot held very firmly.

THE NOTIFICATION OF INFECTIOUS DISEASES.

DR. ARTHUR RANSOME, who was unfortunately unable to accompany the deputation which waited on the President of the Local Government Board on the 26th ultimo with regard to the compulsory notification of infectious diseases and other matters, has addressed to Mr. Dodson a letter stating in detail the views which his experience, as Chairman of the Registration of Disease Committee of our Association, has led him to form upon certain of the points touched on. As to the difficulties on which Mr. Dodson commented, in the way of providing the means of isolating cases of infectious disease when notified to the local authority, Dr. Ransome points out that this very difficulty of providing hospitals is only another argument, and a very strong one, for the early reporting of cases of infectious disease. Such a notification of the presence of infection would certainly not increase the need for hospitals; and, if the reply be made that it would make the need more apparent, it can hardly be supposed that anyone will support the policy of closing the eyes to the presence of danger. But the truth is, that such notification would greatly diminish the real needs of the community with regard to hospital accommodation. If a medical officer of health were to receive immediate intelligence of the presence of any case of infectious disease—such as small-pox, scarlet fever, typhoid fever, or diphtheria—he would in many instances be able to isolate it or so disinfect the emanations that it would not need to be taken into hospital at all: and, if the case were truly "without proper lodging and accommodation", its removal to the hospital would also remove the source of further mischief. A full hospital really often means that the epidemic has passed the boundary when isolation could do any good; and is a sign that really efficient means of checking it are denied to the guardians of the public health. Dr. Ransome conceives that hospitals can do little good in the way of prevention, unless the very earliest cases be discovered by prompt notification of their presence. On the other hand, he affirms, from experience, that even a small cottage hospital of sixteen or eighteen beds may be so utilised as to arrest an epidemic in the midst of a population of fifteen thousand persons. Moreover, a national system of registration of cases of infectious disease would afford material aid to the study of the modes of origin of, and the course followed by, these diseases. If, as the result of such a study, the coming and probable track of an epidemic could be predicted with as much accuracy as a meteorologist can now indicate the course of a storm, a most important means of meeting it and of robbing it of its victims would be afforded to the health-authorities of the country. A much smaller permanent establishment of hospitals would suffice for their needs; and all the other means of meeting infectious disease and of combating it with success could be prepared beforehand. Another reason for the undertaking could be found in the strong probability, that the measure would diminish materially the alarm of the public in the presence of a threatened epidemic. If people could feel assured that no case could arise without its being discovered and promptly dealt with by the medical officer of health, and that effectual measures would at once be taken to prevent the spread of infection, we should no doubt witness fewer panics, and there would be much less interference with trade owing to a dread of entering possibly infected premises.

TIP-CAT.

ALL who have occasion to traverse the by-ways of London have been long familiar with the danger of the game known as "tip-cat". It is a pastime fraught with the most serious possibilities of injury, not only to passers-by, but to the luckless urchin playing, and to his or her companions. The small piece of wood struck recklessly may become a most formidable species of boomerang, returning in its orbit from the player's foot to the nose or eye. Accidents are continually occurring; and all who know the crowded by-streets and open spaces of our metropolis, can judge for themselves how little effort is made to suppress the nuisance; and yet, if the police chose to apply their powers, or if those greater departments who give the police life and motion would authorise such application, there is no reason why this nuisance should not be at once suppressed. In an Act as old as 1839, regulating the powers of the police in London, we have the following definition of an offence subjecting the perpetrator to immediate arrest, and a forty shillings fine: "Every person who shall fly any kite or play at any game to the annoyance of the inhabitants or passengers, or who shall make or use any slide upon ice or snow in any street or thoroughfare, to the common danger of the passengers." This subsection of the Metropolis Police Act is, however, though still in full force in the Statute-book, practically regarded as an obsolete provision, like the old injunction to magistrates to bring up people guilty of witchcraft. The string of a kite coming across one's nose, or jerking off a hat, might be a serious inconvenience, especially if the kite-flyers became very numerous; but any annoyance in this respect against which the Legislature of 1839 could have dreamed of providing, is utterly trivial in comparison with the danger of losing one's eye when an involuntary participant in the game of "tip-cat". We can understand that a very natural disposition to look with indulgence on the efforts after amusement of the childhood in our great towns is at the bottom of the indifference of which we complain. The more reasonable provision is made for the entertainment of children the better. The first consideration is, that the streets of a great community like that of London shall be traversable without danger to the multitudes whom business and duty call to penetrate sometimes to its most remote corners. With the words of the Metropolis Police Act before us, and evidence of the serious mischief resulting from the prevalence of this stupid pastime, no theory of philanthropy can acquit those who are responsible for good order in our streets of the most supine negligence.

VACCINATION WITH CALF-LYMPH.

THE past winter has seen the establishment in England of several institutions for what may be termed the cultivation of vaccinia on its native ground. Among these, Dr. Renner's establishment, at 228, Marylebone Road, has proved very useful to the profession, not from any intrinsic excellence over similar institutions elsewhere, but rather from its position in a neighbourhood where lymph is in urgent request.

Calf-lymph has the undoubted disadvantage of not keeping well; and, after twenty-four hours, the prospect of successful vaccination from any sample becomes more and more hypothetical. West-end practitioners have now, close at hand, a constant source of pure lymph, perfectly fresh, since Dr. Renner abstracts lymph from one calf every morning, for the supply of the profession; direct vaccination of patients being carried on, at two o'clock in the afternoon, from a second calf. Two calves are vaccinated daily, from fifty to seventy punctures being made in each; the lymph employed is exclusively that transmitted, through calves, from the Beaugency case of cow-pox. The lymph is abstracted on the fifth day, being, at a later date after vaccination, unfit for use; the normal temperature of the calf (102°) is generally maintained, though in some calves there is a rise of half a degree; no lymph is taken, unless a certificate of health is obtained from a qualified veterinary surgeon. There is stabling on the premises for a dozen calves; the flooring of the stables is cement, overlaid with movable planking, which is cleaned daily. Similar institutions are much needed in all densely populated districts. Calf-vaccination takes away all the reasonable causes of fear which encourage distrust and objection to vaccination from infants; and the proximity of the establishment ensures success, which is always uncertain when calf-lymph has to be kept for some time or conveyed for some distance.

SMALL-POX IN LONDON.

THE fatal cases of small-pox in London, which had been 70 and 88 in the two preceding weeks, declined last week to 69, but exceeded the average by 25; 39 were recorded in the Metropolitan Asylums Hospitals, and 26 in private dwelling-houses. Of the 69 persons whose deaths from small-pox occurred within registration London, 30 had resided in the South, 21 in the East, 11 in the North, 6 in the West, and one in the Central groups of registration districts. The number of small-pox patients in the Metropolitan Asylums Hospitals, which had been 942 and 1,093 at the end of the two preceding weeks, further rose to 1,225 on Saturday last, of whom 131 were convalescents temporarily accommodated at Darenth. The number of new cases admitted to these hospitals, which had been 178 and 363 in the two previous weeks, further rose to 379 last week. The Highgate Small-pox Hospital contained 86 patients on Saturday last, against 95, 88, and 85, at the end of the three preceding weeks; 23 new cases were admitted to this hospital during the week.

MEDICAL REFORM.

AT a meeting of the medical profession of Bradford and neighbourhood, held on May 5th to consider the subject of Medical Reform, it was agreed to make the following recommendations.

"That this meeting recommends a one portal-system of examination and admission to the medical profession for the whole kingdom, with various examining stations. The examiners should be appointed by the State; say nineteen from the present examining bodies, six by the State, and six by the general body of the profession. That the qualification given shall be an all-round one. Corporations still to give degrees when called upon.—That preliminary examination be high, embracing as essentials, Latin, so as to read easy authors, Greek, so as to read the alphabet and look out roots in the dictionary. One foreign modern language also to be necessary. The above to be passed before the commencement of any medical studies whatever.—Before commencing his more exclusively medical studies, the student should pass a second examination in physics, botany, natural history, and chemistry. A pupilage of at least twelve months with a qualified medical practitioner should also be required before obtaining his diploma or qualification to practise.—Medical curriculum to extend over three years after the above examinations have been passed.—Only duly qualified persons to practise as assistants."

DEGREES IN MEDICINE AND SURGERY IN THE UNIVERSITY OF CAMBRIDGE.

WE have received the part of the *Student's Guide to the University of Cambridge*, published by Messrs. Deighton of Cambridge (price one shilling), which relates to degrees in medicine and surgery, and which is written by Professor Humphry. It gives a succinct statement of the requirements, the expenses, the best method of proceeding, and the opportunities which the University offers. The importance of completing the general or school education, and passing the test in it through the "Local", the "Higher Local", or "Oxford and Cambridge School Board" examinations (which are accepted as equivalent for the "Previous Examination"), before coming to Cambridge, is particularly insisted on. The University regulations have permitted this only in the last few years; and it is one of the wisest of the changes which the liberal spirit of the University has recently inaugurated; for it is obviously most desirable that the school education should be completed at school, instead of occupying the University period; and that the evidence of that amount of it which the University requires should be given before the University course commences. "It may be stated, as a general rule, that the student who can pass these examinations (the examinations whereby exemption from the Previous Examination may be obtained) is fit to come to Cambridge, and that he who cannot do so is not fit." The student who takes advantage of these recent regulations, and obtains the requisite certificates at one of the examinations just named, may, immediately on his entrance at the University, commence the study of natural science and medicine, and may pass the several examinations, and obtain the degrees in Arts and Medicine in four or five years. Three years—that is, the greater part of each of three years—he must spend in Cambridge; and he may well spend them there, attending the lectures and working in the dissecting-rooms and laboratories, and at the hospital; and the remainder of the time he may spend at any recognised school or hospital. The several modes of proceeding, by way of the Natural Sciences Tripos, which is the plan most in favour, by the ordinary route to the B.A. degree, or by the mathematical, classical, or other tripos, are indicated. The expenses are estimated at £150 *per annum* for those who join the colleges, except Cavendish College, which has lately been founded for the purpose of enabling students to enter the University at a younger age and with less expense. In this college, or for non-collegiates, £100 *per annum* will more than suffice. It appears that all reasonable opportunities and facilities are afforded to those students who desire to obtain medical degrees at Cambridge; and there is little doubt that the number availing themselves of them, already considerable, will increase year by year, provided, which there is every reason to expect, that the standard of teaching in natural science and in medicine be maintained at its proper level.

INFECTIOUS DISEASE IN DAIRIES.

A SHORT time ago, we called attention to a paper by Dr. Thursfield in the *Sanitary Record;* in it, he pointed out a mode by which infectious diseases might be spread through the agency of the ordinary milkman, owing to the absence of any sanitary control over the health of the inhabitants of the dairyman's house. We have not had to wait long for a proof that our fears were by no means chimerical. In a recent number of the *Globe*, we read that "a serious outbreak of scarlatina at Halifax has been traced to the dairy. Of eighty-two families supplied by a particular milkman, forty-five were attacked by the epidemic. The milkman had five children ill of scarlatina at the time he was supplying these families, and thus spreading disease and death among his customers. Surely", adds our contemporary, "our sanitary laws ought to protect us against such possibilities as this."

GRATITUDE.

AT the recent presentation-day ceremonial at London University, Lord Granville, in his address, related the following anecdote, which we record as a contribution to the next work published on animal instincts. Speaking of the Brown Institute, the noble earl said: "A distinguished member of the Senate was driving along the road in which the institution was situated, when suddenly his hack-cab came to a dead stop. He asked the driver whether his animal was lame or ill, but the driver answered, 'No, sir. I never can get him past this place since he had his corn cured here; he likes it so much that he always wants to stop'."

CITY PROVIDENT DISPENSARY.

THE fourth anniversary dinner of the City Provident Dispensary was held on Monday last at the Freemasons' Tavern. The chair was taken by the Right Hon. Earl Percy, M.P. The Secretary, Mr. Cæsar, stated that the progress of the institution, young as it is, was most satisfactory. There is a surgical appliance association in connection with the dispensary. The patients are thus enabled, for a very small sum, to obtain all the more common surgical appliances.

SCOTLAND.

THE appointment of Medical Officer of Health for Aberdeen has been deferred until the June meeting of the Town Council, with whom the appointment rests.

ABERDEEN NATURAL HISTORY SOCIETY.

THE members of this Society held their annual excursion on Saturday last. The place selected for field-work was Stonehaven. The geological formations of this district are particularly favourable for out-door work, and many instructive features of a geological nature were observed. The botanically and entomologically inclined members had, also, an excellent field for their special department.

GLASGOW INSTITUTION FOR DISEASES OF WOMEN AND CHILDREN.

AT a meeting of the supporters of the above institution held on the 10th instant, the third annual report was read and adopted. It states that, during the past year, 289 women have been treated as patients, of whom 257 have been cured, 17 have been relieved, 9 have received advice which has not strictly come under the home treatment, and 6 have been dismissed as incurable. During the same period, 200 children have also been under treatment. All the above attended as out-patients, there being no in-patients received in the institution. Financially, there was a satisfactory report, the receipts being £232, and the expenditure £197, showing a balance of £35 in favour of the charity. The attendance at the meeting was very small, and was marked by the absence of members of the medical profession. Several of the speakers remarked on the few supporters that the institution really had; and they expressed a hope that, during the ensuing year, there would be an increase of funds to allow of patients being received into the house. We venture to say that, if the directors of this charity really desire to increase its usefulness and obtain for it the confidence and support of the general public, as well as of the medical profession of the city, they will make material alterations in its constitution and management.

SEVERE OUTBREAK OF FEVER AT ST. VIGEANS.

THERE was communicated, to a Committee of the Parochial Board of St. Vigeans, last week, a report of a severe outbreak of typhoid fever at Bridgeton, St. Vigeans, by Dr. James Smith Crichton, the medical officer of health. In a few weeks, sixteen cases had occurred in a population of fifty; while only three families in the immediate neighbourhood had escaped. Several deaths had occurred already. The cause of the outbreak was considered to be a well, which was contaminated by surface-water from manured fields, and which, having been analysed, was found to be very bad. The medical officer proposed that the water should be conveyed from its spring to where it was required in iron pipes; and with this recommendation the committee concurred, and took steps to bring it under the consideration of the proprietors.

THE PREVENTION OF THE SPREAD OF SMALL-POX.

IN the JOURNAL of last week, there was noticed the outbreak of small-pox among a batch of emigrants passing through Glasgow. It appears that these emigrants had come from Hungary and other parts of Europe; and, after being landed at Leith, they were conveyed by rail to Glasgow, where the disease showed itself. Although in this instance the prompt action of the sanitary authorities prevented any extension of the outbreak, it is clear that the landing at Leith of these people thus infected might have proved a serious danger to the community, more especially when it is remembered that, at present, small-pox is epidemic in London. We believe that steps are being taken to bring this new danger under the notice of the Board of Trade, with the view of endeavouring to secure the adoption of stringent measures whereby all emigrants landing on our shores shall undergo medical examination at the ports of landing.

CONVICTION IN GLASGOW UNDER THE MILK SHOPS ORDER.

THE first case of the kind under the above order was tried in Glasgow on the 16th instant, and resulted in a conviction. The accused was charged with having used the milk-store in her occupation as a sleeping apartment. She pleaded guilty, and urged in extenuation the limited nature of her business; but the sheriff, while modifying the penalty to £4, remarked that it was absolutely necessary to impose a substantial fine, as it was a serious thing to carry on a milk-business in a manner likely to cause contamination of the milk, no matter how small the business was.

EPIDEMIC HOSPITAL AT ARBROATH.

IT has been decided by the public health authorities to erect in the above town an epidemic hospital containing two large wards, with ample accommodation for sixteen beds in each. The plans have been approved of; and, as soon as they have received the sanction of the Board of Supervision, the works will be proceeded with.

CASE OF POISONING BY HEMLOCK.

IN the JOURNAL of April 30th, there was recorded the death of a boy from eating hemlock-root. Another case of death from the same cause is reported from the Island of Sanda, off the coast of Kintyre. A young boy, resident on the island, after taking dinner, complained of being unwell, and was seized with persistent vomiting. Despite numerous remedies that were tried, he continued in this state for some time, and then expired. It transpired that the little fellow had been chewing a root which he had picked up in his rambles, and which turned out to be hemlock.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending May 7th, it appears that the death-rate in the eight principal towns was 21.4 per 1,000 of estimated population. This rate is 2.0 under that for the corresponding week of last year, but 0.2 above that for the previous week of the present year. The lowest mortality was recorded in Leith, viz., 17.3 per 1,000, and the highest] in Paisley, viz., 31.8 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 2.5 per 1,000, or the same as the rate for last week. There was an increase in the frequency of acute diseases of the chest, the deaths resulting from them having been 140, or 24 more than the number recorded last week. The mean temperature was 46.2, being 1.3 under that of the week immediately preceding, and 0.8 under that for the corresponding week of last year.

HEALTH OF THE EIGHT PRINCIPAL SCOTCH TOWNS.

DURING the month of April, 2,335 deaths were registered in the eight principal Scotch towns; of these, 1,153 were of males, and 1,202 were of females; making the allowance for increase of population, this was 531 under the average for the same month during the previous ten years. The respective mortalities were, per thousand of the population: Leith 18, Dundee and Greenock 19, Edinburgh 21, Aberdeen 22, Glasgow 23, Perth 25, and Paisley 26. Thirty-nine per cent. of all the deaths were of children under five years of age; this is a much lower rate than has prevailed for some time; and the respective percentages were: Aberdeen and Greenock 32, Paisley 33, Edinburgh and Perth 36, Dundee 40, Glasgow 41, and Leith 52. Zymotic diseases caused 12.7 per cent. of the entire mortality, of which a considerable amount was due to the prevalence of whooping-cough in Leith and Edinburgh. Of 34 deaths due to fever, 9 were returned as typhus, 23 as enteric, and

2 as simple continued fever. Scarlet fever caused 35 deaths, measles 33, croup 20, and diphtheria 13; while one death was caused by small-pox, the first recorded for a considerable time. Apoplexy caused 64 deaths, paralysis 53, cardiac diseases 140, hydrocephalus 74, and premature birth debility 69 deaths. Phthisis pulmonalis contributed 11.5 per cent. of the entire mortality; while inflammatory affections of the respiratory organs, other than those already mentioned, contributed 24.1 per cent. Of 83 deaths attributed to violent causes, 5 were suicides. Four males and five females were over ninety years of age, the oldest (a male) being ninety-nine. During the month, the births of 3,735 children were registered, of whom 1,981 were males, and 1,754 females. The mean barometric pressure was greater by 0.122 inch, and its monthly range less by 0.513 inch; the mean temperature was less by 2.4°, and its mean daily range greater by 1.3°; the mean humidity was less by 4, the rain-depth less by 1.19 inch, and the wind-pressure was greater by 0.11 lb., than the average of the same month during the preceding twenty-four years. The highest mean temperature was at Glasgow, and the lowest at Aberdeen; while the greatest quantity of rainfall was at Greenock, the smallest at Perth.

IRELAND.

THE salary of Dr. James Creagh, medical officer of Mallow Dispensary District, has been increased from £100 to £120 per annum.

A MAN named Thomas Breen died in the Drogheda Workhouse last week, at the alleged age of 104 years.

FOUR cases of small-pox are at present in Queenstown Intercepting Hospital; the first, we believe, admitted since the establishment of the hospital.

SMALL-POX IN BELFAST.

A VESSEL arrived in Carrickfergus Roads on the 12th instant from Baltimore; and, as a sick-flag was hoisted, Dr. Clements, medical officer of health for the district, went on board, when he was informed that during the voyage one of the crew had died from small-pox, and had been buried at sea on the 1st instant. The deceased man's clothing was thrown overboard, and various portions of the ship fumigated and whitewashed. Dr. Clements examined the crew; but, as they all denied being ill, the vessel was permitted to enter the Spencer Basin. Some of the crew, being paid off, took lodgings in Belfast; and, two days afterwards, one of them complained of feeling unwell, and was removed to the Union Hospital, while all precautions were taken to thoroughly disinfect the apartment and bedding he had used. Shortly afterwards, a second seaman was taken ill, and also conveyed from his lodging to hospital. Up to early on last Monday, it was not altogether certain whether the cases admitted were small-pox or some other affection; but, should they prove the former, every precaution appears to have been taken by the sanitary authorities to prevent it further spreading.

LONDONDERRY CITY AND COUNTY INFIRMARY.

FROM the report of Sir William Miller, Surgeon to the Londonderry Infirmary for the past year, we learn that 813 patients were under treatment in the hospital during that period, of which number 742 were discharged cured or relieved, 30 died, and 41 remained in the institution on the 1st of last January. There were 83 operations performed, including 23 amputations, 2 of which were for compound fractures of the legs, without a single death. Besides these, 430 cases of accident, including 19 contusions, 15 dislocations and sprains, 23 fractures of the arm, 4 of the clavicle, 16 of the legs, 2 of the skull, 12 of the thigh, 81 incised and lacerated wounds, etc., were treated as external patients. The deaths amounted to 30, of which 12 were due to consumption, 5 to cancer, a similar number to bronchitis, and 1 to fracture of the thigh, etc. In September last, Dr. Hudson, the house-surgeon, resigned, and the vacancy has been filled up by the appointment of Dr. John Creery. Sir William Miller has paid considerable attention to the training of nurses in the infirmary; a special fund has been formed for the purpose, and it is satisfactory to learn that, during last year, a sum of £52 5s. 8d. was obtained for the hospital by extern nursing. Further, that the demand for these trained nurses to attend on private cases is very large, whilst the manner in which they have discharged their duties is evidence of the careful training they receive in the infirmary. We also notice with satisfaction that last year some students received clinical instruction at the infirmary in medicine and surgery, as there is no doubt but that, in institutes similar to the Derry Infirmary, students in medicine may obtain a very practical knowledge of their profession. The income for 1880 came to £2,120 4s. 2d., which included £1,400 presented by the Grand Jury, £273 4s. 10d. from subscriptions, £35 10s. 9d. for the maintenance of patients; and the expenditure to £1,921 16s. 3d. The daily cost of each patient, including all expenses, came to 2s. 2½d.; and, exclusive of salaries and wages, to 1s. 4¾d. The report is thoroughly satisfactory, and shows what a large amount of good work is performed in a provincial hospital like the Londonderry City and County Infirmary.

DR. JOHN WALL OF CORK.

AN assault of an aggravated character was perpetrated upon this gentleman on the 11th instant by a pauper inmate of the Cork Workhouse named Keller. Dr. Wall, who is medical superintendent officer of health, and one of the visiting physicians to the workhouse, while emerging from a passage leading to the hospital, was attacked in a murderous manner by Keller, who, armed with a poker, beat him about the head in a violent way, inflicting several serious wounds, and rendering the unfortunate gentleman insensible. His wounds were dressed by Drs. Callaghan and Magner, and he was removed to his home, where we understand he is progressing favourably. The only motive given for the attack is stated to be the refusal of Dr. Wall to certify that his assailant was fit for hospital treatment. During Dr. Wall's illness, Dr. Magner will undertake his duties at the workhouse.

DWELLING-HOUSES FOR THE LABOURING CLASSES.

AT a meeting of the Society of Medical Officers of Health, held at the Royal College of Surgeons in Dublin, last week, Dr. Cameron read a paper on the erection of dwellings for the labouring classes, in which he propounded a scheme for the amelioration of the dwellings of the poor in Dublin, which, it is to be earnestly hoped, will be taken up. Dr. Cameron first pointed out the excellent accommodation that had been provided for the artisan class by the Dublin Artisans' Dwellings Company. But there were, on the other hand, probably ten thousand married men in Dublin—labourers, porters, or messengers—whose weekly earnings did not exceed fifteen shillings a week, and to whom the tenements of the Artisans' Dwellings Company would be, therefore, inaccessible. He pointed out that the Corporation had legal power to erect dwellings for the labouring classes (29 and 30 Vic., cap 44, 1866, etc.); and he proposed that cottages should be erected, on ten or twelve distinct sites, at a rent for each tenement of two rooms of two shillings per week. He described the plan of a house suitable for this purpose, and estimated its cost of erection and purchase of site at £150. If each house cost £150, then 666 houses could be erected for the sum of £100,000. The average number of individuals per family is about 4.5; therefore, the 666 tenements would provide for, at the rate of two families per house, 6,000 persons.

THE STATUE OF HARVEY.—Mr. A. B. Jay, the sculptor to whom was entrusted the modelling of the Statue of Harvey, which is to be unveiled at Folkestone in August next, will be pleased to exhibit that statue and one of Mr. Gladstone which he has recently completed for the East End of London, to any members of the medical profession, upon presentation of their cards, at the studio, No. 8, the Avenue, 76, Fulham Road, South Kensington, on Tuesday or Wednesday next, the 24th and 25th inst.

DALRYMPLE HOME FOR THE TREATMENT OF INEBRIATES.

A MEETING to consider the desirability of establishing a Model Home for the treatment of Inebriates under the Habitual Drunkards Act was held on Tuesday, the 17th instant, at the Mansion House, the Right Hon. the Lord Mayor presiding.

The Lord Mayor was supported by the Earl of Shaftesbury, Dr. Cameron, M.P., Dr. Farquharson, M.P., Dr. Norman Kerr, Dr. A. Carpenter, Rev. Canon Duckworth, etc.; and there was a large and influential attendance.

The Secretary (Mr. S. S. ALFORD) read the names of many gentlemen who agreed with the objects of the meeting, and letters of regret from gentlemen unable to attend, including the Duke of Westminster, Earl Percy, the Bishop of Durham, and several of the Bench of Bishops.

The LORD MAYOR expressed his pleasure in placing the Mansion House at the service of the meeting. He regarded the institution as a most valuable and important one, and one of pure benevolence. He believed that, if successfully carried out, it would perhaps be the means of reclaiming a great many who will not be reclaimed by any other system.

Dr. A. CARPENTER (Croydon) read the Report of the Society. It stated that by the joint action of the British Medical and Social Science Associations the "Society for Promoting Legislation for the Control and Cure of Habitual Drunkards" was formed in 1876. This Society prepared a Bill, based upon Dr. Dalrymple's Bill of 1872, which was introduced into the House of Commons by Dr. Cameron, M.P. for Glasgow, and into the House of Lords by the Earl of Shaftesbury; a modification of which, leaving it only a permissive measure, became the Habitual Drunkards Act of 1879. During the autumn of 1879, the Honorary Secretary of the Society (Mr. Alford) visited America, to ascertain how the Inebriate Homes were managed in that country. He communicated the result of his observations in a paper read before the Social Science Association on Feb. 2nd, 1880, when a resolution was agreed to supporting the principle to be advocated at this meeting. A subcommittee was appointed at a conference of the above societies to promote the establishment of a Model Inebriate Home, to be called the Dalrymple Home for Inebriates. It was felt certain that an institution for the working and lower middle classes, when started, by sufficient, but small payments, might be made self-supporting; especially as the managing committee would be strictly honorary, and have no pecuniary interest in the detention of patients. To do this, however, a fund must be raised to meet the preliminary expenses of adapting and furnishing a house, and to guarantee the expenses for the first two years. This fund now amounted to about £1,800, which included £540 promised by a gentleman interested in the question, to defray the rent for a couple of years of a suitable building which has been offered for the Home. The Society now looked to the public for further contributions, which would justify the committee in at once opening the Model Inebriate Home. Inebriety was a diseased condition, from which the afflicted could not, unaided, extricate themselves, although generally ready to submit to any necessary restraint to enable them to do so. The Act of 1879 gave power to utilise this desire on the part of the inebriate; and the Society was now indebted to the Lord Mayor for the opportunity of organising an institution for carrying out this important work, which might be a model for others to imitate, and might thus prevent the Habitual Drunkards Act of 1879 from becoming a dead letter, and at the same time prove the necessity for further legislation in the same direction. Dr. Carpenter said the subject commenced as a medical question, in a general measure, in consequence of members of the medical profession being unable to cure habitual drunkenness, because the laws prohibited the confinement of the habitual drunkard, so as to prevent him from having access to the drink. There had been great difficulty in bringing matters to the present point, in a great measure from the unwillingness of the Legislature to interfere in the liberty of the subject. Another portion of the philanthropic public believed that it would be better to lock up the drink than the drunkard. Thanks, however, to the support received from those philanthropists who saw further into these things than many men did, the Society was enabled to appear before the Lord Mayor, and urgently ask for his aid. Even if the drink were locked up, there would be the necessity for this Home, because the consequence of drink had been such upon a certain class of people, that they had inherited a disposition to fall back upon the use of spirits whenever they had the opportunity. Indeed, instances had come to his own knowledge, and to that of numerous medical men, in which these poor unfortunates had fallen back upon such things as tinctures, Eau-de-Cologne, and even liquids used for the purpose of cleaning boots. Many such persons had urgently called upon medical men to lock them up, when the law had given no power to do so. We ask the Lord Mayor to give the Society his support, so that the committee might be able to carry out the work. The Act of Parliament was permissive, and only for ten years, and at the end of the term, unless the Act were proved to be useful it would lapse. No person would put capital into the business for the purpose of developing it; and again, there was a strong feeling on the part of the public, that persons having charge of these institutions should not receive pecuniary benefit. In consequence, the committee had been very long in getting the arrangements completed; now, however, thanks to a gentleman who had promised to pay two years' rent of the Home, and to others, they were in a position to come before the Lord Mayor and ask him to help.

LORD SHAFTESBURY moved "That it is desirable to establish a Model Home for the Treatment of Inebriates under the Habitual Drunkards Act of 1879, to be called the Dalrymple Home for Inebriates, and that for this purpose a Committee of Management, having no pecuniary interest in the institution, be now appointed". The society had done well not to call the institution a "retreat", but a "home". Care must be taken to keep the disorder—habitual drunkenness—separate from the other disorder called lunacy. If this were not done, there would be the strongest prejudices and feeling against it, and a great number of people, who would be willing to put themselves under treatment, would refuse it, lest they be charged as being tainted with lunacy. Learned members of the medical profession had seen the great difficulties of treating the cases. No doubt long continued drunkenness would bring on madness, and subject the persons to the Lunacy Laws. A few years ago, a case came under his lordship's observation, where a carpenter drank an immense quantity in a short time, and became perfectly infuriated. He was shut up, and became insane. As soon as he was sane he was let out, and in two or three days he was brought in again perfectly frantic, and so it went on about twenty-five times in succession. This man had, unfortunately, lost the power of restraint, and yet, he was not insane: for the moment the fit had passed away he was in possession of his senses. That was one of the cases where restraint and longer treatment might have been followed by cure. The Habitual Drunkards Act was right in its principle; but, the Secretary of State, in his extreme jealousy for the liberty of the subject, clogged it in such a way, till it was nearly inoperative. Ten years was not sufficient time for a gentleman to invest his money in a house and make all the necessary preparations. There were many other severe restrictions as to terms under which people put themselves under restraint; but an experiment must be made, because, it was essentially necessary. Many persons have stated that habitual drunkards should help to look after themselves. This was a mistake. Many of the inebriates transmitted their habits to their posterity, and we did not know how many innocent persons were affected. As to shutting up the sources of drink; this could never be done in any country. People would find drink in some way. These inebriates must be treated as persons affected by what could be removed by care and superintendence. Many people argued that the voluntary system was better than a system of restraint. He thought that moral exertion of self-restraint would tend to their cure; but there were those who were so deeply lost to the moral power of self-restraint, that they must be put under some form of coercion, and, he thought, all medical men would agree that they must be kept under restraint for a sufficient time to establish their cure. He believed there was a great deal of experience to be learned as to the working of these institutions. Experience in this country was somewhat limited, and matters should be pushed on, so that the experience might be more extended. It was absolutely necessary that there should be no appearance of profit to be derived by the persons in charge of any institution of this kind. And he was glad that the institution was not to be, in the first instance at any rate, a joint-stock company, but that the experiment was to be made by gentlemen who were ready to hazard their money with a view to make so great a trial for the benefit of the human race. He did not doubt that in a few years there would be great and beneficial results, not only to the immediate, but to the coming generation.

Dr. CHAS. CAMERON, M.P., had had the honour, with Lord Shaftesbury, of piloting this Act through Parliament; and he had great pleasure in assisting to bring the matter to a practical issue. Habitual drunkards might be divided, for legislative purposes, into three classes. There were, in the first place, those who were willing to go into the inebriate retreats, or on whom sufficient moral pressure could be brought by their friends to induce them to do so. According to American experience, over ninety per cent. of the whole number of inebriates under treatment belonged to this category. The second category was of those whom it was desirable to place in retreats, but who would not be persuaded to go thither; and in the case of these it had been attempted to procure legislative powers to enable the friends to compel

them, to place themselves there. In the third place there were the criminal habitual drunkards, who were constantly up before the police, and who could not be reformed by the small measure of imprisonment which the magistrates gave them, but who might be reclaimed if they could be placed under restraint for a longer period. The Habitual Drunkards Bill, as originally introduced, proposed to deal with all these classes; but there was in this country a very great dread of any interference in the liberty of the subject, and of augmenting the public rates. Hence it was decided to limit the measure to the case of those willing to place themselves under treatment. Moral pressure can be brought to bear by their friends, so as to induce them to take that step. This concession did not quite disarm the alarmists for the liberty of the subject. Before legislation was proposed, there existed a number of retreats for the treatment of habitual drunkards, but these were under no inspection. Inmates were sent by their friends, and the managers, in many cases, took a bond of indemnity against any action that might be brought against them. The result was that, whatever danger to personal liberty could possibly exist, did exist, and without any such security as the inspection by a competent official. But is was impossible to induce a large number of the members of Parliament to view matters in the same light. When the Bill passed, several gentlemen applied for licences under it, but their experience had been by no means encouraging. The period of ten years was far too short to allow any private individual to invest his money in a retreat under the Act. Again, the obstacles placed in the way of persons desiring to be admitted to the retreats, put it out of their power to compete successfully as commercial undertakings with retreats that did not come under the Act. One of the retreats, recently established, had already given up its licence. The object of the present meeting was to establish a form of retreat, which could be successfully worked under the existing law; one which was not worked for pecuniary profit, but simply with the view to a great national result. But unless results could be shown before the end of the ten years, it would not be profitable to again go to Parliament and ask for a further extension of time, or for an extension of power. On the other hand, if good results could be shown, it would be possible to say to Parliament that it was no longer an experiment, but a success. What was wanted was more extended power to make the institution one of a permanent nature.

The Rev. Canon DUCKWORTH supported the resolution. The clergy were continually confronted with the evil with which the Act in question was intended to deal. He thought there was never any idea so fallacious as that the drunkard was no man's enemy but his own. On the contrary, the drunkard was the enemy, not only of himself, but of all who depended on him, and upon whom he depended, while the physical mischiefs of intemperance and the drink-craving were transmitted to his progeny. In a letter lately received by him, a lady spoke of a man of great talents, who, through the drink-passion, had been rendered unable to do anything for the support of himself or his family; and he himself could adduce many similar instances of the consequences of the passion for drink. An accomplished scholar, a college friend of his own, for many years waged a hand-to-hand war with the evil in question, and overcome suddenly by his foe, in a paroxysm of despair put an end to his own life. He might also tell of those whom he had taken in hand to shield from temptation; of a man of wealth who had consented to walk about the streets of London penniless, that he might not be tempted into taverns or restaurants, and who, nevertheless, after a lengthened struggle succumbed. He believed that as yet no experiment of inebriate homes had been so fruitful of results as they ought to have been, because the conditions of success had been wanting.

The resolution was then put and carried.

Dr. FARQUHARSON, M.P., proposed: "That the following gentlemen be, and they are hereby appointed, the Committee of Management, with power to add to their number:—S. S. Alford, F.R.C.S.; C. M. Burton, Esq.; C. Cameron, M.D., M.P.; A. Carpenter, M.D., J.P.; Harry Chubb, Esq.; Rev. Canon Duckworth; W. T. Elliott, Esq.; C. Frewer, Esq.; W. S. Gard, Esq.; C. A. Govett, Esq.; H. Harben, Esq.; Rev. J. W. Horsley, M.A.; Jas. Harvey, Esq.; Norman S. Kerr, M.D.; F. G. P. Nelson, Esq.; E. Hart Vinen, M.D." He had peculiar satisfaction in proposing the resolution, because not only he said most emphatically that legislation in the matter was really necessary, but because he was glad to see that earnest and self-denying work was now going on to bring about some practical effort. He had worked in the early committee, and had pleasure in giving his emphatic testimony to the admirable work of his coadjutors in the early stage; among whom he would especially mention Dr. Carpenter and Dr. Kerr; and Mr. Alford had given up a great deal of his time to carry out this great object. No one could be more satisfied than himself at seeing the practical results. All had worked hard to overcome the difficulties, but he did not think that much would have been done without the assistance of Dr. Cameron. [*Applause.*] He did not know any man who knew better, from his great ability and energy, how to carry through a measure than Dr. Cameron did. They might now look forward with hope and confidence to this institution, managed as it would be by those who had already worked well, and who would have no reward except the reward of their own consciences. All must be glad that it was associated with the name of Dr. Dalrymple, the man who started this great movement, and who devoted to it a great deal of his time and health, and carried it to a point which made it much easier to work it in future. It would be associated also with the name of Mrs. Dalrymple, who, since her husband's death, had thrown her own energy into the matter, and, it was to be feared, had injured her health. [*Applause.*]

The Rev. NEWMAN HALL seconded the resolution. The great objection to this measure seemed to be the restriction of liberty; but all law was a restriction of liberty for the benefit of the community and of the individual. He gave some instances of the inability of people to contend against the craving for drink, and urged the necessity for such an institution as that which they were now advocating.

Dr. NORMAN KERR said that, notwithstanding the many noble and excellent works in which the Lord Mayor had been engaged, there were none more noble and useful than the unpretending affair which they were now met, by God's blessing, to inaugurate. This was not a movement attended, perhaps, with great honour or *éclat*, but it was the cause of the poor and helpless. It was often said that drunkenness was a sin. No doubt it was; but it was not always a sin for which the sinner was responsible; and many had an inherent tendency to excess for which the person could not be held wholly responsible. As a medical man, he saw men and women of the highest rank and position, and of the most refined intellect, often incapable of doing anything to rescue themselves from the distress and misery into which they had been drawn by drink. And, on inquiry, he found, in nearly every case, that hereditary drunkenness had been stamped upon their constitutions. Even the youngest were liable to this taint. The youngest person he had heard of who had been addicted to drink was a child two years old; and it was found that the inherited tendency came from the grandfather and grandmother; the father and mother were sober persons. In times past, there were two ways of looking at this great question. One was to lock up the drink; and the other to lock up the drunkard. The Legislature were endeavouring to keep the drink under; but what was to be done in the meantime with the victims of drink? The present object was to assist the Committee in starting an institution where those people might be saved and be protected from themselves. Of all the cases which seemed to be affected by the hereditary drink-craving, women were the greatest sufferers. Drinking among women was increasing to an enormous extent year by year. It was not so open as it used to be; and there were numbers of wives of clergymen and other people who indulged in it. This hereditary tendency was spreading more amongst females than amongst men; and, this being so, what was to be expected in the next generation? A still greater liability to fall into excess of drinking; and therefore there was the more need to make this new Dalrymple Home for Inebriates a thorough and permanent success.

The resolution was agreed to *nem. con.*

Mr. BOMPAS, Q.C., proposed: "That, to enable the institution to receive inmates at a low charge, the preliminary expenses of adapting and furnishing a house be defrayed by voluntary contributions, and that a guarantee fund be opened to cover the first two years' expenses, if required." It appeared to him, he said, that England was a practical nation; and, in a great movement like the present, they always liked to be certain that they could accomplish the object they set about; and that was, he thought, the reason why Parliament refused to allow these institutions to be permanent. Therefore, if any believed in the soundness of the principle, they were bound to have an experimental home conducted under the most favourable circumstances. If ever there was a benevolent work, it was that in which they were engaged; for, assuredly, there was no misery so great as the misery of the drunkard; and it was essential, in an institution such as the one proposed, that the charges should not be great, for the life of the drunkard was a life of poverty; and that was a strong reason why they should provide such funds as should cover the first two years' expenses if required.

The Rev. J. W. HORSLEY, M.A., was strongly of opinion that it was a great defect in the Habitual Drunkards' Act that it had not been made permanent. As chaplain of a prison, into which seventeen thousand persons were each year received, he was continually receiving letters asking him to recommend a home for inebriates. But, while he knew of many well-conducted institutions, many of these were expensive and overcrowded. Not one half of the inmates of prisons belonged to the criminal classes; and he had known persons who had never been

in a prison in their lives beg to be committed, or perpetrate some petty offence, in order to be imprisoned, as the only inebriate retreat of which they had any knowledge. There were three points in the proposed home which recommended it. First, it was under Government licence and supervision. Then, again, it was for men. There were institutions enough in which women could receive reformatory treatment. Retreats for men were as much needed, but they were not to be had; for the charges in them were not under three guineas a week, and there was no man with a course of drinking behind him could afford anything like that sum. It was well, too, that the institution was to be in or near London; for, when they established what they wished to be a model institution, it was of the greatest importance that it should be within easy reach of the metropolis. He trusted they would give their support to a sound and thoughtful measure for furnishing such relief.

The resolution was then agreed to.

Dr. CAMERON moved the thanks of the meeting to the Lord Mayor for presiding, and for granting the use of the hall. With respect to the guarantee fund, it was impossible to say what the loss of such an institution would be; but the greater the fund, the less loss there would be to each individual. At the same time, they trusted there would not be any loss.

The motion was seconded by Mr. H. CHUBB.

The LORD MAYOR, in returning thanks, said it had given him great pleasure to permit the use of that room for the meeting, and he had thought it to be his duty to promote its objects. He hoped that meeting would prove useful, and be the means of rescuing many from a vice from which they were not able to free themselves.

The proceedings then terminated.

THE MEDICAL STAFF AT MAJUBA HILL.

IN the JOURNAL of May 7th, we made a few remarks on the gallant conduct of the army surgeons and men of the Army Hospital Corps while under fire during the late battles against the Transvaal Boers. Since those remarks were written, the official despatches concerning the disaster at Majuba Hill have been published in the *Gazette*. The account of the engagement is written by Major Fraser, R.E., who remained the senior effective officer after General Colley was killed, and other officers of rank either wounded or taken prisoners. Major Fraser's report fully confirms the observations that were made in the JOURNAL on the noble conduct of Dr. Cornish and Dr. Landon, although the particular incidents which we were able to furnish are not mentioned in it. "Nothing could exceed the devotion of Drs. Landon and Cornish", says the report, "both of whom lost their lives in the discharge of their duties." Dr. Cornish, it may be remembered, was mortally hit while helping to carry off a wounded man who had been deserted by the native bearers. Dr. Landon was shot while engaged in dressing a wounded soldier; and his chivalrous spirit in calling attention, shortly before he expired, to the meritorious conduct of the men of the Army Hospital Corps who had been acting under his orders, must ever be remembered by the men of the corps and by his brother officers with feelings of admiration and pride. Dr. Landon was not only a brave officer, but, young as he was—he only entered the service in 1878—he had already shown himself to be a surgeon of superior skill and ability. The opening of his career was full of promise, for he gained a prize in military surgery when at Netley, and took the first place among the candidates of his session for commissions in the Army Medical Department. His school, St. Bartholomew's, may well be proud of him as one of its pupils.

We are glad to notice that what we had only mentioned by report—the fact of Corporal Farmer of the Army Hospital Corps having been recommended for the Victoria Cross, as he well deserved, for his self-sacrificing devotion to his helpless wounded comrades—is officially confirmed by the *Gazette*. Sir Evelyn Wood, in transmitting the account given by Major Fraser, writes that, from independent sources, he had heard much of the conspicuous gallantry displayed by Corporal Farmer; and, in recommending him for favourable consideration for the Victoria Cross, relates the following striking facts regarding him. "Corporal Farmer showed a spirit of self-abnegation and an example of cool bravery which cannot be too highly commended. While the Boers closed with our troops near the wells, Corporal Farmer held a white flag over the wounded; and, when the arm holding the flag was shot through, he called out that 'he had another'. He then raised the flag with the other arm, and continued to do so until that, also, was pierced with a bullet." When we add, what we quoted last week from a local journal, that, after his fractured arms had been attended to, this brave hospital orderly remained on the hill all night, doing his best to aid the wounded, we are led to doubt if, in the whole history of war, there has ever been exhibited a more noble example of thoughtfulness for others and forgetfulness of self, than the conduct of Farmer furnishes; and that, too, under conditions of trial as extreme as the imagination can well conceive.

Another medical officer, Surgeon Edward Mahon of the Royal Navy, is also particularly brought to notice for his admirable services on the same occasion. In addition to the despatch from Sir E. Wood, the *Gazette* publishes despatches and enclosures from Commodore Richards, describing the part taken in the engagement by the Naval Brigade. Commodore Richards mentions the conduct of Surgeon Mahon as deserving of special approbation and reward. One of the two descriptions of the engagement forwarded by the Commodore is written by Surgeon Mahon. Though expressed in very simple terms, it furnishes such a remarkably clear picture of some of the incidents of the conflict, especially of the condition of the wounded, and the dangers to which the surgical staff and hospital attendants were exposed in ministering to them, that we extract a portion of it as a record of permanent interest. Surgeon Mahon, who, we may mention, is a medical officer of less than three years' service in the navy, after describing the mortal wound inflicted on Commander Romilly, R.N., thus proceeds.

"The fire now became so hot, and the hospital" (the place on the hill-side where the wounded were collected) "being partially exposed to it, I had the Commander removed on a stretcher by Bevis and Bone" (sick-berth attendants) "to a sheltered spot on the south-west front.

"I was returning to the hospital, when I saw our force beginning a retreat, which soon became a rout. The Boers gained the rocks just above the hospital in great numbers, and poured a tremendous fire indiscriminately on everybody they saw. Dr. Landon and two of the Army Hospital Corps were shot down while attending to the wounded, the former being mortally wounded.

"I then went back to the Commander, and fixed my handkerchief on a stick, and held it up over him, but it was almost immediately shot away, and a hot volley fired all round us. Bevis then fixed a piece of lint on a bayonet, but was immediately twice shot through the helmet. I ordered him to lie down until the last of our men had passed us, and did the same myself. When the Boers had driven our men over the side of the hill, and had got within fifteen paces, I got up with a piece of lint in my hand, and shouted to them that I was a doctor, and had a wounded man with me. Two or three of the younger Boers wanted to shoot us, but were prevented by the elder men. The Boers then got all round us, and opened fire on our men retreating down the side of the hill.

"While they were thus engaged, Bevis and myself picked up the stretcher, and carried Commander Romilly back to where the hospital was.

"When about half-way across, we were surrounded by Boers, who were with great difficulty prevented from shooting the Commander as he lay, they being under the idea that he was either Sir Garnet Wolseley or Sir Evelyn Wood. Having assured them to the contrary, I asked to see their commander, who was pointed out to me (I think it was Ferriora). I asked him protection for the wounded, which was immediately granted. In fact, after the heat of the action, the Boers, especially the elder ones, were most kind in their attention to the wounded, getting them water, and some helping to bind up their wounds. I saw no Boers killed or wounded.

"At about 6 P.M., a thick mist began to come over the hill, accompanied by a drizzling rain. Bevis and myself searched as much of the hill as we could for wounded, and found two or three, but were eventually compelled to desist on account of the thickness of the mist. I had all the wounded, thirty-six in number, placed on one spot near the well, and luckily we found blankets and just enough waterproof-sheets to cover them all. All that we had to give them was water and a little opium, the Boers having taken all our brandy.

"It now commenced to rain heavily, and continued to do so without intermission during the whole night, which much aggravated the sufferings of the wounded. It also became bitterly cold towards morning. The darkness was also so intense, that it was almost impossible to attempt to alleviate the sufferings of the wounded without stumbling over them. We had neither lantern nor matches.

"Daylight returned at about 5 A.M., and with it also the Boers. I found that four men had succumbed to the inclemency of the weather during the night."

Surgeon Mahon describes the conduct of sick-berth attendant Bevis, mentioned above, as most praiseworthy, not only as regards his coolness and courage during the action, but also on account of the valuable assistance he rendered in attending to the wounded after the action had ceased. Indeed, the conduct of all the medical staff, both

naval and military, seems to have been beyond all praise; and must ever be remembered as one bright spot in the otherwise dark and disastrous conflict at Majuba Hill.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN extraordinary meeting of this College took place on Monday, May 16th.

The Fellows elected at the last meeting were formally admitted; and, after a communication from the General Medical Council had been read, the College proceeded to elect Dr. Burdon Sanderson as Baly Medallist for 1881.

Dr. Pitman was re-elected by a large majority as representative of the College in the General Medical Council.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.—The annual meeting of this District will be held at the Bridge House Hotel, London Bridge, on Tuesday, May 24th, at 6 P.M. The members will dine together at 6.30; Dr. Habershon, President of the Branch, in the chair. Tickets 5s., exclusive of wine. Gentlemen intending to dine are requested to communicate with the Honorary Secretary as early as possible.—H. NELSON HARDY, Honorary Secretary, The Grove, Dulwich, S.E.—May 10th, 1881.

SOUTH-WESTERN BRANCH.—The annual meeting will be held in Druid's Hall, Redruth, on Wednesday, June 15th, at 2 P.M. President, R. Hogarth Clay, M.D.; President-elect, R. Hudson, M.D. By the kindness of the President-elect, Dr. Hudson, luncheon will be provided for the members at 10, Trearigie Road, from 12 o'clock to 2 o'clock. Dinner at Tabb's Hotel at 6 o'clock. Members intending to make communications, or be present at the dinner, are requested to send notice to S. REES PHILIPPS, M.D., Honorary Secretary, Wonford House, Exeter.

GLOUCESTERSHIRE BRANCH. The next meeting will be held, under the presidency of J. Bubb, Esq., of Cheltenham, at 4.30 P.M., on Tuesday, May 24th, in the Board Room of the General Hospital, Cheltenham. The dinner will be at the Plough Hotel at 7.30. Business—1. Fatty, Amyloid, and Pigmentary Changes in the Liver; with Microscopic Specimens: Dr. W. Robert Smith. 2. Fractures of the Forearm: T. S. Ellis, Esq. 3. Accidental Hæmorrhage: Dr. J. C. Gooding. 4. Treatment of Ganglia: Dr. G. B. Ferguson. 5. Multiple Carcinoma: G. A. Cardew, Esq.—RAYNER W. BATTEN, Honorary Secretary.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of this District will be held at the Royal York Hotel, Old Steine, Brighton, on Wednesday, May 25th, at 3.30 P.M.; Dr. W. A. Hollis in the chair. Papers, etc., are promised as follows: 1. Mr. Penfold: *a*. A Case of Orbital Tumour, with Photograph; *b*. Glioma of Retina. 2. Mr. C. Baber: On Diffuse Inflammation of the External Auditory Canal. 3. Mr. Edwards: Notes of a Case of Diphtheria, with Treatment. 4. Dr. Ewart: Is an Indian Career suitable for Persons inheriting the Tubercular Diathesis? Dinner will be provided at the Hotel after the meeting. The narration of short practical cases of interest, and the exhibition of morbid specimens, is particularly invited. Notice of these should be sent at once to the Secretary, in order that they may be included in the usual circular.—THOMAS TROLLOPE, M.D.Cantab, 9, Maze Hill, St. Leonard's-on-Sea, Honorary District Secretary.—Tuesday, May 10th, 1881.

NORTH OF IRELAND BRANCH.—The annual meeting of this Branch will be held in the Belfast Royal Hospital, on Thursday, May 26th, at 4 P.M. The members will dine together at 7 P.M. Members intending to read papers or send communications will kindly intimate their intention to JOHN MOORE, M.D., Honorary Secretary, 2, Carlisle Terrace.—April 26th, 1881.

EAST YORK AND NORTH LINCOLN BRANCH.—The annual meeting of this Branch will be held at the Infirmary on Wednesday, May 25th, at 1.30 P.M. Gentlemen who desire to make any communication, or to propose any resolution, are requested to inform the Secretary not later than the 14th instant. The time allotted to each communication is limited to fifteen minutes.—E. P. HARDEY, Hon. Sec.—May 6th, 1881.

STAFFORDSHIRE BRANCH.—The third ordinary meeting of the present session will be held at the Bell Medical Library, Cleveland Road, Wolverhampton, on Thursday May 26th, at 3 P.M.—VINCENT JACKSON, General Secretary.—May 8th, 1881.

SOUTH MIDLAND BRANCH.—The annual meeting of this Branch will be held at the Swan Hotel, Newport Pagnell, on Thursday, the 9th of June, at 2.30 P.M.; H. Rogers, Esq., President-elect. The members will dine at 5.30 P.M. Members intending to read papers are requested to communicate with G. F. KIRBY SMITH, Esq., or Dr. BRYAN, Honorary Secretaries.—Northampton, May 9th, 1881.

BORDER COUNTIES BRANCH. The spring meeting will be held at the Crown Hotel, Penrith, on Wednesday, May 25th. The chair will be taken at 1.30 by Dr. Campbell. The members will dine together at 4.30 P.M. Tickets 5s. each, exclusive of wine. Members who intend to read papers, or be present at the dinner, are requested to communicate with one of the Honorary Secretaries. The following communications have been promised. 1. Dr. Taylor: Clinical Observations on the Fungoid Origin of Diphtheria. 2. Dr. Eastwood: On the Working of the Habitual Drunkards' Act, 1879. 3. Dr. I'Anson: Embolism or Burst Hæmatoma? 4. Dr. Maclaren will show the following preparations, and read notes of the cases: 1. Cast of Kidney Abnormality; 2. Hairs from a Dermoid Cyst; 3. Glass Tube removed from a Male Bladder; 4, 5, 6. Vesical Calculi; 7. Specimen of Renal Calculus.—JOHN SMITH, M.D., Dumfries; J. KENDALL BURT, M.B., Kendal, Honorary Secretaries.

NORTH WALES BRANCH.—The next intermediate meeting will be held in Chester on Tuesday, the 31st day of May. Further arrangements as to time and place of meeting will be duly announced in the JOURNAL. A paper on The Treatment of Pleuritic Effusions has been promised from Dr. Balthazar Foster, Physician to the General Hospital, Birmingham. It is requested that the titles of papers to be read by members of the Branch may be communicated to the Honorary Secretary on an early day. The President hopes for the pleasure of seeing the members of the Lancashire and Cheshire Branch at the meeting.—J. LLOYD ROBERTS, Honorary Secretary.

CORRESPONDENCE.

THE LATE LORD BEACONSFIELD.

SIR,—The following information as to the case of the late Lord Beaconsfield may interest your readers. For some months before I had the honour of originally attending Lord Beaconsfield, he had been attended by Sir William Jenner, but in vain, as his treatment failed to relieve. Sir William Gull also was called in; but his treatment again failed to relieve the patient. By the vigorous application of "one set of convictions", I was enabled to afford prompt and perfect relief for three years and a half.

Self-respect and regard for the honour of the medical profession prevented my noticing Sir William Gull's letter to the *Standard;* but I desire now, in the proper place, to protest against his accusations. I never advised "compromise"; my worst enemy never accused me of it. The aim and object of my little volume, *The Laws of Therapeutics*, is to destroy compromise; to protest against eclecticism and schism; to bring the "catholic spirit" into medicine, gathering "all knowledge" to the aid of suffering humanity, and thus to help the introduction of scientific precision into therapeutics.—Yours faithfully,

May 14th, 1881. J. KIDD, M.D.

P.S.—A week before the *Lancet* drew my attention to the fact that my name still appeared in the *British Homœopathic Directory* and the *Homœopathic Medical Directory*, and on the list of the Medical Council of the Homœpathic Hospital, I wrote requesting that it might be withdrawn from all.

THE OPIUM TRAFFIC.

SIR,—The recent discussion in the House of Commons on the opium traffic makes it desirable that we should endeavour to arrive at some more definite opinion as to the effects on the system of the habitual use of opium. Is opium-eating or opium-smoking necessarily and universally pernicious? It has been too much the custom of writers on this subject to content themselves with drawing a doleful picture of a confirmed opium-debauchee, plunged in the lowest depths of moral and physical exhaustion; and, having formed the premisses of their argument from this exception, to proceed at once to involve the whole practice in the sweeping condemnation. We are told that the habitual opium-eater can be "recognised at a glance"; that there is a "characteristic attenuation", a "withered countenance", a "halting gait", and a glassy deep-sunk eye". His digestive organs are "in the highest degree disturbed"; he eats nothing, has hardly an evacuation a week, and is a "perfect wreck" both mentally and bodily. By degrees, as the habit becomes more confirmed, his strength fails, so that at last he can hardly crawl from place to place. After a long indulgence, he suffers from "nervous or neuralgic pains", from which even his beloved opium affords no relief. His agony when the drug fails to produce its accustomed effect is terrible, and he suffers "the torments of the damned". Such are the accounts given by most of the older writers on the subject. These symptoms may possibly have been observed in exceptional cases, but they are not met with when the drug is taken in anything like moderation. Much of our knowledge of the effects of opium on the system is derived from the confessions of De Quincey, the English opium-eater; and he tells us that, from 1804 to 1812, a period of eight years, during which he was a dilettante eater of opium, he enjoyed perfect health, and was never better in his life. It was only later, when he took the drug in enormous quantities, that his health suffered.

Marsden, in his well-known work on Sumatra, says that, among the Malays, the practice of opium-smoking is all but universal. He thinks that possibly the custom may be injurious, but that the effects attributed to it have been greatly exaggerated. The *bugis* soldiers who are most attached to it, and who use it in excess, are commonly emaciated; but they are abandoned to a degree, and addicted to debauchery of all kinds. The gold traders, on the other hand, who indulge freely in opium, but are an active, steady, and laborious class, are amongst the most healthy and vigorous in the island, and rarely suffer in any way. It is well known that the Chinese are a nation of opium-eaters, and yet they are a muscular and well-formed race, the labouring classes being

capable of great and prolonged exertion under a fierce sun and in an unhealthy climate. Their disposition is cheerful and peaceable, and, in general intelligence, they rank deservedly high among Orientals. Many people have attained the age of sixty or seventy who have been habitual opium-eaters for thirty years or more. Surgeon Smith, a most determined opponent of opium as a luxury, says that such cases have come under his own observation, and adds that it does not appear that the Chinese in easy circumstances, who can obtain the ordinary comforts of life, are materially affected as regards longevity by this practice. Again, Dr. Eatwell, who for three years was resident in China, states, as the result of his experience, that the effects of the abuse of the drug do not often come under observation; and that, when such cases do occur, the habit is frequently found to have been induced by some painful chronic disorder, to escape from the sufferings of which the patient has fled to this resource. He believes that, as regards the effects of the habitual use of the drug on the mass of the people, there is no evidence whatever.

It is often supposed that the excitement produced by opium is similar to that resulting from indulgence in alcohol; but such is not the case. De Quincey is most explicit on this point, and says: "Opium, I affirm peremptorily, is incapable of producing any state of body at all resembling that which is produced by alcohol, and not in *degree* only incapable, but even in *kind*; it is not in the quantity of its effects merely, but in the quality, that it differs altogether. The pleasure given by wine is always mounting and tending to a crisis, after which it declines; that from opium, when once generated, is stationary for eight or ten hours: the first, to borrow a technical distinction from medicine, is a case of acute, the second of chronic pleasure; the one is a flame, the other a steady and equable glow. But the main distinction lies in this: that whereas wine disorders the mental faculties, opium, on the contrary (if taken in a proper manner), introduces among them exquisite order, legislation, and harmony. Wine robs a man of his self-possession; opium greatly invigorates it. Wine unsettles and clouds the judgment, and gives a preternatural brightness and a vivid exaltation to the contempts and admirations, to the loves and hatreds, of the drinker; opium, on the contrary, communicates serenity and equipose to all the faculties active and passive, and, with respect to the temper and moral feelings in general, it gives simply that sort of vital warmth which is approved by the judgment, and which would probably always accompany a bodily constitution of primeval or antediluvian health." If we contrast the furious madman, the subject of delirium tremens, with the prostrate debauchee, the victim of opium; or the violent drunkard with the dreamy sensualist, intoxicated with his favourite drug, it must be admitted that the comparison is not in favour of the former. The opium-eater is at least harmless to everyone except himself; whilst the drunkard is not only a dangerous nuisance, but an enemy to the community at large.

Lord Hartington, in his recent speech, stated, on the authority of Sir Rutherford Alcock, that opium in moderation was probably a tonic and prophylactic against fever, especially in the marshy districts where it is most used; but of this there is very little evidence, if we except a pamphlet or opuscule on the subject, published by Schärtlich about a century ago. Attempts have of late years been made to introduce opium-smoking as a remedy for neuralgia, asthma, and phthisis, and as a palliative in cancer, but with comparatively little success.

The whole subject is replete with interest; and it is desirable to elicit further information, in order that we may be afforded an opportunity of arriving at a definite opinion on this vexed question.—I am, sir, your obedient servant, WILLIAM MURRELL, M.D.

38, Weymouth Street, W., May 1881.

TRANSPOSITION OF THE VISCERA.—Dr. C. A. Babcock (*Physician and Surgeon*, March, 1881), reports the case of Thomas S. Beaudoin, born near Malden, Ontario, 1864, of healthy parents, in whom he found a lateral transposition of all the abdominal viscera and of the heart. The patient was right-handed, with no difference in development of the two sides that could be detected by careful measurement. His health was usually good. A very loud *bruit de diable* was detected in the right clavicular region. A similar case, a girl, ten years of age, came from Massachusetts to the Battle Creek Sanitarium, three years since, except that neither of the parents were healthy, and the child had a marked scrofulous diathesis. Dr. August Forster thinks that the situation of the viscera is dependent entirely upon the position of the fœtus in relation to the umbilical vesicle; and that, if for any reason the position be changed at a certain stage of development of the embryo, the position of the viscera may be changed. He says: "We always find the viscera laterally transposed in that individual which lies to the right, in double monsters, united at the umbilicus."

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

A DEPUTATION from the Poor-law Medical Officers' Association waited on Tuesday last upon the President of the Local Government Board, the Right. Hon. Mr. Dodson (who was accompanied by Mr. Hibbert, M.P.), for the purpose of laying before him their views in respect to the question of superannuation. Among others present were Sir Trevor Lawrence, M.P.; Dr. Lyons, M.P.; Professor Thorold Rogers, M.P.; Sir Wm. Palliser, M.P.; Dr. Joseph Rogers; Mr. Whitwell (Shrewsbury); Mr. Elliott Porter (Lindfield); Dr. Fegan (Woolwich); Mr. Marshall (Mitcham); Mr. Walford (Reading); Mr. O. Lonsley (Reading); Mr. D. B. Balding (Royston); Dr. Burchell (London); Dr. Walter Smith (London); Mr. Bland (Isle of Sheppy); Dr. Norman Kerr (London); Dr. Pardoe (London); Dr. Bain (London); Dr. Young (Aldershot); Mr. E. Child (New Malden); and Mr. Wickham Barnes, Honorary Secretary.

The deputation was introduced by Sir TREVOR LAWRENCE, M.P., who said he had the honour, as President of the Poor-law Medical Officers' Association, of introducing a large and very influential deputation of the Poor-law medical officers of England. A considerably larger number would have been present, if it had not been that many of them could not leave their districts without obtaining substitutes. The question which the deputation wished to bring forward had been before the department before, and on one or two previous occasions he had been in communication with Mr. Dodson's predecessor on the subject. It was generally admitted that the Poor-law medical officers had ably and conscientiously discharged a very important duty; in fact, on their vigilance the health of the public greatly depended. It appeared that a great many boards of guardians did give superannuation allowances; but not a few refused them, not because there was anything to be said against either the character or the performance of the duties of the applicant, but because they had not been in the habit of granting superannuations. The present stipends were so small that it would be impossible to get the proper men to fill the position, unless they were also engaged in general practice. That general practice was really an advantage both to the public and to the guardians, because, in consequence of it, men of high qualifications were led to undertake the duties at a comparatively low remuneration. It was quite impossible for the Poor-law medical officers to make any provision for old age out of the income they received from the boards of guardians; and they felt that it was a very great hardship that the provision to which their services fairly entitled them should be refused. Their feeling was that, if their services were of such a nature as to honestly entitle them to superannuation, and if it were refused by guardians, they should have a right to appeal to the Local Government Board.

Dr. JOSEPH ROGERS said that, eleven years ago, he joined a considerable number of Poor-law medical officers in a deputation to the Local Government Board. The object was to induce Mr. Goschen to support the second reading of the Bill then before the House of Commons. After the deputation had explained their views at some length, Mr. Goschen assented, on the part of the Government, to the second reading; and said he was disposed to do so, as it had come to his knowledge officially that many officers continued to hold their appointments long after they were capable of efficiently performing the duties, because they had no other means of subsistence. If the Bill passed, and the guardians were able to grant superannuation allowance, the Poor-law Board would be able to direct them to give way to younger and more efficient men. He (Dr. Rogers) then asked Dr. Lyon Playfair to support the second reading; and, in reply, was asked to give the grounds for the advocacy of the Bill. Personally, he was opposed to all superannuation allowances, holding that every person, during his active life, should make provision for the exigencies of sickness and old age; but, in order to accomplish that, his earnings must be sufficient. It was notorious that in the army, the navy, the police, and notably the Poor-law medical service, the salaries, except in rare cases, were so small that no opportunity existed for saving. Five years ago, the members of the Association sought an interview with Mr. Sclater-Booth. Mr. Sclater-Booth admitted that, where the service had been continuous for many years, the general practice should be to give the allowance. In consequence of the frequency of applications to the Association for information and advice, as to how to proceed in order to obtain superannuation allowance, he (Dr. Rogers) asked Mr. Thorold Rogers to move

for a return, by which it was shown that 122 applications had been made, 70 of which were granted, and 50 refused. Among the refusals were many instances of cruel hardship. Within the last few days, two such cases had come to his knowledge. The first was that of Mr. Cremer of Norwich, who remained in the performance of his duties till he was eighty-four years of age, and then resigned. He had been medical officer for fifty years, but only obtained a superannuation allowance by a small majority, and that after much opposition. The other case was that of Mr. G. Pink, who was now eighty-seven years of age, having been medical officer for forty years, and who had been refused any allowance. His district comprised an area of 18,857 acres—the salary, inclusive of all extras, being £67 10s. The Association now requested the aid of the Poor-law Board in bringing about an amendment of the Act. They would be very pleased to secure that superannuation allowances should be made compulsory; but, in the event of public opinion not being sufficiently advanced for that, they asked that power should be given to the Poor-law Board whereby, in such cases as those of Mr. Pink, and after investigation by the inspectors, superannuation might be ordered. They would also press upon the Board the expediency of getting half the amount of the allowance paid from the Consolidated Fund, as was at present the case with the stipends. The late Sir Robert Peel, in making that arrangement, did so with the view of inducing greater liberality on the part of boards of guardians. The provision made by the Medical Officers Superannuation Act, that the allowance should be altogether a local charge, had unquestionably led several boards to refuse.

Mr. WICKHAM BARNES, after thanking Mr. Dodson for granting the interview, stated that there were one or two points on which he wished to touch. The return asked for by Professor Thorold Rogers, relating to all who had applied to their board of guardians for superannuation, however valuable, did not give any idea of the demand for superannuation, because, before superannation could be asked for, the Poor-law medical officer must resign, which in the great majority of cases he was afraid to do. As regards the promise of Mr. Sclater Booth, that any deserving case of long continuous service should receive his special attention towards urging on the claim for liberal superannuation, Mr. Barnes mentioned that the cases of Mr. Terry and Dr. Downes (both of whom had served 40 years in their respective Unions) were brought under the notice of the Central Authority, and though in one case a Government Inspector was sent down to press upon the guardians the necessity of superannuation, yet no good result followed. Mr. Sclater Booth laid great stress upon continuous service, but in his (Mr. Barnes's) opinion it often acted prejudicially to the medical officer, who frequently outlived his friends at the board, the new members not having any sympathy with him. Referring to the argument that the Poor-law medical officer did not give his whole time to the service, Mr. Barnes stated that practically he did so, as he never could be absent from his post day or night without leaving a deputy in charge. Mr. Barnes concluded by assuring the President that this agitation had been of years' duration, and that although they had been most kindly received by past Presidents, as yet no fruit had resulted from the interview.

Dr. ROGERS handed in a scheme which he said was about to be brought before the House of Commons from the Irish medical officers.

Mr. WALFORD (Reading), said that after 40 years' service his health broke down, and he was compelled to take a partner. He would be glad to resign his appointment if he was sure of getting a superannuation allowance. It would be to the interest of the State that such allowances should be granted, because it would induce a higher class of men in many instances to apply for the post.

Dr. LYONS, M.P., did not know of any other branch of the public departments in which the officers devoted so much time, for such little emuneration, to the service of the community. On public grounds, therefore, the claims of the medical officers deserved every consideration, and it was to the interest of the State, now that the general question of public health was becoming more thoroughly recognised, to secure the services of the best possible class of men that could be induced to enter the Poor-law department. In order to get such men to devote the best portion of their life to this work, it was necessary that way should be made for the young and efficient, by providing some means of retirement for the old. If the power sought were granted, it could not with any propriety be urged that it might be misused, because the Poor-law board would see that no unfair use was made of the system of retirement. He most cordially recommended the views of the deputation to the consideration of the Government.

Mr. HIBBERT asked how it was proposed that the superannuation should be charged, if the condition of continuous service were given up.

Dr. ROGERS said it was proposed that the Poor-law Board should, in such cases, settle the proportions to be paid by the boards of guardians.

Mr. DODSON said that there were several difficulties attending superannuation in such a case as this. One was that where service was not continuous in one union, but was under different authorities. Another arose in this way; where officers did not devote the whole of their time to the service, it was somewhat difficult to apportion the allowance. Superannuation was not the rule of the service under local authorities generally. The Poor-law authorities were the only persons who had power to give it. It had been put, on the ground of public interest, that it was desirable that there should be a certainty of superannuation, in order to induce men to retire, and not remain in the service too long. He thought that there was sufficient power in that respect already, because the Local Government Board had power to require the resignation of any man actually unfit to discharge the duties of his office; and the guardians had power to award superannuation, if they wanted to induce a man to retire. The principal suggestion was, that the Local Government Board should have the power to arbitrate, and to require the guardians to grant superannuation, or, at all events, to put pressure upon them to do it. There was already a considerable jealousy of the centralising power of the Board, and he was afraid that that would not be a very popular power for it to assume. He asked whether it was intended that this power of the Local Government Board to require superannuation should be a condition applying to existing officers, or only to officers entering the service hereafter.

Dr. ROGERS: We should like you to apply it to officers who are still in existence.

Sir TREVOR LAWRENCE: Still it would be better to have it in future than not to have it at all.

Mr. DODSON said that the objection would be that it would be altering the terms of the bargain which they had made with the officer, and altering it at the cost of the ratepayers. The arguments of the deputation had been stated in temperate language, and they had considerable weight and force. He had pointed out some objections to the position which the deputation took up; but begged that they would not go away with the impression that because it was, therefore, conclusively settled, in his mind the position was untenable, or one which ought not to be recognised. The arguments of the deputation should be duly weighed and considered with those on the other side. The deputation had very naturally expressed a desire to see some distinct fruits of the movement. There was one way, even short of legislation, by which some fruits to their effort might be secured. By stating the case as temperately and forcibly in the country as had been done to-day, he thought that they could not fail to exercise a considerable influence upon the minds of Boards of Guardians throughout the country, and to dispose them to look favourably on the granting of superannuation in particular cases which might appear to be deserving of it.

Mr. Thorold Rogers, Dr. Joseph Rogers, Dr. Lyons, and Mr. Wickham Barnes, having made some remarks,

SIR TREVOR LAWRENCE thanked Mr. Dodson for his kindness in receiving the deputation.

THE GUARDIANS OF THE PLOMESGATE UNION AND THEIR MEDICAL OFFICER.

ON the 29th July, 1880, Mr. Hele, medical officer to the Aldeburgh district of the Plomesgate union, received an order in the following terms: "Aldeburgh, July 29th.—*Urgent Case.*—Please attend Lambert's son, who has happened with a serious accident.—J. STANNARD, Overseer." On his arrival at the lad's residence, Mr. Hele found that the lower third of the tibia and fibula had been cut through by the blades of a hay-cutting machine. The father was too poor to pay for assistance, and the lad could not be removed to an hospital. After conferring with his partner, who is his substitute, Mr. Hele amputated the leg just below the knee. The boy made a good recovery. On sending in his claim to the board of guardians for a fee, under the scale laid down by the general orders of the Local Government Board, he was refused payment, notwithstanding that the Board had, on two previous occasions, recognised the authority of the overseers to grant orders, by paying the fees that arose out of them. Thereupon, Mr. Hele sent a statement of the facts to the Local Government Board, and asked their advice as to how he should proceed to recover the fee. The letter, as is customary, was sent to the guardians with a request for an explanation. The guardians, in their reply, stated "that they had inquired into the circumstances of the case on the 9th of August last, when they refused to sanction the order of the overseer; and that they had again made inquiries into the particulars of the case, and they see no grounds to alter their decision". A copy of the reply was sent to Mr. Hele, with the following: "I am directed by the Local Government Board to state that the Board has no authority to interfere with the discretion of the guardians in the matter.—E. SUTTON, Assistant Secretary."

Thereupon, Mr. Hele wrote to the Local Government Board, asking whether, in the event of an analogous accident or accidents occurring in his district, he would be justified in refusing to act on the overseer's order. Not receiving any reply, he again, on April 4th, wrote to the Central Board; it was not, however, until he had written a third time, that the Local Government Board replied, as follows: "You would not be justified, on receipt of an overseer's order, to refuse to act;" and that they "cannot advise as to the mode in which you should proceed to recover the sum you allege to be due".

We have given this case somewhat in detail, as we consider it to be a typical instance of the injustice too frequently perpetrated by boards of guardians in their transactions with their medical officers. There can be no doubt that, if Mr. Hele had refused to recognise the overseer's order, and the boy had died, such an outcry would have been made as would have compelled the Local Government Board to make an inquiry, with the inevitable result of his being ordered to send in his resignation. But that is not the only question. The central authority assert that they have no power to intervene; we contend that they have such power, and that they use it. Thus, they sanction all Poor-law medical appointments, the salaries voted, and the extra fees; again, when a board of guardians does, every now and then, vote an extra sum to a medical officer, it must go to them for approval; and it not unfrequently happens that they refuse their assent to such grant.

Had the Central Board been so inclined they could have directed the guardians that they were bound in honour to pay, and the fee would, in all probability, have been sent to Mr. Hele without further difficulty. As it stands, we strongly advise, in the interest of the service, that a question should be asked of Mr. Dodson in the House of Commons, and the correspondence moved for.

MILITARY AND NAVAL MEDICAL SERVICES,

VOLUNTEER SURGEONS.

SIR,—Having been for twenty years surgeon to a battalion of rifle volunteers, and for many years the senior surgeon of a volunteer regiment, I feel called upon to offer a few observations in support of the strong claims now being brought under the notice of the Secretary of State for War, and which have lately been ably advocated by Dr. Fraser and Mr. R. M. Mann (surgeons of volunteer corps), in the BRITISH MEDICAL JOURNAL, and whose efforts are being supplemented by influential members of Parliament, in reference to the justice of granting to the senior surgeons of volunteer regiments, or corps consisting of many companies, after twelve or fifteen years' service from the date of their first commissions, the appropriate and distinctive title of Surgeon-Major while serving in camp, or elsewhere, as staff officers.

I was, a few years ago, strongly under the impression that the promotion, regimental rank, precedence, etc., of all the officers of the auxiliary forces had been regulated since 1860 by the Royal Warrants from time to time issued for the regulation of such matters in the regular army.

If the promotion, rank, and professional titles, etc., of the officers of the army, militia, and the other auxiliary forces have, from 1858 to 1877, been really regulated by the same Royal Warrants, you may, perhaps, be able to inform me why a large number of militia surgeons, with previous length of service varying so much as from one to eighteen years (*vide* 1st Derby Militia Medical Staff, etc., in *Army Lists* for 1871, 1874, 1875, and 1878), became surgeons-major in March 1873, and why the same professional title, which, if given, would only be honorary, and give no higher relative rank, until after long service, has not been granted to the senior surgeons of yeomanry cavalry, and the new volunteer regiments or corps.

All senior army-surgeons, and senior surgeons of militia and of the other auxiliary forces, who were gazetted before and subsequently to the Royal Warrant issued by the Liberal-Conservative Government in 1858, and before the promulgation of the retrograde Warrant of 1877, have had, and retain, if still holding their commissions, and not further promoted, the relative rank of major; but the regimental assistant-surgeons in the army and all the auxiliary forces have, since 1877, been styled surgeons; and the surgeon of each company in a volunteer regiment or corps, appointed since 1877, is styled in the *Army List* an "acting surgeon", because he does not obtain a commission until promoted.

Under all the circumstances mentioned, it would only be reasonable and just to give yeomanry cavalry and volunteer surgeons in the auxiliary forces, who now have the relative rank of major, the more distinctive title of surgeons-major, and so plainly indicate that they are the senior surgeons of the regiments or corps to which they are attached.

The surgeons of volunteer regiments, while in camp, are usually much more inconvenienced by prolonged absence from home than most other volunteer officers; and, moreover, the senior volunteer surgeons have, in very many instances, supplied drugs, surgical appliances, etc., to their regiments without fee or reward, while militia surgeons and some of the colonial volunteer surgeons have received pay for serving in camp, and have also had accorded to them the same professional title as that which is given to the senior army surgeons.

It has been proposed to subordinate all the surgeons of the new rifle and other volunteer regiments to militia surgeons-major in the provincial brigade centres; but such a system of subordination to another class of military surgeons would not be in unison with the feelings of self-respect of volunteer surgeons of much experience, and good social and professional status.

While it is not a matter of special interest to me personally, because I am retiring from the service, I, nevertheless, say emphatically, on behalf of the senior volunteer surgeons having such strong claims to the rank and title of surgeons-major while on duty, "*fiat justitia*"; confidently trusting that the act of justice so reasonably claimed by volunteer surgeons (for so many years previously responsible for the efficiency of the medical arrangements while in camp, on field-days, and other occasions) will now be liberally, promptly, and gracefully conceded by the Secretary of State for War.—Believe me, sir, truly yours,

Market Drayton, April 26th, 1881. F. J. SANDFORD, M.D.

SIR,—On examining the *Army List*, I find that few medical officers have passed the required examination before a board of medical officers of the Army Medical Department. By complying with this regulation, they would not only make themselves efficient members of their corps (thereby earning for the corps the Government grant), but also place themselves in a much better position from which to make demands for due recognition of their rank, etc., and also tend to bring them before the notice of the Secretary of State for War from a more favourable point of view. Application to the adjutant of the corps will be required, on receipt of which he can proceed to summon a board of officers for examination at the nearest and most convenient military station.—I am, sir, yours faithfully,

A PASSED SURGEON.

THE RECENT AFGHAN GAZETTE.

SIR,—It would be difficult to exaggerate the feeling of disappointment that pervades the medical service of the army at the treatment they have received in the *Gazette* for the Afghanistan campaign, just published. It is currently reported in medical military circles that the Government of India, convinced of the good work done by the medical officers in Afghanistan, sent home very strong recommendations for the reward of many medical officers; and that at the Horse-Guards, not at the War-Office, the pen has been drawn through these recommendations; and we find a body of one hundred and ten army doctors overlooked in the distribution of rewards, three C.B.s alone being given them.

It is well known that the most repeated and constant efforts were made by our department to prevent this neglect, but that all efforts have been unavailing, and we are again left out in the cold. No words are needed to tell the civil profession of medicine of the labour, the exposure, the dangers, and the difficulties, the medical service went through in that trying campaign. It is well known to the entire army; and the most hopeful sign of the future is that, from many of the younger military officers who were in the campaign, expressions of astonishment and sympathy at the treatment we have received are heard.

We all know where the obstruction lies. It is not at the War-Office; it is at the Horse-Guards. There, in the hearts of old-school generals, whose ideas on every point England has long since overruled, one idea reigns—that a medical officer is an outsider in the army, a creature to be neglected, to be sat upon, and to be made to feel every day that honours and rewards are not for him. When we remember the labours of one surgeon-general in India (Ker Innes), and of his secretary (Marston); and of the self-denying, never ending, anxious labours of the medical service in Afghanistan, whether in the field hospitals, with the sick convoys, under the fire of the enemy, or, still more trying, in the midst of cholera and disease, we feel quite heartbroken that the feelings of so many men should be outraged at such neglect in the rewards given.

When we remember the men who have laid down their lives for the army—men like Porter, Wallace, Gray, Wright, Kellsall, Keith, Atkinson, Bolton, Hall, and several others, and the many men who have come home from India broken down in health from the exposure they underwent—we appeal, with confidence, to the civil profession, in whose hands our future lies, to inquire into our wants and our grievances; and, for the sake of those our brothers who have died in the field, who have broken down in the campaign, and for the remainder who have come safely out of the most trying ordeal, to wake up and to do for us now as they did often before—secure justice at the hands of England for us. The opinions of the British Medical Association, and the action they take, are all-important for our future. We move exactly on the same lines; our cause is perfectly the same as theirs. In fighting our battle, they fight their own—with this strong point about us, that the action of the State to its doctors has a powerful influence on the prestige and position of the whole medical profession. The battle we have fought and won in the army is whether the doctor, or an outsider, is to be master in the hospital. We have won it by a bitter struggle, and with intense difficulty, but it was a just course, and it prevailed. Its success reacts on the whole profession outside; for, if we govern the army hospitals, why may not all in civil life do the same?

We have thrown off the killing regimentalism, and the ground is now clear for a further advance. The same union that won the bygone victory is a good augury for the future. Do not join in the cry that we are ever dissatisfied, and ever demanding new privileges. Our cry has ever been the same, and will be to the end. It means justice and equality with the men with whom we serve; freedom of work in our own professional duty; and that our rank, our honours, and our rewards, should be just and fair, perfectly unassailable; and that a stop should be put to the power of a class, or a caste, or a clique, to keep us down, not because we are bad, idle, or ignorant, but simply because we are doctors. Although we serve England well, and die in her cause, the hateful, degrading, and insulting word, "non-combatant", is still used officially against us, as an excuse for every injustice. Windsor, that opens its doors with readiness to the so-called combatant on his return from war, is closed completely against our chiefs.

We look abroad to America, to Italy, and to other lands, to see a medical service in its due place in the army; and here, in England, we are at least as good men, yet we are kept down by prejudices. There is a programme for us to carry out; and we have a chief who is able in every way to bring it forward. We all of us know that Sir William Muir, our chief, is full of justice, full of energy, full of every good quality, to ensure us our rights if he had his way. We know what an uphill work he has done for us in the past; and we know well that, if the civil profession acts with us, the War-Minister will coerce the Horse Guards, as he can do if urged to it, to secure us good treatment. Mr. Childers represents the voice of the country; the Horse-Guards, under the present *régime*, represent a dead or dying past. We feel that our cause is just, and the civil profession will fight their battle in fighting ours.

We do not now cry for "money". We believe good pay is essential to good work; and that the army, if poorly paid, is by no means badly worked. We are earning our pay fairly and justly. We want independence, justice, and equality; and a programme embodying these points is easily put forward if you and your readers care to hear it. It means meeting the military caste with its own weapons; meeting them, not as a department, but as a corps of the army, with rank as good as their own; and letting them see that our claims to rank and just treatment are

given us by the same nation that gave them their rights. I can look forward to seeing our medical service organised into a corps, joined to the Army Hospital Corps, united in the good work of tending the sick; and I can easily point out how we, the officers of that corps, can secure our position in a very perfect way. The scheme of a complete army medical corps, including the medical officers of the regular service, the militia, and the volunteer service, is quite easily drawn up —I am, sir, yours,

I. V. R. C., Army Medical Department.

ARMY MEDICAL OFFICERS IN INDIA.

A CORRESPONDENT asks the following question: Is it true that, in India, medical officers of the Army Medical Department are frequently ordered to assume medical charge of Indian native troops, in addition to their own duties, and yet receive no extra pay for so doing, even though their pay is much less than that of the medical officers of the Indian Service, who would properly and otherwise be in charge? Is the Medical Director-General aware of this, and does he consider it fair?

*** The first thing that strikes us with reference to this question is, that those who have raised it forget that the native army is now as much the Queen's army, as is the British army. Medical officers who take their tour of service in India go thither to attend to the health of the Queen's soldiers, whether they be black or white. The pay of medical officers, both of the British and of the Indian services, is now consolidated; there is no such thing now as capitation payment, which existed in the olden time. In the exigencies of service, no doubt that British officers often have native soldiers to treat, as well as British; and officers of the Indian army, under like circumstances, are often called upon to treat British soldiers. It is not probable that the authorities would for a moment listen to such an application as this question implies. Combatant officers command soldiers of both races, but do not ask for more pay because some of the troops are black.

THE INDIAN MEDICAL SERVICE.

SIR,—The Indian Government have published the Warrant of 1879, granting the relative rank of captain to all surgeons, but refuse the allowances of that rank, paying the old rate of five rupees a day, and allowances of rank of lieutenant, while, at the same time, they claim stoppages at the rates deducted from those of the rank of captain. Surely it is time such dealings were put a stop to, and the wisdom of paying junior medical officers at fair and just rates was acknowledged. There are surgeons now in India forced to serve in a tropical climate, where everyone gets about double his English pay, on considerably less than they are entitled to at home. If this be continued, it will only serve to prolong the present state of affairs, there being, besides administrative officers, 200 surgeons-major to 120 surgeons now in the three Presidencies; the cost, therefore, of the Army Medical Department cannot be increased by granting the right pay and allowances to surgeons; and now that the department is so full, the right proportions of surgeons-major to surgeons could easily be maintained.—I am, sir, yours truly, VERAX.

SIR,—The efforts of the Indian Medical Defence Fund to bring about a lock-out in the Indian Medical Service have been crowned with a success, and consequently with a result, which they never anticipated. European surgeons have, I am glad to say, to a large extent refrained from coming forward as candidates for commissions; but native and half-caste gentlemen have had no compunction about grasping at the prizes they would, under ordinary circumstances, have generally failed to secure on their professional merits. As a consequence, men of so inferior a professional calibre have gained admittance into the Indian Service as was never possible before. The large number of persons who have recently joined the Indian Medical Department, who are not eligible for commissions in either of the sister services, will render it impossible for any Government having a due regard for Exeter Hall, in the lapse of time, to refuse the promotion of some of them to the rank of deputy surgeon-general. They will then have the command of, and authority over, the European surgeons of their circles of administration. Let young European surgeons who think of joining the Indian Medical Service consider what this means, and the degradation to which it subjects them in the eyes of the general native population of India. This one consequence of the "lock-out" has irretrievably and hopelessly ruined the Indian Medical Service as a career for young European surgeons in the future. The only future that can now be anticipated for the Indian Service will be the gradual absorption of the European Indian army surgeons into the Army Medical Department. The Indian Service will be left to Eurasians and natives. In large civil stations, the European civilians and residents will be driven to follow the present practice of the tea and indigo planters, to retain the services of independent civil European surgeons for themselves and families.

With deep regret for the future prospects of what was once a "grand old service", I subscribe myself AN INDIAN SURGEON

R.—I think it right that the grievances of junior officers of the Army Medical Department, on arrival in India, should be made known in your columns, and thereby to those in authority and all concerned. They are often detained on a station, perhaps an unhealthy one, waiting for orders, and at great expense, without any extra allowance. At home, their pay and allowances reach £285 yearly, or the same as those of captains; in India, they are about £130 a year less. They are likewise obliged to travel much, and none of the expenses, except the railway-fares, are allowed. Surely the remuneration of the medical officer should be increased, not lessened, in a country where his responsibility and the risk to his health and life are so much augmented.—I am, etc., A DUBLIN PROFESSOR.

THE NAVAL MEDICAL WARRANT.

IR,—There are some changes introduced in the new Naval Medical Warrant, which appear to be very injurious to the interests of surgeons at present serving. First, it abolishes a privilege enjoyed for many years, by which a surgeon unpromoted to the rank of staff-surgeon was retired at the age of forty-five with a pension of £200. It will hardly be contended that a gratuity of £2,250, liable to be curtailed at the discretion of the Admiralty, is an equivalent. Also, pensions and allowances to the widows and children of officers retired after the 1st of April, 1881, are to be disallowed. Surely this is extremely hard on senior staff and fleet-surgeons who, possibly from ill-health or other reasons obliged to relinquish further service, have their enfeebled age embittered with the thought of leaving their families unprovided for, after being led to contrary conclusions by Admiralty promises. The widows and children of all other officers are granted these privileges. To those now on the active list, no permission is granted to elect the old regulations, which, as regards the subjects above-mentioned, are much more liberal.

The writer of the letter which is published in your issue of the 2nd of April, hardly goes far enough, I think, in proposing an addition of 35 per cent. to the pay of the naval medical officer above that of the corresponding rank in the army, in order to equalise the combined pay and allowances of the two services; and the addition would require to be still greater abroad, without considering the unavoidable hardships of a sea-life, and the greater amount of foreign service of the naval officer. The military authorities were careful to publish the allowances, as well as the pay, of the different ranks of the Medical Department; but probably such a full statement by the naval authorities would interfere with successful recruiting. The effect of half pay in reducing the amount of full pay, and also in retarding promotion, is passed over.

It is very depressing to well-wishers of the navy and naval service, that there should be such an evident bias against medical men at the Admiralty, and more particularly against any increase of knowledge or scientific acquirements amongst surgeons. On the other hand, young surgeons, doubly qualified, will have the privilege of seeing so-called administrative officers engaged in the daily performance of the very simplest operations of minor surgery, and they will also have the important advantage of qualifying for their own particular duties on board-ship, by assisting the dispenser to weigh and make up doses of medicine.

Gratefully thanking you for your efforts to benefit the Naval Medical Service, and, what ought to be the same thing, the navy at large, I subscribe myself, regretfully, MEDICUS NAVALIS.

OBITUARY.

THOMAS HECKSTALL SMITH, F.R.C.S.Eng., ST. MARY CRAY, KENT.

Thomas Heckstall Smith was born at Nottingham, on October 4th, 1806. Although of good family and brought up to expect that he would inherit considerable property from his father, he was, whilst still a youth, unexpectedly thrown upon his own resources. He was educated at Lincoln Grammar School. Through the kindness of a relative he was apprenticed to Mr. White, of Nottingham. He subsequently entered at St. Thomas' Hospital, supporting himself almost entirely, whilst still a student, by literary work in connection with the *London Medical Gazette*. He was a distinguished student and a prizeman. He served as dresser to Mr. Joseph Henry Green, of whom he always spoke with the greatest reverence and affection, and to contact with whose scholarly and philosophical mind he probably owed much. His contemporary and life-long friend, Mr. Le Gros Clark, thus writes of him:—"He was a favourite amongst us, and in many respects a leader; earnest, and energetic, he wasted time in no idle pursuits."

He was appointed physician's assistant to Westminster Hospital, after a prolonged and severe competitive examination. He afterwards acted as assistant in the practice of Mr. Septimus Wray, of Salisbury Court, Fleet Street.

In 1829 he was, on the recommendation of the staff of St. Thomas's to whom application had been made for "a good man," introduced to the practice at St. Mary Cray, Kent, where from a nucleus he developed an extensive and lucrative business. He was a very successful practitioner, a kind and staunch friend, and a judicious adviser, and commanded universal esteem. His talents were of no mean order: he always investigated for himself, and there was such a freshness and originality in his remarks on subjects which interested him, that no one could remain long in his society without learning something. In his profession his views were clear and precise; and his sound judgment and vigorous action gently won the confidence of his patients, and obtained for him the character of a skilful and successful practitioner. He was essentially an able man, with an eminently judicial mind. He was an effective and impressive speaker. What he said always carried weight. In addition to the labour of his practice, he undertook much additional private and public work. His great local work of which he always spoke with gratification as "something attempted, something done," was the successful formation of an Ecclesiastical and Vicarage District at Crocker Hill—the church at which place was built and endowed through his exertions.

His public work is best known to members of the Association, in which he was from its very early days one of the most energetic labourers. He was President of the South-Eastern Branch in 1862-3, and of the Metropolitan Counties Branch in 1870-71; and for many years he was a member of the Council and Committee of Council of the Association, and gave his earnest attention to the work of the Association; and his generous devotion to the best interests of the profession, and his chivalrous defence of its honour, were recognised by the testimonial presented to him in 1869 by the South-Eastern Branch, on the occasion of the action of Bonney *versus* Smith.

He took a very active part, in conjunction with the late Mr. Propert and others, in establishing the Royal Medical Benevolent College

at Epsom. He held the usual public medical appointments in the district, and for many years served as Surgeon in the West Kent Yeomanry.

In 1873, after forty-four years' active service, hard work had begun to tell upon him, and he found it necessary to relinquish practice. In June 1876, after some previous warnings of failing nervous energy, he was seized with right hemiplegia and aphasia. Amongst other kind medical friends who visited him in this illness, the late Dr. Sibson was one of the most assiduous; and Heckstall Smith must have been almost the last patient that lamented physician saw before his departure for the Continent, where he died. Thanks to tender nursing and his indomitable pluck, he pulled through bravely, and also through several subsequent severe attacks of bronchial congestion. From the last attack, which occurred in January of the present year, he appeared never to completely rally; but he was able to drive out, and, his mind being as clear as ever, to enjoy life to a certain extent. The death of Lord Beaconsfield, of whom he was an ardent admirer—being a Conservative in politics, or, as it pleased him to call himself, an "old Pitt Tory"—appeared to affect and depress him very much.

On Saturday, April 29th, a sudden failure of strength occurred, with progressive bronchial congestion; and on the evening of May 3rd this grand old man, whose fine head and handsome and genial face will never be forgotten by those who knew him, passed gently away.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Friday, May 13th.

Small-pox in London.—Mr. W. H. Smith asked the President of the Local Government Board if he was aware that the small-pox hospitals of the Metropolitan Asylums Board, were full, and that persons suffering from small-pox were now lying in lodging-houses in crowded neighbourhoods, to the great danger of the other inhabitants; and whether he would state what steps he proposed to take to provide the Asylums Board with the necessary powers to deal with the epidemic, and with sufficient authority to carry out the Metropolitan Poor Act, 1857.—Mr. Dodson was sorry to say that the small-pox hospitals were full, or nearly so. He had no information as to persons affected lying in lodging-houses in crowded districts, but he greatly feared that such was the case. He had hoped that supplemental provision would have been made by the guardians and district boards, and to some extent this had been done, but he deeply regretted that in many cases the exertions made had been paralysed by the actual threat of legal proceedings. At the same time, he was glad to be able to state that the Metropolitan Asylums Managers were exerting themselves to their utmost, and had provided on their own land, accommodation for 300 or 400 convalescents, which would have the effect of relieving the hospitals to that extent. He would also add that the Local Government Board were exerting themselves to the fullest extent in respect to the making of further provisions.

Monday, May 16th.

Volunteer Surgeons.—Mr. Donaldson-Hudson asked the Secretary of State for War whether Her Majesty's Government would accord to Volunteer Battalion Surgeons, after twelve years' service, the rank and title of surgeon-major as in the case of Militia battalion surgeons; and whether they would give them, under the Memorandum showing the principal changes in army organization, etc., intended to take effect from the 1st of July, 1881, the same privileges upon retirement, after fifteen years' service, as to other officers of the auxiliary forces.—Mr. Childers.—In reply to the hon. member, I have to state that Volunteer surgeons will be on the same footing as Militia Surgeons not on the departmental list—that is to say, they will, after 20 years' service, receive a step of honorary rank, or on retirement if duly recommended for it. Volunteer surgeons will, after fifteen years' service, be entitled to retain their rank.

Thursday, May 19th.

Calf-Lymph.—Dr. Cameron asked the President of the Local Government Board what had been done since Dr. Cory's appointment to provide for the public supply of vaccine lymph direct from the calf; whether the vaccination department had been, or would be, instructed to issue lymph free, for the purpose of revaccination, to all medical men who might ask for it; and what steps had been taken to supply adequate hospital accommodation for small-pox cases, and so put an end to the public danger arising from the treatment of cases of that disease in their own homes, and the consequent maintenance of so many separate foci of disease.—Mr. Dodson said that there had been great and unexpected difficulties in obtaining the necessary accommodation; but premises had been secured, and when the necessary alterations had been made, preliminary arrangements had been entered into for the supply of vaccine-lymph direct from the calf. It was not the practice of the department to undertake to supply calf-lymph for revaccination. With regard to the latter part of the question perhaps the hon. member for Westminster (Mr. W. H. Smith), who had also a question on this subject; would allow him to answer it at the same time. Accommodation had been provided for a considerable number of convalescent patients. Owing to the unremitting and prompt efforts made, 250 of these cases have been provided for within the week. Negotiations were in progress with a view of obtaining additional accommodation; but it was a work of extreme delicacy, owing to the proceedings which had been taken, and what were threatened against the Board.—Mr. Slater-Booth asked if the right hon. gentleman proposed any legislation that the Board might carry out what was required of them.—Mr. Dodson said he could not answer that question without consideration.—Dr. Cameron said that, in consequence of the unsatisfactory answer to the second question, he should take an opportunity of calling attention to the subject.

MEDICAL NEWS.

Royal College of Physicians of London.—The following Members were admitted Fellows on May 16th.

John Wale Hicks, M.D.; John Baptiste Potter, M.D.; James Watt Black, M.D.; Francis de Havilland Hall, M.D.; William Ewart, M.B.; David Bridge Lees, M.D.; Francis Charlewood Turner, M.D.; Joseph Ewart, M.D.

Royal College of Surgeons of England.—The following gentlemen passed their primary examinations in Anatomy and Physiology, at a meeting of the Board of Examiners on the 12th instant, and when eligible will be admitted to the pass examination.

Messrs. Stephen R. Thompson, Frederick W. C. Jones, and Aubrey D. Chapple, students of St. Bartholomew's Hospital; Alexander G. Andrews, Richard L. Holland, and Francis E. Little, of St. George's Hospital; William A. Aikin, James P. Martin, and Alfred Linnell, of Guy's Hospital; John Llewellyn, and Lionel J. Shepherd, of the London Hospital; Henry R. Hodges, of King's College; Reginald B. Anderson, of the Middlesex Hospital; and Frederick W. McDonogh, of the Westminster Hospital.

Ten candidates were rejected.

The following gentlemen passed on the 13th instant.

Messrs. Henry G. Read, Francis H. Julyan, John Scott, B.A.Cantab, and Maitland Thompson, of St. Bartholomew's Hospital; Henry R. Kenwood, and Alfred F. Peskett, of the London Hospital; Alfred G. Webster, and George Wale, of King's College; Arthur E. Hayward, of St. George's Hospital; Herbert R. Mead, of Guy's Hospital; and Herbert W. Hart, of the Westminster Hospital.

Thirteen candidates were rejected.

The following gentlemen passed on the 14th instant.

Messrs. William L. W. Marshall, Alfred L. Scott, and Arthur J. Carter, of Guy's Hospital; Sidney Herbert, and Anton H. Syrée, of King's College; Herbert J. Pulling, and George L. Baker, of the Westminster Hospital; Frederick A. N. Bateman, of St. George's Hospital; Walter T. Strugnell, of St. Bartholomew's Hospital; George H. F. Ferguson, of the Newcastle and St. Thomas's Hospitals; and George Herbert, of University College.

Thirteen candidates were rejected.

The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College, on the 17th instant.

Messrs. George A. Branson, L.R.C.P.Ed., Ladbroke Grove; Elias Keys, Plymouth; Alfred D. Maitland, Hyde Park Square; Henry W. Newsholme, Leeds; Owen Pritchard, L.S.A., Trasyrafons, Anglesea; Arthur Willis, L.S.A., Soham, Cambs.; Robert S. Batson, Torrington, Devon; Albert Ramsden, Clapham; Henry J. Minchinton, Brixham, Devon; Philip T. Thane, Montague Street, W.; Frederick St. George Mivart, Devonport Street; Bertram Thornton, Margate; Arthur K. Willis, St. George's Road, Kilburn; and Harry Green, L.S.A., Cound, Shrewsbury.

Thirteen candidates were rejected.

The following gentlemen were admitted Members on the 18th instant.

Messrs. Oswald J. Currie, Blackheath; John Rigby, Preston; John M. Owen, Fishguard, Pembroke; George F. Dixon, Market Harborough; Charles L. H. Tripp, Tiverton; Herbert G. Shore, Stoke-sub-Harden, Somerset; Frederick W. Alexander, Hatton Garden; Richard A. S. Chard, Upton Lovell, Wilts; Charles Rowley, Barnsley; John A. Coutts, Aldridge Road, W.; William W. Jones, Macclesfield; and Louis E. Wood, Marlborough, Wilts.

Twelve candidates were rejected.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, May 12th, 1881.

Greenleaf, Alfred William, Alderney Street, Pimlico.
Kerson, Frederick St. John, London Hospital.

Royal Colleges of Physicians and Surgeons, Edinburgh.—Double Qualification.—The following gentlemen passed their

first professional examination during the April sittings of the examiners.

Charles Walter Hemming, Gloucestershire; Lewis Gordon Lawson, Strathspey; Hugh Gough Haines, Bangalore; Horace Lynden Bell, County Cork; Walter Frederick Clark, Yorkshire; Louis Joseph Petricher, Mauritius; John Nelms Hautin, Bristol; John Allen Carr, Bentham; Tom Bairston, Halifax; Walter Kinburne Harvey, Staffordshire; Robert Sinclair, Durham; Arthur Kimberley Scattergood, Leeds; Alfred Everley Taylor, Scarborough; Augustus William Thomas, Swaffham, Norfolk; Cyril John Williams, Yorkshire; John Joseph Mountain, Lincolnshire; Jeremiah O'Callaghan, Cork; Herbert Hartley, Yorkshire; John Francis Thomson, Linlithgowshire; David Davies Roberts, South Wales; Fitzgerald Uniacke Anderson, Nova Scotia; Richard David Hartland, Cork; Walter Spencer, Bradford; Marcus William Alatson Keane, Whitby; Karl Wingvist, Hofva, Sweden; William John Sumner, London; James Hilditch Bradshaw, Lancaster.; John Smith, Coleraine; George Frederick Chadwick, Dewsbury; William Hawkins Cuthbert, Oswestry; John Rees, Carmarthen; Alfred Higginson, Lancashire; Francis James Power, Maidstone; John Small, Fife; William John Meharry, County Down; William Waddell, Ballymena; Thomas Hanson Smith, Keighley; Francis Edwin Mulliner, Northampton; Murdoch Mackenzie, Stornoway; Philip Edmund Perst, Demerara; Arthur Nathanael Barnley, Dunstable; Francis Joseph Salter, Leeds; Edmund Lewis Rour, York; Francis James Spilsbury, Devon; Harry Dugard Chapman, Staffordshire; Henry Horbury Preston, Manchester; John Clancy, Listowel; Anthony Bailey, Yorkshire; Thomas Patterson Devlin, Belfast; Robert Farquharson Bowers, Bengal; William Patrick Kirwan, Galway; Edgar George Balleid, London; Thomas Macdonnell Parr, Chatham; William Holberton Square, Kingsbridge; Edward Joseph Fernandez, Hong Kong.

The following gentlemen passed their final examination, and were admitted L.R.C.P.Edinburgh and L.R.C.S.Edinburgh.

James Booth Clarkson, Lancaster; James Daniel Ross, County Cork; William John Chichele Nourse, Isle of Wight; Robert Webster, Australia; William Boulter Brodribb Perrin, Somersetshire; James Johnstone, Dumfriesshire; Charles Swanston, Australia; David Carruthers, Dumfriesshire; James Arnott Hunter, Newcastle, Ontario; John Paulin, Peel, Isle of Man; Frank Fraser, Portsmouth; Robert Roberts, Chester; George Daunt, County Cork; Thomas Henry, County Tyrone; John Philip Sulliyan, Dublin; James Hilditch Bradshaw, Lancaster; John Dugdale Astley, East Landon, Dover; George William Macartney, Colombo, Ceylon; Francis James Power, Maidstone; Francis Harper Treherne, London; David William Johnston, Whitehaven; Richard Clegg, Burnley; John Gainfort, Wexford; George Latham, Derby; William Abraham Dartnell, Rochester; Titus Holden Harwood, Burnley; Henry Dobson Osborne, Londonderry; David Duncan Main, Kirkmichael; James Murdoch Cameron, Edinburgh; George Henry Ainley, Todmorden; Charles Edward Watson, Hertfordshire; Edwin Brownlow, Ravendale, Lincoln; John Henry Dean, Sunderland; Frederick Francis German, Staffordshire; Thomas Hanson Smith, Keighley; William Huey, Adelaide, South Australia; Edmund James Armstrong Rogers, Grafton, Ontario, Canada; David William Noble, County Leitrim; James Satterthwaite, Lancashire; Charles Edward Lay, Suffolk; Isaac Riddle, Surrey; Owen Frederick Seymour Evans, New South Wales; Eugene Joseph Geary, Cork; Isaac Holmes, Liverpool; Alexander Salvador, Sabina Fernandes, India; Charles De Wolfe Heard, Prince Edward Island; Richard Æneas Delaney, County Mayo; Geoffrey McCarthy, County Kerry; George Thomas Webbe, Poona; Rene Tubin Clement, Cape of Good Hope; Cornelius Maloney, County Limerick; John Murray, Alyth.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At the April meeting of the Court of Examiners, the under-named gentlemen passed their final examination for the letters testimonial, and having taken the declaration and signed the roll, were admitted licentiates.

Howard W. Acheson, James A. Baird, Charles D. Barrett, John Brady, John G. W. Bullock, Richard Callan, John P. J. Coolican, Patrick J. Dempsey, John B. Dunlop, Frederick D. Elderton, John S. Gelston, Walter Jones, Michael F. Kenna, Thomas W. Lewis, James C. MacMullen, John H. O. D. M'Guinness, Claud H. MacSwiney, Michael C. Moloney, Edmond Murphy, George Nelis, Augustus Nickson, Francis R. O'Brien, Joseph F. O'Carroll, Edward H. O'Doherty, Michael J. O'Doherty, John A. C. Penny, John A. Powell, Robert Power, James Quirke, Thomas O'C. Redmond, Alexander Ross, Ventry A. J. Smith, Jones C. L. Stawell, Robert J. Tate, Macnamara M. Williamson, and Augustus W. Woodroffe.

Eighteen candidates were rejected.

UNIVERSITY OF DUBLIN.—At the First Commencements in Trinity Term, held on Friday, April 29th, the following degrees in Medicine and Surgery were conferred by the Senate of the University.

Bachelor in Surgery.—Hamilton Maginniss Sproulle

Bachelor in Medicine.—Hamilton Maginniss Sproulle.

MEDICAL VACANCIES.

THE following vacancies are announced;—

BIRMINGHAM PROVIDENT DISPENSARIES (Balsall Heath Branch)—Medical Staff of four in number. Applications by 1st June.

BOOTLE BOROUGH HOSPITAL—House-Surgeon. Salary, £80. Applications by May 25th.

BRADFORD FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION—Resident Medical Officer. Salary, £200 per annum. Applications, with photo., by 24th May.

BRAINTREE UNION—Medical Officer and Public Vaccinator. Salary £100 per annum. Applications by May 21st.

BRIGHTON, HOVE, AND SUSSEX THROAT AND EAR DISPENSARY, 17, Greville Place, Brighton.—Honorary Surgeon. Applications by June 8th.

CASTLEDERY UNION—Medical Officer for Drumquin Dispensary District. Salary, £50 per annum, with £10 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 26th instant.

CROYDON GENERAL HOSPITAL House-Surgeon. Salary, £100 per annum. Applications by 1st June.

CUMBERLAND INFIRMARY—Assistant House-Surgeon. Salary, £60 per annum. Applications by 24th May.

DEVONSHIRE HOSPITAL, Buxton—Steward and Matron. Applications by May 25th.

DROGHEDA UNION—Medical Officer for Monasterboice Dispensary District. Salary, £110 per annum, with £20 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 31st instant.

DUNMOW UNION RURAL SANITARY AUTHORITY—Medical Officer of Health. Salary, £65 per annum. Applications by May 23rd.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST—Assistant Physician. Applications by 25th May.

HYDROPATHIC ESTABLISHMENT, SCOTLAND.—Resident Medical Superintendent. Applications to "Hydropathic", Messrs. Keith and Co., 65, George Street, Edinburgh, by June 4th.

LIVERPOOL DISPENSARIES—Assistant House-Surgeon. Salary, £108 per annum. Applications by 23rd May.

MIDDLESEX HOSPITAL, W.—Ophthalmic Surgeon. Applications by 21st May.

MONTROSE ROYAL LUNATIC ASYLUM—Assistant Medical Officer—Salary, £120 per annum.

MULLINGAR DISTRICT LUNATIC ASYLUM—Visiting and Consulting Physician. Candidates should lodge their testimonials with the resident medical superintendent. Election on the 12th proximo.

NETHERFIELD INSTITUTION FOR INFECTIOUS DISEASES, Liverpool—Resident Medical Officer. Salary, £80 per annum. Applications by 1st June.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.—House-Surgeon. Salary, £70 per annum. Applications by 1st June.

PORTREE PARISH, Isle of Skye—Medical Officer. Salary, considered at £300 per annum. Applications to Murdo Macdonald, Inspector of Poor, Portree.

QUEEN'S HOSPITAL, Birmingham—Honorary Surgeon. Applications by 30th May.

RADCLIFFE INFIRMARY, Oxford—Honorary Surgeon. Applications by 21st May.

ROYAL FREE HOSPITAL, Gray's Inn Road—Ophthalmic Surgeon. Applications by 1st June.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL, St. George's Circus, Southwark.—Clinical Assistant on three days per week. Salary, £25 per annum. Applications by May 28th.

SCARBOROUGH FRIENDLY SOCIETIES' MEDICAL ASSOCIATION—Assistant Medical Officer. Salary, £140 per annum. Applications by May 25th.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck Street, Cavendish Square—Obstetric Physician. Applications by May 22nd.

STANLEY HOSPITAL, Liverpool—Junior House-Surgeon. Salary, £60. Applications by May 26th.

STONEBRIDGE DISPENSARY—House-Surgeon. Salary, £130. Applications by May 21st.

TEIGNMOUTH, DAWLISH, AND NEWTON INFIRMARY AND CONVALESCENT HOME—House-Surgeon. Salary, £65 per annum. Applications by June 1st.

THE BROWN ANIMAL SANATORY INSTITUTION—Professor-Superintendent. Salary, £300. Applications by May 21st.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY—Senior House-Surgeon and Provident Medical Officer. Salary, £100 per annum. Applications to be sent in by Monday, May 30th.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY, Torquay—Junior House-Surgeon and Dispenser. Salary £90. Applications by June 6th.

TOWNSHIP OF TOXTETH PARK, LIVERPOOL.—Assistant Medical Officer to the Workhouse and Infirmary. Salary, £100 per annum. Applications by June 1st.

WESTMINSTER HOSPITAL, Broad Sanctuary.—House-Physician. Applications by May 28th.

WESTMINSTER HOSPITAL MEDICAL SCHOOL—Lecturer on Histology and Practical Physiology. Applications by May 21st.

WESTERN OPHTHALMIC HOSPITAL, 155, Marylebone Road, W.—Surgeon.

WESTON-SUPER-MARE HOSPITAL AND DISPENSARY—House-Surgeon. Salary, £70 per annum. Applications by 1st June.

WOLVERHAMPTON EYE INFIRMARY—Two Honorary Surgeons. Applications by May 28th.

MEDICAL APPOINTMENTS.

NANCE, H. C., appointed House-Surgeon to the Whitehaven and West Cumberland Infirmary and Fever Hospital, *vice* W. E. Hoyle, B.A., M.R.C.S.Eng., resigned.

PEPPER, Augustus J., M.B., M.S., F.R.C.S.Eng., appointed Surgeon to the London Fever Hospital.

READ, Mabyn, M.B., B.A.Cantab, M.R.C.S.Eng., appointed Junior Resident Medical Officer at the Hospital for Sick Children, Great Ormond Street, *vice* Fred. G. D. Drewitt, M.B., M.A.Oxon. M.R.C.P., resigned.

WELFORD, Charles H., M.B., C.M., appointed Senior House-Surgeon to the Sunderland Infirmary, *vice* A. Bruce Low, M.B., C.M., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

SWANSON.—At Lawrence House, York, on the 13th instant, the wife of George I. Swanson, M.D., of a son.

THE LATE MR. EDWARD WAYLEN.—At a meeting of the Colchester Medical Society, held on the 17th inst., the following resolution was passed:—"This being the first meeting of the members of the Colchester Medical Society for the year 1881, they cannot help expressing their deep sorrow at the grave loss which they have sustained by the death of their honorary secretary, Mr. Edward Waylen. He was an intelligent and constant attendant at its gatherings, a kind-hearted honourable man, a true and faithful friend, and a courteous and excellent secretary. This meeting begs to express its sympathy and condolence with his widow, to whom a copy of this resolution is now sent." We are informed that the Colchester Medical Society was founded in the year 1774.

DEATH FROM BROMIDE OF ETHYL.—The *Canada Lancet* for April, 1881, states that Dr. R. J. Levis, of Philadelphia, has recently lost a patient under this anæsthetic at the Jefferson Medical College Hospital, Philadelphia. The patient was about to be operated upon for stone in the bladder, but died as the first incision was being made. Dr. Levis was present during the administration of the anæsthetic.

PUBLIC HEALTH.—The annual rate of mortality last week, which was the nineteenth week of this year, in twenty of the largest English towns, averaged 20.2 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Plymouth 14, Bristol 15, Brighton 15, Norwich 16, Portsmouth 17, Birmingham 17, Leicester 18, Salford 18, Bradford 19, London 20, Sunderland 20, Sheffield 20, Liverpool 21, Nottingham 22, Hull 22, Leeds 22, Manchester 22, Newcastle-on-Tyne 23, Oldham 24, and Wolverhampton 26. Measles showed the largest proportional fatality in Bristol and Sheffield; and scarlet fever in Salford. The 24 deaths from diphtheria in the twenty towns included 16 in London and 4 in Portsmouth. The highest death-rates from fever (principally enteric) were recorded in Oldham and Liverpool. Small-pox caused 76 more deaths in London and its outer ring of suburban districts, and one in Liverpool, while no fatal case of this disease was registered in any of the eighteen other large provincial towns. In London, 2,561 births and 1,427 deaths were registered. The deaths were 79 below the average, and gave an annual death-rate of 20.1. During the past six weeks of the current quarter, the metropolitan death-rate averaged 21.6, against 25.2 and 20.6 in the corresponding periods of 1879 and 1880. The 1,427 deaths included 69 from small-pox, 77 from measles, 30 from scarlet fever, 16 from diphtheria, 30 from whooping-cough, one from typhus fever, 8 from enteric fever, 13 from diarrhœa, and not one either from dysentery or simple cholera; thus, 244 deaths were referred to these diseases, being 11 above the average. The deaths referred to diseases of the respiratory organs, which had declined from 395 to 297 in the four preceding weeks, further fell to 254, and were 38 below the average; 146 were attributed to bronchitis, and 87 to pneumonia. Different forms of violence caused 51 deaths; 42 were the result of negligence or accident, among which were 13 from fractures and contusions, 7 from burns and scalds, 8 from drowning, and 12 of infants under one year of age from suffocation. Nine cases of suicide were registered. At Greenwich, the mean temperature of the air was 50.7°, and 0.8° below the average. The mean degree of humidity of the air was 73. The direction of the wind was variable, and the horizontal movement of the air averaged 10.1 miles per hour, which was 0.3 below the average. No rain was measured during the week. The duration of registered bright sunshine in the week was equal to 51 per cent. of its possible duration. The recorded amount of ozone showed a considerable excess on Tuesday and Saturday.

HEALTH OF FOREIGN CITIES.—The following facts, indicative of the recent health and sanitary condition of various foreign cities, are derived from a table in the Registrar-General's last weekly return. The death-rate in the three chief Indian cities averaged 39.4 per 1,000, and was equal to 36.6 in Bombay, 36.8 in Calcutta, and 46.3 in Madras; small-pox caused 112 deaths in Madras, and 83 fatal cases of cholera occurred in Calcutta. Small-pox fatality in Madras is increasing. In Alexandria, the death-rate was 34.2, and 3 deaths from small-pox were reported. According to the most recent weekly returns, the average annual death-rate in twenty-one European cities was equal to 31.8 per 1,000 of their aggregate population; this showed a marked excess upon the average rate in twenty of the largest English towns, which did not exceed 20.2 during last week. The rate in St. Petersburg, was so high as 69.1; and the fatal cases of typhus and typhoid fever, which had steadily increased from 82 to 123 in the six preceding weeks, further rose to 138 last week. In three other northern cities—Stockholm, Copenhagen, and Christiania—the death-rate did not average more than 27.6; the highest rate in these three cities was 31.5 in Copenhagen, in which city 3 fatal cases of scarlet fever were recorded. The Paris death-rate was 29.6, and almost identical with those that prevailed in the two preceding weeks; typhoid fever caused 38 and small-pox 20 deaths, both numbers showing a decline from those in the previous week. The deaths in Brussels included 2 fatal cases of small-pox, and were equal to a rate of 25.5; while in Geneva the rate was but 22.0. In the three chief Dutch cities—Amsterdam, Rotterdam, and the Hague—the death-rates continue low, the highest being 25.1 in the Hague. The Registrar-General's table includes seven German and Austrian cities, in which the death-rate averaged 30.1, and ranged from 24.6 in Dresden, to 35.9 and 37.6 in Vienna and Buda-Pesth; small-pox caused 22 deaths in Vienna and 11 in Buda-Pesth. The death-rate averaged 28.2 in four of the largest Italian cities, and ranged from 21.4 in Venice, to 32.2 in Naples. Enteric fever caused 9 deaths in Turin, and small-pox 3 in Rome. In four of the largest American cities, the death-rate, based upon the enumerated population in 1880, averaged 27.9; it was equal to 20.9 in Baltimore, 22.7 in Brooklyn, 25.4 in Philadelphia, and 34.1 in New York. Small-pox caused 33 deaths in Philadelphia, and scarlet fever and diphtheria showed fatal prevalence in New York and Brooklyn.

QUEEN'S COLLEGE, BELFAST.—The following have been awarded prizes at the termination of the winter session:—*Anatomy and Physiology.* Third Year: J. J. Austin, Thomas Cromie, and William Graham (equal); W. R. Hamilton. Second Year: Isaac Crawford, James Meek, Daniel White, J. A. McBride, William Waddall, R. J. Purdon, J. J. Brownlee. First Year: William Grainger, J. S. Lyttle, James Morwood, Hugh Lewers, J. Jamieson.—*Practical Anatomy.* Third Year: Thomas Sinclair, J. J. Austin, W. R. Hamilton, Thomas Cromie, D. P. Gaussen, S. J. Moore, and S. Swan (equal). Second Year: William Waddell, R. J. Purdon, A. A. G. Dickey, James Dick, Henry Massey, J. B. McKay. First Year: Robert English, J. S. Lyttle, James Norwood, Thomas Grainger, J. P. Jamieson, and Hugh Lewers (equal).—*Medicine.* Second Year: Thomas Sinclair. First Year: Samuel Connor, T. G. Bell, Thomas Cromie, John McMurray, William Nelson, Daniel White.—*Surgery:* Thomas Sinclair, John McMurray, W. R. Hamilton, Thomas Cromie, J. J. Austin, Daniel White.—*Materia Medica:* Thomas Frizell, William Waddell, and J. J. Brownlee (equal); J. E. Heather and James Meek (equal); Isaac Crawford.

BEQUESTS AND DONATIONS.—Mr. Samuel Courtauld, of Gosfield Hall, Halstead, bequeathed £2,000 each to the London Hospital and the Essex and Colchester Hospital, and £1,000 each to the Charing Cross Hospital, the Royal Free Hospital, the East London Hospital for Children, and the Royal Hospital for Diseases of the Chest.—The Bath General or Mineral Water Hospital has received £2,000 under the will of Miss Mary Wasey.—The Misses M. P. Dove and E. P. Dove have given £300 to the Victoria Hospital for Children, for the endowment of a cot.—Mrs. James Packe has given fifty guineas to Queen Charlotte's Lying-in Hospital.—The recent bazaar at Derby, in aid of the building fund of the Derbyshire Hospital for Sick Children, realised nearly £1,600.—The Royal Infirmary at Bristol has received £500, the General Hospital £500, the Dispensary £200, the Redland General Dispensary for Women and Children £100, and the Hospital for Sick Children and the Outdoor Treatment of Women £100, under the will of Mrs. Elizabeth Baily of Clifton.—Miss Evans of Darley bequeathed £500 to the Derbyshire General Infirmary at Derby.—The London Lock Hospital and Asylum has received fifty guineas from the Mercers' Company, and twenty guineas from the Cordwainers' Company.

GYNÆCOLOGICAL SOCIETY OF BERLIN.—We have just received the list of the Fellows of the *Gesellschaft für Geburtshulfe und Gynækologie* in Berlin. It includes 141 ordinary or resident Fellows, and 120 foreign or non-resident Fellows; among whom we notice: Barnes, West, Greenhalgh, Meadows, Braxton Hicks, and Graily Hewitt, of London; Kidd, of Dublin; Clay and Tait, of Birmingham; and Lloyd Roberts, of Manchester; Marion Sims, Emmet, and Thomas, of New York. There are only three honorary Fellows: Langenbeck, Virchow, and Spencer Wells.

WALKER-ON-TYNE.—Mr. Frazer Hurst has evidently very uphill work with his local authority. He has not even been furnished with a copy of the local by-laws, though he asked for one a year ago, and his recommendations seem often to be ignored. Taking the population in round numbers at 9,000, Mr. Hurst gives his death-rate of Walker for 1880 as 23.5, an excess of 6.5 over that for 1879. The great increase is not explained, except in so far as the local epidemics of measles and whooping-cough explain it. The mortality amongst infants was high, apparently for the same reason, but it would have been better to have discussed the question in the report. The drainage of the town seems to be unsatisfactory, and to stand in urgent need of reconstruction.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M. Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 2; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. Lawson Tait: 1. Three Cases of Hepatotomy; 2. On the Removal of the Uterine Appendages for the Arrest of Uterine Hæmorrhages.

FRIDAY.—Clinical Society of London, 8.30 P.M. Dr. Wiltshire: A Case of Traumatic Rupture of an Ovarian Cyst. Dr. T. C. Fox: On Two Cases of Chromidrosis in which a Blue-Black Pigment exuded upon the Skin of the Circumorbital Regions. Mr. Mac Cormac: A Case of Ununited Fracture of the Olecranon Process, in which Bony Union was obtained by Suture of the Bones. Dr. Sturge and Mr. Godlee: Sequel to Case of Stretching of the Facial Nerve.—Quekett Microscopical Club, 8 P.M. Ordinary meeting.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The following were the questions on Anatomy and Physiology submitted to the candidates at the primary examination for the diploma of membership of the College, on the 7th instant, when they were required to answer four, and not more out of the six questions. *Anatomy*.—1. Describe the Greater Wing of the Sphenoid Bone. 2. Enumerate the Joints in which Interarticular Fibro-Cartilages are found. Describe the shape and attachments of each of these Fibro-Cartilages. 3. Describe the Serratus Magnus Muscle, its attachments and relations. 4. Describe the course and relations of the Abdominal Aorta. Enumerate its Branches in the order in which they are given off. 5. Give the Dissection necessary to expose the External and Internal Plantar Nerves. 6. Describe the general conformation of the Thyroid Body, and give its relations. *Physiology*.—1. What is meant by the Impulse of the Heart? How is it produced? State the method by which it can be graphically demonstrated. 2. What are the immediate and remote results on Respiration of section of both Pneumogastric Nerves in the Neck? How may these results be explained? 3. Describe the structure of Dentine, and the contents of the Pulp Cavity of a Tooth. 4. What is meant by a Ferment? What Ferments exist in the Human Body? State the general and special conditions requisite for their action. 5. Describe the Phenomena of Accommodation. What is meant by the terms Emmetropia, Hypermetropia, Myopia, and Presbyopia? How is the Movement of the Blood maintained in the Veins? How does the Venous Current differ from the Arterial?

A. Z. (Manchester).—Apply to the Registrar, at the office of the Medical Council, 315, Oxford Street, W.

ATROPHIC SPINAL PARALYSIS.

SIR,—"Let honour be paid where honour is due". In the JOURNAL of April 23rd (p. 636) is an account of a recent paper by M. Onimus, in *L'Union Médicale*, April 3rd, on Atrophic Infantile Paralysis, in which, amongst other things, you say that "M. Onimus proves, by cases observed, that chill is the most frequent cause of this disease, by directly bringing on congestion of the grey substance of the atrophic nerve-cells". And further: "It is especially in the spring, summer, and autumn, more than in the winter, that this disease originates, by transition from heat to cold, and from imprudences committed at this period of the year." I wish to point out that there is nothing new in these observations; that their value consists in the support which they afford to previously expressed convictions, and the corroboration they give to previously observed and recorded facts. The first is but a restatement of the views of Brown-Séquard, and has been supported by myself and other writers on this disease, by facts published and recorded some years ago. As to the second, in a paper which I published in the year 1872, entitled, On Regressive Paralysis (Infantile Paralysis, Spinal Paralysis of Adults), in which I give a detailed history of sixty three cases in children, I point out the fact that, "of fifty-three cases in which the date of attack could be fixed with accuracy, twenty-seven occurred in the months of July and August, a fact worthy of notice as having a bearing upon the primary causation of this affection". And I proceed to point out that the reason is the same that causes these months to be prominent with regard to diarrhœa and other reflex troubles.

This paper was favourably reviewed by, among other periodicals, *Brain* for April 1879, and the reviewer remarks upon this subject: "This is the first paper, so far as I know, in which attention is drawn to the frequency of onset of this disease in the two hottest months of the year." And so I believed at the time; but I must own that my attention was first drawn to this fact by a remark of my senior colleague, Dr. Borchardt; and, a month or two later, I received a letter, accompanied by a copy of the *Medical and Surgical Reporter* of Philadelphia, from Dr. Wharton Sinkler, of that city, physician to the Orthopædic Hospital and Infirmary for Nervous Diseases, and to the Episcopal Hospital, Philadelphia, in which he called my attention to an article contained in the number of that periodical for March 10th, 1877, and containing also a paper dated April 1875, containing an analysis of 56 cases, and, among others, the following words upon this subject. "In 57 of the 56 cases in which this point is recorded, I found two cases occurred in March, one in April, one in May, eight in June, eleven in July, nine in August. In twelve instances, it was simply stated that the child became paralysed in the summer. This shows that 40 of the 57 cases were affected in the summer months." Hence any credit due to priority in the observance of this fact must belong to that gentleman.

And now, sir, permit me to say a word as to the nomenclature of this disease. The name "infantile" is no longer applicable to this paralysis, as it is proven to exist in the adult; and, indeed, though rare after five years, I do not think that any age can be said to be exempt; and the addition of the adjective atrophic does not make the term any more applicable. Heine's name, "spinale Kinderlähmung", is no better, there being other forms of spinal paralysis. Doubtless, the term proposed by Kussmaul, "poliomyelitis anterior acutissima", agrees with our present anatomical knowledge; yet it is to be believed that this does not express the whole of the affection at the onset, but only the ruins of the warfare—the slain upon the battle-field.

Urged by these considerations, I ventured to suggest the name of "regressive paralysis", as expressing the most marked and constant of the phenomena of the attack, and as making a bold distinction from the progressive paralyses, and yet interfering with no pathological discoveries or theories of causation. The name has been favourably received by my reviewers, as a generic title. May I ask the favour of the profession towards its adoption in place of the present inaccurate and clumsy expression?—I am, sir, yours very truly,

WM. H. BARLOW, M.D.,
Consulting Physician to the Dispensary, General Hospital, and Dispensary for Sick Children, Pendlebury and Manchester.

HYPODERMIC SYRINGES.

SIR,—In the JOURNAL of April 9th, Mr. Young characterises my suggestion about hypodermic syringes as "a remedy worse than the disease". He evidently has not fairly tried it, or he would have come to a different conclusion; moreover, he misquotes my letter. I did not say that the bottle should have "a mouth so small as only to admit the needle", but that it should have "a neck small enough to allow only the needle to enter"; that is, a neck so small as to prevent the rest of the syringe from entering the bottle with the needle. The bottle I generally use has a diameter of nearly half an inch at the mouth, and a little more than a quarter of an inch at the neck, the rim itself being about a third of a line in thickness. To introduce the point of a needle into the mouth of a bottle of this kind, would require hardly any care at all; one might do it with his eyes shut; but, to make a good shot at the rim would be a very difficult thing to do, especially for a man with defective sight. Mr. Young's method certainly has the advantage of safety for the point of the needle; but I think few will agree with him that it is more convenient than the ordinary way of filling from the bottle.—Yours truly,

Bridgenorth, May 5th, 1881. T. LAMBERT HALL, M.R.C.S

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address and other business matters, should be addressed to the Manager at the Journal Office, 161A, Strand, London, and not to the Editor.

DANGEROUS GAMES.

SIR,—Everyone's duty is proverbially no one's. This is daily evidenced by the impunity with which street urchins continue to hurl promiscuously into space a pointed piece of wood, familiarly known as "tip-cat", in our crowded thoroughfares, without let or hindrance, except it may be from some irritated, or possibly injured, passer-by, who has narrowly escaped having his eye knocked out. During the past week, I have witnessed three separate accidents from this cause, and have myself personally escaped twice by the merest shave, receiving one of these tip-cats right in the face. As in neither case any serious damage was sustained, probably no further notice will be taken of the matter; but I think the time has come for the police to interfere in preventing what is at all times a dangerous pastime in crowded thoroughfares. Scarcely a court or alley exists in London but can produce some evidence of this danger among the poor. Children with only one eye are by no means unfrequent, and in too many cases "tip-cat" is the explanation.

Yours, etc., ARTHUR W. EDIS.

THE CHOROID PLEXUSES.

SIR,—I think Mr. Lowe, in his letter of April 4th, has fallen into error regarding Dr. Moxon's expression relative to the choroid plexuses of the brain. Dr. Moxon did not, in his lecture, appear to me to convey that anatomists had overlooked the existence of choroid plexuses in the fourth ventricle, but rather that their physiological influence was either misunderstood or not sufficiently appreciated in days gone by. As a medical student, more than thirty years ago, I read the *Dublin Dissector*, by Robert Harrison, Professor of Anatomy in the University of Dublin. In this work (page 468, vol. ii), the origin and course of the plexuses referred to is fully described; and again noted at page 497. In the same volume, the source, uses, and influence of the subarachnoid fluid are specially dealt with. The *Dublin Dissector*, as a class-book, dates long before Mr. Ledwich's useful work. For this reason, I call attention to the teaching of the former. I have read Dr. Moxon's lectures with intense interest and great admiration, as glowing and eloquent evidences of the inseparable connection between the facts of anatomy and the truths of physiology.—I am, etc., RICHARD W. EGAN, L.R.C.S.I., etc.

Dublin, April 26th, 1881.

DR. BIRT (Stourbridge).—Dr. Renner's calf-vaccine establishment at 228, Marylebone Road, is open to the inspection of medical men during the hours of vaccination. Dr. Renner is a doctor of medicine of a German university, and is also a Licentiate of the Royal College of Physicians, and a Member of the Royal College of Surgeons of England. It would certainly be an advantage if the Local Government Board could be induced to supply calf-lymph in the way you suggest.

A CASE OF URINARY DISORDER.

SIR,—Might I ask you, or any of your readers, if you would give your opinion regarding the following case? D. M. has suffered from symptoms, resembling those of left sciatica, for the past eighteen months. The persistent presence of urates in the urine soon became a prominent symptom. The specific gravity of the urine all along has been high—from 1037 to 1040. There has been no sugar. Pus-corpuscles have occasionally been seen under the microscope. He has had several severe attacks of pain, which I referred to the ureter; but he has had at no time any symptoms of vesical calculus. I have relieved him considerably by the administration of alkaline and diuretic medicines; but, unfortunately, I cannot altogether cure him. Would urine of a persistently high specific gravity necessarily accompany a case of blocked ureter (or kidney)?—I am, etc.,

A MEMBER.

ADMISSION OF PATIENTS INTO THE LONDON FEVER HOSPITAL.

SIR,—I beg to enclose a copy of our new rules as to the admission of patients. The Metropolitan Asylums Board having made provision for the very poor, this hospital is now devoted to the reception of a better class of patients, such as assistants in shops, domestic servants, etc. It has been decided to charge a fee of two guineas for each case admitted to the wards, a sum which barely covers one-fourth of the average cost of each case to the hospital. The fee charged for patients in private rooms (three guineas a week) just covers the outlay.

The Committee trust that, under the present rules, the hospital will, to some extent, be able to meet a want very urgently felt in London. The hospital has no endowment, and is, therefore, dependent on voluntary contributions. The Committee would be grateful to you if you would make known its work and its necessities.—I remain, dear sir, yours faithfully, M. D. CHALMERS, Hon. Sec.

London Fever Hospital, Liverpool Road, Islington, N., May 9th, 1881.

Rules for Admission of Patients.—1. *Fevers Treated.*—Any infectious fever (except small-pox), more especially scarlet fever, typhoid fever, and diphtheria. 2. *Admission of Ward Patients.*—As long as there is room, any person suffering from infectious fever is admitted without governor's order or other formality on payment of the prescribed fee—that is, two guineas for the whole period in hospital. Domestic servants of governors are admitted free. 3. *Private Rooms* may be had on payment of three guineas a week, which includes medical attendance and all expenses. Patients who desire it, may also be visited by their own medical attendant in consultation with one of the physicians. 4. *Convalescents*, if still infectious, are received on the same terms as other patients. The hospital has large grounds. 5. *Conveyance to Hospital.*—An ambulance will be sent from the hospital, which will be charged for according to distance, on receipt of message or telegram addressed to the resident medical officer, stating the patient's address and the nature of the fever. Public conveyances must not be used. 6. *Visitors.*—Friends are recommended not to visit patients; but each patient in the wards is allowed one visitor for a short time between 2 and 4 P.M. each afternoon. Patients in the private rooms may be visited by their friends at any reasonable hour. 7. *Disinfection.* Patients must allow all clothing and other articles brought in with them to be disinfected before they leave.

ALCOHOL AND MIDWIFERY.

SIR,—As an active practitioner, attending a fair share of midwifery, I would say that the practice of taking stimulants between meals cannot be too strongly condemned. Of course, it is true that a hard-worker can bear alcohol better than a man who leads a sedentary life; but the explanation of this is merely that exercise checks, to a certain extent, the pernicious influence of the poison. In conclusion, I may add that, of my medical friends who enjoy good health, the hardest workers are all men of most abstemious habits.—Yours truly,

GLYNN WHITTLE, M.A., M.D.Cantab, M.R.C.P.

Liverpool, May 14th, 1881.

VACCINATION WITH CALF-LYMPH.

SIR,—I will be glad to hear the results of the use of calf-vaccine from any of your readers. In my hands the lymph (calf) has been in every case inert. I have used it both for primary and secondary vaccination. This is, of course, highly unsatisfactory.—Faithfully yours, ROBERT BARKER.

32, New Cross Road, S.E., May 17th, 1881.

STETHOSCOPES WITH PLUGS.

SIR,—The idea of having a stethoscope, in which the stem is fixed to the ear-piece by means of a conical end, instead of a screw, can hardly be called a new invention, as I have had one so fitted in use for at least eight years. The stem of my stethoscope, an ordinary one, had broken off near the ear-piece, and was thrown aside as useless, until a brother of mine, with a mechanical turn of mind, got hold of it. He cut off the ragged parts, and made the end of the stem into a conical plug, fitting accurately into the ear-piece, and thus formed a most serviceable and convenient instrument. Perhaps this suggestion may enable some of my brother practitioners to utilise their broken stethoscopes.—I am, sir, yours faithfully,

The General Prison, Perth, May 9th, 1881. JOHN MCNAUGHTAN, M.D.

COMMUNICATIONS, LETTERS, etc., have been received from:—

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BOOKS, ETC., RECEIVED.

A Treatise on the Diseases of the Nervous System. By James Ross, M.D. Vols. I and II. London: J. and A. Churchill. 1881.

On the Diseases of Children. By W. H. Day, M.D. London: J. and A. Churchill. 1881.

John Hunter and his Pupils. By S. D. Gross, M.D. Philadelphia: Bresley Blakiston. 1881.

On Anchylosis. By B. E. Brodhurst. Fourth Edition. London: J. and A. Churchill. 1881.

Zoological Atlas for the Use of Students: 231 coloured figures and diagrams. By D. M. Alpine. W. & A. K. Johnston. 1881.

Students' Manual of Histology. By C. H. Stowell, M.D.. Detroit: 1881.

Report of the Lunatic Asylum in Bombay Presidency. By T. B. Beatty, A.B., M.D., F.R.C.S. Bombay Government Central Press.

Report of the Civil Hospitals and Dispensaries in the Madras Presidency. Madras: E. Keys.

Sixteenth Report of the Sanitary Commissioner, 1879. Calcutta: Government Printing Office.

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LECTURES
ON
BRONCHIECTASIS.

Delivered at the Hospital for Consumption and Diseases of the Chest, Brompton.

By C. THEODORE WILLIAMS, M.A., M.D., F.R.C.P.,
Physician to the Hospital.

Lecture II.

Let us now take some well-marked examples of bronchiectasis, and verify our description of the disease as given in the last lecture.

Case I.—Alfred B., aged 35, a labourer from Buckinghamshire, was admitted October 14th, 1880.

History.—He had been subject to bronchitis for four years, and in 1876 he had cough with expectoration streaked with blood, pain in the left side below the nipple, and night-sweats. The symptoms lasted one month, at the end of which time the night-sweats ceased, but the cough and expectoration remained, and were accompanied by shortness of breath. These symptoms had continued up to the present time, and the dyspnœa had gradually increased. In addition, he had had two attacks of pleuropneumonia similar to the one in 1876, the last occurring in June of this year.

On admission, his aspect was florid and healthy. He had lost about 7 lbs. in weight since July. Cough was frequent and convulsive. Expectoration was abundant; about a pint in twenty-four hours, partly frothy, partly mucous, with some large lumps of muco-pus. It also contained colouring matter and a considerable amount of lung-tissue. The breath was very short on exertion. Both breath and expectoration were very fœtid. His weight was 10 st. Bowels regular; tongue clean; and pulse normal.

Physical Signs (see Fig. 1).—On the left side were flattening and impaired movement in the subclavian and lower mammary regions, the flattening being most marked in the latter (D). There was slight dulness to the second rib, with increased vocal vibration (A). Crepitation on cough was audible from the clavicle to the third rib (C). In the second intercostal space, close to the sternum, over a space as large as a five-shilling piece, was heard cavernous gurgle (B). He was ordered mistura ætheris cum ammoniâ three times a day.

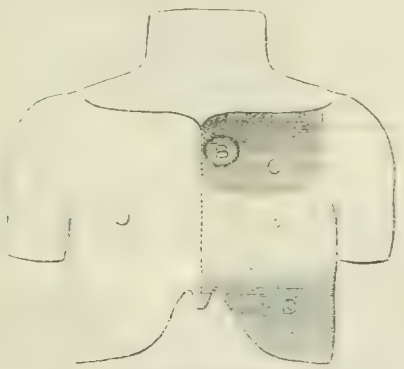


Fig. 1.—Bronchiectasis.

December 3rd, 1880. The cough had diminished, and the expectoration considerably lessened in extent in the last six weeks, but had shown a few occasional streaks of blood. The patient had suffered from dyspepsia.

Remarks.—This patient has evidently had several attacks of pleuropneumonia, the result of which is to be seen in the flattening and contraction of the lower left front chest, with adhesion of the pleura. It is quite possible that there exist dilated bronchial tubes of the cylindrical variety in the lower lobe of this lung, originating in the way described by Hamilton, but at present the physical signs do not indicate this. In the upper lobe, the cavernous breathing near the sternum, its jarring nature, and peculiar locality, indicate the existence of a dilated bronchus in that region. As a contrast to the physical signs of this case, I have annexed those of an ordinary case of tubercular cavity (Fig. 2), where part of the right upper lobe is the seat of excavation. It will be noted that dulness is present, and that the cavernous sounds are chiefly audible in the middle portion of the first intercostal space, and not at its sternal end, as in Case I.

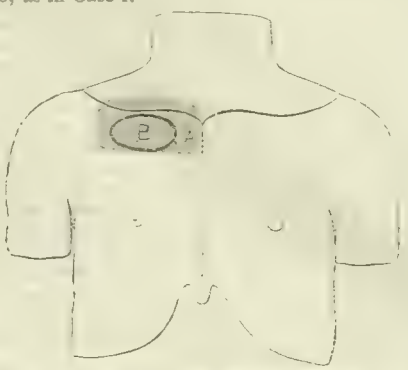


Fig. 2.—Phthisis (1st stage). A denotes dulness; B denotes area of cavernous sounds.

Case II. George H., aged 27, married, by trade a ship's steward, was admitted into Brompton Hospital April 13th, 1880. There was no history of consumption in his family. His habits were somewhat intemperate. He had been subject to winter-cough for some years; and, about three years ago, when employed in managing a hydraulic lift, he suddenly brought up a large quantity of blood. The hæmorrhage was accompanied by cough, and lasted about a week; but he was confined to bed by the consequent illness for seven months. On recovery, he relinquished his former occupation, and went to sea as a steward. During his last voyage, he suffered from severe sickness, and, on his return, gave up all work, and attended as an out-patient at Southampton Hospital, having lost some flesh.

On admission, he had a troublesome cough, with considerable expectoration, which was muco-purulent and very offensive, as was also the breath. He had frequent nausea and vomiting. Pulse 104; temperature 98.2° Fahr.; respirations 18; weight 7 st. 9 lbs.

Physical Signs (Fig. 3).—On the right side there was excessive resonance (E) over the whole front, most marked in the mammary region. Tubular breathing (A) was heard from the clavicle to the upper border of the third rib. Cavernous sounds (B) could be detected in the first interspace, over a space extending two inches to the right of the sternum. The left side was superresonant throughout, and, over the lower third, anteriorly and posteriorly, crepitation (D) was audible.

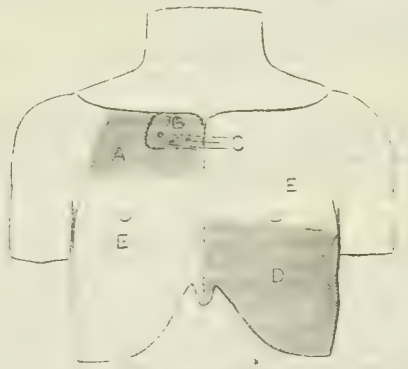


Fig. 3.—Bronchiectasis.

The patient was ordered mistura ætheris cum ammoniâ, with 10 minims of glycerine of carbolic acid, three times a day, and a turpentine inhalation. The diagnosis was emphysema, with bronchiectasis in the right upper lobe, and interstitial pneumonia of the lower lobe of the left lung.

May 27th. He had remained about the same. The cough had been very troublesome; the expectoration from a quarter to half a pint, and fœtid; it contained no lung-tissue. The sickness had been checked by bismuth; after this, inhalations of carbolic acid, tar-water, and turpentine were successively tried, with a view to reduce the fœtor, but failed. He had gained 3¾ lbs. in weight. Wheezing and rhonchus were audible over the whole left lung, and crepitation still at the base.

June 24th. The patient had had an attack of diarrhœa and vomiting. The expectoration had diminished, but still was fœtid. There was less rhonchus in the left lung, but more crepitation at the base.

June 30th. For the last four days, expectoration had been comparatively scanty. On the 29th, during an attack of vomiting, the patient brought up a considerable quantity of thick, fœtid, and extremely purulent material, the last sputum being streaked with blood. Since then he had complained of headache. Pulse 120; temperature 100° Fahr.; bowels open twice; tongue red in the centre, and coated on each side. The rhonchus had disappeared from the lungs. As the inhalations and medicines by the mouth failed to purify the pulmonary secretion, I followed the example of Dr. Pepper of New York, and injected 24 minims of a solution of iodine (1 in 60) through the first intercostal space, about three-fourths of an inch from the right border of the sternum, selecting the spot where cavernous sounds were most audible. The hypodermic syringe entered without any difficulty, and the fluid did not return, but the patient complained of pain in the second space and extending down the right arm. In the evening, the temperature was 98.4° Fahr.

July 1st. The expectoration, being tested, gave no trace of iodine, and was unchanged. Some tenderness existed at the spot of the puncture. Pulse 100; temperature 99° Fahr.

July 6th. Expectoration had been more frothy. The patient had had a rigor, and his temperature has risen to 100.2°; in consequence of this, any further operation had been postponed.

July 8th. He had had no fresh rigor. Temperature 98.4°; pulse 92; respirations 18. Measurements showed the antero-posterior diameter of the right side to be a quarter of an inch less than that of the left. After consultation with Drs. Douglas Powell, Tatham, and Ewart, it was decided to puncture the second interspace two inches to the right of the sternum; and accordingly, after the skin had been frozen, a trocar and cannula of the smallest size were passed by Dr. Hicks through the selected spot to the depth of two inches, in an upward and backward direction. On withdrawing the trocar, pus and mucus welled up, and air hissed through. Thirteen minims of the iodine solution (1 in 30) were then injected. The patient coughed violently, and expectorated a large quantity of the usual fœtid material. Twenty minims more of the iodine were injected, and iodine was at once detected in the expectoration, the patient also complaining of a metallic taste in his mouth. It was then decided to keep a tube in the cavity, and, as the cannula was somewhat too long, another and shorter one was inserted, and held in place by cross pieces of plaister. The operation was well borne, but a pain was experienced in the region of the wound on movement.

July 9th. He had passed a bad night, and complained of the pain. His cough was troublesome; expectoration half a pint, and very offensive; it now contained no trace of iodine. The tube was quite patent, but no discharge issued from it. Fifteen minims of iodine solution were injected; this was followed by violent coughing and profuse expectoration, including some of the solution.

July 11th. Cough and expectoration were about the same. He had no pain in the region of the wound. Temperature 99°; respirations 20.

July 13th. Expectoration was rather more abundant (three-fourths of a pint). An attempt to inject two ounces of Condy's fluid through the cannula failed, the fluid returning by the side of the instrument. A second attempt, after the cannula had been washed and replaced, likewise failed.

July 16th. The cough was troublesome; expectoration about half a pint, very fœtid. Another attempt was made to introduce a cannula half an inch on the inner side of the last opening, and succeeded, a larger and longer one being inserted, and three ounces of Condy's fluid injected and retained. Three days later, the expectoration meanwhile having been scanty and less fœtid, the patient complained greatly of the annoyance of the tube, and in the evening it was found displaced. Dr. Hicks suspected that the patient himself had removed it.

August 23rd. During the last five weeks, no satisfactory progress had been made. A period of scanty expectoration had always been followed by pyrexia and profuse fœtid discharge from the lungs, accompanied by vomiting and sometimes by diarrhœa. Two more attempts at instrumental relief had failed. During the last few days, the patient had hardly expectorated at all. At 3 P.M. on the 22nd, he had a rigor, and brought up three pints of extremely fœtid expectoration. The temperature rose to 103°, and the pulse to 130.

August 25th. As the attempts to drain off the fœtid matter from the right lung had failed, a consultation was held with Dr. Douglas Powell as to the advisability of attempting to perforate a bronchus in the left lung, especially in the lower lobe, which was known to be the seat of interstitial pneumonia, and might consequently be that of bronchial dilatation. The physical signs here were as follows: from the level of the eighth spinous process downwards, slight dulness, more marked below the tenth rib; crepitation scattered over this region; below the tenth rib, croaking sounds on cough. After the patient had been placed in a hanging position over the edge of the bed, which caused expectoration, the above-mentioned dulness slightly diminished.

Though the signs were slight, yet, with a view of obviating the approaching danger of septic poisoning, an operation was decided on, and a trocar with cannula of medium size was passed through the eighth interspace, about three inches to the left of the spine, in a direction forwards and inwards. The trocar met with scarcely any resistance, as was also the case with a catheter (No. 1) passed through afterwards. After the operation, the patient expectorated about half a pint. No air nor discharge escaped through the tube.

September 5th. The tube had been retained up to to-day, but the patient complained much of pain in its neighbourhood; and, as no discharge had issued from it, it was withdrawn.

After this date, expectoration became more and more difficult, the sputum more fœtid, and the patient only got rid of the accumulation after fits of coughing which ended in vomiting. The temperature remained at 103° Fahr., with occasional depressions; the pulse between 120 and 130; the respirations became more frequent and laboured. Auscultation showed the whole of the left lung to be the seat of pneumonia, probably of septic origin.

On September 16th, the patient became livid, and, after severe dyspnœa, died.

NECROPSY (seventeen hours after death).—On removing the sternum and ribs, the left lung was found highly emphysematous, and extending across the median line. The heart was displaced downwards, the apex being situated at the lower margin of the ribs, one inch to the right of the left vertical mammary line. The right ventricle was slightly dilated. The left lung, with the exception of the emphysema above mentioned, which was noted chiefly along the anterior border and at the base, was in a state of red hepatisation. Some of the bronchial tubes were dilated and thickened. In the lower lobe, not far from the posterior surface, was a smooth lined bronchiectasis, in shape and size like a filbert. The pleura was adherent at the apex and at the posterior base, where it was thickened, and showed a jelly-like consistence. The pneumonia was due to inhaled secretion, and of recent production. Unfortunately, no attempt was made to trace the course of the operation on the left lung, and to discover the path of the trocar, until too late in the dissection to recognise the parts as when in position during life. The right lung had the pleura adherent at the apex and base. At the base was the same jelly-like material in the pleural meshes as had been noted in the left pleura. The bronchi were largely dilated in the globular form, the dilatation commencing from the division of the trachea. On tracing the subdivisions of the right bronchus, several dilated portions were found; but in the right upper lobe, corresponding with the portion of lung underlying the first and second intercostal spaces, a division of the bronchus was traced into a series of labyrinthine cavities, which altogether occupied an elongated space amounting to the size of a hen's egg. These spaces opened into each other, and were lined by a smooth glistening membrane continuous with that of the bronchus. They extended nearly to the pleural surface. The tracks of puncture through the walls of this cavity were made out in several places, showing that the bronchus had been reached by operation. Some dilatations of the bronchi were found in the lower and middle lobes, but were not so well marked and extensive as in the upper lobe. The whole of the right lung was crepitant, and a great part emphysematous. There was some pulmonary œdema.

REMARKS.—This case exemplifies in many ways the characteristics of bronchiectasis. The history, as in most instances, was very obscure; and, beyond the winter-cough and the occasional hæmorrhage, we have little to lay hold of before he came under observation. The two principal facts on which the diagnosis was founded were (1) the cough and expectoration, (2) the physical signs.

The expectoration was a mixture of frothy mucus and very offensive pus, and the difficulty of expectorating was extreme. Towards the end of his life, the poor fellow could only relieve his bronchial tubes by hanging himself over the edge of his bed, and then, by a mixture of coughing and vomiting, he brought up some of the secretion. Sometimes he failed to accomplish even this, and the expectoration would accumulate for two or three days, at the end of which time a rigor appeared, followed by high temperature, showing probable absorption of some of the poison; he would then expectorate a pint and a half or two pints of fœtid material, when the temperature fell and relief was experienced.

The physical signs which pointed to the diagnosis were the combination of hyperresonance on percussion, indicative of emphysema, with

cavernous sounds heard nearer to the sternum than is usually the case in tuberculous cavities. The entire absence of signs on the posterior surface of the apex also strengthened the opinion.

The great contrast between this case and cases of phthisis was shown in the weight, which, in spite of his sufferings, increased up to his death, instead of diminishing.

Death appeared to have taken place by septicæmia. The *post mortem* examination demonstrated two things: 1. The success of the operations in reaching the bronchiectasis; 2. The doubtful value of operations in these cases. This is because, as a rule, there is not one, but many bronchiectases, and the secretion is of that character which cannot be drawn through a tube, or, in other words, tapped. What strikes one most, in contemplating this case, is the remarkable non-vulnerability of the patient's system: six formidable operations, one after another, were performed without creating constitutional disturbance even so far as to give a slight rise of temperature.

Case III.—J. S. E., a baker, aged 51, was admitted on November 16th, 1880.

History.—He had been subject to winter-cough and expectoration for ten years, accompanied by shortness of breath on exertion. The cough had usually ceased in summer, but the dyspnœa has persisted. Two years ago, he was confined to his bed with cough and pain in the side for three months, accompanied by slight hæmoptysis. Last August, he had hæmoptysis to the amount of a quart, extending over two or three days, the blood being bright red, and unmixed with mucus. He had occasionally had night sweats, and, for the last four years, had lost flesh amounting in all to two stone.

On admission, his cough was troublesome. Expectoration was muco-purulent, abundant, about a third of a pint daily. His breath was short; aspect healthy; frame well knit, and chest large. Tongue clean. Bowels regular. His appetite was good. Weight 10 st. 1 lb. Pulse 70; respirations 25; temperature 100° Fahr. (evening).

Physical Signs.—Harsh tubular breathing was audible in the first interspace on the left side, but there was no dulness. On the right side posteriorly was some dulness; crepitation, tubular sound, and jarring bronchophony existed over the lower half (A, Fig. 4). Cavernous breath and gurgle were audible over the lower and inner portion (B). Below the angle of the left scapula, crepitation and some tubular sounds were heard over a limited surface (C).

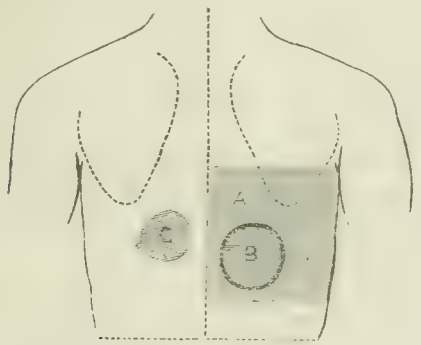


Fig. 4.—Bronchiectasis.

February 1881. This patient has improved greatly. Cough is less troublesome. The expectoration is reduced to about an ounce of frothy mucus daily. He has gained eight pounds in weight. His breath is easier on exertion. The temperature and pulse are normal.

Physical Signs.—No crepitation is audible in the left lung; in the right, the crepitation has diminished, and the loud cavernous sounds have become more tubular in character. In this case, several bronchial tubes were dilated; but the one which gave rise to most of the patient's symptoms was situated at the base of the right lung. From the physical signs, it would appear that some reduction in the size of the bronchial tube took place; or, what is more probable, some absorption of the surrounding consolidation.

Diagnosis.—The only condition from which it is necessary to diagnose bronchiectasis is that of tubercular cavity; unless, perhaps, we may mention the rare condition of a localised empyema bursting into a bronchus. In this latter case, the history and symptoms would generally preclude a mistake. In the diagnosis from tubercular cavity, we must depend on (1) the age of the patient; bronchiectasis occurs principally in middle-aged persons, phthisis in younger ones, though, of course, it may be found at various ages; (2) on the aspect, which, in bronchiectasis, is, as a rule, tolerably healthy, contrasting strongly with the cachexia of phthisis; (3) on the absence of loss of weight and the presence of dyspnœa out of all proportion to the physical signs; next, we rely on (4) the character of the cough and expectoration; and, lastly, on certain features of the (5) physical signs—viz., on their localised and stationary character, on the loudness of the cavernous breathing contrasted with the small amount of accompanying dulness, and the jarring nature of the voice-sounds, and on the peculiar situations in which the sounds are audible. The loudness of the cavernous breathing and the jarring nature of the voice-sounds were well shown in a case which I communicated to the Clinical Society (*Clin. Transactions*, vol. xii), where a labyrinthine cavity, whose diameter in no part exceeded one inch, gave rise to a loud cavernous sound over the lower third of the posterior surface of one lung.

Prognosis.—Do bronchiectases ever heal? *i.e.*, does the bronchus ever regain its original lumen? Barth maintains that they do occasionally. Biermer states that cicatrices may form in the smaller bronchi. It is not uncommon, he observes, to find in fibroid phthisis some of the dilated bronchi cut off from the bronchial tree, and encysted by fibrosis. I confess, however, I have never seen the cicatrices mentioned by Biermer.

In some cases of bronchiectasis, where no fresh irritating cause arises, the patient may continue *in statu quo* and live on for years, his strength availing to sufficiently evacuate the dilatations, and thus prevent plugging of the bronchi, or secondary inflammatory changes in their walls. This is a favourable outlook. In most cases, however, the prognosis is far more gloomy: either a fresh catarrh, causing fresh secretion, adds to the patient's difficulties by blocking a certain number of the dilated tubes, and thus brings about death by suffocation; or the secretions accumulate to that extent in the bronchial tree, that the terminal bronchi at length open by ulceration on to the pleural surface, and death by pyopneumothorax is the result. The third or most common ending is what occurred in two of my cases—septicæmic poisoning of the opposite lung. When expectoration of the fœtid matter has become exceedingly difficult, and great expiratory force is needed to effect even a partial clearance of the tubes, we may be sure that septic pneumonia will soon supervene; for each expiratory effort is followed by deep inspirations, which render the inhalation of the fœtid matter into the sound lung tolerably certain. How different is the future of a localised tubercular cavity! For here we know that life may be prolonged in comfort for many years, its contents being regularly and efficiently got rid of by morning and evening expectoration. But in bronchiectasis we have a mechanical obstacle in the form of the rigidity of the tubes, which is fatal to all effective drainage, and leads in time to self-poisoning.

Treatment.—The chief principles to be kept in view are: (1) the prevention of fresh catarrh; (2) the stimulation of the walls of the bronchi, so as to bring into play any muscular tissue that remains; and (3) the improvement in the character and amount of the bronchial secretion.

The first point is arrived at by keeping the patient as far as possible in an equable atmosphere, and at the same time bracing his frame and power of enduring changes of atmosphere by cold sponging and salt baths, warm and cold. There is no doubt, too, that cold affusion is a very effective way of stimulating respiration and expectoration, and thus attaining the second point of treatment. In many cases, the most effective evacuation of the bronchial tubes takes place after the morning sponge-bath; and the chief good of the douches applied by our German brethren to the chest lies in the deep inspirations and expirations which they induce, these promoting expectoration. Stimulation of the bronchial muscle is difficult in bronchiectasis, because often very little of the muscular element remains; but it should be attempted by aid of strong expectorants and diffusible stimulants. These may be introduced either by the stomach in form of spiritus ætheris, carbonate of ammonia, oil of turpentine in capsules, tinctures of benzoin, tolu, senega, and larch, capsules de goudron, and such like; or directly to the air-passages, by the use of handball spray-apparatus containing solutions of ipecacuanha wine, tar-water, and carbolic acid. But, according to my experience, these have proved of little avail, chiefly because cold fluids are uncongenial to a congested and inflamed mucous membrane; and, on the other hand, warm inhalations appear to penetrate far deeper into the air-passages, and are more soothing to the patient. The best forms are compound tincture of benzoin (two drachms to the pint of boiling water), oil of turpentine (23 to 30 minims), thymol, pinus sylvestris, and juniper, inhaled night and morning from a pint jug with a wide mouth, with a napkin arranged like a funnel to conduct the vapours to the patient's nose and mouth. The third point is best attained by antiseptic inhalations, such as glycerine of carbolic acid (two to four drachms to the pint), creasote (ten minims to the pint), tar-water, all of which tend to correct the fœtor, and to reduce the amount of secretion. It has often occurred to me that the ordinary methods of

inhalation are a very imperfect mode of applying remedial agents to the lungs. The effort of inhalation, and even of using sprays, is very fatiguing to the patient, and prevents their application more than two or three times daily. A far better way would be to impregnate the atmosphere of a chamber with a very small percentage of the required drug, as well as warming and moistening it so that the patient could continually inhale it without effort. Wire-respirators, arranged to cover both nose and mouth, between the layers of which lint and sponge soaked in various solutions are placed, have also proved beneficial in cases of bronchiectasis. When, however, none of these means enable the patient to get rid of the accumulating secretions, what is to be done to prevent death by septicæmia? Are we justified in tapping the bronchiectasis? Assuredly we are, if we can be certain that the dilatation is limited to one set of bronchi, and is not a general condition of the bronchi of both lungs. In too many instances, this latter is the case, and then operation is useless. Emetics may be resorted to as an occasional measure of relief; but such a general dilatation of the bronchial tree is a very hopeless condition with which to deal. The dietary ought to be most generous, including a fair amount of stimulant in the form of brandy or whiskey, which, mixed with warm water, assists expectoration. The marine stimulating climates, such as Brighton, Eastbourne, Margate, Ramsgate, Yarmouth, Whitby, and Scarborough, do most good in these cases.

ABSTRACT OF LECTURES
ON THE
ANATOMY, PHYSIOLOGY, AND ZOOLOGY OF THE CETACEA.

Delivered at the Royal College of Surgeons of England.

By W. H. FLOWER, F.R.S., LL.D.,
Hunterian Professor of Comparative Anatomy.

Lecture VI.—The Greenland Whale—(*continued*).

The vertebral column of the Greenland whale differs from that of the lesser rorqual chiefly in size and in the cervical region. In the former, the cervical vertebræ, which are seven in number, are ankylosed together, while in the latter they are separate. The ankylosis is not confined to the centra, but also takes place between the spinous processes, and is present from birth. The remaining portion of the spinal column is composed of thirteen dorsal, fourteen lumbar, and twenty-two caudal vertebræ. The sternum is heart-shaped, and has a single rib articulated with it on each side. The extremities only differ in details from those of the *Balænoptera*. The scapula is higher and narrower; the humerus, radius, and ulna are rather shorter; while the hand is broader, and has a small rudimentary thumb. The pelvis and hind limbs are better developed than in the *Balænoptera*. The innominate bone is somewhat triangular in shape, with a nodule of bone, which represents the femur, united by fibrous tissue to its outer surface. To the lower end of this rudimentary femur is attached a second bony nodule of smaller size, representing the tibia; but there is no bone corresponding to the fibula. The joint between the innominate and femur is fairly complete, and Professor Struthers has shown, in a paper recently published in the *Journal of Anatomy and Physiology*, that muscles may be traced passing from the pelvis to the femur, though they are of small size and faintly developed. The tympanic bone is ankylosed to the mastoid process, and to the petrous portion of the temporal bone in the *Balænoptera*. The malleus is ankylosed to the tympanic bone, through the medium of the processus gracilis.

The number of species of right whales is not precisely known; but recent researches seem to indicate that there are only two distinct forms—namely, the Greenland whale (*Balæna mysticetus*), and the *Balæna* which inhabits the temperate seas. The latter, of which there are several varieties named, has been found very widely distributed. One variety, with a comparatively small head, has been caught on our own coasts, and on the Atlantic coasts of Europe and North America. To this animal the name of Atlantic whale (*Balæna Biscayensis*) has been given. A specimen of this whale was caught, in 1878, in the Mediterranean. A second variety, probably of the same species, has been obtained off the Cape of Good Hope, and on the coasts of New Zealand; it has received the name of *Balæna Australis*. A very young specimen of it, from the Cape, is preserved and mounted in the western museum. A third variety has long been known to the Japanese, on the coasts of Japan. Of this variety, nothing is known except from a Japanese book, in which there are several pictures of whale-fishing, and from the accounts of the fishermen of the coast of California. Though different names have been given to those whales, according to the localities where they have been found, it is extremely doubtful that they are actually different species. Much information is, however, required regarding them before the number of species can be determined with accuracy.

The *Balænopteræ* are the most widely spread family of the cetacea, being found in almost all seas. They are all timid animals; many of them are of large size, and rapid swimmers. Four distinct species are found on our coasts. These are:

1. *Balænoptera musculus*, which is of a black colour on the dorsal aspect, and light on the ventral surface. The upper surfaces of its anterior extremities are black, without any streaks. Its sternum is broad.

2. *Balænoptera Sibbaldii*, the largest of all the whales, being sometimes as long as twenty-four mètres (eighty feet). It is rarer in our seas, though sometimes caught on the north coasts of Scotland, but more abundant on the coasts of Norway, where it is hunted and shot with explosive harpoons. It is of grey colour, with black whalebone.

3. *Balænoptera borealis* is also one of the rarer forms. Its first rib is peculiar, in being always double at its upper extremity, which causes it to present an appearance as if a cervical rib had been fused with the true first rib. This character has been found in other whales, but never with the same constancy as in this species.

Balænoptera rostrata is the last and smallest species of the family, and has already been fully described. All the other *Balænopteræ* which have been described by Gray and others, are so closely allied to one or other of these forms as to be undistinguishable from them.

Intermediate between the *Balæna* and the *Balænoptera* are three forms of whale: the humpbacks, the *Megaptera;* the *Neobalæna*, or *Balæna marginata;* and the Californian grey whale, *Rachianectes*. The *Megaptera* has the skin of its throat thrown into folds like that of the *Balænoptera*. The anterior extremities are remarkable for their length. On each manus there are four digits. The phalanges are numerous, there being as many as nine present in the middle digit. A low dorsal fin is developed, and the cervical vertebræ are separate. The geographical distribution of this animal is very wide; it is found on our coasts, at the Cape of Good Hope, and in New Zealand, Japan, and many other places. It is infested with two kinds of barnacles—namely, the coronula and otion—which may frequently be found attached to the tail and fins.

The *Neobalæna*, or *Balæna marginata*, is found off the coasts of New Zealand. Its whalebone is long and narrow, and the hairs attached to the inner margin are long and very fine. There are no folds of skin on the anterior part of the chest, and the cervical vertebræ are ankylosed. It resembles in these respects the *Balæna*, but differs in possessing a dorsal fin and four digits.

The Californian grey whale, *Rachianectes*, has been hunted for a long time, though little is known of its anatomy. It resembles the *Balæna* in possessing no skin-folds on the chest and no dorsal fin, but has only four digits, and the cervical vertebræ are separate. The whalebone is very coarse. The points of resemblance of these forms to the *Balæna* or to the *Balænoptera* will be more clearly illustrated by the following table.

—	Skin-Folds on Throat.	Number of Digits.	State of Cervical Vertebræ.	Presence or absence of Dorsal Fin.
Balæna	Absent	5	Ankylosed	Absent
Neobalæna	Absent	4	Ankylosed	Present
Rachianectes	Absent	4	Separate	Absent
Megaptera	Present	4	Separate	Present
Balænoptera	Present	4	Separate	Present

Bequests.—The late Mr. Thomas Biggart of Bardland Hill, Dalry, bequeathed to the Association for the Relief of Incurables, Glasgow and West of Scotland, £500; to the Glasgow Convalescent Home, Lenzie, £100; to the Seaside Convalescent Home, Kilmun, £100; to the Western Infirmary, Glasgow, £200; while he also directed that £500 be set apart for a number of years, and the interest paid to the West of Scotland Convalescent Home, Dunoon, for the benefit of sick-poor from Dalry, who may require the benefit of a period of residence at the Home; this sum ultimately to be paid over for behoof of the said Homes.

ANTISEPTIC INHALATION IN PULMONARY AFFECTIONS.*

By J. G. SINCLAIR COGHILL, M.D., F.R.C.P.Ed.,
Physician to the Royal National Hospital for Consumption.

I HAVE thought the occasion of the Southern Branch of the British Medical Association meeting at Bournemouth an appropriate one for bringing forward a subject bearing upon the treatment of certain forms of pulmonary disease. I do this the more readily, as I know it is one which has already been cordially taken up, and practised with success, by many of my professional friends here. This subject is the inhalation of antiseptic materials in the treatment of such stages of phthisical, pneumonic, and bronchial affections, as are accompanied by purulent or fœtid expectoration.

In adopting local antiseptic medication in the treatment of pulmonary disease, medicine is but adding another to the many acknowledgments of the splendid success of Professor Lister's antiseptic methods in the sister domain of surgery. Lister's invaluable researches in physiological therapeutics seem, indeed, capable of indefinite extension. To us, as physicians, his doctrines are especially valuable, as shedding new light on the importance, locally and constitutionally, of the lesion of the lung in phthisis, as well as unmistakably indicating a most appropriate means of treatment. Already, antiseptic inhalation can no longer be regarded as a novelty in pulmonary therapeutics. It would be almost invidious to name in this connection the many distinguished physicians who have recognised the important bearing of the antiseptic views of Lister on the pathological relations of suppurative processes in the lungs, and their treatment. Dr. W. Roberts, of Manchester, very early took up the subject; and he has been followed, in rapid succession, among others, by Drs. James E. Pollock, Douglas Powell, Thorowgood, Dobell, Clifford Allbutt, Sansom, Burney Yeo, and many others.

Antiseptic inhalation, indeed, is evidently and deservedly coming into notice, as a valuable aid in the treatment of a large and important class of diseases; and I believe that it is capable of much greater development and extension, and that it will ultimately play a distinguished *rôle* in the pulmonary therapeutics of the future. It must, however, be admitted that it has not been adopted as rapidly or as generally as the undoubted indications for its employment would seem to justify. It is somewhat difficult to account for this tardy recognition of means that have been found so valuable in the hands of those physicians who have put it to the test of long and extensive trial.

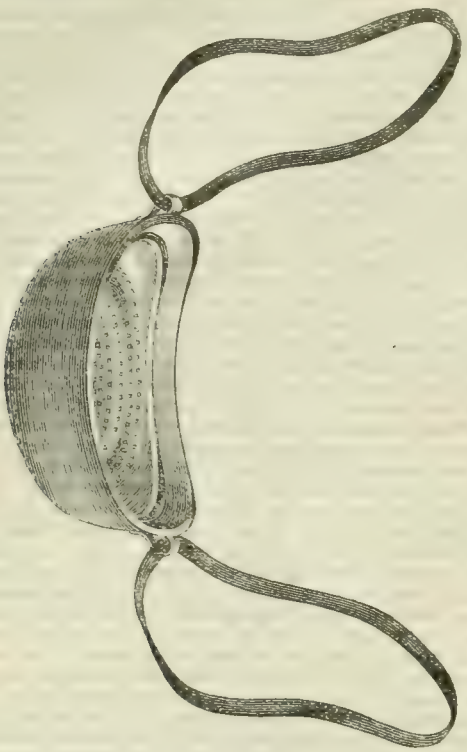
The propriety of attacking disease in the local seats of its activity, in addition to treating the constitutional conditions which accompany—not necessarily in the relation of cause and effect—the local lesion, is one which, in the present state of pathological knowledge, hardly admits of question. If this be accepted as a leading principle in the therapeutics of disease in general, how much more readily should its application be recognised in the treatment of affections like those included in the common term of phthisis, where the relation of the tissue-lesion to the constitutional morbid state is not accidental or variable, as it is in many other maladies, but essential and continuous; and where, consequently, their reactions on each other are of primary importance. In the advanced progressive forms of tubercular phthisis, the fever which accompanies the breaking down of the infiltrated and disintegrated pulmonary tissue has long been recognised as an infectious pyrexia, directly resulting from the absorption of the septic materials from the seat of this retrograde metamorphosis. In pneumonic or secondary phthisis, also, we have a suppurative process set up as a retrograde sequel to the original inflammation of the lung-tissue, ending in an excavation, which is in all essential conditions analogous to a surgical abscess. The natural progress of the two local states—the excavation in the lung and the external abscess, as well as their influence on the general condition, are identical. In both, we have a localised suppurative process, continually invading and breaking down the adjacent sound tissues; exhausting the patient in proportion to the amount of pus thus secreted, forming active centres of disseminating infection, and lowering the powers of the patient by the resulting febrile movement, thus still further diminishing his chances of recovery. But this morbid process is capable of arrest—nay, as the great Laënnec first pointed out, and as all our *post mortem* experience amply corroborates—nature herself is equal to the task; but it is none the less the duty of the physician to come to her aid with all the means in his power. In such circumstances, the objects of treatment are, as Dr. Douglas Powell states, in his admirable Lectures on Excavation of the Lung in Phthisis (*Lancet*, August 1877): 1. To lessen secretion; 2. to promote evacuation of what secretion is formed; 3. to disinfect the air which may pass into surrounding or deeper healthy portions of the lungs. Again, he says: "besides acting as disinfectants, antiseptic inhalations promote expectoration by increased energy of expiratory acts". Dr. Burney Yeo also recommends antiseptic inhalations, "if they have only the effect of temporarily cleansing, as it were, the pulmonary surface. It is a process analogous to that of washing away the decomposing discharges of a foul superficial ulcer". Dr. Clifford Allbutt has broadly stated, and as truthfully, that "most phthisical patients die of septicæmia; and the arrest of this daily re-poisoning is a primary object of treatment". Antiseptic inhalation again assumes a still more important position, if the latest pathological theory of the contagiousness of phthisis through the respired air be well founded.

Why, then, should we, as physicians, not recognise that, in all suppurative processes in the lungs, as evidenced by purulent expectoration, we have local conditions presented, calling as loudly for direct antiseptic medication as the wounds, abscesses, and ulcerations which belong to the province of our surgical brethren? But, while the external or surgical employment of antiseptics is an easy and simple process, and its results more immediately apparent, it is very different when we have to introduce our remedies into the interior of the body through an intricate and jealously guarded portal, as we have in the case of the lungs. That the comparative accessibility, however, of the lungs, through the glottis, should have, even in the earliest times, suggested direct medication, is not surprising; but it is, indeed, strange that inhalation, or taking advantage of the respiratory act for this purpose, which dates from the days of the Father of Medicine himself, should only have received, until comparatively recent times, but occasional and rare employment. That its importance was from time to time recognised, there is abundant evidence in the works of the older physicians; and, that this importance was even occasionally exaggerated by them, is shown by the statement of the celebrated Italian physician, Mascagni, who says: "If ever a specific should be devised against consumption, it would be such as to be introduced into the organism through the windpipe". A succession of celebrated names in more modern times, too numerous to mention, is associated with the subject of pulmonary medication by inhaling; and a great variety of apparatus, more or less elaborate, have been introduced from time to time for the purpose. There are, however, great objections, apart from the almost impossibility of their penetrating deeply enough into the tissue of the lungs, to the inhalation of dry powders, however finely divided, on account of their mechanically irritating effect on the often already morbidly sensitive laryngeal and bronchial surfaces. Non-volatile fluids, again, can only be very partial in their distribution; and, if inhaled at high temperature, must further render the upper reaches of the respiratory tract sodden, and increasingly sensitive to changes of temperature. Careful observation of the action and effects of this steaming process in affections of the lungs has convinced me, that it is not only inefficient, but, in every respect, positively injurious. It relaxes the tissues with which the vapour comes into contact; it encourages suppuration where the ulcerative process has begun, and it tends, therefore, to increase expectoration and cough, and consequently the distress and exhaustion of the patient. The inhalation of hot moist vapour, indeed, is so repugnant to the respiratory tract, that but a small quantity of the medicated material can penetrate sufficiently into the pulmonary tissue to be of use. The immediately subsequent effects are also not unattended with risk, from the exposure of the air-passages to air of a lower temperature after hot inhalation. However beneficial, then, in laryngeal affections (and we are all familiar enough with its value in such), the inhalation of dry powders, or of pulverised fluids in the form of spray, either cold or hot, may be, they cannot be regarded seriously in connection with the treatment of suppurative processes within the lung itself.

It is now more than five years since I became strongly impressed with the important bearings of Lister's teaching on the local treatment of phthisis; and, in working out the idea of antiseptic inhalation, the considerations above referred to, suggested the plan of adopting the principle of the old-fashioned, and now happily almost obsolete, respirator for the purpose—selecting a volatile medium for the antiseptic materials, and employing the breath in the alternate acts of inspiration and expiration, as their vehicle. These so-called antiseptic inhalers or respirators were first made to my order by a local tradesman, in common tin, of the exact shape and size of the ordinary metal respirator. These were, however, somewhat primitive in style; and they have since been exten-

* Read before the Southern Branch.

sively made by Messrs. Maw, Son, and Thompson, in a more elaborate and convenient fashion.



The apparatus is extremely simple. It consists of a space for a pledget of tow or cotton-wool, enclosed between the perforated surface of the respirator and an inner perforated plate, which can be raised so as to permit the tow to be saturated with the antiseptic solution. Elastic loops are attached to pass over the ears, and retain it in position. The inhaler may be procured either plain, or of a slightly smaller size, and covered with black cloth, for wearing out of doors. The pledget of tow, which may be changed once a week or so, should be sprinkled with from ten to twenty drops of the antiseptic solution, from a drop-stoppered phial, twice-a-day at least, according to the extent to which the inhaling may be carried on. Of this the patient is the best judge, and the length of time and quantity of solution should be regulated by tolerance and effect. The most important times for inhaling are for an hour or so before going to sleep at night, and after the morning expectoration, which leaves the suppurating surface or cavity dry to be acted upon—disinfected, so to speak—by the antiseptic vapour. A great many of my patients have of their own accord come to use the respirator almost continuously day and night, from their experience of its good effects. I attach the utmost importance to the mode in which the respiration is conducted while inhaling. The patient should be carefully instructed to inspire through the mouth alone, and expire through the nose. In this way, the breath is drawn through the saturated tow in the perforated chamber of the inhaler, and passes directly into the lungs laden with the antiseptic materials. Expiring through the nose only, necessarily involves a complete circulation of the medicated air. The breathing should be short at the beginning of the inhalation, but gradually deepened, so as to displace and affect the residual air in the more distant portions of the lungs. This form of respiration itself is not only of great use in favouring the circulation of the blood in the lungs, and thus aiding both local and general nutrition through that fluid, but it helps very much the expulsion of the sputa by means of the increased energy and thoroughness of the expiratory acts. Indeed, the great objection to the ordinary respirator lies in the shallowness and rapidity of breathing which it involves, in consequence of which the lungs, being imperfectly expanded and contracted during each act of respiration, become themselves literally fatigued, and the breath is drawn in and forced out so feebly, and at the same time so quickly, that there is not time for it to be dispersed into the fresh air, but it returns each time into the lungs only partially changed. The extremely fœtid odour which the apparatus rapidly acquires is sufficient proof of this. One of the patients in the Royal National Hospital here, when I was working out this subject, made a pasteboard respirator for antiseptic inhalation of such a shape as to include the nose; but it was found to have all the objectionable points of the ordinary respirator, and certainly did not permit sufficiently free access of the medicated air to the lungs, a large amount of the antiseptic material being lost by absorption on the convoluted walls of the tortuous nasal channels.

After many trials of the now formidable list of antiseptics, I find that carbolic acid, creasote, and iodine, in combination with sulphuric ether and rectified spirits of wine, are the most efficacious and satisfactory. The want of volatility in boracic, salicylic, and benzoic acids, and their salts, proves a bar to their employment by this method. Dr. Horace Dobell, who has had a very favourable experience of this treatment, writes to me that he has found thymol, in the form of Shirley's thymoline, very grateful and efficient, in many cases, where the smell of carbolic acid and creasote was intolerable either to patients or to their friends. Of the three antiseptic agents I chiefly use, I find iodine most useful in the second stage of phthisis, when the expectoration is passing from the glairy into purulent character. I use a tincture, for inhaling purposes, made with sulphuric ether instead of spirits of wine; and this ethereal solution has a singularly soothing effect on the cough and pulmonary irritation. In combination also with carbolic acid as carbolised iodine, or iodide phenol, it is extremely useful in the purulent expectoration accompanying the resolution of pneumonia, both catarrhal and croupous. In the stage of excavation, whether tubercular or pneumonic, the combination of iodine with carbolic acid and creasote is most potent. The acid seems to have the greater influence in checking the amount and purulent nature of the sputa; while creasote acts more as a sedative in the cough, apparently by reducing the irritability of the pulmonary tissues. The addition, also, of varying proportions of sulphuric ether and chloroform greatly assists in soothing and allaying irritation. These combinations also act frequently like a charm in the profuse expectoration of purulent bronchitis, as also in bronchial asthma. Dr. Thorowgood, in the Lettsomian Lectures for 1879, describes my antiseptic respirator, and adds his valuable testimony to its efficacy in bronchial affections. I have also noticed that patients, while using this form of inhalation, frequently experience great relief from the aches and flying muscular pains which often occasion much distress in the advanced stages of phthisis.

In connection with these observations, the following formula may be taken as an adaptable basis for the antiseptic solution for inhaling. ℞ Tincturæ iodi etherealis, acidi carbolici, āā ℥ii; creasoti vel thymoli, ℥i; spiritûs vini rect., ad ℥i. M. Where cough is urgent, or breathing embarrassed, chloroform or sulphuric ether may be added at discretion. In the formula which I published in 1877, a small quantity of glycerine was introduced, with a view to aid solution and fix the materials; but I found it unnecessary, and also that it clogged the respirator, and soiled everything with which it came in contact.

Whether these substances act by destroying the germs to which the formation of pus is attributed by the great teacher of the antiseptic method, or by their abortive effect from a physical cause, such as coagulation, on the cell-proliferation in the seat of morbid action, I do not profess to know; but the effect of this antiseptic inhalation in diminishing expectoration, and with it the cough, in the various forms of phthisis, during the resolution of pneumonia and in the purulent stage of bronchitis, acute or chronic, with dilated bronchi and fœtid expectoration, is certainly most remarkable. The following are the first four of a list of cases of phthisis, selected by my friend, Dr. Grant, resident physician at the Ventnor Hospital, in which antiseptic inhalation was employed throughout as an adjunct to general treatment.

Case I.—M. B., aged 32, a tailor. Third stage, right side, with moist crepitations all over the back, and second to third stage at the left apex. He was admitted on January 8th. The sputa were nummular and bloody, four ounces in amount. He was discharged on March 18th; sputa, two drachms, no tinge. He was under treatment ten weeks; he gained 10 lbs.; and was discharged with crepitation much diminished in all parts of the chest, and signs of dry vomicæ at both apices. The other treatment consisted of hypophosphites and cod-liver oil, with iodine paint over the chest.

Case II.—E. M., aged 20, a shopwoman, of strumous cachexia; had very moist excavation at both apices. Expectoration amounted to four ounces, and was muco-purulent. She was under treatment eighteen weeks. The expectoration was entirely stopped, and she was discharged with the moist sounds greatly diminished and the cavities contracting. There was great long-continued pyrexia in this case. The other treatment consisted of quinine and hydrobromic acid, atropia and oxide of zinc, cod-liver oil, and iodine to the chest.

Case III.—J. B., aged 25, domestic servant, had phthisis in the third stage at both apices. At first there was considerable pyrexia.

The expectoration was three ounces, frothy and muco-purulent; in ten weeks it was reduced to half an ounce. He was discharged with the disease arrested; the physical signs in the right apex as before, and the left apex much drier. The other treatment consisted of quinine and hydrobromic acid, and afterwards quinine and phosphoric acid.

CASE IV.—J. G., aged 31, time-keeper, had the disease in the third stage, very moist, at the right apex; in the first stage, at the left apex. Expectoration amounted to one ounce, muco-purulent and nummular; hæmoptysis was intercurrent. After ten weeks' treatment, there was no expectoration; and he was discharged with the cavity completely dried and contracting rapidly, and physical signs absent from the other apex. This patient gained 9½ lbs. The other treatment was chiefly quinine and hydrobromic acid, and ergotine hypodermically for hæmoptysis.

These cases have been taken at random, and are by no means those in which we have seen the best results from antiseptic inhalation on the amount of sputa.

To be able, also, by this means to dispense, to a great extent, with cough-mixtures, *et hoc genus omne*, is in itself no small advantage in the treatment of a class of diseases in which it is so necessary to preserve, if possible, the appetite, with the digestive and assimilative processes undisturbed and intact. If there be sputa collected in the lungs, there must be cough; the *rationale* of treatment then is to prevent, if possible, the material from being secreted which demands cough for its expulsion. To attempt to stifle a cough under such conditions by sedatives is erroneous in theory, and most dangerous in practice, apart from the other mischievous effects of preparations to which I have already referred.

I may say here, that my later and wider experience of this form of antiseptic inhalation in phthisis laryngea, if such a disease exist *per se*, of which I have grave doubts, or, as I would prefer putting it, in phthisis complicated with affection of the larynx, has not been so favourable as my earlier cases led me to expect. It seems to have too drying or astringent an effect; and, in all such cases, a warm moist vehicle is preferable for the antiseptic material, if such be indicated.

I have now, for nearly five years, employed antiseptic inhalation, as a regular part of the treatment, in all lung-affections characterised by purulent expectoration, both in my private practice and in the Royal National Hospital for Consumption. I find that all patients take to it very readily, become very speedily impressed with the amount of relief it affords, and inclined to continue it on their own account, without the encouragement and suggestion which many other details of treatment often require. Any difficulty on the score of odour is easily met in the great variety of antiseptic materials from which to choose. I have received a great many communications from members of the profession, many of them in large practice among *poitrinaires*, expressing their high opinion of its value. I am sure the results of this auxiliary to general treatment, in appropriate cases, will be found most encouraging.

ON THE EMPLOYMENT OF THE MAGNET AND ELECTRO-MAGNET IN THE REMOVAL OF IRON AND STEEL FRAGMENTS FROM THE INTERIOR OF THE EYE.*

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THE employment of the magnet was advocated, according to Manché, as long ago as 1646 by Fabricius Hildanus, and he used it apparently at the suggestion of his wife, but confined its application to the removal of splinters of iron from the cornea. In the BRITISH MEDICAL JOURNAL of last year (vol. ii, p. 83), I recorded an extract from a work published in 1745 by a Dr. S. Milhes, giving a case where a "piece of iron or steel stuck in the iris", and, failing to remove it with a small spatula, he "applied a loadstone to it, and immediately it flew out".

It is, however, to Dr. McKeown of Belfast that we are indebted for drawing attention to the great value of this procedure in the removal of fragments of steel or iron from the interior of the eye. He recorded, in 1874 (BRITISH MEDICAL JOURNAL, 1874, vol. i, p. 800), a case in which, by its aid, a piece of metal was removed from the vitreous humour; and more recently has published two other cases (BRITISH MEDICAL JOURNAL, 1878, vol. i, p. 644). Hirschberg (*Berliner Klin. Wochenschrift*, 1879, No. 46, and BRITISH MEDICAL JOURNAL, 1880, vol. i, p. 778) has since related a case in which, with the electro-magnet, he removed a fragment of iron from the vitreous body; and Knapp has also recorded a case in which he employed it successfully (Knapp's *Archives of Ophthalmology*, vol. ix, No. 2). Mr. McHardy, before the Clinical Society, in 1878, mentioned a case of interest, where a piece of metal, sticking in the lens capsule, was drawn into the anterior chamber by a powerful magnet held at some little distance from the eye, its removal being thereby facilitated.

It will thus be seen, that the number of cases recorded in which this plan has been adopted are few; but there can be little doubt that it is a procedure of the highest value, and destined to preserve vision to many eyes, whilst in others it may at least secure a presentable organ, and one free from fear of irritation.

There are two modes in which we may apply the magnetic force, either in some form of simple permanent magnet, or as the electro-magnet. Dr. McKeown used the first of these in his cases, and employed a bar-magnet tapered at each extremity; but the electro-magnet is a much more efficient instrument. The difficulty is to get a bar-magnet, exhibiting sufficient power at an extremity small enough for our purpose, to serve practically in the detection and removal of a piece of steel or iron. That, however, one of this character possesses sufficient power for many instances, is proved by McKeown's cases. My experiments also in this direction have shown me that considerable attractive force can be effected by different kinds of bar-magnets. One magnet I had made was a single steel bar, thirteen inches long, and tapered at one extremity to a point a line and a half wide, and three-quarters of a line thick. A few coils of soft iron-wire passed round the bar kept the magnetic current intact. This magnet possessed considerable power; and I almost immediately had an opportunity of testing its efficiency, or one somewhat smaller, though unsuccessfully, in the following case.

A miner, in one of the Derbyshire mines, was engaged in boring for the purpose of blasting, and a piece of the drilling instrument had flown off and struck his eye. The medical man who saw him advised his coming to the Sheffield General Infirmary. There was then a large wound in the cornea, the lens was opaque, and the foreign body appeared to have lodged in the vitreous humour. After the opaque and softened lens-matter was removed, the magnet above mentioned was passed into the vitreous body, but failed to detect the piece of steel, though the subsequent removal of the eyeball demonstrated the fragment lying at the fundus oculi. I have not the slightest doubt that, had I only had by me the electro-magnet described further on, the portion of steel would have been removed with the prospect of at least a presentable organ being preserved.

Of course, in the bar-magnet referred to, the size of the extremity is somewhat larger than convenient for ordinary use, and a further tapering would reduce its attractive force. Gruening of New York, after various experiments, devised a magnet, formed of a number of cylinders joined together and united with a cap at each end; and at one extremity he inserted a needle 52 millimètres long, 1 millimètre wide, and 0.3 thick. This instrument will support from the point a key weighing twenty-eight grammes (nearly one ounce). The attractive force of this magnet seems hardly greater than the simple bar-magnet I have described, and, as will be noticed further on, is very little compared to a well-made electro-magnet. Hirschberg and Knapp employed electro-magnets in their cases, and I have myself made use of them in two cases successfully. The first was the following.

James C., aged 33, whilst engaged, on September 10th, 1880, in striking an iron plate with a hammer, was hit in the right eye by a piece of metal. This happened in the course of the forenoon, and he lost no time in applying at the Sheffield General Infirmary, where I happened to be, so that I saw him immediately. On the inner side of the sclerotic, at some little distance from the cornea, and in the middle of the palpebral fissure, was a small horizontal wound. Examination with a fine probe at once disclosed the fact that the greater portion of the foreign body was lying in the vitreous humour, but that it clung to the inner sclerotic wall sufficiently to enable one to detect it with the probe. The situation of this piece of steel was such, that it appeared only too evident that any attempts to remove it, with forceps or otherwise, would most probably result in its being pushed further into the interior of the globe. The only electro-magnet at hand was one which was too large to introduce into the wound, and therefore it was decided to place it at the surface of the wound, which at the same time was carefully a little enlarged, in order to enable the fragment of metal to find a passage outwards more easily. After the electro-magnet had been applied a little time, the foreign body was found to be fairly in the wound, and it was readily removed with a fine pair of forceps. The patient remained in the infirmary for a few days, and the sclerotic wound healed immediately: and on a later date it was noted that vision

* Read before the Sheffield Medico-Chirurgical Society, February 24th, 1881.

was perfect ($\frac{2}{20}$). On February 24th, 1881, I showed the patient before the Sheffield Medico-Chirurgical Society. With the ophthalmoscope, a faint scar was visible, corresponding to the wound in the ocular tunics.

I now set to work to make an electro-magnet, which, whilst of sufficient force, should be one which could be conveniently used. After various experiments, the one depicted in the woodcut was arrived at (fig. 1),

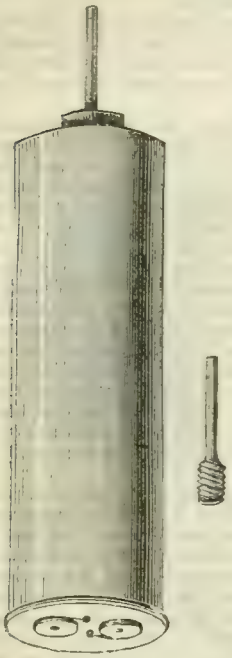


Fig. 1.

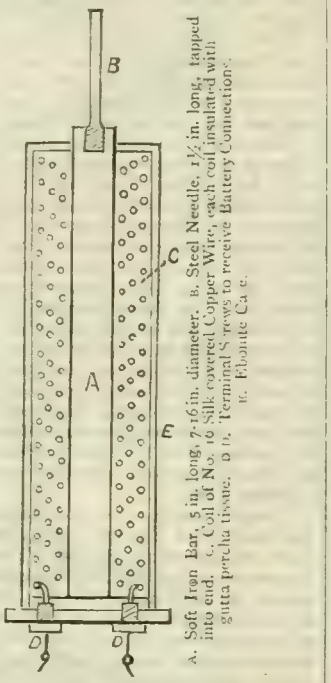


Fig. 2.

which answers admirably the purposes for which it is intended.* The magnet is tapped, and into it screws a needle which fits closely on the extremity of the magnet by a projecting cap. Several of these needles are provided, some longer or shorter, and straight or curved at the end; and I have used them of steel or iron. The facility with which these needles may be inserted allows one to use a longer or shorter one, as may be desired (fig. 2). Practically, the needle, screwed in with the cap fitting closely on the extremity in the way I have mentioned, conducts the magnetic force perfectly. Attached to a quart bichromate battery, and with a needle affixed two inches long, and in size corresponding to a little under a bore of two millimètres, the electro-magnet represented in the woodcut is able to pick up and hold suspended from the point a bunch of keys or other object equal to six ounces, or one hundred and seventy-five grammes. The makers assure me that, in consequence of the size of the copper coil, the power of the instrument would greatly increase with additional battery-force, and that it would probably be able to suspend as much as a pound.

Quite recently, I had an opportunity, in a case which presented itself, of using an electro-magnet of the description just given, though not quite such a powerful one, and with a very satisfactory result.

C. S., aged 45, applied at the Sheffield General Infirmary, on January 12th, 1881, on account of having lost the sight of the left eye. He stated that on the 21st of the preceding December, whilst engaged in turning a "cold chill roll", a piece of steel had flown off and hit his left eye. The lens was now found to be opaque, and a mark was noticed in the cornea, as well as a corresponding one in the anterior capsule, through which doubtless the foreign body had passed; the eye was otherwise perfectly quiet, and the pupil dilated well under the influence of atropine. With careful examination by means of focal illumination, the fragment of steel was observed at the back part of the lens, on or in the posterior capsule. He was admitted into the infirmary, and operated upon in the following manner. An incision with a Gräfe's knife was made in the cornea, similar to the one which I adopt in extracting for cataract by a shallow flap lower section; the puncture and counterpuncture being made in the sclero-corneal junction and opposite the lower pupillary margin, and the knife almost immediately being turned forwards, the summit of the flap being midway between the margin of the pupil and the periphery of the iris. The lens-capsule was next freely torn through with a cystotome, and softened lens-matter began immediately to escape. The magnet was next introduced and withdrawn without having caught the foreign body; but, on its being again passed in and a second time withdrawn, the piece of steel was found attached to the needle. The remainder of the lens-matter was then removed; a pad of wet lint was placed over the eye, and a dry one over the sound organ, a light bandage being next applied. The lint over the left eye was ordered to be kept moist, and the case was treated as an ordinary cataract-extraction. The after-progress was unexceptionally good. He remained in the infirmary for about a fortnight. On February 24th, I showed the patient, with the previous case, to the members of the Sheffield Medico-Chirurgical Society, and it was then noted that the pupil was round and free, and that with $+ 1\frac{1}{3}\frac{1}{2}$ vision was = $\frac{2}{4}\frac{0}{0}$, and with a 2½ inch lens he saw I 1 easily.

Respecting this case, I would remark that, though possibly the fragment of steel might have found its way out with the softened lens-matter, it is far too probable that it would not have done so, but might have passed beneath the iris, whence its removal would probably have been impossible; and, had it remained sticking in the posterior capsule, efforts to get it away would have been attended with difficulty, and would perhaps have pushed it into the vitreous humour. Extracting the lens in its capsule would have been a possible procedure, but, I believe, a hazardous one.

The cases I have related illustrate the service the electro-magnet may afford in removing fragments of steel or iron from the interior of the eye. They were cases in which the injury was recent; but in those where the foreign body has lodged for some time in the eye, and become coated over, and especially when encapsuled, and adherent to adjacent parts, such results are hardly to be expected. In some experiments made with portions of steel and iron coated over with gelatine, it was found they were very readily attracted by the electro-magnet; and in other fragments, which were enclosed in gelatine capsules, the electro-magnet still exerted considerable influence over the contained particles, if they were not too far from the surface. Whatever effect the electro-magnet might have, therefore, on pieces of metal but slightly coated over, it does not seem likely for sufficient attraction to be exerted to drag a particle away from its adhesions.

The electro-magnet I have described is made by Messrs. Cubley and Preston, of Sheffield; and to the former gentleman, in particular, I am much indebted for the interest he has exhibited in it, and the skill and ingenuity with which he has aided me. It is a much more efficient instrument than a simple magnet; and, now that electric batteries are in such general employment that almost every practitioner possesses one, its use is rendered easy. One advantage, among others, that the electro-magnet has is, that, in a case where the portion of metal is visible, the needle may be advanced to it before the magnetic influence is brought into force.

In conclusion, I would briefly refer to a case which may perhaps indicate that the magnet may have uses in general, as well as in ocular, surgery. Towards the close of last year (1880), a man applied at the Sheffield Infirmary, stating that a few weeks previously he had been hit on the (left?) eye by two or three pieces of metal. He feared that his eye had been perhaps injured. Beyond, however, a slight nebula, there was no evidence of any ocular mischief; but an elevation in the upper lid was noticed. It was rounded, of firm feeling, and about the size of a pea; and, on being questioned, he asserted it had only existed since the time of the accident, though he had no distinct recollection of his lid having been injured. Thinking it very likely that a particle of iron was imbedded in this little tumour, I cut across it with a scalpel, and, as the electro-magnet was at hand, the needle was inserted into the wound, and withdrawn immediately with the portion of metal attached.

Addendum.—Since sending the foregoing for publication, a very similar case to the one described above, with the foreign body in the lens, has come under my notice, and with an equally satisfactory result.

On March 17th, a little boy, H. A., aged 6, was brought to me from the country under the following circumstances. Six weeks previously, whilst striking two hammers together, a "spark" had flown off one and hit the left eye. For a few days, it appeared a little bloodshot; his parents, however, paid little attention to it until they noticed that the pupil was losing its normal appearance, and becoming filled with a white substance, and this, for the last two weeks, had completely occupied it. Vision was now reduced to shadows, and examination disclosed a faint linear scar in the cornea just below the pupil and on the inner side. The lens was opaque, and on the front, just at the lower pupillary margin, was a yellowish mark, not showing, however, a distinct reflex; and it was particularly noticeable when the pupil was dilated

* Owing to a mistake in the woodcuts, the needle is not represented with the cap, as it should be.

with atropine. Judging this lymphoid mass to contain the piece of metal, its removal with the cataractous lens was suggested. It was not, however, until April 6th, that he was brought into Sheffield with a view to operation. A powerful electro-magnet was at first held in front of the eye, to endeavour to displace the fragment forwards. It, however, produced no effect, except that the little patient complained of pain in the eye, indicating, I believed, the presence of a fragment of steel or iron, and that it had become magnetised. Ether was now administered, and a small lower flap was made in the cornea, as in the last case, but not passing thoroughly across it; the capsule was next opened, and the needle of the electro-magnet inserted, and immediately withdrawn with the fragment of steel attached. The lens-matter was then gently pressed out, with the mass of lymph which had enclosed the foreign body; a piece of iris, which appeared inclined to remain entangled in the wound, was excised. The case was treated in the same manner as the former one, and the little boy returned to his home in ten days. I have seen him since, and ascertained that he possesses excellent vision. The fragment of steel was about as big as a fair-sized pin-head. The electro-magnet described above was used in this case.

STERTOROUS BREATHING IN APOPLEXY, AND THE MANAGEMENT OF THE APOPLECTIC STATE.

By ROBERT BOWLES, M.D., Folkestone.

In the investigation of the causes of stertorous breathing in apoplexy, I found that they were mechanical, and could at all times be so changed as to alter altogether the nature of a case, and often to make the difference of recovery or death; and, moreover, that the principles involved applied not only to apoplexy, but to many abnormal conditions allied to it. The subject having been now before the profession for twenty years, one is surprised to find how little attention appears to have been directed to it in our medical schools. Younger members of our profession to whom I have spoken, certainly do not realise its importance; and yet the value of a knowledge of it in the management of the apoplectic state is far greater than bleeding, blistering, calomel, croton-oil, and the rest.

The removal of the causes of stertor so immediately changes the aspect of a case, that the question of blood-letting is at once solved in the clearest and surest manner. The truth is, two separate conditions of the apoplectic state have been jumbled together and treated as one: the cerebral affection, and the condition of suffocation consequent upon it. Stertor, in one sense, is but a croup in the pharynx, or apoplexy *plus* suffocation, as croup is laryngitis *plus* suffocation. We feel it necessary to relieve croup by a serious operation; whereas stertor is left to itself, although it may be relieved by merely changing the position of the body.

On referring to the literature of the subject, I have been astonished to find how difficult it is to draw any conclusions from the descriptions of the disease, or the treatment to be adopted. Authors are not agreed; and one of our most distinguished neurologists, in an article on Apoplexy, in a recent important work on medicine, with infinite labour, appears to arrive at the conclusion that, in apoplexy, we can know nothing, we can foretell nothing, and we can do nothing. This confusion arises in great measure from the stertorous breathing, converting all cases in which it is present into cases of apoplexy *plus* suffocation.

It is agreed that there are cases of apoplexy in which the face is pale, and the pulse small, and in which bleeding is not to be thought of, and also that there are cases in which stertor is not present; but I cannot, with all my diligence, find out from any works that have been open to me, whether these two conditions, that is, the pale face and the absence of stertor, were coexistent. There are no observations made by any author as to the position of the patient in the non-stertorous cases.

Suffocation, added to grave mischief in the brain, must of necessity affect not merely the symptoms and progress of cases, but also their mortality. Those only who have observed the extraordinary change on the removal of suffocative stertorous breathing, can judge how the diagnosis and prognosis are affected by it, and, not less so, the treatment and morbid anatomy.

Most modern writers on apoplexy adopt the general views of Dr. Abercrombie, and naturally, from the broad division of cases into sthenic and asthenic, are disposed to bleed in the former, and to avoid it in the latter; whereas, if we look upon the hard slow pulse as the result of the heart labouring to overcome an obstruction in the lungs (suffocation), we shall at once see that our first duty is to remove this obstruction, and thus simplify the case.

Heberden and Fothergill were opposed to bleeding in any case, and the latter has made some curious suggestions which pertain to the subject of this paper. He says that "even the hard, full, and irregular pulse, which seems imperatively to call for a very free use of the lancet, is often an insufficient guide, since it may be that struggle which arises from an exertion of the *vires vitæ* to restore health". From what has already been said, you will readily guess that I should say: "This strong pulse arises from an exertion of the *vires vitæ* to overcome vascular obstruction caused by gradually increasing suffocation."

Niemeyer, more than others among recent authors, has attempted to be systematic, and to clear away the confusion attached to apoplexy; but, like others, he fails, from not discriminating between the apoplexy and the suffocation. He believes that the shock and oppression of the apoplectic state arise from anæmia of the brain-substance, from sudden compression of the cerebral capillaries; this anæmia is always seen after death, and is shown during life by the very symptom which has always had a contrary interpretation—"a remarkable pulsation of the carotids". This, instead of being a sign of increased pressure of blood to the head, really indicates that the flow of blood into the skull is obstructed "by the space", he says, "in the skull being affected, so as to prevent the escape of blood from the afferent vessels"; throwing the blood back, as it were, into the carotids.

As a consequence of this view, under the head of treatment, he says: "It is evident that, under some circumstances, venesection is a very useful remedy; under others, it is very injurious, and the indications for it may be very exactly given. In order that as much arterial blood as possible may enter the brain, we must try to facilitate the escape of venous blood, without, however, diminishing the propelling power too much" (what a plea is this for removing suffocation); then he continues: "If the impulse of the heart be strong, and its sounds loud; if the pulse be regular, and no signs of commencing œdema of the lungs exist, we should bleed without delay. If, on the contrary, the heart's impulse be weak, the pulse irregular, and the rattling in the trachea has already begun, we may be almost certain that bleeding would only do harm, since the action of the heart, which is always weakened, would be still more impaired, and the amount of arterial blood going to the brain would thus be still more decreased."

The simple relation of some of my early cases will best illustrate what usually happens in a case of apoplexy, and how it may best be managed.

Case 1.—In October 1863, Miss B. was seized with apoplexy. On my arrival, there was a partial return to consciousness, and the left side was found to be paralysed; there was pharyngeal stertor when in the recumbent posture, and she appeared uneasy when placed on her right side; she was therefore placed on her left, when the stertor ceased. A blister was applied to the nape of the neck, and she remained in this position for nine days. She was now better, and spoke to me. Fearing a bed-sore, I desired the nurse to change her position, by turning her from her left to her right side. Soon after this was done, she was distressed for breath, and the countenance became livid. On my arrival, I found the difficulty of breathing gradually increasing; the blistered surface, as well as the ear upon which she had lain, of a dark purple hue; and the pulse, which had before been weak and irregular, full and bounding. There were large mucous *râles* over the whole chest; she was quite unconscious, and death from suffocation was imminent.

Finding that these symptoms supervened upon the change of position, I had her replaced upon her left side, and immediately the pulse sank, the mucous stertor ceased, the breathing was relieved, the lividity of countenance passed away, and the blistered surface, which had been almost black, resumed a bright cherry-red colour. This additional shock, however, proved too much for her, and she died the same day, peaceful and conscious.

The salient points of this interesting case are these: 1. Pharyngeal stertor ceased when the patient was placed on her side; 2. There was a slow but gradual improvement subsequently to this; 3. Mucous stertor and imminent death supervened when she was changed to the opposite side; 4. Instant relief followed on resuming her original position; 5. A return to consciousness was coincident with the cessation of stertor; in other words, with the removal of the respiratory difficulty.

On a careful examination of the chest after she became quiet, I found all *râles* slowly fade away from the right side, or that which was uppermost, and the natural breathing return; but the left lung, which had been dependent throughout, was dull on percussion, and deficient in respiratory murmur.

The explanation now became clear, viz., that the dependent lung had become filled with some mucous fluid, and that, on changing the side, the fluid by gravitation was finding its way across the trachea to the opposite lung; but, in doing so, it had been churned into foam by the ingoing air, giving rise to mucous stertor; and this foam, by

filling up the larger bronchial tubes, was quickly causing suffocation, with all its usual results.

As a point of management, then, in cases of apoplexy, it would appear necessary to keep the patient on one side, and not to change it; but which should this be? Healthy people, when lying on the side, breathe chiefly with that side which is uppermost, for the intercostal and other thoracic muscles of the lower side are fixed between the weight of the body and the bed, and the breathing of this side is almost entirely diaphragmatic. It must be remembered, too, that, in placing the paralysed side downwards, the injured side of the brain is upwards, and, therefore, relieved from hypostatic congestion, a condition always liable to occur when an injured part remains dependent.

In my original paper, in the *Transactions* of the Royal Medical and Chirurgical Society, three varieties of stertor were defined:

1. *Palatine Stertor*, when the air, in rushing through the nose or mouth, causes a vibration of the soft palate.

2. *Pharyngeal Stertor*, when the air passes through the narrowed interval between the base of the tongue and the posterior wall of the pharynx.

3. *Mucous Stertor*, depending upon air bubbling through mucus in the larger air-tubes.

Besides these, there is occasionally, but only very occasionally, what may be called a *laryngeal stertor*, heard most commonly during the inhalation of chloroform, which has been pointed out by Professor Lister. Whether this arises from a spasm of the glottis, or from paralysis of some of the laryngeal muscles, I am not prepared to say. There is, however, a *nasal stertor* which belongs more to the apoplectic state, and, as far as my experience goes, is often a symptom of the gravest kind. It arises from paralysis of the nerves supplying the elevators and dilators of the alæ nasi; so that the ingoing air, as in sniffing, draws the alæ nasi towards the septum, and sometimes causes a serious obstruction to the breathing, and certainly hastens death, as well as needlessly distresses the bystanding and sorrowing relatives.

CASE II.—A lady, sixty years of age, fell head-foremost down stairs, and was taken up unconscious. She had complained much of head-discomfort in the morning, but nevertheless had been out for a short walk. The weather was thundery. On my arrival, immediately after the fall, there was considerable ecchymosis at the outer angle of the left orbit; but there was no bleeding from the ears, nose, or mouth; nor was there any extravasation beneath the ocular conjunctivæ. I found her wholly unconscious, breathing stertorously, and vomiting. The right pupil was dilated and fixed; the left very sluggish. When she was turned on her side, the stertor ceased; the aspect of the face became almost natural; and she moved her left arm and leg, and remained like a person quietly asleep for twenty-four hours. At this time, *nasal* stertor commenced, and gradually increased in intensity; and, *pari passu*, the face became congested and turgid, the veins of the temple stood out in bold relief, and in about an hour she died.

Dr. Monckton saw this case with me in consultation; and I was able to demonstrate to him how stertor and its consequences instantly recommenced in this poor lady's case when she was placed in the supine position, and also how easily nasal stertor could be removed either by pressing the tip of the nose upwards, or by dilating the nares with the handle of a salt-spoon.

There is yet one other form—the puffing out and flapping of the cheeks and lips—which may be fairly dignified with the title of *buccal stertor*. Now, although this last does not give rise to any respiratory difficulty, it is nevertheless, like nasal stertor, of importance in prognosis, and useful for purposes of definition. Like nasal stertor, too, it is dependent on paralysis of the portio dura, and therefore indicates the approach of the intracranial mischief towards that part of the brain which governs the functions of organic life, or (which is a very important alternative) that both it and nasal stertor may arise simply from venous engorgement at the base of the brain, in consequence of the suffocative stertor damming the jugulars.

Authors have always looked upon this symptom as an extremely dangerous one; and so no doubt it is, in the combined conditions of apoplexy and suffocation; but, as I have observed both it and nasal stertor, in a modified degree, in the snoring sleeper; and as cases of suffocative apoplexy, in which it has been most marked, sometimes make a rapid recovery, I withhold my opinion for the present.

Indeed, it is most impossible, from the writings of the past, to arrive at any conclusion as to the value of any symptom of apoplexy. We must now observe from a new point of view (apoplexy without suffocation), and draw our conclusions in the future. The following short case is a happy illustration of some of these remarks. I am indebted to Dr. Lewis of Folkestone for the notes.

CASE III.—A lady, sixty-seven years of age, was found in her bed in an apoplectic condition. There was total loss of consciousness; the pupils were of about the usual size, but fixed; there was slight reflex action on touching the eyeball, and an occasional involuntary movement of the arms. The face was turgid, and there was both *pharyngeal* and *buccal* stertor. On being placed on her side, the stertor instantly ceased, and she gradually improved. In twelve hours, she had perfectly recovered consciousness; the respiration was normal; the face very pale, and the pulse quick and feeble; and there was no paralysis.

Surely no case could have looked more unpromising than this, when the age is taken into consideration.

Nasal stertor is unaffected by the position of the body, but may always be relieved by mechanical means.

Palatine stertor is usually of the least consequence; *i.e.*, it obstructs the breathing only very partially, and cannot always be removed by changing the position of the body. It is affected by the size of the tongue, the length of the uvula, the position of the chin, and other incidental conditions, all of which may be obviated if the obstruction to the breathing be sufficient to render it worth the doing.

Pharyngeal stertor is the most common, in severe cases of apoplexy, when patients are recumbent. This may always be obviated by properly arranging the position of the patient; allowing the paralysed mass—the tongue—to gravitate to one side, rather than against the back of the pharynx.

Mucous stertor, when unconnected with lung-engorgement, the consequence of suffocation from stertor, only occurs in very serious cases, depending upon interference with the nutritive processes of the lung-tissues—probably arising remotely from accident to, or pressure upon, the medulla oblongata. This can always be satisfactorily removed by proper attention to the position of the body.

These principles apply not merely to apoplexy, but also to all apoplectic conditions. Especially I would mention drowning, epilepsy, convulsions in children, meningitis with effusion, death-rattles, fracture of the skull, concussion, bronchitis (especially that of old people), sudden œdema of the lungs, large hæmorrhage from the lungs, great exhaustion, chloroform-poisoning, drunkenness, opium-poisoning, and all conditions in which mucus or fluid exists in the lungs; and also all conditions allied to the apoplectic, whether there be mucus or not.

I have seen and treated all these conditions, and invariably with a similar result—an unfailing relief to the distressing symptoms and their consequences; and in many instances, both in my own as well as in the practice of my friends, ultimate recovery has occurred in cases which must, we believe, have terminated fatally if the obstruction to the breathing had been allowed to continue unrelieved.

CLINICAL MEMORANDA.

THE HEART'S ACTION AND EPILEPTIFORM CONVULSIONS.

IT may interest Dr. Moxon, and the readers of his admirable Croonian Lectures, to learn of a case which recently occurred in my practice, and which completely corroborates his conclusions as to the connection between stoppage of the heart's action and epileptiform attacks. The patient was a gentleman who had suffered last autumn from several severe attacks of gout, from which he made a good recovery. Towards the end of January last, he was attacked with rheumatic fever, complicated with bronchitis and albuminuria. No cardiac or pericardial inflammation occurred during the attack. On the 19th of February he was perfectly well, so far as the rheumatism was concerned; but he still suffered from his complications. On the evening of that day his heart was beating fairly well, for a man who had gone through so severe an illness. Next morning, I observed very alarming evidences of cardiac failure. In the evening he was worse, his cardiac beats ranging from 20 to 30 per minute. Stimulants brought them temporarily up to 50. But while I had my finger on his radial pulse, a sudden stoppage occurred, his face became pale, and he had an epileptiform convulsion. This observation I repeated at least half-a-dozen times that night. Next morning I telegraphed for Dr. Gairdner, who came in the evening, and found the patient wonderfully cheerful, although he had had a rapid succession of convulsions all day. After what I had told him of the state of cardiac depression, he seemed rather surprised to find the patient talking in a strong voice, and possessing a remarkably good and steady pulse; but, while his finger was on the radial artery, a sudden stoppage again occurred, the face became pale, and another convulsion of the same character as the others took place. Unfortunately, the patient died the same evening.

ROBERT SINCLAIR, M.D.

THERAPEUTIC MEMORANDA.

IODOFORM IN SKIN-DISEASES.

THE idea of using iodoform in the treatment of skin-diseases other than those due to syphilis has occurred to others as well as to Mr. Balmanno Squire. For some time past, it has been employed at University College Hospital; first by my colleague Mr. Godlee, and subsequently by myself. He has used it, in combination with the oil of eucalyptus, in some cases of eczema, and in lupus after erasion; the formula most used being iodoform gr. x, oil of eucalyptus ℥ss to ℥j, vaseline ℥j. I have used the iodoform without the eucalyptus with success in some cases of subacute eczema, mainly on the back of the hands and forearms; in suitable cases, the result was often very rapid. I have now a boy under my care with eczema of the head, in which there was a profuse sero-purulent discharge, which became offensive in a short time; to this, an ointment, with ten grains of iodoform to the ounce of lard, was applied, speedily removing all fœtor, and reducing the discharge to serous only. It was, however, rather too stimulating at this stage to be continued long. Its penetrating and disagreeable odour necessarily limits its employment, though the oil of eucalyptus partially obviates this, besides increasing the solubility of the iodoform. It is slightly stimulant as well as antiseptic, and must, therefore, be restricted to cases requiring some stimulation. I can well believe that it would be efficacious in impetigo contagiosa, by destroying the micro-organism on which the inoculability of the disease probably depends; but the less unpleasant ammoniated mercury ointment will be preferred by most, as it is so very efficient.

H. RADCLIFFE CROCKER, M.D., 28, Welbeck Street,
Physician to the Skin Department, University College Hospital.

OBSTETRIC MEMORANDA.

HEMIPLEGIA FROM INJURY TO THE CRANIUM BY FORCEPS DURING DELIVERY.

MARY ANN B., aged 37, has right hemiplegia. The arm is quite incapable of voluntary movement, is smaller in all its dimensions than the opposite limb, and is severely contracted; so much so, that the palm and the palmar surfaces of the extended fingers lie in contact with the front of the forearm. The right leg is paralysed and contracted, but to a less degree than the arm: the foot is smaller than the left; and, owing to contractions of the calf-muscles, she is unable to put her heel to the ground. On the left side of the head is a deep curved groove, beginning vertically over and one inch above the ear, and running forwards for about an inch. It then curves upwards with a bold sweep, and, becoming shallower, finally runs backward and is lost between the vertex and the parietal eminence. The groove is about half an inch wide, the concave edge steep, the convex edge bevelled. Over the anterior inferior angle of the parietal bone, where the groove is most marked, it is about one-eighth of an inch deep; but the tension of the skin serves partially to obliterate the depth, which is found by the touch to be greater than appears. Over this portion of the groove is a considerable cicatrix. The patient has been hemiplegic from birth, and has had the groove on her head also all her life. Her mother has often told her that "instruments" were used at her birth.

REMARKS.—There can be no doubt about the obstetric origin of this deformity and paralysis; and, having regard to the high elasticity of the new-born skull, and the deep indentations often visible on the heads of children delivered with the forceps, indentations not only in the caput succedaneum, but actually involving the bones, it is questionable how far this extreme case is a representative of others in which, the violence being less excessive, its external traces do not persist, but the damage to the brain remains irretrievable. Cases of congenital hemiplegia are common; and in two such cases I have been able to prove that the arteries supplying the atrophied convolutions were pervious.

CHARLES MERCIER, M.B. Lond., F.R.C.S.,
Senior Assistant Medical Officer at Leavesden Asylum.

CASE OF EXTRA-UTERINE FŒTATION.*

MRS. J. S., aged 38, married ten years (no family, menstrual periods regular), had suffered for many years past from slight prolapsus and retroversion of the uterus, and ulceration of the cervix. The patient came under my care on October 26th, 1880, complaining of sickness, faintness, and pains in her back, associated with bearing-down pains through the uterus and vagina; she also had difficulty in passing urine. Examination *per vaginam* found the uterus unusually hard, very low down, and pressing on the neck of the bladder. There was no ulceration of the os, nor leucorrhœa. The symptoms subsided on pressing digitally the uterus into its normal position, keeping the patient quiet in the recumbent posture, and giving effervescent draughts containing small doses of opium.

The patient got up in about a month, and managed to get about her house again; but, on December 4th, she had a return of the sickness, etc., aggravated by intense pain in the right iliac region, which was very sore and tender to the touch. The bowels were very much constipated, and she had high temperature, and dry furred tongue. Examination over the seat of pain revealed a very hard, dull, and circumscribed area. The uterus had remained in position, and there was no trouble with the urine. Previously to this, and all through the time, she had frequent fainting fits, and difficulty of breathing, although the heart was normal. On visiting her on December 14th, found her up, and walking about her bedroom, because she said she felt better, and the pains were easier in the erect posture. In the evening, about 7 P.M., the patient fainted; and, as she did not rally, I was sent for, but was absent. My assistant, who saw her, found her as described, and almost pulseless. Stimulants revived her; she rallied a little, and remained conscious; but again, at 2 A.M. on the 15th instant, I was hurriedly sent for, and found her in a state of collapse, and, in a few minutes after my arrival, she died.

Necropsy.—The external appearance was that of a healthy woman, well nourished, but very anæmic. There was great abdominal distension. On opening the cavity of the abdomen, we found large black clots of blood covering the whole of the lower region, quite superficial, lying on the great omentum. On removing them, and turning up the great omentum, we still found clots penetrating into all the different parts, from the right iliac region to the left lumbar, and across the lower half of the umbilical into the left iliac region. On dissecting more deeply into the pelvic cavity, there were evident traces of inflammatory adhesions amongst the different structures, and various patches of ecchymosed gut. In the right iliac region was a large tumour filling the whole of that region, and adhering to the pelvic wall. The tumour was removed by roughly breaking down the adhesions, and cutting through the neck of the uterus, which was then removed entire, with its appendages. Upon closer examination of the tumour, it was found connected to the broad ligament of the right side, and it was embraced by the fimbriated extremity of the Fallopian tube. The ovary and round ligament were entire. Upon the under surface, the tumour was lacerated. On directing a stream of water on this lacerated opening, a small fœtus was revealed, probably ten to twelve weeks old, suspended from the inner surface by the umbilical cord. The patient had not supposed herself to be pregnant, although the catamenia had ceased about thirteen or fourteen weeks prior to her death. The cavity of the uterus was normal, and she had no unusual discharge during the time she was under notice.

F. M. WALLIS, M.R.C.S., Bexhill.

* Read before the East Sussex District of the South Eastern Branch.

PLACENTA PRÆVIA.

IT has fallen to my lot during the past seven years to treat five cases of placenta prævia, with three maternal deaths and three infantile deaths. The treatment in each case was the same—viz., manual dilatation and delivery by turning as soon as possible. All the cases were in multipara. My first case recovered without a bad symptom. My second case died within an hour, not from hæmorrhage, but apparently from shock, the patient never rallying. My third case lived a week, and died from symptoms of pulmonary embolism. My fourth case recovered, but several times after delivery she was pulseless, and had anæmic convulsions; but, thanks to the subcutaneous injection of ether, application of hot water to the head, and injection of hot water *per vaginam*, she recovered. My fifth case died three hours and a half after confinement, apparently from shock, the pulse becoming excessively quick, and the patient dying evidently from failure of heart.

My object in transmitting the above cases is to ventilate the subject of placenta prævia, and, if possible, to obtain an expression of opinion as to treatment from men who make the study and practice of obstetrics a specialty. I remember, when a pupil, that my master had the same ill luck that I have had in the treatment of such cases. Nothing can be more distressing to the friends or the medical attendant than to see a woman dying, and not be able to prevent her demise. Transfusion is not always practicable in the country.

J. HENRY ASHWORTH, M.R.C.P.Ed., Bourn.

THE CONTAGIOUS DISEASES ACTS.—The Secretary of State for War has appointed John Dunbar Baskerville, L.R.C.S.I., to be Assistant Visiting Surgeon for Chatham, under the Contagious Diseases Acts, *vice* J. B. Jardine, M.D., appointed Visiting Surgeon.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

LONDON HOSPITAL.

INTESTINAL OBSTRUCTION: FREQUENT RECURRENCE OF SYMPTOMS FOR MANY YEARS: DEATH.

(Under the care of Dr. SUTTON.)

FOR the report of the following case, we are indebted to H. S. GALBET, M.D.

William W., bookbinder, aged 16, was admitted into the London Hospital on September 24th, 1880, complaining of obstinate constipation, vomiting, pain in the upper part of the abdomen, and cramps in the legs.

The patient's father and mother were alive, and in good health; he had three brothers and four sisters, all well; there was no family history of hereditary disease. His personal history was as follows. He was born in Whitechapel, and always lived in the east end of London. He left school at the age of thirteen, and went to business as a shop-boy. For the last fifteen months he had been employed at a bookbinder's, where his occupation had been constantly sedentary—bending over a bench, pasting covers, etc. He had no recollection of any serious illness, but had always been subject to constipation, for which he used to take a dose of castor-oil twice a week. He remembered that, for nine years, he had had frequent aggravations of his complaint, culminating occasionally in symptoms of complete obstruction; but he had never sought medical advice until the present year. On February 9th, 1880, he was admitted to the hospital with bilious vomiting, and continuous, severe abdominal pain; his bowels had not been moved for four days; his cheeks were flushed; his eyes a little sunken, and he was unable to sleep on account of the pain. An enema was administered, and the bowels were freely moved; but the symptoms did not immediately disappear. He was, however, discharged on February 20th, feeling quite well. He was again admitted on March 22nd, with the same complaint; this time the vomiting was very severe, even after the bowels had been well opened; and recourse was had to opium internally and poppy fomentations to relieve the abdominal pain. He was discharged on April 14th, feeling comfortable; he had no sickness, and had regular evacuations without medicine. A fortnight after this, he was again seized with "cramping pains" in the abdomen, and nausea, which compelled him to take to his bed; his mother gave him some castor-oil, which, however, was immediately rejected. He was brought to the hospital, and admitted on May 3rd, having had no motion for three days. He was treated by occasional enemata, and pills containing extract of belladonna; and, on May 18th, was discharged, all symptoms having disappeared. He continued to enjoy good health for two months. On July 26th, he was admitted for the fourth time: the abdominal pain was extremely severe, compelling him to lie with his knees drawn up; as in previous attacks, the bowels were confined, but were readily opened by enemata, which, however, gave but little relief to the symptoms; the pain continued, and the patient vomited all his food. At this time, enteritis was suspected. Convalescence was rather slow; but the boy was discharged seemingly well on August 20th, and remained free from distress until within a few days before his fifth admission to the hospital, on September 24th. On none of the above-mentioned occasions could the patient suggest any exciting cause for the attack.

On admission, the patient was pale and ill-nourished, with an expression of distress and anxiety. He was evidently suffering considerable pain, which he referred to the lower part of the chest and upper segment of the abdomen; he vomited occasionally, and had neither desire nor power to pass a motion from the bowel. No distinct physical signs of disease were detected anywhere; the temperature was normal; the urine healthy. Dr. Sutton, in commenting on the case, observed that the history of many attacks, spread over so long a period as nine years, indicated some damage to the intestine, but not such organic disease as tubercle or malignant growth. With regard to the cause of the damage, he observed that the only certain fact to lead to a diagnosis was, that, from time to time, the bowels did not contract and empty themselves; but that, considering that the symptoms appeared at so early an age as seven years, he was led to think of some strumous glandular condition which might cause contraction of the mesentery. No treatment was adopted beyond enemata to relieve the constipation, careful diet, and rest. The patient was discharged well on October 13th.

He was readmitted, with precisely similar symptoms, on November 23rd. He was much depressed and nervous, and vomited all food. A peculiar rhythmical spasm was observed on the left side of the abdomen, due to contraction of the rectus and other muscles on that side, and seemingly synchronous with the action of the heart. Simple enemata were given: all distress passed away; and the patient left the hospital in three days.

He appears to have enjoyed fairly good health for more than three months. On March 13th, 1881, he was attacked with the old symptoms, epigastric pain, and vomiting. On the 14th, vomiting became more severe and more frequent; on the 15th, as he described it, "cramping pains came all over him"; and, on the 16th, he was again admitted under Dr. Sutton. The bowels had been moved on the 13th; not since then. On admission, he seemed to be in constant and great pain, with periodic exacerbations, when he uttered feeble moans. He described his distress as "cramps in the region of the stomach, in the chest, fingers, and legs". His tongue was moist and somewhat furred, clean at the edges; he had frequent vomiting of bilious matter; his bowels had been freely opened by enema soon after admission; the abdomen was distended and tender on palpation, characterised by a central bulging in the umbilical region, which sometimes changed its form and position. The pulse was feeble; the heart's action violent and excitable; the breathing slow and gasping. The urine was very small in quantity, free from albumen. The temperature was subnormal. He was given stimulants in large quantities, and hot fomentations were applied to the abdomen; but he never rallied, the vomiting continued, very little muscular effort being evinced in the act, and he died collapsed on March 18th.

The *post mortem* examination was made by Mr. McCarthy. The stomach and duodenum were found enormously distended, the obstruction being situated high up in the small intestine, and caused by shortness of the mesentery, and a half twist due to the distension of the duodenum.

NORTH STAFFORDSHIRE INFIRMARY.*

CASE OF INTESTINAL OBSTRUCTION CAUSED BY A WINE-BOTTLE: REMOVAL BY ABDOMINAL SECTION: DEATH.

(Under the care of Mr. W. DUNNETT SPANTON.)

[From the notes of Mr. G. RUSSELL, M.B., House-Surgeon.]

ENOCH B., aged 56, was admitted on August 11th, 1880. The patient, who was troubled with seat-worms, was in the habit of introducing butter into the rectum with his finger, as a means of destroying them. On the afternoon of the day of admission, in order to pass the butter further up the bowel, he placed it on a piece of paper on the mouth of a hock-bottle, which he put on a stool, and then, sitting on this, gradually introduced the bottle entirely within the rectum. He attempted to remove the bottle himself, and did not call in assistance until about 10 o'clock at night, when a medical man attempted to remove it, but failed.

He was brought to the hospital about 1.40 on Wednesday morning. The base of a bottle could be felt within the rectum. After several attempts had been made to lay hold of it by the hands and other instruments, he was put under chloroform, but with no result. The hands of the resident medical officers were too large to pass between the bottle and the pelvis, but one of the nurses could grasp it, and withdrew it over an inch. The mouth of the bottle could be detected on the left side of the abdomen near the short ribs; and, by applying pressure on that part, great assistance could be obtained.

Mr. Spanton came about 3.15 A.M., and, under chloroform, an incision was made backwards between the coccyx and tuber ischii. This allowed more room, but still the bottle could not be removed. Various forceps were used, and a cord passed over it, but to no purpose. About 5.45 A.M., he was taken to bed, being too much exhausted to undergo any further operation. About 8 A.M., the urine was withdrawn with a catheter; he was found to have rallied considerably; vomiting was very severe. An one o'clock on August 12th, at the patient's urgent request, operation was undertaken. An incision being made through the abdominal wall in the left linea semilunaris, the bottle was grasped through the bowel, and an attempt made to push it out *per anum*, but this failed, although every assistance was given through the anus. The bowel was then opened in the descending colon, and the bottle drawn out. A morphia suppository having been introduced into the bowel, the wound was brought together by a continuous catgut suture, and the abdominal cavity closed with deep and superficial sutures. He recovered rapidly from the operation; but, about 7 P.M., he complained of great pain; this was reduced by

* Read at a meeting of the Staffordshire Branch, November 25th, 1880.

means of morphia, but he gradually sank, and died at 7 A.M., August 13th.

At the *post mortem* examination, the abdominal cavity was found to be distended, and, on examining the bowel, the wound in the middle third of the descending colon was found to have united; there had been no oozing of fæces into the peritoneal cavity. The mesentery was adherent by a thin layer of recent lymph to the wound in the bowel, and to the parietes of the abdomen. The rectum, sigmoid flexure, and colon were not lacerated, but on the lower part of the rectum there were several ecchymosed patches about three inches in length and half an inch in breadth, running round the bowel. The bottle was eleven inches long, having a diameter of two inches and a half at its bottom, gradually tapering towards the summit.

REMARKS BY MR. SPANTON.—The smoothness of the bottle, which rendered its introduction so easy, was the main source of difficulty in its removal. Its edge lay firmly against the concavity of the sacrum, and any attempt to extract it in the axis of the pelvic outlet caused the mouth of the bottle to impinge on the promontory of the lumbar vertebræ; and, although the bottle could be grasped with the hand through the anus, it was, for the reason just stated, impossible to extract it. There remained, therefore, no alternative but to remove it through an abdominal incision. This was accomplished without any difficulty by opening the colon, and withdrawing the bottle upwards; and, if we could have known at first the impracticability of its extraction in any other way, it is just possible the case might have terminated differently, inasmuch as the bowel would have sustained less injury from the manipulations which were unsuccessfully employed previously. The fatal result was, I think, due to the prolonged anæsthetic influence in a greater measure than to the final operation itself; that occupied a very few minutes, and caused far less additional shock than I was prepared to expect.

CHELTENHAM GENERAL HOSPITAL AND DISPENSARY.

CASE OF CARCINOMA OF PROSTATE AND BLADDER.

(Under the care of Mr. BUBB.)

FOR the report of the following case, we are indebted to Mr. ARTHUR CARDEW.

A man, aged 69, was admitted on March 14th, 1881, suffering from retention of urine. He said he had been unable to pass urine in any quantity at a time for several weeks, and that it was constantly dribbling away from him. On admission, his bladder contained two pints of bloody urine, of an acid reaction, having a specific gravity of 1010, and containing albumen; but only revealing blood-cells under the microscope. On passing the finger into the rectum, the prostate could be felt to be enlarged, and was somewhat tender on pressure. There was considerable anasarca. He was ordered a milk-diet, 30 grains of compound jalap powder every morning, and a mixture of perchloride of iron three times a day; a catheter was to be passed twice a day. A few days later, the catheter was ordered to be used three times daily. In four days after admission, the dropsy had all disappeared—revealing, what was not evident before, great emaciation. The dribbling of the urine was as bad as ever—owing, however, not to the bladder being over full, but to its inability to retain any urine. There was a peculiar grating experienced each time on using a catheter coudé, as it passed through the prostate, as if it were rubbing against a calculus. On March 23rd, he was ordered a mixture of acetate of potash, hyoscyamus, and camphor water. About this date, it was suggested that it was not a case of simple enlargement of the prostate, but probably malignant disease. Death took place on March 27th.

On March 29th, a *post mortem* examination was made. The kidneys, bladder, and portions of the penis were removed together. The bladder was generally thickened, and the mucous lining much congested; the prostate was very hard, and a section showed that it consisted of one mass of scirrhous deposit, which extended outwards and backwards into the wall of the bladder; the growth reached up to the orifices of the ureters, quite obliterating the opening on the right side, and partially constricting that on the left side. Both ureters were dilated and stretched, but the coats were in no way thickened; both were so distended with urine as to look like small intestine. The calyces and pelvis of the right kidney were distended with urine, and so compressed the body of the kidney as to virtually convert it into one large cyst, which was not so large as the left kidney. The latter was much enlarged, somewhat distended with urine, and had a small abscess in the lower half of the body of the kidney. There was also an abscess in the suprarenal capsule. The other organs of the body were healthy, except the right lung, which was bound down by adhesions, the result of an old pleurisy. No other cancerous deposits were found in any other part of the body.

REMARKS.—Whilst this patient was in the hospital, the question which was always prominently before us was: "What could be the cause of the incessant dribbling away of the urine?" It was clearly not owing to over-distension, as proved by the result of passing the catheter. Catheterisation was omitted during the last few days of the man's life, yet the dribbling of urine was not increased, nor was there any recurrence of retention in the bladder. The *post mortem* examination, however, satisfactorily answered the question, by showing that the constant dribbling was due simply to the mechanical impediment of the cancerous deposit which prevented the muscular fibres at the neck of the bladder from contracting.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MAY 13TH, 1881.

JOSEPH LISTER, D.C.L., F.R.S., President, in the Chair.

Hip-joint Disease, and its Treatment by Excision.—Mr. HOWARD MARSH read the report of the committee appointed to inquire into this subject.—The PRESIDENT, on behalf of the Society, thanked the authors; but, inasmuch as the report was hardly a subject for discussion, he called on the author of the next paper to read it.

A Case of Aortic Aneurysm encroaching on the Trachea at its Bifurcation, demonstrated during Life by the Laryngoscope.—Dr. THOMAS WHIPHAM read notes of this case. A carpet-cutter, aged 49, was admitted into St. George's Hospital, under Dr. Wadham, on March 7th, 1881, almost speechless, and suffering severely from dyspnœa. The man had had no serious illness in his life, and had not suffered from syphilis. There was no history of asthma, and his occupation did not involve any severe strain. He had never before experienced an attack like the one for which he was admitted. He had for some weeks suffered considerable pain under the right scapula, and he had been treated for dyspepsia. On the morning of March 7th, when he was going to his work, he was suddenly seized with a most severe attack of dyspnœa, which rendered him speechless and almost unconscious. He was brought at once to the hospital, and, on his admission at 8 A.M., was in a state of extreme dyspnœa, ashy pale, unable to speak, and heedless of anything said or done. His hands were cold, and his breathing stridulous. Leeches were applied to the throat, and he was ordered a mixture of ether and chloroform. By 10.30 A.M., his respiration had become perfectly natural, and his voice, though weak, was natural in tone. The heart was not obviously out of position; a systolic bruit was heard over the base, and to the right of the sternum. No abnormal pulsation or thrill was detected. The pulses in the radial arteries were equal and rather hard—126. Wheezing and stridulous sounds were audible throughout the chest. At 2 P.M., at Dr. Wadham's request, Dr. Whipham made a laryngoscopic examination. The vocal cords were faintly pink, but there was no swelling of the larynx, and all movements of the cords were perfect. The first two or three rings of the trachea were visible, and normal in appearance, but below them, about three inches below the vocal cords, the posterior wall of the trachea was bulged; the mucous membrane covering the swelling was much congested. At 4 P.M., there was a sudden recurrence of dyspnœa, and, without in the slightest degree aggravating the patient's distress, a second laryngoscopic examination was made. The bulging of the trachea was visible as before, and the movements of the larynx were perfect; in fact, the extent of the abduction of the cords was very great. The various remedial measures proved unavailing, and the patient was suffocated at 8 P.M. At the necropsy, an aneurysm was found involving the descending portion of the aortic arch, and the commencement of the thoracic aorta. From the right of the upper part of the sac, a secondary aneurysm, with thin soft walls, arose, and this secondary aneurysm had flattened and produced a certain amount of atrophy of the œsophagus, and had caused the bulging seen just above the bifurcation of the trachea. The diagnosis during life was that a tumour (in all probability an aneurysm) was the cause of both the appearances and the symptoms; and the case was adduced as being a rare instance of actual demonstration of an aneurysm pressing on the trachea at its bifurcation. The sudden access of the symptoms was possibly explained by the sudden dilatation of the thin walls of the secondary aneurysm.—Dr. C. T. WILLIAMS asked if there were no physical signs of aneurysm observed. The tumour in the case described was so large, that it should have yielded some sign of its presence. The case was evidently a rare one.—Dr. SEMON described a case which had been under his care last year, and in which, although aneurysm was suspected, there was no positive symptom of it. Tracheotomy had

been suggested for the relief of severe attacks of dyspnœa. In such cases, he urged, the chances should be fully described to the patient, and no doubt be allowed to remain as to the perilous nature of an operation. In his own case, the patient was relieved by surgical means, but died ten days afterwards from bursting of the aneurysm. Dr. Semon presented a theory in explanation of the varying conditions of paralysis affecting the laryngeal muscles, according to which the recurrent laryngeal nerve is constituted of numerous distinct bundles of fibres, these being in communication with separate ganglionic centres, whence special stimuli proceed to particular muscles. In agreement with this supposition arose the need for considering not alone local injuries in such cases, but also disease occurring in the central ganglion.—Mr. GOLDING-BIRD detailed the case of a man under treatment in Guy's Hospital. In this patient were observed certain symptoms of a pulsatile tumour, suggestive of aneurysm of the arch of the aorta. There was intense pain of the right shoulder also. A few weeks ago, the man had returned to hospital, after having been some time absent. At that time, the right wall of the trachea was, with the laryngoscope, plainly seen to be bulging in; breathing was stridulous, there was a pulsatile tumour in the neck, and the right pulse was smaller than the left. On coughing, the pulsation of the tumour ceased, but its size was much increased when the breath was held, slowly returning again subsequently to its usual dimensions. There was no inconvenience produced by laryngoscopic examination. A swelling within the tube, first seen by the house-surgeon, was not apparent at the earliest examination made. Operation was resorted to, the tumour being cut down upon, and its aneurysmal nature being demonstrated. A ligature was put round the common carotid, and improvement in the patient's condition resulted. He subsequently died, however, when the necropsy showed a large innominate aneurysm, with others in other parts of the body.—Dr. ORD had observed two instances in dead bodies in which the paralysed cords were permanently adducted, the abductors being wasted away, and the recurrent laryngeal nerve much affected. The introduction of laryngoscopic examination would prevent the repetition of errors formerly committed, in performing tracheotomy to relieve dyspnœa due to aortic aneurysm.—Dr. LONGHURST commented on the remarkable way in which aneurysm continued for years in some cases without any symptoms. He asked if the pupils had been examined in Dr. Whipham's case, and to what precise cause death had been attributed.—Dr. WHIPHAM said no other signs of aneurysm but those enumerated in the paper had been observed. Nothing more than had been done in the case was possible. The laryngoscopic examination showed tracheotomy to be impossible. The recurrent laryngeal nerve was unaffected; there was no paralysis of the cord, neither any alteration in the size of the tumour from time to time. The pupils were not examined. The patient died from suffocation.

A Case of Anorexia Nervosa.—Dr. DOWSE read notes of this case. A. T., aged 14, was admitted into the Hospital for Epilepsy and Paralysis on July 5th, 1880, with the following history. The family history was good; her parents, and her brothers and sisters, were healthy and strong. She was always considered to be a delicate child, and during her infancy cod-liver oil was given to her on account of her weakness. In the early part of last summer, she began notably to decline, stating that she could not swallow food, and exhibiting great obstinacy of disposition. She would cry at the slightest opposition to her wishes, and often without any apparent reason. Being a delicate child, she had always been treated with more indulgence than the rest of the children; and, in her sullen fits at this time, she would never speak to her mother except in tones of the greatest insolence. She grew from bad to worse; and, in February last year, she went thirteen days without taking anything besides a little water—at least, not to anybody's knowledge. She became so weak that her parents sat up with her for nearly a week, and one night she was thought to be dying. It is supposed she had a fit on one occasion, and it was thought she was dead. She would never begin a conversation or join in one, and it would sometimes be difficult to get a reply from her, even in a monosyllable. Her aversion to food of any kind was most marked. When she first came under Dr. Dowse's care, she was unable to stand without assistance. The eyes were downcast, and the cheek-bones prominent, from wasting of the cheeks, and the angles of the mouth were drawn down—so that she looked the picture of misery. The voice was scarcely audible. She was taciturn, shy, and reserved. There was a general morbid state of functional inactivity; all her movements were slow, and her mind was equally inactive. The breath was offensive, the tongue fairly clean, the bowels obstinately confined, and the evacuations were pale and clay-coloured; the temperature was never over 98° Fahr, and frequently below it. The extremities were cold, and of a bluish colour. The special senses were normal; the pupils of the eyes were sluggish; pulse 120, respirations 20 There was no marked anæsthesia of the fauces; no globus, nor other hysterical symptoms. Upon her admission, considerable difficulty was experienced in getting her to take food, but forcible feeding was never had recourse to. She was in the hospital for two months, and the difference in her condition upon admission and departure was very striking and characteristic. She had gained considerably in weight; and, instead of being taciturn and reserved, she was cheerful and agreeable to all about her, and took food without any reserve or hesitation. The cure was unquestionably brought about by the frequent administration of fluid nourishment. It was made compulsory for her to take in the course of twenty-four hours three eggs, one pint of the strongest beef-tea, three pints of milk, and three ounces of brandy. No medicine was administered, except half a drop of croton-oil occasionally to relieve the bowels.—Dr. C. T. WILLIAMS had seen several similar cases brought to hospitals as consumptives, but he did not think their diagnosis at all difficult. They were always markedly cold, and could with difficulty be induced to take food. He had succeeded in persuading them to do so by stimulating their vanity, hinting at improved personal appearance, etc. When persuasion, however, failed, he considered that force must be employed.

A Case of Rapid Death after Antiseptic Osteotomy of the Tibia.—Mr. A. PEARCE GOULD read this paper. J. T., aged 8, a healthy country lad, was operated on for a bad rickety deformity of the left tibia, at two P.M., on October 27th, 1880. Strict antiseptic precautions were observed; the bone was divided with a chisel which, on account of the extreme hardness of the bone, had to be introduced into the wound three times. The lad slept through the night, and next morning was free from pain, and apparently well; he ate a light breakfast of bread and milk. At 11 A.M. he was sick, and vomiting and diarrhœa continued through the afternoon and evening, when collapse set in, and in spite of vigorous stimulating treatment, he died 36¾ hours after the operation. When seen by Mr. Gould five hours before death, he was conscious, his trunk was blanched, and the lower extremities were warm, the pupils were small, the pulse hardly perceptible, and very rapid, and respirations 44, but unimpeded; there had been complete suppression of urine since the early morning; the vomited matter was abundant and watery. At the necropsy the blood generally was fluid and dark, in the largest veins were partial soft clots; there was no staining of the endocardium; no petechiæ. The spleen, the liver, the heart and brain were healthy. The trachea and bronchi were intensely congested with excess of mucus. The other organs were apparently healthy, but on microscopic examination of sections, prepared by Dr. Gibbes, and shown at the meeting, the minute pulmonary vessels were found to be filled with blood clot, and minute foci of commencing inflammation were found scattered through the parenchyma. Similar minute inflammatory foci were found in very small numbers in sections of the kidneys. Sections through the stomach showed the mucous membrane to be intensely inflamed, the glandular structure being almost entirely destroyed; the inflammatory exudation extended also into the submucous tissue. The wound itself showed no unhealthy appearances; the medulla of the divided bone was not crushed, and no sign of fat embolism was anywhere apparent. Mr. Gould remarked that the clinical and pathological features of the case excluded, as the cause of death, shock, anæsthesia, the acute specific diseases, erysipelas, pyæmia, and fat embolism, but they pointed to the presence of some intense irritant in the blood. The presence of septic intoxication was negatived by the absence of any sufficient source of infection, and of pyrexia, by the presence of inflammation of the stomach, kidneys and lungs, by the absence of general visceral congestion, and capillary congestion. As the ingestion of any irritant might be excluded, Mr. Gould discussed the question of the production of the fatal illness by carbolic acid. He showed that the vomiting, diarrhœa, nervous symptoms and temperature, were quite in accord with the symptoms undoubtedly produced by carbolic acid, although suppression of urine was a new fact. As nothing was before known of the minute changes in the apparently healthy organs in carbolic intoxication, we had to rely upon the symptoms only for deciding the cause, but it was held that the pathological changes did not contra-indicate the influence of carbolic acid. The quantity of the acid absorbed was probably very small indeed, but children were more susceptible to its influences than were adults. Idiosyncrasy also played an important part in such cases, and there was no evidence of the minimum fatal dose of the acid in man. In conclusion, Mr. Gould maintained that his case was one of carbolic intoxication: and he was led to this view from the absence of other cause of death, and of any facts to negative it; and because the symptoms and *post mortem* signs, with few exceptions, were those observed in that affection.

The PRESIDENT agreed in the conclusion as to the cause of death, though he thought it a misfortune the urine had not been examined. The patient happened to be extremely susceptible to carbolic poisoning, like a lady he had treated in whom the application of carbolic dressing induced vomiting, which ceased on the substitution of boracic dressing

but came on again each fourth day when fresh dressings were applied under carbolic spray. Oil of eucalyptus, he had discovered, was a perfect substitute for carbolic acid, and was both non-irritating to the skin and non-poisonous to the system. The volatile oil could be fixed by dammargum; and for gauze he recommended a mixture containing, oil, 1 part; dammar, 3 parts; paraffin, 3 parts; and he could assert that it was a most reliable antiseptic, and might be employed as a substitute for carbolic acid, and where the use of the latter was inadvisable.

OPHTHALMOLOGICAL SOCIETY OF GREAT BRITAIN.

THURSDAY, MAY 12TH, 1881.

WM. BOWMAN, F.R.S., President, in the chair.

Suspected Intra-ocular Growth in relation with Old Intracranial Tumour.—This patient was shown by Dr. ALLEN STURGE, who stated that, two years ago, he had symptoms of cerebellar tumour; he was treated with iodide of potassium, and, after a long course, improved. He had double optic neuritis, which went on to atrophy. No fresh symptoms developed until within the last six weeks, when extensive detachment of the retina, with protrusion of the eye and increased tension, was noticed by Mr. Anderson Critchett. The case would be observed, and its termination reported to the Society.

Optic Neuritis in Corneal Ulcer.—Mr. LANG showed microscopical sections of the optic nerve, and of the cornea, in the neighbourhood of the ulcer. The patient was under the care of Mr. Wilkinson. When first seen, he had an exposed eye and ulcer of the cornea. In the cornea generally, the corneal corpuscles were elongated and beaded; while, near the ulcer, they were enlarged, thickened, and irregularly arranged. The iris was inflamed and thickened. The optic nerve was inflamed; the sclerotic, the retina, and the vitreous body, were unchanged; but the choroid showed an unusual number of nuclei. There was no evidence to show how the inflammation travelled from the corneal ulcer to the nerve, if indeed it did so travel.

Retinal Hæmorrhage, with High Arterial Tension.—Mr. SPENCER WATSON showed this case. A married woman, aged 30, had suffered from dimness of vision, and pain in the eye and left shoulder and arm, for two months; her menstrual periods had been regular up to within two months. No history of syphilis could be obtained; the urine was free from albumen. In the region of the yellow spot in the left eye was an extravasation, lying over a patch of exudation; sight on this side was almost abolished. Dr. Sansom thought there was no evidence of heart-disease or aneurysm; but there was high arterial tension, as shown by sphygmographic tracings. After free purgation with jalap, nitro-glycerine was given, in doses of 1-100th of a grain; but the treatment was not attended with success until the dose was reduced to 1-200th of a grain twice a day, when decided improvement in the general state occurred. Two months later, the arterial tension had diminished, but vision had slightly deteriorated in both eyes; later on, a black deposit in the region of the yellow spot was observed in the right eye also. When shown to the Society, the appearance of hæmorrhage had disappeared; but, at the yellow spot, there was some turbidity. Vision was 4 J. in the left, and 10 J. in the right eye. Mr. Watson thought that the case was connected with the cessation of the catamenia.—Mr. BOWMAN remarked that the case was of great interest; other changes in the vessels of the eye were known to occur at the period of the cessation of the menses—hæmorrhagic glaucoma, for instance, and choroidal hæmorrhages.—Dr. SANSOM said he believed, with Dr. Mahomed and others, that there was such a thing as a condition in which there was a peculiar tendency to high tension in the arterial system; and he had, in such a state, seen cases of retinal hæmorrhage combined with symptoms of vertigo, or neuralgic pain. The hypothesis that the condition was due to renal disease was negatived on consideration of the whole case, and by the fact that, in other similar cases which Dr. Sansom had watched very carefully, there had been no evidence at all of renal disease. In one case of this kind, in which violent attacks of migraine occurred, careful dieting, and the administration of 1-200th of a grain of nitro-glycerine, had sufficed to keep the attacks of migraine under, and to greatly improve the patient. In another case of high arterial tension, with retinal hæmorrhage, there was vertigo; in another, there was great epigastric pain: here also nitro-glycerine did great good. Dr. Sansom thought that, in one case at least, he had evidence that there was atheromatous disease of the aorta, secondary to the high tension, and leading to obstruction. —In reply to Dr. STEPHEN MACKENZIE, Dr. SANSOM added, that, in the cases he had seen, there had been no history of gout.—Mr. BOWMAN inquired whether the high tension led to any secondary cardiac condition; and whether there was any evidence as to the tension being constantly maintained.—Dr. SANSOM said he had noticed in these cases hypertrophy of the left ventricle, and accentuation of the second sound. —Mr. BRUDENELL CARTER thought that there ought to be some connecting link found between the high tension and the hæmorrhage. In a case he had seen there was, with high arterial tension, a marked exsanguineous condition of the capillaries and veins; he, therefore, thought that we must suppose there was disease of the smaller vessels themselves to cause the hæmorrhage.—Mr. BOWMAN suggested, that, with general high tension, there might be local relaxation of some vessels; then, with a high general tension, the strain upon these dilated vessels might be great enough to cause rupture.—Mr. BRUDENELL CARTER, in confirmation of this, pointed out that an artery, given off immediately behind an embolus, often gave way.

Ophthalmoplegia.—Dr. ALLEN STURGE read the notes of a case of paralysis of both third nerves after an apoplectic attack. The patient, a boy aged 16, was seized whilst at his work, bottling beer, with sudden severe pain in the head, and giddiness. Two or three minutes afterwards, he fell down unconscious. He was taken at once to the Royal Free Hospital. He remained more or less unconscious for twenty-four hours, after which it was discovered that all the muscles supplied by both third nerves were completely paralysed. The pupils were not dilated, and acted, although sluggishly, to light; but the right pupil was slightly larger than the left. There was no other paralysis of any kind present. There was no optic neuritis. He suffered much from pain at the back of the head. The temperature was somewhat raised. Three days after admission, a slight weakness was noticed in the left external rectus, which, two days later, had increased to complete paralysis. Eight days after the first onset, power began to return in the right levator palpebræ, and subsequently in the left levator palpebræ, and in the recti in both eyes. He was discharged seven weeks after admission, with complete return of power in all the muscles. Dr. Sturge remarked that this case was analogous to one exhibited by him at an earlier meeting of the Society, in which a paralysis of both third nerves, in conjunction with other paralyses, had come on after an apoplectic attack. He gave reasons for concluding that, in both cases, the lesions involved the central connections of the nerves, rather than the trunk of the nerves in their course from the brain to the orbit. To explain the relationship which these cases bore to other forms of ocular paralysis, he referred to the anatomical facts ascertained in regard to the nuclei connected with the motor nerves of the eyeball, laying stress upon the fact that, although the chief mass of fibres forming the nerves appeared to come from the so-called nuclei of origin, yet, in the case of the third nerve, at any rate, some fibres did not pass through the nucleus of origin of the nerve. When studied in the light of physiological experiment, it became evident that these nuclei of origin were not the sole portions of grey matter connected with the movement of the eyeballs; centres having been discovered which controlled the upward movements of the eyes, others controlling the lateral movements, and so on. Independent centres for accommodation, for dilatation of the pupil, and for contraction of the pupil, had also been ascertained to exist. All these centres have to do with bilaterally co-ordinated movements, and the grouping of fibres and cells in them corresponded to the co-ordination of muscles, rather than to the association of fibres in the oculo-motor nerves. *A priori* reasoning would lead one to suspect that there would be three types of oculo-motor paralysis: 1. The true peripheral paralysis of eye-muscles from involvement of the trunks of the nerves. 2. Paralysis due to lesions involving the nuclei of origin of the nerves, which would resemble the peripheral paralyses in many respects, but would present points of difference for these reasons: (*a*) that all the fibres of the nerves did not emanate from the nuclei of origin; (*b*) that there were good reasons for believing that a low degree of co-ordinated association of muscles took place in the nuclei of origin. 3. Paralysis due to lesion of the higher co-ordinated centres. In this type, the association of the paralysed muscles would have ceased to correspond with nerve-supply. Of this type there would be several varieties, *e.g.*: (*a*) the paralysis might affect muscles involved in a single co-ordinated action alone, as the two superior recti; (*b*) it might involve all the muscles of both eyeballs except those used in a single co-ordinated action —all except the two levatores palpebrarum, for example; (*c*) the paralysis might affect the centres for accommodation, or for the pupils alone, or it might affect these in conjunction with some or all of the external muscles. Dr. Sturge then went on to consider to what extent these varieties were met with in practice, beginning with paralyses of the third type. In proof of the existence of the varieties (*a*) and (*b*), he quoted cases published by Mr. Hutchinson, Dr. Gowers, and Mr. Nettleship—cases to which Mr. Hutchinson had given the name "ophthalmoplegia externa". As examples of the existence of the variety (*c*), he quoted the cases described by Mr. Hutchinson under the name "ophthalmoplegia interna", which Mr. Hutchinson had attributed to disease of the ciliary ganglion. He mentioned that Dr. Gowers had suggested that the latter cases were really due to disease of the central

nuclei governing the iris and ciliary muscle; and he made an analysis of Mr. Hutchinson's cases, to show that they contained internal evidence that Dr. Gowers's explanation was almost certainly the correct one. Clinically, there were six varieties of this type of paralysis, corresponding closely to those which might be suspected on *à priori* grounds to exist. There were paralyses involving (*a*) accommodation alone; (*b*) accommodation + pupils; (*c*) accommodation + pupils + external muscles; (*d*) pupils alone; (*e*) pupils + external muscles; (*f*) external muscles alone. His own two cases of paralysis after apoplexy he believed to belong to the second type of disease, involving the nuclei of origin, and gave reasons in favour of this view; he also called attention to certain points in the cases which threw light upon the physiology of these nuclei.

Cases and Specimens shown by Card. By Mr. NETTLESHIP.

1. A case in which a dislocated and opaque lens lay at times in a pouch between the sclerotic and the outer surface of the ciliary body, at the upper part. The lens had been successfully extracted. (Living specimen.)

2. A preparation, showing a growth occupying the right cavernous sinus and sella Turcica, and causing complete paralysis of the third, fourth, and sixth nerves, but no change in other nerves.

3. Double ophthalmoplegia externa, without other symptoms, in a lad aged 18. No cause could be found.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, MAY 14TH, 1881.

EDWARD LUND, F.R.C.S., President, in the Chair.

Incision and Excision of the Knee.—Mr. G. A. WRIGHT presented the case to the meeting, and gave the details as follows. Eliza N., aged 14, first had pain and swelling in the knee in September 1879; this gradually got worse. She was admitted into the Children's Hospital, Pendlebury, on December 2nd, 1880. There was then advanced pulpy disease of the right knee, with pain and starting at night, etc. After trying rest, extension, Scott's dressing, etc., on January 22nd the joint was laid freely open by an incision, as if to excise the joint; the ligamentum patellæ being left intact. The joint was found to be in an advanced state of pulpy disease, with the edges of the cartilages vascularised and in places thinned. A carious cavity was found in the outer tuberosity of the tibia. All the pulpy synovial tissue was cut and scraped away; the cartilage scraped; much of the softened and thickened capsule cut away; and the cavity in the tibia gouged out. The patella was turned over, and its articular surface scraped. The joint was then closed, with the exception of the drainage-tube openings, and put up in a Gooch's splint. After the second day, when the temperature reached 101.2°, it never rose to 100°. The joint filled with blood-clot, which gradually disappeared; and there was never any pus, the case being aseptic throughout. On February 21st, the limb was taken down, being quite healed on the 16th; and passive movement began. One adhesion was broken down; and the girl now walks, runs, and kneels, and has full range of movement of joint and no pain. The operation and treatment were antiseptic.

Paralysis of the Right Arm.—Mr. HIRST showed a case of paralysis of the right arm in a youth seventeen years of age, who was seized at the age of fourteen with symptoms of spinal disease, followed by choreic twitchings of the face, which soon disappearing, partial paralysis of the right side set in. The leg quite recovered; but the usefulness of the arm was still very much impaired. In infancy, the patient had been hydrocephalic; but from his eighteenth month to his fourteenth year he was a fine well-grown boy. Counter-irritation, galvanism, cod-liver oil, iodide of iron, hypophosphites, etc., had been given.

(*a*) *Tumour of the Pituitary Body*; (*b*) *Pseudo-hypertrophic Paralysis*: (*c*) *Adult Spinal Paralysis*; (*d*) *Case of Hæmatomyelia.*—Dr. ROSS showed (1) a tumour of the pituitary body, about the size of an orange. The symptoms caused by it had extended over a period of two years, and were such as to permit a definite diagnosis to be made at an early period of the disease. The patient first suffered from double temporal hemianopsia, with frequently recurring "fainting attacks" (epileptic). The optic discs were normal. Nine months subsequently, there were blindness of the right eye, white atrophy of the right optic disc, temporal hemianopsia of the left eye, and white atrophy of the inner half of the left disc. The patient was attended by Dr. Macfie of Bolton, who also made the *post mortem* examination. (2) The case of a man aged 47, suffering from the symptoms of pseudo-hypertrophic paralysis. (3) A case of acute atrophic spinal paralysis of adults in a woman twenty-two years of age. About four months ago, the patient went to bed quite well, and in the morning found her left arm completely paralysed. At present, all the muscles of the upper arm are paralysed, with the exception of the triceps; and those of the forearm and hand, with the exception of the flexors of the wrist and fingers, and the small muscles of the ball of the thumb and the little finger. The paralysed muscles are atrophied; they have lost their faradic contractility, and manifest the "reaction of degeneration". Sensory disturbances are completely absent. The muscles which are spared are probably all supplied from the eighth cervical and first dorsal nerves. (4) A case of hæmatomyelia in a man aged 19. Eight months ago, the patient became suddenly paraplegic, the paralysis extending as high as the first intercostal space. The flexor muscles of the wrist and fingers, as well as the small muscles of the ball of the thumb and little finger, were also paralysed. There was hyperalgesia of the right half of the body, with anæsthesia of the left half. Gradual but imperfect recovery took place. There has been a gradual return to nearly the normal degree of motor power on the left, and normal sensibility on the right half of the body. There are now present spasmodic paralysis with excess of the reflexes of the right lower extremity (descending sclerosis of the lateral column), and atrophic paralysis of the intercostal muscles, flexor muscles of the wrist and fingers, and muscles of the ball of the thumb and little finger on the right side (injury to the anterior grey horn). The muscles of the right upper extremity which are paralysed in this case are those which are supplied by the first dorsal and eighth cervical nerves. The skin supplied by the small internal cutaneous and the internal cutaneous nerves is completely anæsthetic, these nerves being also derived from the eighth cervical and first dorsal nerves. The patient also suffers from myosis, retraction of the palpebral fissure, and slight comparative elevation of temperature in the ear on the right side.

Nerve-stretching.—Mr. F. A. SOUTHAM read a short paper on nerve-stretching, in which, after mentioning the various affections in which this method of treatment had been employed, and the different theories as to the manner in which it is supposed to act, he described the particulars of three cases in which he had recently performed the operation. The first case was one of clonic torticollis of twenty-three years' duration, occurring in a woman fifty-three years of age. Stretching the spinal accessory nerve was followed by great relief; which was, however, only of a temporary nature, as the tremor gradually reappeared, and in the course of five or six weeks reasserted itself with almost all its original severity. An attempt, five months subsequently, to excise a portion of the nerve, was only partially successful, as it was found to have become so much atrophied in the meantime that it readily ruptured when it had been dissected only a short way through the substance of the sterno-mastoid; and the operation was not, therefore, followed by any perceptible benefit. Microscopic examination of the portion of nerve that was removed showed proliferation of the connective tissue elements of the neuroglia, and also of the nuclei of the primitive sheaths; the medullary sheaths of some fibres being at the same time much thinner, while in many instances they had disappeared altogether, the axis-cylinders alone remaining and presenting their normal appearance. The second case was also one of clonic torticollis of ten years' duration, occurring in a boy fourteen years of age. Stretching the spinal accessory nerve was followed by a marked improvement, which still continued seven months after the operation. The third case was one of clonic spasm of the muscles of the left side of the face, of two years' duration, occurring in a woman fifty-three years of age. Stretching the trunk of the facial nerve just before it entered the parotid gland was followed by complete disappearance of the tremor, symptoms of facial paralysis being at once produced, which, though still present, were beginning gradually to disappear six weeks after the operation. The patients were exhibited at the conclusion of the meeting.

MANCHESTER MEDICAL SOCIETY: MICROSCOPICAL SECTION.

APRIL 26TH, 1881.

J. DRESCHFELD, M.D., President, in the Chair.

Round-celled Sarcoma of Thyroid Gland.—Mr. F. A. SOUTHAM showed sections from a round-celled sarcoma, removed from the thyroid gland of a boy aged 9. The tumour had existed for three months, causing a prominence of the size of a walnut below the cricoid cartilage. It was smooth, soft, round, and had a semifluctuating feel. The skin over it was movable, and its base firm. On removal, it was found to be attached to the isthmus of the thyroid; it had no capsule, was pale in colour, and contained a few degenerative cysts. Microscopically, it consisted of round cells and embryonic blood-vessels. It had not returned six months afterwards, nor were there any tumours elsewhere.

Tumour of the Breast.—Mr. A. SIOCKS showed sections of a tumour of the breast, removed from a woman aged 37. The patient had been married twice, and had one child. There was a history of

seven years' growth. It had given no pain or trouble, except from its bulk. It formed a nodular swelling; the skin over it was movable; there was no retraction of nipple or glandular enlargement. The tumour, which was readily removed, weighed four pounds. There was some degeneration in the centre. The woman did well. Microscopically, the tumour consisted of spindle-cells and myxomatous tissue.

Tumour of Cerebellum.—Dr. DIXON MANN showed a tumour of the cerebellum from a girl aged 12. Two and a half years ago, she complained of headache, her sight failed, and there was staggering gait. Optic neuritis was noted at this time. A year ago, when seen by Dr. Mann, there was atrophy of the discs; but she could recognise those about her. She could not walk without help; the deep reflexes were exaggerated; but there was no rigidity of the muscles of the neck or limbs. She was subject to convulsive seizures and paroxysms of anger. The tumour was situated on the inferior surface of the right lobe; it was tubercular, and was solitary.

Micrococci from Ulcerative Endocarditis.—The PRESIDENT showed, for Mr. H. YOUNG, specimens of stained micrococci from a case of ulcerative endocarditis. Associated with the endocarditis, there were acute periostitis and osteo-myelitis and septicæmic symptoms. The detritus from the ulcers on the aortic valves contained numerous micrococci. The blood of a rabbit, which had been inoculated by the pus, also contained these organisms.

Micrococci from Septicæmia.—The PRESIDENT showed stained specimens of micrococci from pus taken from a woman who had died of septicæmia. The woman had lived in a cellar which had been flooded, she had been seized, with several others, with febrile symptoms, and had been removed to Monsall Fever Hospital with supposed small-pox. She died on the fourth day. The kidneys were found to contain numerous minute abscesses, and there was ulceration of the intestines. The pus was swarming with micrococci; and some pus injected into a rabbit killed the animal, its blood being found to contain these minute organisms.

NOTES ON BOOKS.

WE have received a copy of the *Indian and Colonial Directory for 1881*, by Messrs. G. Street and Co., Cornhill. It is well arranged, with a short description and well executed maps of each colony; the population and description of each town or city, steam communication, railways, banks, consuls, and a classified list of professions and trades. Altogether it is a most complete and interesting, as well as useful work; and for those going abroad, or travelling, will be found invaluable. It will also be very useful to any one having social, professional, or other connections with India and the Colonies.

Home-Nursing, and how to help in Cases of Accident.—By SAMUEL BENTON, L.R.C.P., M.R.C.S., and L.M., Surgeon to the North-West Hospital (for Diseases of Women and Children), etc. (Bogue.) Mr. Benton's manual is written for women whose domestic duties exclude them from the benefit of hospital training. The author shows much judgment in omitting all details of any process that can only be learnt practically, and we are glad to see that he excludes the useless catalogues of poisons and antidotes which figure in many popular works. His directions in cases of poisoning are so simple that the amateur nurse might understand them, even when in the highest stage of fear and uncertainty. In treating of infants, the useful directions issued to mothers at the Ormond Street Hospital are inserted; and Mr. Benton gives the excellent advice to a mother that "it is not real kindness to try to nurse her sick child night and day, for she soon gets so exhausted herself that the patient does not have sufficient attention". This quotation is a fair example of the style of the entire work, which is particularly to be recommended, in that it contains directions on certain of the simplest rules of hygiene that are the most frequently ignored and neglected.

Lectures on Domestic Hygiene and Home-Nursing.—By LIONEL A. WEATHERLY, M.D., M.R.C.S., Lecturer to the St. John's Ambulance Association. (Griffith and Farran.) This is another simple and useful work, that does not exceed the limits within which it ought to be confined. It is written in the style of the author's *Ambulance Lectures* reviewed a year ago in these columns, and one lecture is almost literally transferred to this later series, destined more exclusively for instruction in home-nursing. The authorities at the Ormond Street Hospital must feel well satisfied with their directions for the management of infants, for not only are they used at the Samaritan and, we believe, at other hospitals, but are quoted at length in Dr. Weatherly's lectures, as well as in the similar publication above noticed. The list of disinfectants is very useful; we find sanitas and terebene most highly recommended for the sick-room, as being free from unpleasant odour. The excellent type and cheapness of this little work are not the least of its merits, and it is free from useless digressions on ethical questions, which encumber many similar hand-books, and would be disregarded by those not inclined to consider them in a proper spirit.

WE have received, from the Connecticut State Board of Health, a little tractate on *Small-pox: its Restriction and Prevention*, issued by the Connecticut State Board of Health. This pamphlet may be had on application to the secretary, Hartford, Connecticut. It is, to a considerable extent, based (with due acknowledgment) upon Mr. Ernest Hart's pamphlet, entitled *The Truth about Vaccination*. Many useful practical details are, however, added, concerning disinfecting, and a small plan is given for a small-pox hospital. The small tract of the National Health Society, issued for cheap distribution at the rate of a few shillings per thousand, which has been revised and approved by the Local Government Board; and in reference to which we have had many inquiries, may be obtained, at cost price, of the Secretary of the National Health Society, 44, Berners Street, W.

Zoological Atlas.—We are glad to be able to speak very favourably indeed of a zoological atlas, for the use of students in medical schools and universities, by D. M'ALPINE, F.C.S., Lecturer on Biology and Natural History in Edinburgh (W. and A. K. Johnston, Edinburgh). The first part, which we have just received, is a coloured atlas in imperial quarto, containing twenty-four full coloured plates showing the anatomy and dissections of fishes, amphibia, reptiles, birds, and mammals, with an explanatory text including practical directions where to find the object, as well as how to dissect it, and pointing out all the principal details of structure. The text is very clear and systematic, explaining not only the objects drawn, but giving equivalent terms, derivations, and distinctive characters, which are summed up in the form of a classification. Such a book ought not to supersede actual practical work, but it is undoubtedly a most valuable aid to it. The specimens are such as may easily be procured; and, with the help of this book, and its admirably drawn coloured plates, the student has no excuse for not having a real practical knowledge of the elements of the anatomy and zoology of the vertebrate animals.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

COCA WINE.

UNDER the name of "*Vinum Mariani*", Messrs. Roberts and Co. are introducing into England a preparation of coca prepared from the leaves of the *Erythroxylon coca*. It forms a very agreeable, and, according to the clinical experience of physicians in France, as well as in England, a very useful nervine stimulant. The value of coca as an element of economy, as Marvaud has judiciously named it, and as a similarly active agent in restraining waste, has been insisted on by Sir Robert Christison and many others. Coca wine is largely prescribed and used in France; and it has been found generally valuable as a remedial agent in cases of nervous exhaustion, over-study, or excessive mental exertion. It has a certain reputation for enabling athletes to perform fatiguing feats without the usual amount of bodily waste, and will certainly be found considerably to alleviate the distress often incurred by students and others who are called upon to make considerable mental efforts.

McKESSON AND ROBBINS' CAPSULED PILLS.

WE find McKesson and Robbins' capsuled pills of quinia bisulphate (or soluble sulphate) worthy of special commendation. The bisulphate of quinine is much more soluble than the ordinary sulphate. This advantage will be readily appreciated by practitioners, as it ensures more prompt action of the quinine. The covering of these pills entirely masks the taste of the drug for a sufficient time to allow of swallowing, but if a pill be retained in the mouth, it will completely dissolve within a very few minutes. These new and beautiful preparations are, in several respects, a decided improvement over any form of pills that has yet come under notice. They well deserve the confidence and favourable consideration which they have gained from the profession for purity and integrity. Practitioners who dispense their own medicines will recognise these preparations as a great convenience. They are especially well suited for filling medicine-chests for travellers and explorers, as they preserve their qualities in all climates.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MAY 28TH, 1881.

ROYAL COMMISSION ON MEDICAL REFORM.

THE Royal Commission so long sought for by the opponents of medical reform has been not only decided on, but the members of it have been appointed. The obstructives to the one portal entrance to the profession have thus gained delay, and have thereby made a decided score. It is manifest that the sessions of the General Medical Council must be drawing to a close; one more session has come to an end, but it was not held at the usual period of the year. On the contrary, the Council was summoned at a time when it was difficult for some of the members to be present, and impossible for the Reverend Dr. Haughton, the representative of Dublin University, to attend, as he was compelled to remain at his post in Dublin in the discharge of his professorial duties. On an occasion when the preliminary, as well as the professional, education of the medical student, was under consideration, the absence of Dr. Haughton was the more to be deplored, on account of his long experience as a teacher in the celebrated medical school of Trinity College, to the great reputation and success of which he has so eminently contributed. No satisfactory reason has been assigned for assembling the General Medical Council at this unusual period; it may, however, be supposed that a desire to influence the nomination of members to serve on the Royal Commission may have led to it. This, however, can be only a surmise; as no reference was made to the Royal Commission in public business of the meeting, otherwise than in the president's address. The President, in his opening address, referred to the shortcomings of the Council in the discharge of the work incumbent on it; and, as usual, in apologising for them, attempted to palliate and excuse them by the embarrassment occasioned by outside professional agitation for medical reform. Excuses such as these have no weight with those who believe that free and open discussion, combined with candid criticism, conduce to the formation of correct views and conclusions in regard to all disputed questions. But for agitation, there would have been no Medical Act; the Medical Act of 1858, the first serious effort at medical reform, was due to the so-called agitation on the part of the profession and of the British Medical Association to remedy the chaotic condition of the profession which previously existed. The General Medical Council was formed by that Act; and, under the pressure of the agitation which had thus created it, the General Medical Council, in the first year of its existence, devoted itself to the improvement of the defective preliminary and professional education of the medical student. The Act once obtained, professional pressure and agitation subsided. Soon the flutter and alarm among the corporations, which, in the first instance, resulted from the creation of a body endowed with the privilege of visiting examinations, and the power of reporting defects in education and in examination to the Privy Council, died away, and the independence of the licensing bodies gradually reasserted itself, on finding that no representations of any kind followed, and that, in fact, mutual forbearance amongst the members of the Council became the order of the day.

The profession did not willingly nor speedily abandon the hope of improvement, and ten years were allowed to pass, during which the profession and the British Medical Association did not disturb the Council by any agitation. At the termination of that period, the Committee of Council of the British Medical Association, in obedience to the voice of the Association, declared at the annual meeting held in Dublin in 1867, most respectfully submitted to the General Medical Council the desire of the profession to be directly represented upon it; and, not long afterwards, a memorial to the same effect, which originated in Birmingham, and which was signed by about ten thousand registered members of the profession, was also presented. The need for improvement in education and in examination was simultaneously insisted on. The iteration of these facts is most important, even at the risk of being wearisome.

These representations, so deferentially made, in the most conciliatory, but at the same time most unequivocal, manner, did not meet with the favourable response that was not unnaturally anticipated; and, from that time to the present, a schism has sprung up between the profession and the General Medical Council, a Council which the profession not only created, but actually finds the funds to support.

The British Medical Association, in conjunction with the profession, has made unceasing efforts in the cause of medical reform, and invariably on the same lines as those adopted before the passing of the Medical Act of 1858; and has, on more than one occasion, seemed on the very verge of success. In the year 1878, the Bill of the Association was introduced by Messrs. Mills, Childers, and Goldney, embodying clauses for the direct representation of the profession in the General Medical Council. The prominence thus given to the reconstruction of the Council led the Council in that year to pledge itself, "at the first meeting after the session of Parliament", to consider its own constitution with a view to direct representation. Notwithstanding this pledge, the Council met in the following October, but did not fulfil it, although urged to do so by Sir Dominic Corrigan, Mr. Macnamara, and Dr. Haughton. In 1879, in the following session of Parliament, the Bill of the British Medical Association, together with the Bill of the Medical Alliance Association, and the Bill of Mr. Errington, were introduced and read a second time, and, with the Medical Act Amendment Bill of the late Government, were referred to a Select Committee of the House of Commons. This Committee examined Dr. Acland, the President of the General Medical Council; Mr. Simon, Dr. Quain, Sir James Paget, Sir Dominic Corrigan, Professor Turner, Dr. Haughton, Dr. Andrew Wood, Dr. Glover, Mr. Ernest Hart, and Dr. Edward Waters. Three of the members of the General Medical Council thus examined were opposed to direct representation of the profession in the General Medical Council; three members were in favour of it. The Committee printed the evidence, but did not draw up a report; still, we believe we are correct in stating it to be no secret that the majority of the Select Committee were impressed in favour of direct representation. In the following session of Parliament, in 1880, the Select Committee was reappointed, when the evidence of Dr. Struthers and of Dr. Gairdner was taken. Parliament was then dissolved, and the labours of the Committee terminated without any final report being made.

On the advent of the present Government, the Medical Reform Committee of the Association waited on the Lord-President of the Privy Council and the Right Hon. Mr. Mundella, but did not succeed in inducing them to undertake medical legislation. Later, Dr. Jacob of Dublin, acting on behalf of the Irish Medical Association, requested the co-operation of the Medical Reform Committee of the British Medical Association in forming a conference of all parties who had taken part in the promotion of medical reform; and Dr. Andrew Clark presided at several conferences in which representatives of the British Medical Association, the Irish Medical Association, the Medical Alliance Association, the Medical Defence Association, Dr. Glover, as representing the *Lancet*, and others took part. The result of these meetings was the drafting of the Medical Act Amendment Bill, which has been introduced by Mr. Hardcastle, Sir Trevor Lawrence, and Dr. Farquharson.

The appointment of a Select Committee in continuation of that of the preceding Parliament would have been heartily accepted by the Medical Reform Committee of the British Medical Association, and

by the members of the conference presided over by Dr. Andrew Clark; further, there can be no question that, if the General Medical Council had favoured it, such a Committee would have been appointed. When the Select Committee was appointed under the last Government, all the corporations which had opposed the conjoint scheme agreed to submit to the report of the Committee. So much evidence having been collected, the vexed question of medical reform seemed near a settlement, provided only the remaining evidence were obtained. In this hope, medical reformers have been disappointed; again the Medical Council has given reformers no assistance, and again the work will have to be commenced *de novo*.

The consistent uncompromising opponents of the conjoint scheme have been chiefly the Scotch universities and corporations and the Queen's University in Ireland. The representatives of these bodies solicited the appointment of a Royal Commission; and, with the tacit sanction of the General Medical Council, they have at last gained the object for which, almost without a hope of success, they had so long struggled in vain.

The Royal Commission has very searching and extensive duties assigned to it. It has, amongst other matters, to inquire into the grant of medical degrees, memberships, fellowships, licences, and other diplomas by universities, colleges, and bodies in the United Kingdom, and the courses of education and examination, payments, and other conditions required as a preliminary to such grant, and into the skill and knowledge which such degrees, etc., represent.....and, further, to inquire into the constitution, functions, powers, and procedure of the General Council of Medical Education and Registration. In fulfilling its functions, all questions relating to the profession will be investigated, and, most unquestionably, the public interest will be protected; and as the interest of the public is involved in the elevation of the profession intellectually, and therefore socially, the profession must in the end be the gainer.

We cannot affirm that the composition of the Royal Commission meets with our unqualified approval; we miss the names of Lord Mount-Temple and Lord Carnarvon, the former of whom carried the Medical Act of 1858 through the House of Commons, and the latter through the House of Lords. It is even a question whether the admission of members of the medical profession to the Royal Commission, which in the first instance was not contemplated, will add to its judicial weight and authority; most certainly the presence in it of any pledged professional expert, irrevocably committed to certain definite views, without any countervailing balance, must to some extent deprive it of the important element of impartiality.

The work of medical reform at which the Association has so long and so arduously laboured is, doubtless, by the appointment of a Royal Commission, again delayed. The work, however, cannot now be dropped, and our aim must be to aid in making it all that our fifty years' persistence in the task could desire—a work of reality, insuring in the future the existence of a profession worthy of being styled "learned", and an honour to the United Kingdom.

THE SMALL-POX EPIDEMIC.

It is not easy, in the present exceptional circumstances, to distribute with fairness or accuracy the respective shares of the Metropolitan Asylums Managers and the Local Government Board in the present scandalous deadlock with regard to the provision of means of isolation for the cases of small-pox that are now to be reckoned in London by thousands. The Asylums Managers have, no doubt, been harassed and annoyed by the results of the Hampstead Hospital suit, and cannot, of course, be expected to look with equanimity upon their efforts to perform a duty imposed on them by the Legislature being thwarted by popular clamour. But the Hampstead Hospital case need not, as it seems to have done, paralyse their efforts to secure sites which will not be open to the objections of that at Hampstead, since it is entirely gratuitous to suppose that the judgment of the House of Lords necessarily condemned all small-pox hospitals as nuisances. The Managers have of late contented themselves with helpless lifting of hands, and splenetic grumblings against the Local Government Board for not helping them out of their difficulties; and these feelings have at length found vent in the resolution passed at a meeting held on May 14th: "that, in consideration of the alarming and continued increase of the epidemic of small-pox in the metropolis, and having regard to the recent decision of the House of Lords, which has so completely fettered the action of the Asylums Board, this Board do strongly urge upon the Local Government Board the great necessity for immediate legislation on the question; and that the Local Government Board should at once introduce a Bill into Parliament to define and, if necessary, to enlarge the powers of the Metropolitan Asylums District Board, and the several local authorities, to enable them to perform in the present and in any future epidemic of disease, in a successful and satisfactory manner, without molestation, the several duties which the Act of 1867 contemplated should be performed by them."

So far as the immediate emergency is concerned, the President of the Local Government Board would, no doubt, have little difficulty in securing the assent of the House of Commons to a temporary measure holding the Asylums Board free from responsibility with regard to sites for hospitals selected by them with the assent and approval of skilled officials; but it would be out of the question to ask the House, in its present temper, and with the superabundant business on its hands, to consider this session any such general measure as that proposed in the resolution. Meanwhile, however, something must be done. It is a cruel satire on our present public-health arrangements, that, whereas the prevention of the existence of small-pox is the duty of one authority, the prevention of the spread of small-pox is entrusted to another. In the metropolis, the question is further complicated by there being thirty boards of guardians to administer vaccination, and thirty-nine sanitary authorities to stamp out small-pox. These multitudinous authorities are of necessarily different capacities, and feel different degrees of concern about the spread of small-pox in their midst; though, with the complex nature of metropolitan life, the neglect of one may be the danger of all. The Asylum Managers are now, perhaps, from no fault of their own, at their wits' end to know how to cope with the increasing number of cases needing hospital treatment. The remedy is an obvious one, though it is probably now too late to use it effectually. The sanitary authorities in the metropolis should be compelled to provide adequate hospital accommodation for their own cases, either by themselves or in combination with others; and the Local Government Board should insist upon this being done.

The present sanitary misgovernment of the metropolis is flagrant and extravagant in the extreme. Mr. Sclater-Booth made, indeed, during his tenure of office at Whitehall, an attempt, more or less feeble, to improve it; but his measure met with such passionate and fierce opposition from the vestries and others contented with the present state of things, that it had to be withdrawn. The present Government, strong in its majority and supported by the conviction of men of all shades of opinion that something must be done to deal with the present condition of affairs, could, if they felt disposed, attack the subject with some chance of profit. We have never concealed our opinion of the illusory and patchwork character of the clause in the Poor-law Act of 1879, which empowered sanitary authorities of the metropolis to contract with the Asylums Board for the reception of non-pauper cases from their districts. The *power* so to contract amply satisfied the sanitary authorities, and they made no effort to carry it into practical effect. The result is seen in the dimensions which the epidemic of small-pox is now assuming. Since the Asylums Board allege themselves to be powerless to do more than they are now doing, it behoves all the sanitary authorities to set about making some provision of their own. St. Pancras has already, under the guidance of its energetic health-officer, Mr. Shirley Murphy, set up small-pox tents in the north of London. The Commissioners of Sewers have—with unnecessary flourish of trumpets, it is true—made arrangements with the Port of

London sanitary authority for the reception of cases on board the hospital-ship *Rhin;* and some few other authorities are, under influence of the general panic, taking some kind of action in a similar direction. But throughout the metropolis the measures taken are spasmodic, temporary, and designed only "to meet the emergency". The same story had to be told in 1871, and will apparently have to be told again before some really statesmanlike action is taken in the matter.

No sooner do small-pox epidemics come—and, with our present knowledge, we ought to be able to predict these with tolerable certainty—than our elaborate and expensive machinery is brought to a standstill. No one has thought it necessary, in non-epidemic periods, while the disease is at a low ebb, to make preparation for the future, or to exercise any foresight as to the nipping in the bud of a nascent epidemic; and we find, therefore, boards expending wantonly and recklessly, "to meet the present emergency", sums infinitely larger than would have sufficed, if properly applied in non-epidemic times, to ward off the emergency altogether. It is to be hoped, for the national credit, that there may not be much more bandying about between the Local Government Board and the Asylums Managers of suggestions and recommendations. One or other of the boards must act, and that speedily. It is disheartening to find red-tape as rampant and obstructive as ever whilst life and health are being sacrificed to it; for, while the energies of one board are monopolised in devising means for evading the responsibility that the other seeks to impose upon it, small-pox is continuing its ravages unmolested, and will probably continue to do so until its forces are exhausted.

EXCISION OF THE HIP-JOINT.

THE committee appointed last session by the Clinical Society to inquire into the value of excision as a means of treating disease of hip-joint in childhood, has presented its report, which was read by Mr. Howard Marsh, at the last meeting of the Society. The report is signed by Messrs. Bryant, Croft, Holmes, Hulke, Mac Cormac, Marsh, and Lyell. As was suggested by the President, it deals especially with the following points. 1. The indications for resorting to the operation; 2. The results obtained from the operation as to (*a*) mortality, (*b*) the after condition of the limb; 3. The method of operating, as to (*a*) the amount of bone removed, (*b*) the use of antiseptics; 4. The nature of the disease, whether scrofulous or not. The report is founded on the two papers on Excision of the Hip-joint read by Mr. Croft before the Society, and published in the thirteenth volume of the *Transactions*, the second paper containing the history of 45 cases; on an analysis of all the cases—401 in number—admitted into the Hospital for Hip-disease in Childhood down to the end of 1879, 384 of these cases being treated by prolonged rest and weight-extension, without operative interference, and 17 being treated by excision or amputation, after removal elsewhere; on the examination of 37 specimens derived from Mr. Croft's cases, and of 19 collected from other sources; and on the results of excision, where traceable, in 158 cases from the Evelina, Guy's, the Middlesex, and University College hospitals.

The information thus obtained is summarised under various headings: 1. The proportion of recoveries to cases that ended fatally (*a*) after excision, (*b*) where rest and weight-extension only were employed; 2. The causes of death; 3. The period occupied by treatment; 4. The subsequent condition of the limb. The 45 cases in Mr. Croft's tables include 19 cases, or 42 per cent., of recoveries; 18 cases, or 40 per cent., of deaths; 8 cases, or 18 per cent., still incomplete. The mortality of 40 per cent. on the total of 45 cases is thus made up: 15.6 resulting from the operation, 13.4 from some form of tubercular disease, 6.6 from albuminoid disease, 4.4 from causes unconnected with the joint-disease; so that, if the deaths unconnected with the disease are excluded, the mortality amounts to 35.6 per cent. The average period of treatment in cases of recovery was one year and three-quarters, while the average total duration in 14 cases was three years. In 13 of these cases, the average shortening of the limb was two inches and three-quarters; while the proportion of cases in which the movement was free, limited, or *nil*, was as 11, 6, and 3. (*b*). Of 260 cases of suppuration treated at the Hospital for Hip-Disease by rest and extension only, 42.3 per cent. were cured or convalescent on discharge, 33.5 per cent. died, 24.2 per cent. were incomplete cases. The mortality of 33.5 per cent. is made up of 20.4 resulting from the disease, 9.2 from some form of tubercular disease, 3.9 from causes unconnected with the disease. If the deaths from causes unconnected with the disease be excluded, the mortality amounts to 30.4 per cent. The average period of treatment was found to be two years and a half in cases of recovery, and one year and a half in cases that died. The average total duration of the disease in cases of recovery amounted to rather more than four years. In 33 cases, the average shortening of the limb was, in 24 good cures, one inch and a quarter; in 7 moderately good cures, three inches and a quarter; while in 2 cases, there was no shortening. The cases in which movement was free, limited, or *nil*, were proportioned to one another as 5, 4½, and 3. Of 35 cases, 30 walked with slight or no limp, 5 with considerable limp.

The remaining cases in the table (124 in number) were instances of non-suppuration, and are composed of cures or convalescents, 69.3 per cent., as compared with 42.3 of suppurating cases; incomplete cases, 20.2 per cent., as compared with 24.2 of suppurating cases; deaths, 10.5 per cent., as compared with 33.5 of suppurating cases.

The deaths from tubercular disease amount to 7 per cent. in a total mortality of 10.5 per cent. The average total duration in cases of recovery was rather less than three years. While the proportion of cases in which the movement was free, limited, or *nil*, was as 5, 3, and 3. In a total of 17 cases, the average shortening in 12 good cures was one inch; in 3 moderate cures, three inches and a quarter; in one there was no shortening; and in one there was three-quarters of an inch of apparent lengthening. Of 22 cases, 19 walked well; 3 had a considerable limp.

In 56 specimens examined by the committee, more or less necrosis had occurred in 33—*i. e.*, in 59 per cent. In some of these, firm sequestra of considerable size were present; while, in others, the sequestra consisted merely of small fragments of softened cancellous bone. Of a total of 203 cases of excision, 29, or 13.7 per cent., proved fatal directly from the operation.

The conclusions arrived at by the committee as to the indications for resorting to the operation of excision are: that it should be adopted in cases—I. Of (1) necrosis of the head of the entire femur, and its conversion into a loose sequestrum; (2) the presence of firm sequestra either in the head or neck of the femur, or in the acetabulum; (3) extensive caries either of the femur or the pelvis, leading to prolonged suppuration and the formation of sinuses; (4) intrapelvic abscess following disease of the acetabulum; (5) extensive and old-standing synovial disease and ulceration of the articular cartilages, with persistent suppuration; (6) displacement of the head of the femur on the dorsum ilii, with chronic sinuses and deformity. It is pointed out that one of these conditions is probably present when suppuration occurs early in the course of hip-joint disease, and is accompanied by severe local and constitutional symptoms. In such cases, loose sequestra may sometimes be found and removed without sacrificing the articulation. II. Excision should also be performed when, in cases of suppuration, enlargement of the liver, or albuminuria, indicating the presence of degeneration of the viscera, is detected. III. When suppuration continues free, fresh sinuses are formed, or extensive burrowing is in progress, and the patient is losing ground in spite of careful treatment by rest and free drainage. IV. In disease of the pelvis, to provide an efficient drainage for suppuration, which may be sometimes detected near the floor of the acetabulum by the finger passed into the bowel; though pelvic disease renders the prospect of recovery, under whatever treatment is adopted, more than usually doubtful. The committee consider that complete rest and extension, and the withdrawal of matter, should always be first patiently tried, and operative interference only resorted to when these other means have failed to secure the favourable progress of the case.

The results obtained by excision show a mortality of 40 per cent., as compared with a mortality of 33.5 in cases of suppuration treated by rest and extension; or, excluding deaths from accidental causes unconnected with the disease, 37.7, as against 31.6. This slight difference does not certainly tell for much in favour of the opinion either of those who countenance or oppose operative interference, as at present conducted.

On comparing the condition of the limb in cases treated by excision with that resulting from treatment by rest and extension, the committee is of opinion that movement is more frequently present, and also more extensive in the former class; but that patients often walk insecurely, and with considerable limp; whilst the limb, after treatment by rest and extension, though frequently more or less fixed, is firmer, and more useful for the purposes of progression. Only as much bone should be removed as is actually diseased; and the femur should not be divided below the great trochanter; nor, except in the rare cases in which it is extensively involved in the disease, should the great trochanter be removed, and the attachments of the glutei muscles thereto should be preserved. These muscles, if cut, should be divided in a direction parallel with their fibres, and then retracted, as recommended by Mr. Croft. But, if the pelvis be diseased, the trochanter may be removed, since, if left, it is apt to be drawn up into the acetabulum, interfering with the free escape of pus through the cavity of the joint. The committee had no evidence before it upon which to form any definite opinion as to the use of antiseptic dressings in the operation of excision of the joint; nor does the committee offer any decided opinion as to the connection of hip-disease in children with scrofula, as the questions relating to scrofula and tubercle are still *sub judice*. But, of 429 cases of hip-disease coming under the notice of the committee, 39, or 9 per cent., died of some form of tuberculous disease.

Lastly, in nearly 60 per cent. of the pathological specimens examined by the Committee more or less necrosis had occurred, in some of which the dead bone formed firm large sequestra, whilst in others it consisted of small fragments of softened cancellous bone, which might probably have been disintegrated and thrown off unobserved in the discharge. That this had occurred in several of the cases examined, seemed to be proved by the severity of the suppuration that had taken place, as evidenced by the large number of cicatrices that remained.

This report, upon which the committee has spent much time and trouble, contrasting two sets of similar cases, one treated by rest and the other by excision, and for which the committee has otherwise very carefully investigated the evidence before it, certainly does not seem to bear out the view entertained in some quarters that the operation of excision is calculated to secure results materially superior to those obtained by the well-tried methods of rest and extension by weights and other means. We may regret that no royal road to recovery is opened to us by a more frequent resort to operation; but for the present, at any rate, it would appear that we must still be content to depend, in the majority of cases, for our treatment, on the expectant method.

THE NOTIFICATION OF INFECTIOUS DISEASES AT MANCHESTER.

THE Local Government Board has just made an entirely new departure by conferring upon the Corporation of Manchester, by means of a Provisional Order, powers for requiring the compulsory notification to them of cases of infectious disease. Other authorities who have desired these powers have had to obtain them by means of special local Acts; but, in the case of Manchester, a provisional order has been found sufficient for the purpose. It is true that the Local Government Board has found to its hand a convenient peg on which to hang this compulsory notification of infectious cases, since a former local Act (the Manchester Corporation Waterworks and Improvement Act, 1872) gave powers to the corporation to make by-laws for regulating the mode of conveyance for the purpose of interment of the body of any person who has died of an infectious disease; for causing the destruction of articles infected; for compelling the disinfection of articles and places, and prescribing the mode of such disinfection; for preventing the sale of infected articles; for giving power of entry for disinfecting purposes; for preventing the use of public conveyances by persons suffering from infectious diseases, etc.

It requires a considerable effort of imagination, however, to regard the new Order of the Local Government Board as merely (to quote its phraseology) "altering and amending" the Act of 1872, since it introduces an entirely new principle into the clause. Both the Corporation of Manchester and the Local Government Board seem to have satisfied themselves, however, that the notification can be properly made compulsory in this way; and, since it is undoubtedly desirable that such a system should come into force, there need be no cavil as to the manner of doing it. It is important, however, to draw attention to the point, since it introduces a new practice into the legislation on the subject: a practice which, in our opinion, might be very usefully and widely extended. If the Local Government Board still have doubts about the propriety of making compulsory registration of disease of universal application throughout the country, it might at least facilitate the inauguration of such a system by authorities that desire it, by conferring upon them, by provisional order, powers to require notification of infectious cases occurring within their jurisdictions. This would at once be more expeditious, more satisfactory, and immeasurably more inexpensive, than the present costly and uncertain process of a special Act. It is to be hoped that the line which the Local Government Board has taken with regard to Manchester, means that the Government is willing to extend the registration of disease in the direction we have indicated.

The details of the clause relating to this subject in the Manchester Provisional Order—which, when approved by Parliament, will have all the force of law—do not need much comment. The duty of notifying the existence of disease is imposed primarily on the occupier of the house or other responsible person, though every medical practitioner visiting a case of infectious disease is to send to the medical officer of health a certificate stating the usual particulars with regard to such case. A peculiarity of the clause is that the delivery of this medical certificate is to be "deemed to be a sufficient fulfilment of the requirements" relating to the occupier; in other words, if the medical attendant notifies the case, the occupier need not. This seems to us an undesirable plan; since our Association has held throughout that, for the due notification, the occupier should be primarily responsible, the medical certificate being of the nature of an additional precaution, and as a check on the householder's performance of his statutory duty. We cannot but think that the limitation at Manchester of the occupier's responsibility will be likely to lead to difficulty in practice, and that it will need great vigilance on the part of the sanitary officials to see that cases of the kind and amongst the classes about which information is most wanted, do not escape notification to the authority.

The diseases to be reported are "small-pox, typhus and typhoid fever, scarlatina, diphtheria, cholera, relapsing fever, and puerperal fever", and such other diseases as the corporation may, with the sanction of the Local Government Board, either temporarily or permanently, include in the list. Relapsing fever and puerperal fever did not appear amongst the diseases originally agreed upon at Mr. Dalton's official inquiry; but they were added by the Local Government Board, on the ground that, though they are of occasional occurrence only, it is of the greatest importance to the public health to have early information about them; and, as regards cases of puerperal fever, very important for the safety of other puerperal women that every possible precaution should be taken to restrict the disease. This view is one which will receive general acceptance, and the inclusion of the diseases in question must therefore be regarded as an improvement. Manchester is by far the largest and most important town that has as yet adopted the principle of the registration of disease, and its experience in this regard will be watched with the greatest interest. If, as

there is every reason to expect, the experiment should be (as elsewhere under proper conditions) a success, the extension of the system to the kingdom at large will be materially accelerated, and the Local Government Board will have no justification for its present hesitancy in the matter.

We understand that Mr. John Croft, Surgeon to St. Thomas's Hospital, intends to offer himself as a candidate at the coming election of members of Council of the College of Surgeons.

Sir William Withey Gull, Bart., M.D., has been reappointed, by Her Majesty in Council, a member of the General Council of Medical Education and Registration of the United Kingdom.

Lord Aberdare has introduced into the House of Lords a Bill to amend the law relating to veterinary surgeons. The second reading is fixed for the 31st instant.

At a recent meeting of the Toxteth (Liverpool) guardians, it was stated that, owing to the small-pox epidemic in London, and the great traffic between Liverpool and London, the disease was finding its way to the former city, and it was resolved to issue notices of warning to the inhabitants.

We are requested to state that it will give the president and members of the North Wales Branch much pleasure if the members of the Lancashire and Cheshire Branch will join them at their meeting at the Grosvenor Hotel, Chester, on Tuesday, the 31st instant, and at their dinner after the meeting. A programme of the business of the meeting will be found in the Association Intelligence.

We have heard with pleasure that, on receiving the dispatches relative to the engagement at Majuba Hill, referred to in last week's Journal, the Lords of the Admiralty at once telegraphed to Surgeon Mahon his promotion; subject, however, to his passing the qualifying examination which is still required. It is hoped that both he and sick-berth attendant Bevis will receive the Victoria Cross.

THE QUEEN'S BIRTHDAY.

A supplement to the *Gazette* announces that the Queen has been pleased, on the occasion of the celebration of Her Majesty's birthday, to give orders for promotions in, and appointments to, the Most Honourable Order of the Bath. Among them are the following. To be ordinary members of the military division of the third class, or Companions of the order: Deputy Inspector-General of Hospitals and Fleets Daniel J. Duigan, M.D.; Deputy Surgeon-General John O'Nial, Army Medical Department; Surgeon-Major Samuel B. Roe, M.B., Army Medical Department. Inspector-General John Forsyth, C.B., Bengal Medical Service, has been, on the same occasion, appointed a Knight-Commander of the order of the Star of India.

THE UNIVERSITY OF DURHAM.

The news that the Senate of the University of Durham has at last seen its way to remove such restrictive regulations as rendered the medical degrees of the University unattainable by any but an exceedingly small minority of the profession, will, no doubt, be hailed with satisfaction by many of those who are desirous of obtaining a degree, and would otherwise be obliged either to remain without one, or, at much inconvenience, to graduate in Scotland or on the continent. By a recent resolution of the Senate, a preliminary examination in arts has been instituted for candidates for the medical degrees, in place of the B.A. examination which they were formerly required to pass. This examination will be held, for the convenience of students, at the same time as the registration examination, in April and September, and will include four subjects; two—Greek and Euclid (Books iii and iv)—being compulsory, and two being selected at the option of the candidates from the following list: Latin, French, German, Elementary Mechanics, or a passage of English History. From this examination, candidates for the degrees will be excepted who have graduated at or passed the extra-professional examination of a recognised university, or the examination qualifying for the membership of the Royal College of Physicians of London. The examination itself may be passed at any time before the candidate presents himself for the final examination for the degrees. Although candidates are required to spend a winter and a summer session at the University College of Medicine, Newcastle-upon-Tyne, they may, at their option, pass the First M.B. examination before so doing. The effect of these and other less important modifications has been already greatly to increase the numbers of those who have entered for graduation at Durham. During the past winter session, there were fifty-three entries for the First M.B. examination, and a considerably larger number for the Special Arts examination. As, in addition to the facilities offered for graduation, there are very good opportunities for study in Newcastle, whilst the fees are not high, there is reason to expect that many more will avail themselves of the advantages offered. On the other hand, it will not now be possible to blame the University of Durham, at any rate, for having failed to meet one of the wants of the day.

THE MEDICAL CHARITIES OF BRISTOL.

Mr. F. Gilmore Barnett of Bristol writes to contradict a statement made at a recent public meeting in that city, to the effect: "that the out-patient department of the infirmary practically formed a provident dispensary". In reply to this he says:—

Two essential points of a provident dispensary are—(1) The members are attended at their own homes; (2) the medical men are paid; and both of these are wanting in the system adopted at the infirmary. During last year the infirmary, hospital, and dispensary relieved 52,253 persons, and of these 47,562 were out-patients. In addition to this number, there must be added those cases relieved by the other medical charities and by the poor-law, probably two or three thousand more. In round numbers, about one quarter of the inhabitants of this city receive free medical advice. With these figures before us, is it not time to consider if these valuable medical charities, which met the requirements years ago, now meet the needs of the poor, when the circumstances and conditions have so greatly altered? I venture to think they do not, and I again urge the desirability of forming a provident dispensary. This has been urged by others, but it has been found useless to attempt to start one with any prospects of success in the face of the system adopted by our medical charities. It is not likely that people will pay if they can get what they want for nothing; but if a provident dispensary were backed up by our medical charities, the people would soon learn to appreciate the immense advantage of being attended at their own homes. Instead of going about begging for notes, they could call in the doctor as a matter of right. If these 52,253 only paid 1d. a week each, and this is less than is paid by members of provident dispensaries in other towns, a yearly income of over eleven thousand two hundred pounds would be realised, which would be sufficient to pay all of the expenses connected with the dispensary, and, if necessary, support smaller infirmaries in other parts of our city.

In concluding his letter, Mr. Gilmore Barnett suggests that a representative committee of the medical charities of Bristol should be formed, to consider the whole subject of medical relief, and to obtain information as to what has been done in other large towns.

THE NATIONAL HEALTH SOCIETY.

A crowded drawing-room meeting was held on the 23rd instant, at 13, Lowndes Square, to hear Mrs. Johnstone's ten years' experience (in Hastings) in preventing the spread of scarlet fever. Dr. Bristowe presided; and, after reading various letters from medical gentlemen in Hastings, speaking in the highest terms of Mrs. Johnstone's work in Hastings, introduced that lady to the audience. Dr. P. Hinckes Bird, Dr. W. Squire, and others addressed the meeting after the lecture.

THE MONT DORE AT BOURNEMOUTH.

The foundation stone of this institution was laid on Wednesday last by His Majesty the King of Sweden and Norway. The "Mont Dore" is intended to be a winter and summer residence for visitors to Bournemouth; and accommodation is to be provided for invalids. The establishment is designed for 150 residents; it will contain a large

room suitable for concerts and private entertainments; and bowling, croquet, and lawn-tennis grounds will be laid out in the garden. After the ceremony, the King of Sweden was entertained at a luncheon in the town-hall; Dr. Alfred Meadows, chairman of the Mont Dore Company, being in the chair. His Majesty, in returning thanks for the toast of the health of himself and the Queen, proposed "the welfare of Bournemouth"; and, in doing so, spoke highly of the gratification which the Queen had experienced from her visit to the town for the recovery of her health.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Of the two meetings of this Society held during the present month, the first—that of the 10th—had a character unique in the annals of the institution, there being no papers to be read. This has been attributed to the desire of the members to reserve their energy for the forthcoming International Medical Congress. At the meeting on Tuesday last, two interesting papers were read by Mr. Lawson Tait of Birmingham. In the first, he described three cases (in addition to two already reported to the Society) in which he had performed hepatotomy. In two of the cases, the operation was performed for the relief of hydatids of the liver; in the third, the patient was the subject of a large cystic abscess of the organ. Mr. Tait's second paper contained an account of thirty-one cases in which he had removed the ovaries, with or without the Fallopian tubes, for the cure of obstinate uterine hæmorrhage, connected generally with the presence of myoma. Twenty-seven of the cases recovered. The author of the paper expressed his conviction that, so far as the primary results were concerned, removal of the uterine appendages for the arrest of intractable hæmorrhage was an operation well deserving of further trial.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

The annual general meeting of this Society was held, by the usual courtesy of the Royal Medical and Chirurgical Society, in their rooms, 53, Berners Street, on Wednesday, May 18th, at 5 P.M. The President, Sir George Burrows, Bart., took the chair at 5 P.M. The election of officers for 1881-2 took place. The Report of the Court of Directors of the proceedings of the Society during 1880 was read by the Secretary, from which it appeared that a sum of £2,942 had been distributed during the past year among 60 widows, 15 orphans, and 3 recipients from the Copeland Fund. The expenses of the year were £177 11s. 3d. The total receipts available for payment of grants and expenses had been £3,132 17s. 5d., the grants and expenses had been £3,119 12s. 3d., leaving only a balance of £13 5s. 2d. at the end of the year. The funded property of the Society had not been increased. During the year, one widow had died, and two had become entitled to grants; two orphans had become ineligible for further grants, and three had been elected. Eight members had died, and six had resigned, and only three new members had been elected, leaving a total of 375 members on the books at the end of the year. Dr. Semple, Dr. Self, Dr. Augustus Brown, Dr. Cumberbatch, Mr. Spencer Watson, and Mr. Vasey, were elected directors, in the place of the six senior, who retired. A vote of thanks was passed unanimously to the editors of the medical journals. It was resolved that the court of directors should be requested to consider the desirability of sending a circular to all medical men residing within the area included between the former and present limits of the Society. A vote of thanks to the chairman for his kindness in presiding was carried unanimously.

THE BAPTISM OF MILK.

It is well known that an army of Parisian milkwomen wait every morning at the Batignolles railway station for the arrival of fresh country milk; but, until lately, it was not so well known that they momentarily convert the enormous station-yard into a vast "salle de baptême" (baptising hall). By a most fortuitous accident, there is a fountain in the yard, nicknamed by the milkwomen "Louisa"; and every morning at least a hundred carts freighted with milk-cans one-third full of milk file past the fountain; and the cans are afterwards found to be quite full. As the railway-station is within Paris, and the milk is tested on its entrance into the city, the milkwomen thought their fraud sure to escape detection. Some of their customers, however, were suspicious of the purity of the milk, and sent samples of it to the laboratory of the Paris Corporation. The prefect of the police was recently informed of the adulteration of the milk by water, and seven policemen stationed themselves on the scene of operation. A hundred carts, as usual, filed before "Louisa", and the policemen witnessed the baptising of the milk-cans; they attempted to interfere and keep intact the remaining unadulterated cans; but the milkwomen quickly formed themselves into column offensive and defensive; and the policemen, preferring discretion to valour, fled. On leaving the yard, the police directed the porter to shut all the gates, and keep the enemy prisoners until the arrival of reinforcements; but the milkwomen, finding flight impossible, emptied their cans of milk and water on the ground. During this operation, the policemen returned with a goodly reinforcement of their colleagues; and in the midst of great excitement and confusion, they arrested a large number of the cunning milk-vendors, one of whom made such a desperate resistance that she had to be handcuffed.

DEATH OF DR. BARNARD DAVIS.

The most indefatigable of British anthropologists is no more. Last week died Dr. Barnard Davis; but he has not passed away without leaving a noble monument of his untiring industry. It is to him that science is indebted for the collection of crania and skeletons purchased entire by the College of Surgeons of England in 1880. A complete account of the collection, and the transaction by which it was transferred to London, will be found in the BRITISH MEDICAL JOURNAL, vol. ii, 1879, p. 996, and vol. i, 1880, p. 60. Dr. Joseph Barnard Davis was an M.D. of St. Andrew's, a Licentiate of Apothecaries' Hall since 1823, a member of the Royal College of Surgeons, and a Fellow of the Royal Society. He was also a Member or Fellow of over twenty-five learned societies, British and foreign. We purpose to give a full account of his labours in a subsequent number.

AN UNEXPECTED FRIEND.

That much suffering animal, the rabbit, has found a friend in M. Colin, who, at a recent meeting of the Paris Académie de Médecine, said: "It is a great mistake to try to make the rabbit an universal reagent. This animal is too frequently employed in the study of comparative pathology; and more is required of it than it can yield. The rabbit is not a good subject for studies in the etiology of intermittent fevers and other paludal diseases. It does not contract these affections under the conditions in which they developed themselves in the human subject; indeed, it has not the capability of contracting them. The same is also the case with the sheep."

SMALL-POX IN LONDON.

The fatal cases of small-pox in London, which had been 88 and 69 in the two preceding weeks, rose to 103 last week, and exceeded the average by 54; 55 were recorded in the Metropolitan Asylums Hospitals at Fulham, Homerton, Stockwell, and Deptford, 2 in the Fulham Tent Hospital, 3 in the Highgate Small-pox Hospital, one in the Peckham House Lunatic Asylum, one in the Plumstead Workhouse Infirmary, and 41 in private dwelling-houses. Of the 103 persons whose deaths from small-pox occurred within registration London, 44 had resided in the South, 28 in the East, 14 in the North, 11 in the West, and 6 in the Central groups of registration districts. The number of small-pox patients in the Metropolitan Asylums Hospitals, which had been 942, 1,093, and 1,225 at the end of the three preceding weeks, further rose to 1,390 on Saturday last, of whom 368 were convalescents temporarily accommodated in tents at Darenth. The number of new cases admitted to these hospitals, which had been 178, 363, and 379 in the three previous weeks, declined to 346 last week. The Highgate Small-pox Hospital contained 92 patients on Saturday last, against 85 and 86 at the end of the two previous weeks; 20 new cases were admitted to this hospital during the week.

A NEWLY DESCRIBED DISEASE.

WE have received a highly interesting report by Inspecting Veterinary Surgeon G. Evans, M.D., Punjab, concerning a disease of horses called *surra* which prevails in the Derajat, west of the Indus. Dr. Evans describes the disease in the following terms. "A specific, parasitical, non-inflammatory, enzoötic blood-disease, characterised by fever with jaundice; petechiæ of mucous membranes, especially of the eye and vagina; dropsy; albumen sometimes in the urine; great prostration of strength, rapid wasting, and with a specific parasite in the blood during life; but no characteristic structural organic lesions are found after death. It may be transmitted by the subcutaneous injection of blood, and by drinking freely blood containing the parasites alive, but is not contagious or infectious in the ordinary way. The average duration of the disease is probably not less than two months, but reliable statistics are wanting upon that point." The parasite is described as having a round body tapering in front to a sort of a head, and ending behind in a tail, about three or four times the diameter of a white corpuscle in length, and one-eighth to one-tenth in breadth. He asks whether the disease has been known to exist in any other part of India; and, if so, whether the localities were marshy and the water unwholesome, and whether the animals had been particularly exposed to the sun or to fatigue before they showed symptoms of the disease.

CERTIFICATION OF CAUSES OF DEATH.

THE causes of 124,618, or 90.0 per cent. of the 138,582 deaths registered in England and Wales last quarter, were certified by registered medical practitioners, and 57,83, or 5.4 per cent. by coroners in inquest cases. The causes of the remaining 6,381, or 4.6 per cent. of the deaths were not certified. The proportion of uncertified deaths showed a further slight increase upon that which prevailed in the two preceding quarters; in the metropolis it did not exceed 1.6 per cent., whereas it averaged 5.2 per cent. in the rest of England and Wales. The percentage of uncertified deaths did not exceed 0.7 in Wiltshire and 1.3 and 1.8 in the extra-metropolitan portions of Middlesex and Surrey, while it ranged upwards to 6.3 in Dorsetshire, 6.6 in Westmorland, 7.0 in Cornwall, 7.2 in Shropshire, 7.4 in Herefordshire, 7.6 in Cumberland, 8.0 in Durham, 12.1 in South Wales, and 13.7 in North Wales. In the twenty large English towns the proportion of uncertified deaths averaged 2.7 per cent.; it was 1.6 in London, and averaged 3.6 in the nineteen provincial towns. The percentages in the nineteen towns ranged from 0.6 in Portsmouth, 1.6 in Nottingham, and 1.8 in Manchester, to 5.2 in Salford and Bradford, 5.8 in Wolverhampton, 7.2 in Hull, and 7.9 in Oldham. Compared with those recorded in the preceding three months, the percentages of uncertified deaths showed a considerable increase last quarter in Bristol, Oldham, Leeds, and Hull; while they had declined in Manchester, Sunderland, and Newcastle-upon-Tyne.

DEATHS IN PUBLIC INSTITUTIONS.

THERE were registered in the first quarter of this year in England and Wales, in workhouses, hospitals, and public lunatic asylums, 15,571, or 11.2 per cent. of the total number of deaths registered. This proportion showed a considerable excess upon that which prevailed in any recent corresponding quarter. In the twenty large towns 7,991 or 17.7 per cent., of the deaths were recorded in the principal public institutions; the percentages in the several towns ranged from 8.3 and 8.4 in Oldham and Nottingham, to 21.1 and 21.4 in Manchester and London. Excluding the twenty large towns, the proportion of deaths in institutions in the rest of England and Wales did not exceed 8.1 per cent.

INQUESTS.

DURING the three months ending March last, 7.583 inquest cases were registered in England and Wales, equal to 5.5 per cent. of the total deaths, slightly exceeding the proportion recorded in recent corresponding quarters. In the twenty towns the proportion of inquest cases averaged 6.8 per cent.; it did not exceed 2.5 and 4.1 in Oldham and Salford, whereas it ranged upwards to 8.9 and 9.8 per cent. in Leicester and Birmingham.

A TALENT FOR EPILEPSY.

A FEW days since, a labourer was taken into custody in the streets of Paris for drunkenness, but he was not so drunk but that he was able to manifest what his captors described as his "habileté épileptique". On the way towards the police-station, he fell flat on the pavement, and exhibited all the symptoms of a violent epileptic attack—rigidity of the limbs, accompanied by convulsive movements, eyes wide open, eye-balls turned inwards, and foaming at the mouth. The passers-by, struck with terror and pity, formed a little crowd round the skilful drunkard. A doctor happened to be among the spectators, and had the supposed epileptic conveyed to a chemist's shop close by. There he administered ether and other restoratives, which, with the aid of friction, restored his patient to his normal condition. The interesting sufferer thanked the doctor and chemist for their attentions, and quietly went on his way to the police-station, accompanied by his two custodians. After a few minutes' thought, he said to them: "That doctor must be outrageously stupid *(furieusement bête)* not to have seen that I was shamming". Then, further to enliven the journey, he shammed again, this time for the amusement of the policemen only.

SCOTLAND.

THE LATE PROFESSOR SANDERS.

ON Monday afternoon, there was held a meeting of the medical profession of Edinburgh, in the Hall of the Royal College of Physicians, for the purpose of taking steps to erect a memorial to the late William R. Sanders, M.D., F.R.C.P.E., Professor of Pathology and Clinical Medicine in the University. The principal motion submitted to the meeting, "That this meeting, having regard to the affectionate esteem in which the memory of the late Dr. Sanders is held by his numerous friends, is of opinion that expression should be given to it by the erection of a permanent memorial", was moved by Professor Douglas Maclagan, and seconded by Dr. Balfour. A committee was then appointed to consider the most fitting way for carrying this out. Drs. Batty Tuke and Blair-Cunninghame, Edinburgh, were appointed honorary treasurer and secretary. We feel certain, that, when the committee have come to a conclusion regarding the nature of the memorial, so that an idea of what is required can be formed, Dr. Sanders' old pupils and his professional friends will heartily avail themselves of the opportunity of doing something to the memory of one whom they respected and loved so much during life.

HOSPITAL MANAGEMENT.

AT a recent meeting of the Greenock Medical Society, a paper was read by Dr. Black, on "Hospital Management in reference to the Medical Profession". It dealt principally with the subject of the Scotch hospitals, with particular reference to the management of the Greenock Infirmary. Letters were read from the secretaries of all the Scotch hospitals, which showed that Greenock occupies the singular position of having a large medical charity, on the board of management of which there exists no medical men—who, by the time they devote to the charity, are a very long way the largest subscribers, and without whose cordial support indeed the charity could not exist, at least in its present condition. The paper gave a *resumé* of the present agitation that is going on in medical circles over the country to have the medical and surgical staffs of the various hospitals made directors *ex-officiis*, in consideration of their services, in all cases where these services are gratuitous, or when only a small honorarium is given. It also gave an outline of the past and present relation of the profession in Greenock to the local hospital, which showed that up to the year 1856 the medical and surgical staff sat at the board as directors, but at that time, owing to difference of opinion among the medical men, the present rule of excluding them from the directorate was carried. The paper then argued for a return to the management that existed previous to 1856, and was well received by the members, who unanimously agreed that the present relation of the profession and staff to the board of managers was most

unsatisfactory, and not calculated to produce the best results as regards the efficiency of the hospital as a place where the poorest might enjoy the most enlightened treatment of modern times. A committee, consisting of Drs. Marshall, Robertson, and Black were appointed to consider in what way the views of the profession could be best carried into effect.

ROYAL INFIRMARY, EDINBURGH.

EDINBURGH has for some time been denied the visits of the Sovereign; but yearly a personal and special representative of Her Majesty, in the presence of the Lord High Commissioner to the General Assembly of the Church of Scotland, does what can be done to atone for the absence of Royalty. On Saturday, the Commissioner, the Earl of Aberdeen, with the Countess, etc., paid a lengthened visit to the Royal Infirmary, Edinburgh; visited a number of the wards and departments; and made, at the end of his visits, complimentary allusion to all he had seen. He was conducted during his visit by Professor Maclagan, and Surgeon-General Fassar, Superintendent of the Infirmary. The Countess gave every patient a bouquet of flowers from her own conservatory, and a book, as a memento of her visit. The Lord Provost expressed the pleasure that had been given to the managers by the visit of the Earl and Countess.

HEALTH OF EDINBURGH.

DURING last week, the mortality of Edinburgh was 19 per thousand. There were only seven deaths from zymotic diseases, of which three were from scarlet fever, three from whooping-cough, and one from erysipelas; it will thus be seen that there was no death from typhus or typhoid fever; of these seven deaths, five were in the Old Town.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending May 14th, it appears that the death-rate in the eight principal towns during the week was 20.6 per 1,000 of estimated population. This rate is 4.8 under that for the corresponding week of last year, and 0.8 under that for the previous week of the present year. The lowest mortality was recorded in Greenock—viz., 13.3 per 1,000, and the highest in Paisley—viz., 31.8 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.2 per 1,000, or 0.7 above the rate for last week. In Glasgow, there was an increase in the number of deaths from whooping-cough. Acute diseases of the chest caused 111 deaths, or 29 less than the number registered last week. The mean temperature was 50.6, being 4.4 above that of the week immediately preceding, and 3.6 above that for the corresponding week of last year.

HEALTH OF GLASGOW.

THE report of the medical officer of health for this city states that during the fortnight ending May 14th there were 484 deaths registered, representing a death-rate of 25½ per 1,000 living. At this time last year, the city was in the middle of the great milk-epidemic of enteric fever, so that the favourable contrast arises chiefly from the lower fatality of zymotic diseases; but in general ailments also the city is healthier. The number of deaths from infectious diseases of children was 36—viz., 16 from whooping-cough, 14 from measles, and 6 from scarlet fever. Measles has become more diffused in the city, though it has been less fatal. The number of cases of fever registered was 41—viz., 26 of enteric fever, 13 of typhus, and 2 undefined. Three cases of small-pox were registered: of these, two were Swedish emigrants on their way to America, who were removed from two boarding-houses on the south side of the city. The third was a servant-girl in a boarding-house on the north side of the city. As none of the cases (now five in number) discovered among the emigrants were associated with this particular house, the seizure of the servant shows the presence of a strain of infection among them, which has passed undetected through it. The medical inspection instituted by shippers immediately on the arrival of each batch of emigrants, and maintained during their stay, is having the best results. Besides these cases of small-pox, there have been three cases of measles detected among emigrants, and removed to Belvidere. The above death-rate has been calculated on the correct census-returns. The medical officer of health has also issued a special report on the best means of detecting and isolating cases of infectious diseases among emigrants, and so preventing the spread of infection.

IRELAND.

THE Board of Governors of the Limerick Lunatic Asylum, in conjunction with the Monaghan, Belfast, and other boards of asylum, have signed a petition addressed to Mr. Litton, M.P., praying that he will, in Committee, in the House of Commons, introduce a clause in the Bill to place Irish officers and servants on an equal footing with those of English asylums as regards retiring allowance.

CASE OF HYDROPHOBIA.

A WOMAN named Smith died near Coleraine last week from this disease. The deceased was bitten by a dog about six weeks since; symptoms of hydrophobia commenced on the 14th instant, and she succumbed three days afterwards. It is reported that rabies prevails to a great extent in Coleraine and neighbourhood.

SMALL-POX IN BELFAST.

THE cases admitted to the Belfast Workhouse to which we referred last week, have proved to have been small-pox. One of the seamen admitted, who was unvaccinated, has been attacked with small-pox of a severe type; while the second case, the mate belonging to the same vessel, who was vaccinated, has but a mild form of the disease.

REVACCINATION FEES.

AN important judgment was delivered in the Court of Queen's Bench last week on the subject of revaccination fees. The plaintiff was Dr. Duncan, medical officer of Fintona dispensary district, Omagh Union, who sued the guardians for a sum of £58 2s., being amount of fees to which he considered himself entitled under the Vaccination Act of 1879, for revaccinating 58 persons in his district. The sixth section states that the Board of Guardians shall pay to the medical officer of each dispensary district, for every person successfully vaccinated, or every person revaccinated by him within his district, a sum of two shillings. As Dr. Duncan was unable to furnish particulars of each case successfully revaccinated, the guardians refused his claim, believing that the revaccination cases were not entitled to payment unless successful. The Court, however, decided that the plaintiff had a right to the amount sued for, although unable to certify to the revaccination in all cases having proved successful. Mr. Justice Fitzgerald, one of the judges, considered that it was a case which might go before the Court of Appeal, and this view of the matter will probably be adopted by the guardians.

THE NOTIFICATION OF INFECTIOUS DISEASES (IRELAND) BILL.

MUCH dissatisfaction is felt by a large body of the profession in Dublin at the action of Dr. Lyons, M.P., in counting out the House of Commons on last Friday night week, and thus impairing the probability of the Bill being considered and amended by the House this session. Whatever differences of opinion are entertained as to the details in Mr. Gray's Bill—notably to the method of direct notification by the medical attendant which he proposes—all the medical corporations and bodies in Dublin have pronounced publicly in favour of the principles of the Bill. The King and Queen's College of Physicians in Ireland—of which Dr. Lyons is a Fellow and a member of its Parliamentary Committee, and as such took a part in drawing up amendments to Mr. Gray's Bill—has taken prompt steps to repudiate Dr. Lyons's reported assertion as far as it is concerned. At a special meeting of the College, held on Monday last, the Registrar was directed to inform the editors of the Dublin daily papers that Dr. Lyons's statement in opposing the commitment of the Bill, that he represented the medical profession in Dublin, is incorrect, as far as regards the views held by the College, which is in favour of the principles of the Bill.

SELECT COMMITTEE ON THE CONTAGIOUS DISEASES ACTS.

On May 9th, Mr. James Lane was called in and examined, on behalf of the Acts, by Mr. Osborne Morgan—being afterwards questioned by Mr. Stansfeld, Dr. Cameron, Mr. Hopwood, and Dr. Farquharson.

Mr. Lane had been connected with the London Lock Hospital for more than twenty-five years; and his experience of the working of the Acts was derived from having charge for twelve years, commencing in 1864, of patients sent in under the Acts by the Government. During that period, he had the opportunity of watching the effects of the Acts, and comparing the disease as met with in the women thus sent in, and in those who applied in the ordinary way as voluntary patients.

With reference to the pathology of the disease, he believed in the one poison theory, and referred to various authorities who held the same view. The question of unity or duality was, in fact, an open one; and, though interesting pathologically, he was quite unable to see that it had any bearing on the working of the Contagious Diseases Acts. The principles of treatment were the same, whatever the opinion of the surgeon might be on that particular point; and unicists and dualists had worked together cordially in support of the Acts. As regards the classification of all primary sores under one head by the Army Medical Department, with which so much fault had been found, he considered it to be the only one practicable; for it was impossible to tell with certainty, at an early period, whether a sore would prove infecting or not. Any attempt to separate them would, therefore, be unscientific, and would lead to numerous errors. Questioned as to whether he considered the soft sore a light, trivial disorder, as had been stated, he said he considered it very important, and more immediately disabling to the soldier than the other form. He enumerated the various complications—such as phimosis with concealed sores, swelling and sloughing of the prepuce, paraphimosis, phagedæna, suppurating buboes, etc.—to which it gave rise. The prevention of these sores was, therefore, most important. He considered that soft sores and their consequences were, in their immediate effects, the most serious form of disease. Next in order of severity, he would place gonorrhœa and its sequelæ—such as swelled testicle, buboes, inflamed bladder or prostate, gonorrhœal rheumatism, and stricture; and, lastly, the indurated sore, which in itself was a much more indolent and painless affection, though, of course, in its after consequences, it was the most important of all. With respect to the possibility of arresting the indurated sore in the primary stage, which had been questioned, he believed that it might certainly so be arrested, in a considerable proportion of cases, by early mercurial treatment, and that secondary consequences might thus be entirely prevented. In corroboration, he referred to the very strong opinion, expressed not long ago by Ricord, as the result of his vast experience. On the question of the alleged difficulty of discovering indurated sores in women, about which so much had been said, he believed there was really no practical difficulty whatever. They were usually situated in the external parts, and were readily seen; it was very rare to find them within the vagina, and even if they were concealed in the folds there, a practised examiner could hardly fail to detect them, either in the insertion or withdrawal of the speculum. Indurated sores in women caused little inconvenience, and were often unnoticed by the patient. The periodical examination of prostitutes was, therefore, most important, in order that they might be discovered and treated at the earliest possible period. As to secondary syphilis, he thought it was equally unlikely to be overlooked by a skilled examiner. There were usually some local signs present, especially in prostitutes, in the shape of mucous patches; if not, there would be enlarged glands in the groin, spots on the skin, in the mouth, on the tonsils and tongue, falling off of the hair, etc. In point of fact, patients were not unfrequently sent to the London Lock Hospital, under the Acts, for secondary diseases, who showed no sign whatever about their genital organs. Asked whether a medical examiner, who passed as sound one-half of the diseased women brought to him, would be a skilful examiner, he thought he was not fit for the duty of examining patients, under these Acts at any rate. On the important question, whether a woman would be equally contagious throughout the whole period of from one to two years during which she might be labouring under secondary disease, he said that she was most contagious in the early period. But if, under proper treatment, all outward signs, both local and general, disappeared, the disease was so far in abeyance that she would not be likely to communicate syphilis—though, when a relapse occurred, she would again become dangerous, and would require to be sent into hospital, which was the practice usually followed. In illustration of this, he mentioned the well-known fact, that a syphilitic woman may have a diseased child; and, if actively treated, she and the child may get well. She then has a second child, which shows no sign of disease whatever; but afterwards the poison may make head again, and she may have a third child, which is diseased. In the intermediate period, therefore, she is not contagious to a child, which is nourished for nine months in her womb. He believed that the morbid secretions of syphilitic women—vaginal discharges, for instance—would communicate syphilis, even although there were no sores on the genital organs, either primary or secondary; but there would be certainly some evidence of disease in other parts of the body, on a careful examination. The blood of a syphilitic person had also been proved to be contagious, though not readily so; but he knew of no evidence of a theory that had been mentioned, viz., that the mixture of a minute quantity of blood with a syphilitic secretion greatly intensified its "poisonous property".

With regard to "mediate contagion", which had been put forward as a reason why the Acts must often necessarily fail, he believed that it was a possible, but a very unfrequent, occurrence, and would be surprised to be told that it was a fertile source of disease. It was extremely unlikely that it should be so, and it was quite impossible to prove it. On the question of the discovery of gonorrhœa in prostitutes, he said that in its acute stage, it could hardly be mistaken; there would be the bright yellow discharge, and the painful and excoriated condition of the parts; and, even in the more chronic form of uterine and vaginal discharges, it would be extremely difficult for a woman to conceal her condition from the examining surgeon. If she endeavoured to do so by using injections before examination, the speculum would probably reveal some discharge remaining in the upper and larger part of the vagina; and, when pressed against the os uteri, would cause an oozing from it, while some of the injection would be found left behind, and the attempt would be disclosed. Practically, he considered it to be extremely difficult for a woman to conceal her discharge, and that it was almost invariably detected. He did not believe in the specific nature of gonorrhœa; the discharge was a result of the inflammation of a mucous membrane; and his view, like that of most of the French authorities, was, that both gonorrhœa and leucorrhœa were essentially the same; they were affections of the same mucous membrane, and both were communicable according to their character, whether they arose from impure intercourse or not. If they were purulent or yellow, they would excite a similar discharge in another person; but, if transparent or only slightly milky in appearance, they would probably be innocuous. Vaginal discharges in prostitutes were, in this sense, more contagious, from the continual irritation to which their genital organs were subjected. In the male, a discharge, undistinguishable from gonorrhœa, might arise from the use of cantharides, the passage of a stone or of gravel along the urethra, or the use of a catheter; and this was also liable to give rise to the same sequelæ—such as swelled testicle, and even gonorrhœal rheumatism.

In answer to questions, whether nearly all prostitutes did not soon become affected with real syphilis, he said that the majority probably did so, but many escaped, and were sent into hospital again and again for discharges only, without further disease. When once infected constitutionally, they were not liable to reinfection for some time, until this disease had thoroughly worn itself out; but he believed that reinfections did take place, for he had seen many cases in which, after a time, there had been a second indurated sore, followed by another attack of secondaries.

A woman may readily get soft sores; and, if she be labouring under constitutional disease, she may communicate syphilis to others. Therefore, the fact that the number of hard sores is small in women, does not show that they may not convey a large number of infecting sores to men.

With respect to the so-called "dirt-sores", he said that dirt could not produce a sore which can be inoculated, and which will produce a direct and specific contagion. Dirt may produce sore places, but dirt cannot produce soft chancres. If there were any doubt, the dirt sore would be well in a day or two, if it were kept clean, and the other would last a month or longer.

He thought that increased facilities for ablution might have had some effect in diminishing disease in soldiers; but ablution must take place speedily, if it is to have any effect. Cleanliness would not act exclusively in preventing soft sores, as had been stated, but equally in preventing contagion from hard sores as well. In fact, it would probably be more effectual against the latter, as the matter is less irritating, and would take longer to penetrate. Increased cleanliness, would, of course, operate equally at both subjected and unsubjected stations.

With reference to his experience as to the effects of the Acts on the condition of the women, Mr. Lane said that, before any Acts were passed, women used to be sent from Aldershot to the Lock Hospital by the Farnham Union. They were in rags and covered with vermin, and presented the most frightful cases of sloughing sores and buboes that he had ever seen. Women similarly sent from Woolwich and Greenwich were only in a slightly better condition. When the Act of 1866 was passed, and before the local government hospitals were built,

women from Aldershot and various districts were sent to the London Lock Hospital. The state of these women was at first deplorable, and nothing in his experience was more remarkable than the difference in their condition after the districts had been under the Acts for two or three months. There was a complete change in the character of their disease, and also in their general demeanour and cleanliness. Before long, the cases sent in under the Acts—which were at first so severe—presented a marked contrast to the cases in the voluntary wards, in the comparative mildness of their disease and the shorter time required for their cure. He attributed this entirely to the early discovery of their disease by compulsory periodical examination. He did not think it likely that the Acts drove many women out of the districts to practise prostitution elsewhere; but he knew for a fact that many women seriously diseased came into the districts, so that, by practising prostitution there, they might get sent into hospital for treatment. Of those admitted into the Lock Hospital, it had been found that as many as 15 per cent. were of this class; and they, of course, tended considerably to interfere with the beneficial effects of the Acts. In his opinion, nothing would be of any material service in suppressing venereal disease which stopped short of frequent examination and early seclusion, with compulsory detention in hospital until cured. He did not think that the provision of extensive hospital accommodation on the voluntary system would be of any avail from a sanitary point of view, though it might be a great charity to the women themselves. From a long experience of this class, he knew that they would not willingly seclude themselves until they had become seriously diseased, and that they would not remain until cured. During the last three years, as many as 20 per cent. of the voluntary patients had left of their own accord while still in a condition to communicate disease. In answer to questions whether the hospital might not be as full without compulsion as at present, he said possibly it might; but the women would not go in until they were so seriously diseased that they had already done nearly all the mischief of which they were capable, and they would not remain until cured. If they were admitted voluntarily, and detained compulsorily, as had been suggested, he thought they would be still less ready to apply than they are at present. No doubt it was to their own interest to do so; but they were not a class who would act for their own interest; and, as a matter of fact, they would not be induced to go in soon enough or to stay in long enough.

A REFORM IN MEDICAL TEACHING.

A CORRESPONDENT writes:—That long-suffering and patient individual, the student of medicine, deserves to have his case very carefully considered in all that relates to lectures, text-books, and examinations. How many of us, who have long ago passed from the benches of the class-room to the busy work and anxiety of practice, or to become in turn the instructors of new crops of students, look back with dismay and no small sense of thankfulness to the past—to the time when, as a student, one had to sit on hard benches; thus fairly well realising a part of Charles Lamb's description of the regions of bliss. To add to one's misery, one had to strain ear and eye to catch what the teacher said, and had then to do one's best to get it committed to paper. Happily, this evil is considerably mitigated for the present race of medical students, by the supply of a large number of text-books in almost every department of medicine. Still we are of opinion that something more is required to lighten the burden of the student, and render the acquisition of what a lecturer has to say more easy. Text-books are all very well as far as they go; but it is very rarely indeed that any professor or teacher of any subject follows exactly the method laid down in any text-book. In fact, one of the main objects of a teacher is to supplement mere text-book knowledge by experiment, by criticism, and by that inexplicable influence which an adept and enthusiastic teacher is capable of inspiring in his students, by the mere influence of his personal character and accomplishments.

We think the day is past for a student to be forced to sit with open notebook and ready pen to commit to paper the too often "winged" words of his teacher, while he may be losing more important matters by failing to observe experiments made in his presence. Now that the lithographic art and the printing-press are accessible to all, we would strongly urge that each student, as he enters the class-room, ought to be supplied with an outline of that day's lecture, so that he may have at least the main facts before him, from which he can refresh his memory in these days of ever-recurring examinations. A certain class of teachers write the outlines of their lectures on a board, to be copied by the students. This is essentially a bad method; for, whilst the teacher is lecturing about one subject, the student is struggling to copy these boards, and so loses the gist of what the teacher is saying at the time. What can be written on a board can be lithographed and put into the hands of the students. How often does one see a student succeed in taking down exactly the reverse of what the teacher said? This would largely be obviated by the above method. Not only should the student have an outline of each day's lecture, but he should be provided with lithographed drawings of the chief diagrams or instruments, or, especially, the arrangements of apparatus, by which the teacher illustrates his course. This method greatly facilitates the work both of the teacher and the student. These drawings or slips can be altered at little expense from year to year, to keep them abreast with the advances in the subject. We are aware that one of the Edinburgh professors gives his students printed slips which contain an outline of his day's lecture. But, as we have said, more is necessary; and we know that it is possible to do a great deal more to relieve the oppressed student. It has been the practice of certain of the professors in the University of Aberdeen, and one of the clinical teachers in the Royal Infirmary there, to give their students slips which contain the leading facts of their lectures, and also lithographed drawings of the chief diagrams used to illustrate the lectures or the arrangement of experiments. This practice has been specially successful in the hands of the professors of zoology and physiology in Aberdeen, and it is one much appreciated by the students. In fact, learning is thus made much easier, and the work of teaching is made lighter. This is an improvement which we would strongly urge to be adopted in the interest of true medical reform. We are not to be understood as underrating the value of good text-books, which are invaluable; but what we say is that the student ought to be relieved of the drudgery of note-taking, which everyone knows to be a "weariness of the flesh", and leads to students often becoming so engrossed in getting down what the teacher says, that they fail to observe what is really the important part of teaching—viz., the demonstrations of objects and the experiments of the teacher. In addition, by the method advocated above, the teacher is able to put into the hands of the student diagrams or drawings of all the newer discoveries in his own department, long before they reach even our best text-books. When the session is completed, these slips form in themselves an illustrated epitome of each subject; and the main facts are easily brought to mind by a perusal of them prior to the often much-to-be-feared and awe-inspiring ordeal of so-called "pass", but in reality too often "pluck" examinations.

THE NEW SCHEME OF EDUCATION AND EXAMINATION OF THE ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE Council of the Royal College of Surgeons in Ireland have adopted a report, on which their Education Committee have been for many months engaged, with a view to improving the education and examinations of students seeking the licence of their College. The scheme has been amended by the Council of the College at numerous special meetings, and, like most new propositions, has met with much opposition at every stage, and has even yet to be codified and resubmitted for approval to the Council before it can be put into operation. Recommendations Nos. 8, 9, 15, 17, 19, and 20 of the General Medical Council on the subject of education and examination, are to be enforced on all students commencing their studies after December 20th, 1879. Consequently, instead of being able to obtain a surgical qualification, as possible heretofore, in two years and six months, it cannot now be obtained at an earlier period than after the expiration of forty-five months.

The preliminary examination is to include the English language, elementary arithmetic, algebra and geometry, and specified books in Latin, with permission to substitute French or German for Greek. Four periodical professional examinations are instituted, to be held at the end of each period of professional study. The student to produce evidence of having passed the examination of his year, before being admitted to the subsequent examination, together with the prescribed certificates of attendance at hospitals and lectures. (*Vide* resolution proposed by the representative of the College at the recent meeting of the General Medical Council (JOURNAL, May 7th, 1881, p. 741), and rejected by fourteen to two.) Prior to the first professional examination, candidates are recommended to attend a course of lectures on practical anatomy and one on chemistry. The examination itself is to include the following subjects: 1. Physics—the elements of mechanics, hydrostatics, pneumatics, and hydraulics; heat, light, and electricity. 2. The elements of chemistry. 3. Botany: physiological, structural, and descriptive. 4. Anatomy—human osteology; and, 6. Practical pharmacy—elementary.

For the second professional examination, candidates shall be examined in: 1. Anatomy—bones, joints, muscles, and topographical

anatomy of the viscera of the chest, abdomen, and pelvis. 2. Histology; and the physiology of the circulatory, respiratory, and digestive systems. 3. Surgery—the signs, terminations, and treatment of inflammation; wounds, hæmorrhage; burns and scalds; ulcers; bandaging. 4. Chemistry; and, 5. Materia medica; and produce certificates of having attended a medico-chirurgical hospital nine months; a winter course of lectures in practical anatomy, demonstrations and dissections, physiology, surgery, and chemistry (unless attended in the first year); and a summer course (three months) of practical chemistry, practical physiology, and materia medica.

Candidates are required, before admission to the third professional examination, to produce evidence of having passed the second examination, also certificates of having subsequently attended a medico-chirurgical hospital—nine months as an extern pupil, or six months as a resident pupil; a winter course of lectures on practical anatomy (unless attended in the first year), demonstrations and dissections, surgery, and medicine, and a summer three-month course on medical jurisprudence.

Candidates shall be examined in: 1. Anatomy; 2. Physiology; 3. Surgery.

Candidates are required, before admission to their fourth or final examination, to produce evidence, as usual, of having passed the prior or third professional examination, and also certificates of having subsequently attended a medico-chirurgical hospital, nine months as extern pupil, or six months as resident pupil, unless a certificate as resident pupil has been offered in the third year; midwifery hospital, or maternity, six months (may be attended in the third or fourth year); practical instruction in vaccination; clinical ophthalmology, three months (may be attended in the third or fourth year, winter or summer); winter courses of lectures on dissections and demonstrations, and on midwifery and operative surgery (between 1st of April and 1st of October, in either the third or fourth year). Be examined in: Surgery—clinical surgery (including ophthalmic surgery, operative surgery, with surgical anatomy); medicine; midwifery and diseases of women; medical jurisprudence.

UNIVERSITY COLLEGE HOSPITAL.

THE annual festival of this institution was held on Friday, May 20th, at Willis's Rooms. Prince Leopold presided, having on his right hand His Royal Highness the Duke of Connaught, and on his left the Hon. J. R. Lowell, United States Minister Plenipotentiary. The company numbered about two hundred, and comprised many distinguished guests. Prince Leopold, in proposing "Prosperity to the University College Hospital", said that by unavoidable causes it stood in great need of support. Attracted by the reputation of its medical officers, patients came, not only from the vicinity, but from all parts of the metropolis. In 1880, the number of in-patients amounted to 2,789, and each of the two hundred beds had been occupied by fourteen different persons within the year. Owing to the proper restrictions which had been adopted to check indiscriminate dispensation of charitable relief, the number of out-patients had, within the last ten years, to a certain extent decreased. During the past year, 22,195 out-patients had paid over 65,000 visits; in other words, in each week, four hundred sick persons found relief. The hospital also performed an important function as a medical school. Since its establishment in 1832, nearly five thousand medical men had received their training within its walls. The Duke of Connaught declared that the Royal family owed a debt of gratitude to members of the medical profession belonging to the hospital; and Prince Leopold added that he could justly assert that no one living had, of his knowledge and experience, a greater right than himself to endorse all that could be said in praise of these eminent men. The subscriptions amounted to £1,230, of which Prince Leopold gave £25, and the Duke of Connaught twenty guineas.

MEDICAL ARRANGEMENTS FOR THE EVACUATION OF CANDAHAR.

A CORRESPONDENT writes to us:

Before this reaches you, the British occupation of Candahar will be a thing of the past. Two convoys of sick have been sent to India; one of Europeans, in charge of Surgeon-Major Frazer, Army Medical Department, and Surgeon Roche, Indian Army; another of natives, with Surgeons Stewart and Tuohy. Surplus medical and other stores have been despatched to Quetta; and the march of the troops, deluged by the recent rain, is fixed to commence on April 15th. The heavy guns and 11th Regiment, with European and native sick, leave on the 16th, in charge of Surgeons-Major Roche and Jackson, Army Medical Department, and Surgeons Manser and Burness doing duty.

The 3rd Brigade, with Surgeon Wright, I.M.D., as sanitary officer, and a field hospital, in charge of Surgeon-Major Edge, A.M.D., will leave about the 18th. The 2nd Brigade, with 78th Highlanders, in charge of Surgeon-Major Dudley, and a field hospital in charge of Surgeon Jagoe, starts about the 20th; and the last and strongest brigade, almost a division, will leave on the 22nd, if all goes well. With it, there will be the Head-Quarter Staff; 13th Hussars; 63rd Regiment, in charge of Surgeon-Major O'Halloran; two batteries of Artillery; and several native regiments. Surgeon-Major Eaton is staff-surgeon sanitary officer, and Surgeon-Major Hector in charge of the field-hospital. Deputy Surgeon-General Simpson accompanies it, with Surgeon-Major Greene as Secretary.

HEALTH OF COLONIAL AND FOREIGN CITIES.

A SUMMARY of the weekly returns with which the Registrar-General is favoured by various authorities abroad, shows that the average annual death-rate during the first or winter quarter of 1881, in thirty-one colonial and foreign cities, having an aggregate population of about fourteen millions of persons, was equal to 30.7 per 1,000. In the twenty-one European cities the average rate was 31.4 per 1,000, against 23.8 in twenty of the largest English towns. The lowest death-rates among the thirty-one colonial and foreign cities were 20.8 in Christiania, 21.0 in Cincinnati, 23.3 in Geneva, 23.8 in Brooklyn, 23.9 in Philadelphia, and Baltimore, 24.1 in Copenhagen, and 24.3 in Berlin; the rate was, however, equal to 36.5 in Alexandria, 42.6 in Trieste, 45.3 in Madras, and 54.5 in St. Petersburg. In Paris 379 deaths resulted from small-pox, 579 from diphtheria and croup, and 804 from typhoid fever, showing a considerable increase upon the number of deaths referred to each of these diseases in the preceding quarter. The deaths referred to typhoid fever in Paris, which had been 410 and 446 in the two previous quarters, rose to 804 last quarter, equal to an annual rate of 1.62 per 1,000, whereas in London the death-rate from the same disease did not exceed 0.15 per 1,000. Small-pox also showed increased prevalence in St. Petersburg, Vienna, Buda-Pesth, and Philadelphia; in the last mentioned city the deaths from this disease, which had been 50 and 317 in the last two quarters of 1880, rose to 614 in the first thirteen weeks of this year.

HEALTH OF FOREIGN CITIES.—The following statistics, derived from a table in the Registrar-General's last weekly return, afford indications of the recent health and sanitary condition of various foreign cities. In the three largest Indian cities, the annual death-rate averaged 38.3 per 1,000, and was equal to 46.0 in Calcutta, 37.5 in Madras, and 33.4 in Bombay; 123 fatal cases of cholera were recorded in Calcutta, against 83 in the previous week; whereas the deaths from small-pox in Madras declined from 112 to 86. In Alexandria, the rate was equal to 33.5, and 3 fatal cases of small-pox were recorded. According to the most recent weekly returns, the average annual death-rate in twenty-one European cities was equal to 30.9 per 1,000 of their aggregate population, showing a marked excess upon the average rate in twenty of the largest English towns, which during last week did not exceed 20.8. The rate in St. Petersburg was so high as 64.8, but showed a slight decline from the still higher rate in the preceding week; typhus and typhoid fevers caused no fewer than 128 deaths, against 138 in the previous week. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate did not average more than 22.8; and the highest rate was 30.4 in Stockholm, in which city the 98 deaths from all causes included 5 from diphtheria and 3 from scarlet fever. The Paris death-rate was 28.8, and showed a slight decline from the rates in recent weeks; typhoid fever, however, caused 34, small-pox 29, and diphtheria and croup 28 deaths. The deaths in Brussels, which included 4 from small-pox and 6 from measles, were equal to 24.7 per 1,000, almost corresponding with the rate in Geneva, which was 24.3. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the death-rates averaged from 19.4 in Rotterdam to 26.3 in Amsterdam; "fevers" caused two deaths in the Hague. The Registrar-General's table includes seven German and Austrian cities, in which the death-rate averaged 30.0, and ranged from 22.9 in Dresden and 27.5 in Berlin and Hamburg, to 35.1 in Buda-Pesth and 35.7 in Munich; small-pox caused 17 deaths in Vienna, and in Buda-Pesth 11 fatal cases of typhus and 7 of small-pox were recorded. The death-rate averaged 26.9 in four of the largest Italian cities; it did not exceed 22.1 in Turin, but was equal to 31.0 in Naples. In four of the principal American cities, the death-rate, calculated upon the enumerated population in 1880, averaged 28.5; it was equal to 21.4 in Baltimore, 22.6 in Brooklyn, 23.9 in Philadelphia, and 35.1 in New York. Small-pox caused 42 more deaths in Philadelphia, showing an increase upon preceding weekly numbers; and scarlet fever and diphtheria showed fatal prevalence in New York.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION:

FORTY-NINTH ANNUAL MEETING.

THE Forty-Ninth Annual Meeting of the British Medical Association will be held at Ryde, Isle of Wight, on Tuesday, Wednesday, Thursday, and Friday, August 9th, 10th, 11th, and 12th, 1881.

President.—G. M. HUMPHRY, M.D., F.R.S., Professor of Anatomy in the University of Cambridge; Senior Surgeon to Addenbrooke's Hospital.

President-elect.—BENJAMIN BARROW, F.R.C.S., Consulting-Surgeon to the Royal Isle of Wight Infirmary.

An Address in Medicine will be delivered by JOHN SYER BRISTOWE, M.D., F.R.S., F.R.C.P., Senior Physician to St. Thomas's Hospital.

An Address in Surgery will be delivered by JONATHAN HUTCHINSON, F.R.C.S., Senior Surgeon to the London Hospital.

An Address in Obstetric Medicine will be delivered by JOHN G. SINCLAIR COGHILL, M.D., F.R.C.P.Edin., Visiting Physician to the National Hospital for Consumption, Ventnor.

The business of the Association will be transacted in Four Sections and one Subsection, viz.:—

SECTION A. MEDICINE.—*President:* Edward Long Fox, M.D., Clifton, Bristol. *Vice-Presidents:* W. Withers Moore, M.D., Brighton; Bushell Anningson, M.A., M.D., Cambridge. *Secretaries:* William Hoffmeister, M.D., Townsend House, Cowes, Isle of Wight; Robert Saundby, M.D., 71, Newhall Street, Birmingham.

SECTION B. SURGERY.—*President:* W. Martin Coates, M.R.C.S., Salisbury. *Vice-Presidents:* Charles Macnamara, F.R.C.S., London; Alexander G. Davey, M.D., Ryde. *Secretaries:* Ed. Allan Waterworth, M.D., 40, Quay Street, Newport, Isle of Wight; Herbert W. Page, M.A., M.B., 146, Harley Street, London.

SECTION C. OBSTETRIC MEDICINE.—*President:* Sir E. B. Sinclair, M.D., Dublin. *Vice-Presidents:* John Livesay Whitehead, M.D., Ventnor; Edward Malins, M.D., Birmingham. *Secretaries:* Robert Cory, M.D., 14 Palace Road, Albert Embankment, S.E.; James Mann Williamson M.D., South Cliff Cottage, Ventnor, Isle of Wight.

SECTION D. PUBLIC MEDICINE.—*President:* Arthur Ransome, M.D., Bowden, Cheshire. *Vice-Presidents:* George Wilson, M.D., Leamington; William Armistead, M.B., Cambridge. *Secretaries:* James Neal, M.D., Barcelona House, Sandown, Isle of Wight; H. Aubrey Husband, M.B., 13, Northumberland Street, Edinburgh.

SUBSECTION: OTOLOGY.—*Chairman:* Urban Pritchard, M.D., London; *Secretaries:* E. Cresswell Baber, M.B., 4, Preston Street, Brighton; W. Douglas Hemming, F.R.C.S., Glenalmond, Bournemouth.

Honorary Local Secretaries.—J. M. Pletts, M.D., Kent House, Melville Street, Ryde, Isle of Wight; W. E. Green, Esq., Belgrave House, Sandown, Isle of Wight.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH.—A general meeting of this Branch will be held at the rooms of the Medical Society of London, 11, Chandos Street, Cavendish Square, on Friday, June 10th, at 8 P.M., to receive the Report of the Subcommittee on Hospital Reform.—ALEXANDER HENRY, M.D., W. CHAPMAN GRIGG, M.D., Honorary Secretaries.—May 26th, 1881.

SOUTH-WESTERN BRANCH.—*(Amended Notice.)*—The annual meeting will be held in Druid's Hall, Redruth, on Wednesday, June 29th, at 11.15 A.M. R. Hogarth Clay, M.D., President, will resign the chair to R. Hudson, M.D., President-elect. An address will be delivered by Mr. William MacCormac, Surgeon to St. Thomas's Hospital, London. After the meeting, luncheon will be provided at 10, Trewirgie Road. Excursions will be arranged for the afternoon. Dinner at Tabb's Hotel at 6 P.M. Members intending to make communications, or to be present at the dinner, are requested to send notice to S. REES PHILIPPS, M.D., Honorary Secretary, Wonford House, Exeter.

SOUTH MIDLAND BRANCH.—The annual meeting of this Branch will be held at the Anchor Hotel, Newport Pagnell, on Thursday, the 9th of June, at 2.30 P.M.; H. Rogers, Esq., President-elect. The members will dine at 5.30 P.M. Members intending to read papers are requested to communicate with G. F. KIRBY SMITH, Esq., or Dr. BRYAN, Honorary Secretaries.—Northampton, May 9th, 1881.

SOUTH-EASTERN BRANCH.—By direction of the Council of this Branch, a meeting of the members of the Association, and of the medical profession (without regard to Association) in the counties of Kent, Surrey, and Sussex, will be held at the Royal Pavilion, Brighton, on Tuesday, May 31st, at 3.30 P.M., to discuss the Report on Medical Education, recently issued by the Committee of Council, and to consider the question of Medical Reform, and to pass resolutions thereon.—W. WITHERS MOORE, M.D., President; CHARLES PARSONS, M.D., Honorary Secretary.

SOUTH-EASTERN BRANCH.—The thirty-seventh annual meeting of this Branch will be held at the Public Hall, Reigate, on Wednesday, June 8th, at Two o'clock precisely. The President-elect kindly provides luncheon at the Public Hall before the meeting, from 12.30 to 2 P.M. After the meeting, members will be afforded the opportunity of visiting the following places: 1. Gatton Park and the Marble Hall, by the kind permission of R. McCalmont, Esq. 2. The Philanthropic Society's Farm-School, by the kind permission of the Rev. C. Walters, Resident Chaplain. 3. The Earlswood Asylum for Idiots. The Superintendent, Dr. G. W. Grabham, will kindly receive the visitors, and provide tea and coffee. 4. Henry Webb, Esq., of Redstone Manor, Redhill, has kindly promised to show members his fine collection of china and coins. Carriages to convey the visitors will be provided by the Local Committee. Dinner will be served in the Public Hall, Reigate, at 5.30 P.M. Tickets (not including wine) 7s. 6d. each.—CHARLES PARSONS, M.D., Honorary Secretary, 2, St. James's Street, Dover.—May 24th, 1881.

MIDLAND BRANCH.—The annual meeting of this Branch will be held at the Infirmary, Leicester, on Thursday, July 14th, at 2 o'clock. Members wishing to read papers are requested to communicate with Mr. FRANK H. HODGES, Honorary Secretary for Leicestershire; or with C. HARRISON, M.D., Lincoln, Honorary Secretary Midland Branch.

NORTH WALES BRANCH.—The next intermediate meeting will be held at the Grosvenor Hotel, Chester, on Tuesday, the 31st day of May, at 12.30 P.M. The President hopes for the pleasure of seeing the members of the Lancashire and Cheshire Branch at the meeting. At 12.30 o'clock, the following papers will be taken. 1. Dr. Wm. Williams (Physician to the Northern Hospital, Liverpool): Pulmonary Consumption treated Antiseptically. 2. Mr. Roger Hughes (Bala): A Case of Extra-uterine Fœtation; upon which Dr. John Williams of University College Hospital, will also speak. 3. Dr. M. Williams (Liverpool): A Case of Peritonitis. At 2.30 P.M., Dr. Balthazar Foster, of Birmingham, will (by special invitation) give an address upon The Treatment of Pleuritic Effusions, upon which subject a debate will take place. Dinner at 4.30 P.M. It will give the members of the North Wales Branch much pleasure if the members of the Lancashire and Cheshire Branch will join them at the dinner. Tickets 8s. each, exclusive of wine.—J. LLOYD ROBERTS, Honorary Secretary, Denbigh.—May 23rd, 1881.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting of this Branch will be held at the Town Hall, Preston, on Wednesday, June 29th, at 2 P.M. The Secretary will be glad to receive intimation of papers to be read.—A. DAVIDSON, 2, Gambier Terrace, Liverpool.

LANCASHIRE AND CHESHIRE AND STAFFORDSHIRE BRANCHES: JOINT MEETING.

A JOINT meeting of these Branches was held at the Town Hall, Crewe, on Tuesday, May 10th, under the presidency of Mr. E. LUND. The members of the Staffordshire Branch attended, at the invitation of the Council of the Lancashire and Cheshire Branch. About one hundred members of the two Branches were present. A very sumptuous lunch was provided by Mr. Atkinson, surgeon to the works of the London and North-Western Railway at Crewe.

Papers.—The following papers were read.

1. Dr. Ashby, physician to the Children's Hospital at Pendleton, read a paper on the Diagnosis of some Forms of Scarlatina, which gave rise to considerable discussion, especially the statement, founded on his hospital experience, that twenty per cent. of the cases were *sine eruptione*.

2. Mr. W. M. Banks of Liverpool read a paper on the Radical Cure of Hernia complicated with Undescended Testicle, relating two cases of this nature in which he had removed the testicle with the result of a complete cure.

Visit to Railway Works.—After the meeting, the members proceeded to visit the works of the railway company, and were shown the Bessemer steel process, and the whole details of the construction of locomotive engines.

Dinner.—Sixty-one members and visitors dined at the Royal Hotel in the evening. In responding to the toast of the Staffordshire Branch, Mr. Folker said that the Staffordshire Branch was a very young one, he being only the seventh president. They had therefore much to learn, and they had learned much that day. On behalf of his Branch, he thanked them for the way in which they had been received, and especially for the attention shown by their host Mr. Atkinson.

The Next Meeting of the Lancashire and Cheshire Branch will be held at Preston in the end of June. The Secretary will be glad to receive early notice of any papers or communications.

THE METEOROLOGICAL SOCIETY.—The usual monthly meeting of this society was held on Wednesday, the 18th instant, at the Institution of Civil Engineers; Mr. G. J. Symons, F.R.S., President, in the chair. The following papers were read. 1. "Comparison of Robinson's and Osler's Anemometers, with Remarks on Anemometry in general", by Richard H. Curtis, F.M.S. The author in this paper gave a very clear statement of the present state of anemometry, and pointed out the defects in Osler's and Robinson's anemometers, which are the chief forms of recording instruments used in this country. 2. "Notes on Waterspouts observed at Cannes in January or February 1872", by the Hon. F. A. Rollo Russell, M.A., F.M.S. 3. "On some Swedish Meteorological Observations in connection with the Return of the Seasons", by Alexander Beazeley, M.Inst.C.E.

CORRESPONDENCE.

CORONERS.

SIR,—I have felt it my duty to the profession, of which I have the honour to be a member, to decline to present to Parliament a petition which prays that any "reform of coroners' law which may receive the support of Her Majesty's Government should contain the following essential provision": "2. That every coroner should be either a barrister-at-law or on the roll of solicitors." To this prayer of the petition of the King and Queen's College of Physicians in Ireland, I beg leave very respectfully but firmly to demur; and I believe it to involve such a vital principle, as affecting the public rights of the profession, that I have begged the College to relieve me from the embarrassment of presenting to the House of Commons a petition from the prayer of which I so fundamentally differ. It has been all through my life my aim to secure for the profession of medicine that full recognition of right and equality with all other callings in the State, to which I believe it to be so justly entitled by its learning, its services to humanity, and the high character of its individual members. I am convinced that the well-educated physician is as fully competent and as well entitled to fill any office in the State to which he may be called, as any other member of the community; and I shall never consent, directly or indirectly, to the imposition of a disability or disqualification on a member of the profession, such as that now sought to be entailed upon him.

I will venture to affirm, after careful search, that no such condition as that referred to has ever been sought to be placed on the office of coroner, from the earliest statute which I can find on the subject—that of 3rd Edward I, of the year 1275, entitled "What Sort of Men shall be Coroners", and the 11th and 12th Edward I (1283-1284)—statutes drawn with all the wisdom and care which marked the legislation of that great sovereign, and which, as has been very properly observed, in regard to all public questions, and, I would add, inclusive of land-legislation, would do credit to the times and reign of Victoria.

That the College to which I have the honour to belong, and which has so justly earned a high place in the history of medical corporations, should seek to impose this disability on its own alumni, whom it has ever sought to raise to the highest standard of medical and general culture, is a circumstance of astonishment and regret. Amongst its own Fellows will be reckoned the founders of peerages; and it has recently delighted to honour the war-services of Dr. Reynolds, V.C., at Rorke's Drift; to speak of no other instances. Of the many distinguished medical men who have filled administrative posts with singular ability and high credit to the State, I will only mention Dr. Sandwith, Sir Samuel Rowe, etc.

It is because I feel that to close even one door of the great avenues to public service would be to give evil example and to yield a vital principle, that I contest the action of the College on this occasion. I purposely avoid discussing the nature or functions of the office, on which much may be said to support the opposite view—that taken by the College; and I desire to enter my protest on the broadest ground, and to record my opinion that the well-educated physician is fitted for any position in life to which his fortune calls him. I have the fullest confidence that the profession will sustain me in this view with no uncertain voice.—Yours faithfully,

R. D. LYONS, M.P., F.K.Q.C.P.I.

17, St. James's Place, London, S.W., May 25th, 1881.

CONSULTATIONS WITH HOMŒOPATHS.

SIR,—I should be glad if you would allow me to state the reasons which, as I think, show that whoever of us meets a homœopath in consultation puts himself and his profession in a false position.

In this matter, we have homœopaths and *soi-disant* homœopaths to deal with. There are homœopaths pure and simple, who uphold the doctrine of *similia similibus*, and believe in the virtues of infinitesimal doses. These men honourably practise what they heartily profess. With them, we can have no difficulty. Their doctrines and practice are to us incomprehensible, being simply a jargon—an abracadabra method of cure. There is no possible point of professional unity between us and them, out of which a consulting *modus vivendi* could be formed. The pure homœopath himself could neither desire nor consent to have professional intercourse with men whose theory and practice he so entirely abhors. He and we can only agree to differ.

It is with the other class of homœopaths, so called, that we are troubled—men who assume the name and garb of homœopathy, and yet largely or wholly repudiate its doctrines and practices. They assert that they, as the rule, practise medicine just as we others do, using like remedies and like doses. But they assume a capacity of curing superior to ours. They tell their patients that they possess a reserve source or power, on which they can rely when the ordinary method fails—to wit, "remedies homœopathic". They let him know, for his comfort, that they have two strings—Hahnemann's as well as Apollo's—to the bow with which they fight his cause against disease; whilst we others have only one string to play upon. The proper title of this class is clearly not homœopath. To use their own language, they are, strictly speaking, allo-homœopaths.*

The allo-homœopath, therefore, offers us, if we will only accept it, a means of living together on some sort of consulting terms. He has thrown overboard, more or less, the doctrines and doses of homœopathy, and even ridicules some of its founder's dicta. He is, it appears, even complaisant enough on occasion to drop entirely his homœopathic quality. Now let us see how a consultation with him affects our standard of professional morals. The physician who meets him in consultation has two courses before him. He must either repudiate entirely the consultation idea, ignoring the existence of the allo-homœopath as a medical brother; or he must compromise the matter by agreeing that the allo-homœopath shall have his special innings as treater of the sick man, should those symptoms arise which, in his opinion, require "homœopathic remedies". Thus it is certain that one or other must make a sacrifice of "principles and convictions". Nor do I fancy that our colleges would hold that to be a laudable or happy meeting at which a physician, to make himself secure, demands *in limine* from his brother-consultant a declaration, signed and delivered, that he will not intrude any of his "homœopathic" remedies, though he may think them required; nor refuse to carry out the physician's orders, though they may be repugnant to his convictions. I think it requires no argument to show that the position is worse than equivocal. It is bad for the one who makes, and not bright for the other who accepts, the sacrifice. Again, if consultants meet, as they are bound to meet, on honourable terms of equality, why should not the allo-homœopath have equally the power of demanding that the physician shall sacrifice his convictions? And how can the physician honourably ask his brother-consultant to accept a position which he himself would reject as degrading?

Moreover, it is absurd to pretend that these consultations do not encourage homœopathy—*i.e.*, encourage, in our opinion, delusion. The allo-homœopath, as he says, may no doubt treat his patient just the same and just as well as the physician does; but it is notorious that all the same he mainly scores his credit and reputation with the patient as a practitioner of homœopathy. It is the odour of the Hahnemann mystery, which he carefully carries about him, and with which he covers the *British Pharmacopœia* drugs, that gives him special favour with the public—the innumerable *populus vult decipi* class. Every consultation is regarded by the patient as a homage and acknowledgment paid by medicine to the virtues of homœopathy. If the patient recovers, it is thanks to the homœopath; if he dies, it is because the hands of the homœopath were tied through the bigotry of the consulting physician. As many dangers and dubieties, therefore, environ such consultations as they do "the man who meddles with hot iron".

But, as we cannot possibly go to the allo-homœopath, why should he not come to us? This query naturally arises on reading in your pages the unfortunate and illogical position in which a medical man needlessly places himself through acquiring, in some way or other, the reputation of dealing with homœopathy, and when, from his own showing, he would really seem to have nothing to do with it. Dr. Kidd has stated that he uses "*British Pharmacopœia* drugs", and scorns infinitesimal doses. Why, then (he asks), should he be put under ban as a homœopath, merely because he finds that, in many cases, "homœopathic remedies" may be usefully given? I cannot doubt that he and all allo-homœopaths may readily free themselves from the burthen. If he would simply drop the word "homœopathic"—the mysterious envelope in which he wraps his "remedies"—as he has already dropped the mystery of infinitesimal doses, he would, I verily believe, find himself *re vera* one of us. If he would in plain terms tell us (and why should he not?) what those remedies are which he labels "homœopathic", he would, I think, find that, like Molière's man, he has all along, without knowing it, been using remedies in kind and in doses such as the College of Physicians would endorse as fit and proper. The same gentleman tells us in your last number

* The term "regular homœopath" has been used, but it is misleading. It clearly cannot mean that the part it qualifies has been wrongly accustomed of dealing with homœopathy, because a word from his mouth would have instantly stifled the error. It can only be used, as it always is meets, to minimise the quantity of the thing intended, just as a regular is less than a statute pint.

that, "by the vigorous application of one set of convictions", he "afforded prompt and perfect relief" in a case where Sir W. Jenner and Sir W. Gull had laboured for months in vain. This remedy here termed "a set of convictions" can, I conclude, only mean what Dr. Kidd calls "homœopathic remedies". Let me beg him to drop the metaphor, and tell us in plain language what the medicines and the doses given really were, and why he calls them "homœopathic". Am I wrong in believing that they were remedies whose use both Sir W. Jenner and Sir W. Gull would have sanctioned—which had, in fact, nothing "homœopathic" about them except the name? Every honest man naturally has a rooted objection to throwing dust in his patient's eyes; and it is because we think the term homœopathy blinding and deceptive, that we object to it, and refuse to meet those who use it. It would seem, as I conclude, that we and Dr. Kidd use the same identical remedies and the same doses of them; and that the only difference between us is, that he labels some of them "homœopathic". May we not, then, fairly call upon him, if he desires our professional intercourse, to tell us what these remedies are, and to drop a term which is useless, inapplicable, and misleading? He might thereby assist in a possible healing of this unfortunate professional schism.—Yours obediently, W. O. MARKHAM.

London, May 21st, 1881.

SIR,—On joining the College of Physicians, I thought I bound myself neither to practise homœopathy, nor to meet homœopaths; now I am told I was wrong, by four past presidents. They will not allow me to meet honest men, with brains unfortunately so constituted as to make them believe it wrong to treat diseases except by infinitesimal doses of medicine; while, on the other hand, they permit me to meet other homœopaths, who sail under two flags, and who hoist the orthodox or the homœopathic flag, according to the patient's wishes; provided this kind of practitioner promises not to play with infinitesimals, so long as I am meeting him in consultation about some particular case. I regret the advice of the four past presidents in Lord Beaconsfield's case; for, up till then, a refusal to meet a homœopath was accepted as satisfactory, when explained as made obligatory on its members by the College by-laws. Now, we are to some extent obliged to meet homœopaths, unless the College of Physicians reverses the decision of its four past presidents.

I agree with Dr. Handfield Jones respecting the inutility of consulting with those who profess to cure diseases by decillionths of a grain of medicine, but there is more to be said. As men, reputed sane, hold firmly to the most outrageous opinions in religion, politics, and social economy, I am not surprised that men should believe in infinitesimals; but I cannot understand that the same man should believe in the efficacy of infinitesimal doses, and in the value of those traditional doses that have borne the test of modern science. There is an ugly look of unstraightforwardness about this double mode of practice; and the idea must arise in other minds beside my own, that an homœopath who would deprecate the utility of infinitesimals, when in consultation with me, will laugh at me and orthodox doses, when sitting by the bedside of the next patient who wishes to be treated by decillionths. It is quite impossible to make the public understand that a homœopathic doctor is not as good as any of us; but the almost unanimous refusal of medical men to meet homœopaths was an emphatic way of making the public aware, that the medical profession still considers homœopathy to be the most gigantic system of either deception or fraud that has ever been foisted on its ignorance.

It now remains to be seen what steps will be taken in the matter by the Royal College of Physicians; and, if necessary, the opinion of the profession can be obtained through the instrumentality of our JOURNAL.—I am, etc., EDWARD JOHN TILT.

THE EDUCATION OF MIDWIVES.

SIR,—Dr. Matthews Duncan's forcible address to the London Obstetrical Society points clearly to the necessity of the profession coming forward for the purpose of taking into its hands the education of women in the elementary principles of midwifery, so that they can be safely entrusted with the management of ordinary cases of parturition. If we wait for the State to move in this important matter, we had better give up the idea; and, if we leave it entirely in the hands of such a learned body as the Council of the Obstetrical Society of London, without doing all we can to further the object so ably advocated by its President, I think the profession, as a whole, would thereby offer serious, although negative, obstacles in the way of its success.

I would, therefore, suggest that every medical school throughout the kingdom be advised by the General Medical Council to give a three months' course of lectures on midwifery to women; that, on completion of this course, there should be an examination; and, on the student giving proof that she is possessed of a fair amount of theoretical knowledge, then, before granting her a certificate, she shall be required to attend six cases under the surveillance of the staff of a maternity hospital, workhouse, or dispensary, or recognised practitioner; after which, the licence to practise shall be given. By this means, we might easily and inexpensively educate a body of women who would relieve a proportionate number of the profession from one of its most irksome and unprofitable obligations. I know nothing more degrading than that a man of culture and refinement should, by the force of circumstances, be compelled to sit for many consecutive hours in a hovel where the moral atmosphere is as vulgar and depressing as its physical is foul and repellant. The sooner this *scandalum magnatum* is removed from our ranks the better; and the only way of accomplishing it is to afford the means of education in as many centres of our population as possible to women as midwives—women whose social position and mental endowments shall, in a great measure, be in perfect harmony with those of the class they are likely to be called upon to attend; this would prove a great benefit to the poor—a very godsend to the medical profession.—I am, etc., A. S. MYRTLE, M.D.

Harrogate.

MEDICAL EDUCATION.

SIR,—Permit me to announce that a general meeting of the profession in this Branch will be held at the Royal Pavilion, Brighton, on Tuesday, May 31st, at 3.30 P.M., for the purpose of considering the report on medical education recently issued by the Committee of Council, and the question of medical reform; and to pass resolutions thereon. Dr. Withers Moore of Brighton, President of the Branch, will take the Chair. Invitations have been issued, by order of the Council, to every member of the profession resident in the counties of Kent, Surrey, and Sussex.—I am, etc., CHARLES PARSONS, M.D.,

May 23rd, 1881. Honorary Secretary, South-Eastern Branch.

OBITUARY.

JAMES SHERLOCK, M.D., M.R.C.P.,

MEDICAL SUPERINTENDENT OF THE WORCESTER CITY AND COUNTY LUNATIC ASYLUM.

ANOTHER valuable life has been prematurely taken from amongst us. Dr. Sherlock, who, for twenty-seven years, held the post of Physician to, and Medical Superintendent of, the Worcester City and County Asylum, died on Friday, the 13th instant, at the early age of fifty-three, after an illness of only three days.

For some time past, Dr. Sherlock's health had given anxiety to his friends. A tendency to ill-developed gout, accompanied by a somewhat weak circulation, had lately shown itself; a condition generated, doubtless, by the incessant demands upon his strength which nearly thirty years of conscientious discharge of the laborious and trying duties of a large asylum had made upon his constitution. Dr. Sherlock was seized with acute congestion of the liver on Tuesday, May 10th. On the following Thursday, the base of the right lung became affected; the congestion extending during the night to the whole of both lungs, which overloaded the weakened heart, and death took place at half-past eleven on the following morning.

Dr. Sherlock was one of several excellent asylum-superintendents who had the advantage of a training for their special work under the late Dr. Skae, of the Royal Asylum, Edinburgh. After taking his degree at the University there, he became assistant to Dr. Skae; and, as soon as he had made himself master of the details of asylum-practice, he was appointed Superintendent of James Murray's Asylum at Perth. When still only twenty-six years of age, through the recommendation of Dr. Skae, supported by that of the then chairman Mr. Carter, he was appointed to the more responsible post at Worcester. At that time, the inmates of the latter asylum numbered only about 250, whereas now they amount to nearly 800. The development, by frequent enlargements, to its present size, and the character, second to none in the kingdom, to which the asylum at Powick has attained, are mainly due to the unwearied efforts of Dr. Sherlock to attain for his asylum the highest point of efficiency. But he never suffered the laudable desire to keep down expenses to interfere with the efficiency as to means of cure, or with the comforts of the unfortunate patients under his care. Consequently, the loss of so valuable an officer is most keenly felt by the Committee of Management, who, at all times, have placed the utmost confidence in their superintendent; for, whilst maintaining, as it is right they should do, a vigilant supervision of the work at the asylum, they have always most generously supported their chief

medical officer throughout an unbroken connection of twenty-seven years.

Dr. Sherlock was a model superintendent. To great tact and insight into character, he joined an almost feminine gentleness and tenderness of manner, so that he gained the confidence and goodwill of all his subordinates and patients as readily as he did those of the visiting magistrates. Dr. Sherlock leaves a widow (a connection of Dr. Skae's) and six children to mourn his premature departure. The funeral was attended by crowds of sorrowing friends, amongst whom were several members of his Committee, and many of his professional brethren in Worcester and Malvern, by whom he was loved as a brother.

The following resolution was unanimously passed at a special meeting of the Committee of Visitors of the Powick Asylum, held this week for the purpose of considering the question of appointing a successor to Dr. Sherlock.

"This being the first meeting of the Committee of Visitors since the death of Dr. Sherlock, they wish to express their deep sorrow at the irreparable loss they and the county and city have sustained. Dr. Sherlock was appointed medical superintendent of this asylum within two years of its establishment; and under his able management and supervision has this large and important institution been for nearly twenty-seven years successfully conducted. Gifted with peculiar talents for the branch of the profession he embraced, Dr. Sherlock possessed a combination of powers seldom united in the same person. With a singularly correct insight into the various distinctions and peculiarities of mental aberration, and with much administrative ability and firmness of purpose, were associated in our late Superintendent exceeding kindness of heart and disposition, and the greatest suavity of manners, ensuring not only the confidence but the affection of all around him. By the visitors, attendants, and patients, his qualities were highly appreciated, and his death painfully lamented."

HUMPHRY SANDWITH, M.D., C.B.

DR. HUMPHRY SANDWITH, who died lately in Paris, was a son of a well known physician of the same name, who for many years practised in Hull, and was one of the medical staff of the infirmary of that town. He was born at Bridlington in 1822, and was consequently only 59 at the time of his death. He received his medical education in the University College, London. He was principally known through his connection with the East, which began in 1849, when he went to Constantinople to practise medicine. He was attached to Mr. Layard's expedition to Nineveh, and he may be said to have never completely recovered from the hardships which he then underwent. When the war between Turkey and Russia broke out in 1853, he joined General Beatson's force on the Danube as medical officer; and later, when General Williams set out to defend the fortress of Kars, Dr. Sandwith was appointed chief of the medical staff. On the termination of that gallant defence, General Mouravieff was so much impressed by Dr. Sandwith's treatment of the Russian wounded that he gave him his liberty. On his return home he published his diary, under the title of *The Siege of Kars*. With the other members of General Williams's staff he was made a C.B., and the University of Oxford gave him, at the Commemoration of 1856, the honorary degree of D.C.L. The next year he was appointed Colonial Secretary in Mauritius, but he resigned this post in 1860. Since that time, with the exception of periodical visits to the East, especially to Servia, he resided in this country, devoting himself to politics. In 1868 he stood as an advanced Liberal candidate for Marylebone, but was unsuccessful. During the Servian and Russian campaigns he devoted himself for long periods to the care of the wounded and to the organisation of hospitals; and his loss will be greatly felt, especially in Servia, where he was regarded as the chief representative in Western Europe of Servian interests.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—At the recent primary or anatomical and physiological examinations for the Membership of the Royal College of Surgeons, which was brought to a close on Saturday last, out of the one hundred and forty-four candidates examined, sixty-nine, having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for three months, including nine who each had an additional three months.

MR. CHARLES MERCIER has been commissioned to paint a life-sized full-length portrait of Dr. Evan Pierce, the Coroner for Denbighshire. This picture is the result of public subscription, and is to hang in the County Hall, Denbigh, which town already possesses a monument of Dr. Pierce.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Friday, May 20th.

Drugs in Japan.—Mr. ALDERMAN FOWLER asked the Under-Secretary of State for Foreign Affairs, whether Her Majesty's Government had made any communication to the Government of Japan in regard to the introduction of drugs and chemicals into that country.—SIR C. DILKE: Her Majesty's Chargé d'Affaires in Japan was instructed in July last to take such action as might be necessary for the protection of importers of drugs, in case there should be proper grounds for the intervention of Her Majesty's Government, and no further complaint has been received since that date.

Monday, May 23rd.

Notification of Infectious Diseases (Ireland) Bill.—On the order of the day for going into Committee on this Bill, Dr. LYONS appealed to the hon. member who had charge of the measure to postpone its consideration. It was opposed to the wishes of certain of the most important of the learned corporations of Ireland. He had been requested by these authorities to offer opposition to the measure.—Mr. M. BROOKES hoped the Bill would be allowed to go on. The opportunity which private members had of making progress with their measures was very small; and this, though a private member's Bill, was a very important one. It had been received with unanimity by the public bodies and the private citizens of Dublin.—Mr. MELDON objected to proceeding with the Bill at the hour of 1.30 A.M. The hon. member for Dublin (Mr. M. Brookes) had said that the public bodies and the private citizens of Dublin were in favour of the Bill, but there was anything but unanimity on this subject in Dublin. The medical profession of the city were divided upon it, also the private citizens.—Mr. R. FOWLER would suggest that the House should go into Committee, and that progress should be at once reported.—Mr. CALLAN said the Bill had been a long time on the paper, and there were several amendments. The Solicitor-General for Ireland appeared to be quite ready to proceed with his amendments, and the hon. member for Dublin (Mr. Brookes) was present. The hon. member opposite (Dr. Lyons) had not placed any amendments on the paper so far. If he wished to amend the Bill, he should propose his amendments, and not throw the measure over beyond the Whitsuntide recess.—The SOLICITOR-GENERAL FOR IRELAND said the Bill had been under the consideration of the Chief Secretary, and he (the Solicitor-General for Ireland), with the right hon. gentleman's concurrence, had placed certain amendments on the paper. These amendments he had submitted to those who had charge of the Bill, so that any desirable modification might be suggested. He was perfectly ready to proceed with his amendments, but, of course, he was not in charge of the Bill. He thought the hon. member for Carlow would do well to take only a formal stage now. The Bill was one of great importance, its object being not a private, but a public one. There were several portions of Ireland where the measure was badly wanted.—The House was counted out at 1.35 A.M.

Tuesday, May 24th.

Small-pox Accommodation.—Mr. DODSON, in reply to Mr. W. H. SMITH, said, he had received a representation from the Metropolitan District Asylums Board as to the necessity for immediate legislation, to define, and, if requisite, enlarge the powers of the Board and the local authorities of the metropolis, so as to enable them to make provision for adequate hospital accommodation for small-pox patients. The department was now in communication with the managers to ascertain what amendments in the law were necessary. He would shortly, therefore, be in a better position to determine what steps it would be expedient to take.

Wednesday, May 25th.

Lunacy Law Amendment Bill.—Mr. DILLWYN moved the second reading of this Bill. The alterations which he proposed were directed, first, to providing a better system of supervision in the present asylums for the reception of lunatics; and, secondly, to providing for the better security of the liberty of the subject than at present. He also proposed means of providing accommodation for the better class of lunatics, who could afford to pay for it. With reference to better supervision, he proposed the appointment of a paid Chairman to the Board of Commissioners, who would be accountable for the proceedings of the board. He would allow the number of Commissioners to remain as it was, but he would give the Lord Chancellor power to appoint two additional commissioners if he saw fit. The law regulating the reception and

discharge of lunatics in private asylums was in a most unsatisfactory condition. His Bill proposed that it would not be lawful for any person to be received into an asylum, except by order of a justice of the peace, or some public authority, resident in the district where the lunatic lived; and that the petition on which a man was to be confined should be signed by relatives within one or two degrees of relationship, or by some duly authorised solicitor. The order of the justice of the peace or other authority should also proceed on the certificate of two medical practitioners, one of whom should be the public officer of health of the district. He provided, in reference to the discharge of a lunatic, that the discharge should proceed upon the order of a judge in chambers, a stipendiary magistrate, or a county court judge, who should order two medical men to visit the lunatic and report on the case; and such judge, after communicating with the Lunacy Commissioners, might order the lunatic to be liberated within ten days. In order to provide accommodation for the paying class of lunatics, his Bill authorised the justices to raise money for that purpose by way of terminable annuities. He believed that this Bill would materially improve the law, that it would render the condition of these unfortunate people more hopeful, and that it would make more difficult the illegal and improper incarceration in asylums which had been too often practised.—Mr. FLOYER objected to some of the details of the Bill.—Dr. CAMERON maintained that the provisions of the measure, as tested by long experience in Scotland, had been found to work well.—Sir H. HOLLAND agreed that some alteration in the law was necessary, and that the provisions of the Bill met the necessities of the case.—Mr. COURTNEY could not accept, on behalf of the Government, the Bill as it stood, although many of the suggestions of the Select Committee on this subject, as well as some contained in the Bill, were extremely valuable. If the hon. member withdrew his Bill, he could promise him that, at no distant day, the Government would bring in a Bill not only to amend, but to consolidate the existing laws.—Sir R. CROSS was glad that the Government had admitted the necessity of legislation, and suggested that either the Bill should be read a second time and referred to a Select Committee, or that a short Bill should be brought in by the Government this session.—Mr. DILLWYN expressed his intention of testing the principles of the Bill.—Sir W. HARCOURT, while he admitted that something ought to be done, could not consent to the appointment of a Select Committee. If, however, the hon. member liked to press the second reading of his Bill, it could take its chance.—The Bill was read a second time.

Thursday, May 26th.

The Contagious Diseases Acts.—Mr. HOPWOOD asked the Secretary of State for the Home Department, whether one or more surgeons employed in the compulsory examination of prostitutes under the Contagious Diseases Acts had been made justices of the peace, in order that they might carry out the Act in a twofold capacity, administering and executing the law; whether he will state by what Minister such gentlemen were recommended to Her Majesty for appointment; whether he approved of such a confusion of duties; and, whether the individuals in question should not be called upon to make their choice once for all to act either as magistrates or surgeons.—Sir W. HARCOURT: As to this question, I have made inquiries, and I have not been able to discover that any such appointment has been made as that alluded to.

MILITARY AND NAVAL MEDICAL SERVICES.

THE second medical officer mentioned by Sir George Colley in his dispatch of the 1st February, 1881, for distinguished service in attending to the wounded under fire at the battle of Laing's Nek, was Surgeon James Ring, M.D., of the Army Medical Department, and not, as erroneously printed in the newspapers, E. King. The gallant conduct and valuable services of Surgeon-Major Babington, Surgeons Ring and McGann, of the Army, and Surgeon Mahon, of the Royal Navy, are well known to, and duly appreciated by, their numerous patients and comrades; and there is little doubt their long service in the field at the front, their devotion to duty, both on the battle-fields and afterwards in hospital at Prospect, will be duly recognised by the authorities. The strain upon the health of Deputy Surgeon-General Dr. Holloway, C.B., during the last three months, has been great; and we regret to hear he is returning to England invalided.

PENSIONS TO WIDOWS AND CHILDREN OF NAVAL OFFICERS.

WE are authorised to state that our correspondent in last week's issue, "Medicus Navalis", is quite wrong in supposing that pensions and allowances to widows and children of officers retired after April 1st, 1881, are to be disallowed under the new Medical Warrant. There is no ground in the Order in Council for the inference that such a serious curtailment of privileges is intended. Paragraph 20 of the Order in Council merely deals with the cases of officers who may quit the service, either by retirement or voluntary withdrawal, *with gratuities*, and in no way affects existing regulations under which the widows and families of officers leaving the service on *retired pay* are entitled to pensions and compassionate allowances as heretofore.

THE ARMY MEDICAL DEPARTMENT.

SIR,—It is a pity that the interesting statistics relative to the British Medical Service at the Army Medical School, furnished by Surgeon-Major Boileau, should not be thoroughly accurate, so I beg to send you the following correction. In the twenty-ninth winter session, 1874, there were seventeen candidates gazetted, not sixteen as stated by Surgeon-Major Boileau, one of whom (Surgeon T. Mullane) has since died.—I remain, your obedient servant, ... A.M.D.

EXAMINATIONS OF VOLUNTEER SURGEONS.

DR. EASBY (Surgeon 5th Cambridgeshire R.V.) recommends candidates for the examination to study Surgeon-Major Porter's *Pocket-Book of Military Surgery*, and the sections in Parkes's *Hygiene* treating of water and the sanitary arrangements of camps.

DR. BRUCE LOW (Acting-Surgeon 2nd North York R.V.) recommends the following works: 1. Parkes's *Hygiene*, Part II, beginning page 529; 2. Longmore's *Gunshot Wounds*; 3. Porter's *Surgeon's Pocket-Book*; 4. *Handbook of Instructions to Army Hospital Corps*; 5. *Regulations and Instructions for Encampments*; 6. *Field Hospital Regulations*; 7. *Sanitary Regulations* (issued with Army Circular dated December 1876). In the document received after Dr. Low passed the examination, three years ago, the subjects certified upon were as follows: 1. The nature and intended application of the various articles composing the equipment of army hospitals in the field. 2. The authorised means for the transport of sick and wounded soldiers, and the proper modes of employing them. 3. A competent knowledge of the treatment of the wounds and injuries to which troops are liable in the field, particularly with regard to the special circumstances of campaigning. 4. The duties to be performed by army medical officers in camps and bivouacs, and during marches.

PASSED SURGEON writes that last year he attended before a board of three medical officers. The examination was oral, and consisted of questions relating to troops camping out, and the disposition of the tents and their surroundings; also, he was asked to describe various appliances for wounded men, such as stretchers, bearers, bandages, etc. The following books gave information required: *Manual of Instruction for Army Hospital Corps; Manual of Exercises for Bearer Companies*; Longmore's treatise *On Ambulances*.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College, at a meeting of the Court of Examiners, on the 16th instant.

Messrs. Alexander M'Cormick, M.B.Ed., Edinburgh, and William F. P. Bassett, M.B.Ed., Bathurst, New South Wales, students of the Edinburgh School; Louis Verrey, M.D.Leipsic, Lausanne, Switzerland, of the Leipsic School; John Campion Grinling, Barton-under-Needwood, of the Birmingham School; George G. D. Willett, Bristol, of University College; John Winthrop Woodruff, Wallington, Surrey, of Guy's Hospital; William Henry Burton, M.B. Toronto, Tottenham, of the London Hospital; and Charles Wells, M.D. Queen's University in Ireland, and L.S.A., Stowmarket, of the Middlesex Hospital.

One gentleman passed in surgery, and when qualified in medicine will be admitted a member of the College; and fifteen candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months.

The following gentlemen were admitted Members on the 19th instant.

Messrs. Frank G. Heyman, L.R.C.P.Ed., Bristol; William Slater, Taunton; Oscar A. E. Laurent, Mauritius; Dudley W. Buxton, Harrington Street, N.W.; Joseph J. Udale, Finsbury Park; James S. Tew, L.S.A., Stourbridge, Worcestershire; James E. Anderton, Blackheath; Thomas G. C. Evans, Seaton, South Devon; William L. Cranstone, L.S.A., Hemel Hempsted; John J. Boswell, Guildford Place, W.C.; Thomas Mudge, Hayle, Cornwall; and Harold T. D. Medley, Kensington Gardens Square.

Six candidates were rejected.

The following gentlemen were reported to have acquitted themselves to the satisfaction of the Board of Examiners on the 21st and 23rd ultimo, and when eligible will be admitted to the pass examination for the Fellowship of the College.

Messrs. Walter S. A. Griffith, Allen Dingley, Alfred J. Anderson, Edward R. Williams, and D'Arcy Power, B.A.Oxon, students of St. Bartholomew's Hospital; Louis A. Dunn, and Wheelton Hind, of Guy's Hospital; George S. Watson, and Marcus H. Bulteel, of St. George's Hospital; Arthur L. Silcock, and William H. Horrocks, of University College; Herbert H. Ashdown, and Ernest E. Maddox, of the Edinburgh School; William Willis, M.D.Ed., Charles A. Ballance, of St. Thomas's Hospital; and Joseph Collier, of the Manchester School.

Twenty-one candidates were rejected.

The following gentlemen passed on the 24th instant.

Messrs. Charles A. Morris, B.A.Cantab, Edmund H. Roughton, and Frederick J. Paley, of St. Bartholomew's Hospital; Henry W. Pigeon, B.A.Cantab, and Sidney Worthington, of Guy's Hospital; Alexander Wilson, of the Manchester

School; John C. Davies, of the London Hospital; John Y. Bestcel, B.A. Cantab, of the Cambridge School; and Walter E. Wynter, of the Middlesex Hospital

Eleven candidates were rejected.

The following gentlemen passed on the 25th instant.

Messrs. James Donald and David L. Jones, of the Charing Cross Hospital; Walter T. Brooks, of King's College; Ernest Hudson, of University College; J. Langton Hewer, of St. Bartholomew's Hospital; Edward Harrison, B.A. Cantab, of the Cambridge School; and Charles H. Wise, of the Galway School and Westminster Hospital.

Thirteen candidates were rejected.

APOTHECARIES' HALL.—**The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, May 19th, 1881.**

Butler, Thomas Edward, Cape of Good Hope.
Cockell, Edward Seaton, 144, Amherst Road, Hackney.
Craddock, Stacey Ernest, 16, Upper Woburn Place.

The following gentleman also on the same day passed the Primary Professional Examination.

Brewster, William, St. Bartholomew's Hospital.

MEDICAL VACANCIES.

THE following vacancies are announced :—

BELMULLET UNION—Medical Officer for Knockmalower Dispensary District. Salary, £100 per annum, exclusive of sanitary, registration, and vaccination fees. Election on the 6th June.

BIRMINGHAM PROVIDENT DISPENSARIES (Balsall Heath Branch)—Medical staff of four in number. Applications by 1st June.

BRIGHTON, HOVE, AND SUSSEX THROAT AND EAR DISPENSARY, 17, Grenville Place, Brighton.—Honorary Surgeon. Applications by June 8th.

COUNTY AND CITY OF WORCESTER PAUPER LUNATIC ASYLUM—Resident Medical Superintendent. Salary, £150 per annum. Applications by 4th June.

CROYDON GENERAL HOSPITAL House-Surgeon. Salary, £100 per annum. Applications by 1st June.

DEWSBURY UNION—District Medical Officer and Public Vaccinator. Salary, £20 per annum, with fees. Applications by 26th May.

DROGHEDA UNION—Medical Officer for Monasterboice Dispensary District. Salary, £110 per annum, with £20 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 31st instant.

GLASGOW MATERNITY HOSPITAL—House-Surgeon. Applications by 3rd June, to Arthur Forbes, Secretary, 176, Buchanan Street, Glasgow.

GLASGOW ROYAL INFIRMARY—Dispensary Surgeon. Applications to Henry Lamond, Secretary, 23, West Regent Street, Glasgow.

HALSTEAD UNION—Medical Officer. Salary, £45 per annum. Applications by June 11th.

HACKNEY UNION—Medical Officer. Salary, £80 per annum. Applications by 31st May.

HYDROPATHIC ESTABLISHMENT, SCOTLAND.—Resident Medical Superintendent. Applications to "Hydropathic", Messrs. Keith and Co., 65, George Street, Edinburgh, by June 4th.

INVERNESS DISTRICT ASYLUM—Matron. Salary, £50 per annum. Applications by June 11th.

KNIGHTON UNION—Medical Officer for Presteign District. Salary, £40 per annum. Applications by 6th June.

LAMBETH INFIRMARY, Pleasant Place, S.E.—Assistant Medical Officer and Dispenser. Applications by 31st June.

LOUGHBOROUGH DISPENSARY AND INFIRMARY—Dispenser. Salary, £40 per annum. Applications, etc., to William Berriage, Secretary, Loughborough.

METROPOLITAN ASYLUM DISTRICT, Leavesden—Assistant Medical Officer. Salary, £120, rising £10 annually, to £150. Applications by 31st instant.

MULLINGAR DISTRICT LUNATIC ASYLUM—Visiting and Consulting Physician. Candidates should lodge their testimonials with the resident medical superintendent. Election on the 12th proximo.

NETHERFIELD INSTITUTION FOR INFECTIOUS DISEASES, Liverpool—Resident Medical Officer. Salary, £80 per annum. Applications by 1st June.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.—House Surgeon. Salary, £70 per annum. Applications by 1st June.

PAROCHIAL BOARD OF OLD KILPATRICK—Medical Officer. Applications to Mr. Robert Barr, Inspector of Poor, Parochial Offices, Old Kilpatrick, by 1st June.

QUEEN'S HOSPITAL, Birmingham—Honorary Surgeon. Applications by 30th May.

ROYAL FREE HOSPITAL, Gray's Inn Road—Ophthalmic Surgeon. Applications by 1st June.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL, St. George's Circus, Southwark.—Clinical Assistant on three days per week. Salary, £25 per annum. Applications by May 28th.

ST. MARY'S HOSPITAL MEDICAL SCHOOL, Paddington, W.—Curator and Pathologist. Applications by 7th June.

SHEFFIELD UNION—Assistant Medical Officer. Salary, £120 per annum. Applications by 8th June.

SUSSEX LUNATIC ASYLUM, Haywards Heath—Junior Assistant Medical Officer. Salary, £100 per annum. Applications by June 15th.

TEIGNMOUTH, DAWLISH, AND NEWTON INFIRMARY AND CONVALESCENT HOME—House-Surgeon. Salary, £75 per annum. Applications by June 1st.

THE CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road—Assistant Surgeon. Applications by 6th June.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY—Senior House-Surgeon and Resident Medical Officer. Salary, £100 per annum. Applications to be sent in by Monday, May 30th.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY, Torquay—Junior House-Surgeon and Dispenser. Salary £50. Applications by June 6th.

TOWNSHIP OF TOXTETH PARK, LIVERPOOL.—Assistant Medical Officer to the Workhouse and Infirmary. Salary, £120 per annum. Applications by June 1st.

WESTMINSTER HOSPITAL, Broad Sanctuary.—House-Physician. Applications by May 28th.

WESTON-SUPER-MARE HOSPITAL AND DISPENSARY—House-Surgeon. Salary, £70 per annum. Applications by 1st June.

WOLVERHAMPTON EYE INFIRMARY—Two Honorary Surgeons. Applications by May 28th.

WORCESTERSHIRE COUNTY ASYLUM, POWICK.—Medical Superintendent. Salary, £550 per annum, with house, coal, washing, vegetables, and all articles of provision at contract prices. Testimonials to be sent to the Clerk to the Visitors, by the 4th June.

MEDICAL APPOINTMENTS.

BARR, James, L.R.C.P., appointed Medical Officer to the Towcester Union, *vice* B. B. Floyer, M.R.C.S.E., resigned.

BOLTON, Richard E. N., L.R.C.P.Ed., appointed Medical Officer to the Ballickmoyler Dispensary District, Carlow Union.

CANNING, P. W. G., R.N., L.R.C.P.Ed., appointed House-Surgeon to the Hull and Sculcoates Dispensary, *vice* W. C. Orford, M.R.C.S., resigned.

CURRAN, John, L.R.C.P., appointed Medical Officer for Killeigh District, county Cork, *vice* P. A. Riordan, L.R.C.P., resigned.

DODDS, W. J., M.D., D.Sc., appointed Assistant Medical Officer to the Birmingham Borough Asylum.

FRASER, Thos., M.B., L.R.C.P., appointed Medical Officer to the Berwick-upon-Tweed Union, *vice* Colville Brown, M.D. resigned.

HESLOP, T. P., M.D., F.R.C.P.Lond., appointed Consulting-Physician to the Birmingham and Midland Skin and Lock Hospital.

JORDAN, Furneaux, F.R.C.S., appointed Consulting-Surgeon to the Birmingham and Midland Skin and Lock Hospital.

JULER, Henry, F.R.C.S., appointed Assistant Surgeon to the Royal Westminster Ophthalmic Hospital.

KILNER, Charles Scott, M.B., appointed Medical Officer to the Thingoe Union, *vice* C. E. Wing, L.R.C.P., resigned.

KISBY, Wm. Joseph, L.A.H.Dub., appointed Medical Officer to the Rafeeragh Dispensary District, *vice* Patrick Gorman, L.R.C.S.I., deceased.

LUNN, John R., L.R.C.P.L., appointed Senior Medical Officer to the New Marylebone Infirmary.

MACKAY, James, L.R.C.P., appointed Medical Officer of Health to the Rural Sanitary Authority, Berwick Union, *vice* Colville Brown, M.D. resigned.

MCGEAGH, James Paul, M.D., M.Ch., appointed Senior Assistant House-Surgeon to the Public Hospital and Dispensary, Sheffield.

PEMBERTON, Oliver, F.R.C.S., appointed Consulting-Surgeon to the Birmingham and Midland Skin and Lock Hospital.

RUSSELL, James, M.D., F.R.C.P., appointed Consulting-Physician to the Birmingham and Midland Skin and Lock Hospital.

SMITH, Priestly, M.R.C.S., appointed Consulting Ophthalmic Surgeon to the Birmingham and Midland Skin and Lock Hospital.

SMITH, Gilbert, F.R.C.S.E., appointed Acting Surgeon to the Birmingham and Midland Skin and Lock Hospital.

SPICER, R. H. Scanes, B.Sc., appointed Demonstrator of Comparative Anatomy and Botany at St. Mary's Hospital Medical School.

TAYLOR, J. W., F.R.C.S., appointed Acting Surgeon to the Birmingham and Midland Skin and Lock Hospital.

TREHERNE, F. H., L.R.C.P.Edin., appointed House-Surgeon to the West London Hospital, *vice* D. G. L. Johnston, M.B., resigned.

THE Council of the Society of Arts have issued invitations for a *conversazione*, to be held at the South Kensington Museum on Thursday, June 2nd, at 8.30 P.M.

THE Italian Minister of Education, Professor Guido Baccelli, has created a post of inspector of gymnastics. In Italy, gymnastics are a compulsory branch of education in the elementary schools, so that a functionary of this description is a necessity in the educational scheme.

GLASGOW ROYAL INFIRMARY.—The following gentlemen have been appointed assistants in this Infirmary. *House-Surgeons:* Messrs. James Ashford Potts, M.B., M.R.C.S.; James Limont, M.A., B.Sc., M.B., C.M.; Henry Jones; Robert W. Lindsay; Thomas Andrew Dickson. *House-Physicians:* Messrs. Quintin McLennan, M.B., C.M.; John M. Watson; T. Hammond Williams; P. Hunter Walker; and W. J. Lawrie.

WESTERN INFIRMARY, GLASGOW.—The following gentlemen have been appointed House-Physicians and Surgeons in this Infirmary. Messrs. John M. Smith, M.B., C.M.; Anstruther Davidson, Frederick H. Clarke, and Richard Prichard, as House-Physicians; Messrs. Dickson, John M. Young, M.A., John M. Hunt, and J. Walker Downie, as House-Surgeons.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th.; 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 2; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Specimens will be shown by Drs. Wiltshire, Brunton, Godson, and others. Papers—Dr. J. Hickinbotham: Notes on a Case of Placenta Prævia, complicated by a Large Myoma. Dr. Mansell Moullin: On a Case of General Œdema, without Anasarca. Dr. Barnes: A Note on the so-called "Lithopædion"; and other communications.—Epidemiological Society of London, 8 P.M. Annual General Meeting. Election of Office-Bearers for the ensuing year. Annual General Report of Council. Mr. George Fleming: The Transmissibility of Diphtheria from Animals to Mankind.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following questions in Surgery were submitted to the candidates at the recent pass examination for the diploma of member. 1. Describe the surfaces of the Bones which enter into the formation of the Wrist-Joint and the Synovial Membrane. 2. Describe the relations of the Popliteal Artery. 3. What is the nature of the affection called Gaugh ? In what parts does it usually occur, and how would you treat it? 4. Describe the symptoms previous to an operation for Hernia which would lead you to suspect Mortification of a Strangulated Intestine, and the appearance during an operation which the Intestine in such a state would present. 5. What Cystic Tumours commonly occur upon the surface of the Head and Face? How may they be distinguished from each other? 6. Give the usual causes and consequences of Inflammation of the Lymphatics of the Arm. The time allowed was from 1.30 to 4.30 P.M., and candidates were required to answer at least four, including one of the first two, of the six questions.

To candidates who did not possess a recognised medical licence, the following questions on the Principles and Practice of Medicine were submitted on the following day. 1. Enumerate and discuss the symptoms of Hemiplegia and of Paraplegia respectively, and point out the chief Lesions to which these Paralyses are due. 2. Describe the Morbid Anatomy of the Lung in Pulmonary Phthisis; and give the clinical history of the disease. 3. What are the therapeutic uses of Iron, Ammoniacum, Arsenic, and Silver? What are the pharmaceutical preparations of these drugs, and what the composition and doses of these preparations? State the physiological effects, the medicinal uses, and the doses, of the dilute forms of Hydrochloric, Nitric, Nitro-hydrochloric, Sulphuric, and Hydrocyanic Acids.

THE ORDER OF ST. JOHN OF JERUSALEM.

SIR,—Will any of your readers who have any practical acquaintance with the subject kindly favour me with replies to the following questions in connection with the management of the courses of instruction adopted by the ambulance department of the order of St. John of Jerusalem, and with any other information they may possess as to the working of the above?

1. If a committee of a local branch be appointed, is it usual for any of the arrangements regarding the intended course of instruction to be in the hands of such committee?

2. Is it usual for a course of lectures to be delivered by one medical man, or is it customary for the committee to invite others to assist?

3. Is it usual for the committee to appoint the lecturers, or have any voice in any of the arrangements of the Society? If not, upon whom would these duties devolve?—I am, sir, your obedient servant,

INQUIRER.

AN OLD RECORD OF VACCINATION.

SIR,—Through the kindness of the present possessor of his ancestral family Bible, I am able to send you the following extracts from the fly-leaves thereof, which afford such independent testimony of the value of vaccination as is not likely to be obtained in the present day, for obvious sanitary reasons. The father of the family was a barrister living in London, and a Fellow of the Royal Society.

1. A daughter, born December 1774. "Inoculated for the small-pox in the spring of 1775 (favourable)." 2. A daughter, born June 1776. "Inoculated for the small-pox in the autumn following (favourable)." 3. A daughter, born December 1777. "Inoculated for the small-pox in the spring of 1778 (favourable)." 4. A son, born July 1779. "Inoculated for the small-pox in November following." 5. A son, born June 1781. "Inoculated for the cow-pox in December following (favourable). Inoculated for the small-pox for safety in November 1804; only the arm inflamed, and no fever." 6. A son, born November 1782. "Inoculated for the cow-pox in April following (favourable)." 7. A daughter, born November 1784. "February 1795. She was inoculated for the cow-pox, and had the disease very perfectly and favourably. September 1810. She was taken into the room where a child was ill of the natural small-pox, and slept hands with her under the bedclothes, in addition to which she was inoculated; but no disease was communicated, though the arm inflamed." 8. A daughter, born March 1787. "June 1807. She was inoculated for the cow-pox, and had the disease very perfectly and favourably."—I am, sir, your obedient servant,

Maidstone, May 1881. CHARLES E. HOAR, M.D.

CHLORIDES OF IRON.

SIR,—About a month ago, "Inquirer asked what the differences were, if any, between the tinctura ferri muriatis, sesquichloridi, and perchloridi; and, in reply, Mr. W. Donovan informed him that the first and second were identical, but that the latter differed essentially from them, and "was useless as a specific". I have waited to see if some one of our younger members, who had not quite forgotten his chemistry, would correct this statement.

The three tinctures in question are absolutely alike in composition (but vary a little in strength), as the following formulæ conclusively prove; but I must apologise for using the old notation, being more familiar to me, and I fancy to most middle-aged practitioners.

For preparation of tinctura ferri muriatis and sesquichloridi (*Edinburgh and London Pharmacopœias*): $Fe_2O_3 + 3HCl = Fe_2Cl_6 + 3HO$.

For preparation of tinctura or liquor ferri perchloridi (*British Pharmacopœia*): $2Fe + 3HCl + NO_5 = Fe_2Cl_3 + 3HO + NO_2$; the latter escapes as gas, and, uniting with two equivalents of oxygen, forms the red fumes of NO_4.

It is evident, therefore, that, whether we dissolve sesquioxide of iron in hydrochloric acid, or form a protochloride by dissolving iron wire in the same menstruum, and then peroxidise it by means of nitric acid, we obtain precisely the same result; but the latter is certainly the more direct and simple way of doing it.

I may add that, as the aqueous solution of the perchloride (as it is better, to avoid any hypothesis, to call it) is permanent at any stage of dilution, the addition of spirit is quite unnecessary.

In giving it, I generally add a little liquor ammoniæ acetatis, so as to convert a portion into peracetate, and some spiritus chloroformyli, when it forms a very palatable and, certainly in erysipelas, "specific" mixture.—I am, very truly yours,

Stourport. G. F. MASTERMAN.

TAPEWORM AND COW'S MILK.

SIR,—Can any of your correspondents enlighten me on the following subject? Is tapeworm communicable by the use of cow's milk? Where I reside, there are a great number of Jews, who, of course, do not use swine's flesh in any form. Milk is used by the children. The flesh of the bullock (cows are not eaten) is carefully inspected according to the Jewish law; and, if any germs of the animal were in the muscular tissue, the subsequent mode of cooking would, I believe, be quite sufficient to kill them. Still, I have been consulted again and again for cases of tapeworm, and, with the assistance of oil of male fern, have been successful on many occasions.—I am, etc.,

F. D.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address and other business matters, should be addressed to the Manager at the Journal Office, 161A, Strand, London, and not to the Editor.

CALF-LYMPH.

SIR,—In the number of the BRITISH MEDICAL JOURNAL for May 21st is a short note from a correspondent who complains that calf lymph has invariably failed in his hands. As his communication may deter others from making use of this most convenient, and, I believe, satisfactory source of lymph, I send you the experience which Mr. Chaffey (the house-surgeon) and myself have had in this hospital. Eleven nurses, all adults, who had not been vaccinated since the primary vaccination in early infancy, were vaccinated by us with calf-lymph obtained from Dr. Renner. The revaccination was successful in six cases, unsuccessful in five, but among these five failures occurs the case of a nurse who had had small-pox about eight years ago. Eliminating this case, we had six successful revaccinations out of ten, or an average of 60 per cent. Using the lymph obtained from the same establishment, we revaccinated twelve other adults who had undergone the operation a varying number of times since infancy. Of this number, only two were entirely successful, but in six others we noticed the formation of small vesicles, with a slight amount of surrounding inflammation, which began to retrograde on or about the fifth day.

In estimating the activity of any sample of lymph, it is very necessary to distinguish, as has been done above, those cases in which vaccination is performed on an adult who has never been vaccinated since infancy, from those in which vaccination has already been several times undergone.—I remain, sir, yours, etc.,

DAWSON WILLIAMS, Registrar to the Victoria Hospital for Children.

Victoria Hospital for Sick Children, May 23rd, 1881.

SIR,—There must be some mistake as to lymph from the calf. I have used large quantities of the same, mostly from Dr. Renner's establishment in the Marylebone Road, with a large per-centage of success. Secondary vaccination cannot be sure in every case, whatever lymph may be used.—Yours faithfully, WM. THORN.

87, Harrow Road, W., May 20th, 1881.

SIR,—As there is so much difficulty in procuring sufficient calf-lymph to meet the rapidly increasing demand, may I suggest that the serum from a vaccinated animal, taken from a blistered surface on the proper day, might be found as potent as the lymph from the vaccine vesicle? I should think, also, that the liquor sanguinis from the defibrinated blood of an infected animal would also vaccinate. Should this idea prove correct, it would be easy to supply any quantity of vaccinating material from the original source at once.—Yours truly,

R. HARVEY HILLIARD, M.D.

Fairmead House, Upper Holloway, N., May 23rd, 1881.

VACCINE.

SIR,—I occasionally have more vaccine than I know what to do with, and should be glad if any member would let me know the best way of disposing of it, as I presume it may be scarce in some of the districts which are now infected with small-pox.—Yours very truly, PUBLIC VACCINATOR.

GONORRHŒAL RHEUMATISM.

SIR,—Permit me, in reply to "A Parish Doctor's" request for a remedy for gonorrhœal rheumatism, to present the following prescription: R Sodæ salicylatis ʒiiss; olei santali flavi ʒss; tincturæ aceæ racemosæ ʒiii; tincturæ cardamomi comp. ʒi; mucilaginis ad ʒviii. Half an ounce to be taken three times daily.—Yours faithfully, SURGEON-MAJOR A.M.D.

SIR,—I should feel obliged if any of the subscribers to the JOURNAL in general practice could inform me as to the average cost *per annum* of hire of one-horse brougham from London livery stables.—Yours faithfully, OMEGA.

THOUGHT-READING.

SIR,—The idea of so-called "thought-reading" is, in my opinion, *à priori*, so absurd that, until I see evidence to establish the contrary, I venture to affirm it is impossible. The greatest philosopher in the world is manifestly totally unfit to read the simple thoughts of anyone, however young or old, learned or unlearned. For many years, I have been privy to similar performances; and, in one or two of them, by certain rules being observed, and certain manipulations performed, I can ascertain and announce what a given person had previously thought on a given point. But, observe, I do not read the thought of the person in question as I would read words in a book. The rules and manipulations are so arranged as to bring about the desired result, which is reached with precision, whether the person whose thought is are to be ascertained understands the processes or is utterly ignorant of them. It is a curious fact, in reference to two of these tricks, that, while in each I can follow out the rules and perform the manipulations with perfect ease, in the one, I can understand the nature of what takes place; but in the other, I confess my inability to comprehend why the procedure should bring about the result.—Yours, etc., X.

DOMESTIC REGISTERS OF HEALTH.

SIR,—The prevalence of small-pox, the necessity that exists for revaccination, and the uncertain data one derives from persons desirous of knowing whether it is, or is not, necessary to be revaccinated, leads me to make public a suggestion I have often made in private practice, namely, that parents should provide for their children a record sheet, showing when vaccination and revaccination have been performed, successfully or otherwise, and that this sheet should be amplified by short notes of the illnesses which occur in after-life, verified when practicable by the medical man in attendance.—I am, etc., CHARLES PRIDHAM.

Hogarth Road, May 25th, 1881.

ZOEDONE.

SIR,—I have before me a copy of the *Daily News*, containing a double-column advertisement of "zoedone", accompanied by many testimonials. Some of these bear testimony to the "therapeutic" value of the beverage, whilst others extol it as an every-day drink. Having no doubt that, as a medicine, which it really is, zoedone is a pleasant and beneficial form of administering lime and iron phosphates, I cannot imagine it wise for medical men to give it such indiscriminate recommendations, or to sanction its indiscriminate use. We all know that preparations of iron and phosphorus disagree with, and are really injurious to, many persons, especially under certain conditions of health; and have myself known various instances in which "zoedone" has brought on severe headache, when the same amount of champagne could be taken with benefit. I repeat the question, Is it wise or prudent for medical men to sanction an active therapeutic agent, as harmless for constant daily use?—I remain, sir, yours, etc., A PHYSICIAN.

CONSULTATIONS WITH HOMŒOPATHS.

SIR,—As a P.S. to a fairly temperate letter in your issue of this date, May 14th, your correspondent, Mr. John Ewens, says: "If homœopathists wish, as they did some time since, to be admitted as members of the British Medical Association, I imagine there would be no objection if they are prepared to drop their distinctive appellation. Surely this is not too much to require from them." May I ask your correspondent if he writes from information, or on authority (which, as a late vice-president, I should presume he does), when he says there would be no objection to homœopathists being admitted as members of the British Medical Association if they are prepared to drop their distinctive appellation?

Surely he must be aware that there would never have been any such distinctive title in this country at all, had not those medical men who (from conviction, resulting from studying the question and experimenting with the medicines) had adopted the use of homœopathic medicines in addition to, or in place of, ordinary drugs (surely no crime!) been driven out of ordinary professional society and professional societies, hospitals, etc. When driven out of these, what were they to do but to found societies, journals, hospitals, etc., for themselves? Let this ostracism cease, and let the ordinary professional societies, journals, hospitals, etc., be open to all legally qualified and honourable practitioners; and the societies, publications, hospitals, etc, named homœopathic will very soon disappear from the country.

I hope it may be presumed that the publication of the above statement in the BRITISH MEDICAL JOURNAL—the organ of the British Medical Association—may be taken as a manifesto of the society. If such be the case, I trust the president, or secretary, will at once indicate such through your columns. If he do, and if the exclusions and deprivations to which I have referred be removed, I am quite sure that most of the medical men who are now known as homœopaths will not only join the British Medical Association, but will take every legitimate means of disavowing any distinctive title, and of assisting to close all distinctive publications, dispensaries, and societies, etc.—I am, sir, yours truly,

JOHN W. HAYWARD, M.D., M.R.C.S., L.S.A., President "Liverpool Homœopathic Medico-Chirurgical Society".

117, Grove Street, Liverpool, May 14th, 1881.

ALCOHOL AND MIDWIFERY.

SIR,—In Dr. Fairlie Clarke's pamphlet entitled *Moderate Drinking and Total Abstinence* your correspondent "Ceres" will find every information he requires. For the last three years I have been a total abstainer. In 1870, I attended 103, in 1880, 119, and since January 1881, 40 cases of midwifery, besides doing a large hard-working general practice, with dispensing.—I am, sir, yours obediently,

Castle Street, Hertford, May 18th, 1881. WILLIAM ODELL.

HYPODERMIC SOLUTIONS.

SIR,—A question was asked in the JOURNAL some time ago about a solution of morphia that would keep for some time without decomposition. For some time past, I have used a solution of the acetate with about ten drops of pure carbolic acid in each ounce; this I have found to keep for some time, and its use to cause no smarting. I have lately used the tartrate, and I find it far the best; it dissolves in cold distilled water, and will keep for almost any length of time without any addition of spirit, carbolic acid, etc. More than a month ago, I made a solution containing twelve grains in one ounce of distilled water, and took it into a patient's bedroom, where it has since remained. This patient is suffering from asthma, and has had one or more injections daily. The temperature of the room has been constantly 70° Fahr. The solution is as clear as the first day it was made. I think this is a fair test.—I am, etc., W. EASBY, M.D.

March, Cambs, May 14th, 1881.

SIR,—I served as acting assistant surgeon in the Crimea for sixteen months, and am senior surgeon to a rifle battalion. Is my servant entitled to wear a cockade in his hat?—I am, etc., ENQUIRENS.

THE business of Mr. Max Greger, the well known importer of Hungarian wines, has been taken in hand by a Limited Liability Company. It is announced that the subscription list for shares will close on Tuesday, the 31st instant, for London, and on Wednesday, the 1st June, at two o'clock P.M. for country applications.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Sawyer, Birmingham; Mr. James Dugald, Strathaven; Dr. J. H. Bell, Bradford; Dr. T. W. Barron, Durham; Dr. Harvey Hilliard, London; Mr. E. Bull, Birmingham; Dr. A. Smart, Edinburgh; Mr. T. Grant, Maidstone; Acting Surgeon of Five Years' Standing; Mr. J. A. Giles, London; Dr. C. Parsons, Dover; Mr. G. Eastes, London; Dr. J. Mortimer Granville, London; M. B. B.; Dr. E. J. Tilt, London; Dr. J. Maxwell, London; Mr. G. Green, Woodbridge; Dr. W. O. Markham, London; Mr. W. Whitehead, Manchester; Mr. W. Thorn, London; Dr. T. Churton, London; Messrs. J. Williamson and Co., Birmingham; Mr. R. Lindsay, Salisbury; Dr. Saundy, Birmingham; Mr. George Brown, London; Dr. D. H. Cullimore, London; H. J. P.; Our Aberdeen Correspondent; Mr. T. L. Walford, Reading; Dr. S. Rees-Philipps, Exeter; Dr. Fairlie Clarke, Southborough; Mr. W. Lewis Morgan, Oxford; Mr. T. B. Macfarlane, Hay; Mr. A. Roe, Hamilton; Medicus Marinus; Dr. R. D. Lyons, London; etc.

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Post-Office Orders should be made payable to the British Medical Association, at the West Central Post Office, High Holborn. Small amounts may be sent in postage stamps.

A LECTURE
ON
RECENT PROGRESS IN THE PATHOLOGY AND TREATMENT OF CEREBRAL PARALYSIS.

Delivered at the Hospital for Epilepsy and Paralysis, Regent's Park.

By JULIUS ALTHAUS, M.D., M.R.C.P.,
Senior Physician to the Hospital.

Gentlemen,—I purpose, in to-day's lecture, to lay before you the results of some recent investigations into the nature and symptoms of paralysis arising from brain-disease, and will at the same time endeavour to point out how far the clearer scientific notions which we have lately gained on this subject may be rendered practically useful for prognosis and treatment. Before, however, plunging into the intricacies of pathology, I must say a few words on certain anatomical features of the motor zone of the nervous centres, which are of importance for the right comprehension of the diseases to which its several portions are subject. Our systematic handbooks of anatomy do not as yet supply that kind of knowledge which is so much required for a due appreciation of recent medical doctrines, and which has been gained, not so much by systematic slicings of brains and cords of healthy adults, as by the infinitely finer and more instructive dissections made for us by disease, and which have thrown an entirely new light on the facts of normal anatomy. This is a kind of vivisection which cannot be prohibited by Acts of Parliament, and which has led to far more reliable results than experimental physiology or pathology.

It may be truly said that most of what is solid in the edifice of localisation of power in the brain and spinal cord has been contributed by clinical observation and pathological anatomy; while in those points which have been chiefly studied experimentally, the greatest discrepancies continue to exist amongst the best observers. Thus Professor Goltz of Strasburg, one of the ablest physiologists of the present day, denies Dr. Ferrier's doctrines on the brain *in toto;* while Munk, Eckhard, and Gliky are greatly at variance with Ferrier in important particulars.

Experimental pathology, of which such brilliant results were at one time expected, seems to have been singularly unproductive in this special department. Vulpian, who is one of its chief apostles, accounts for this by the utter inability of the experimental pathologist to produce in animals maladies such as we see them in man. It is true that he may cause injuries or lesions, but he cannot make a disease; and, even where he seems to have succeeded in imitating one, the eventual results are disappointing. Thus glycosuria, which is experimentally brought about, is not diabetes such as we observe it clinically, but only a passing physiological storm, which is certain to disappear in a short time, and which moreover reproduces only one of the symptoms of diabetes. Again, a form of epilepsy may be caused in guinea-pigs which in some respects resembles human epilepsy, and has even been transmitted to the offspring of the animals; yet it has the tendency to disappear spontaneously, without the aid of digitalis or bromide of potassium, and is, after all, by no means the actual disease with which we are familiar in our patients.

Nobody has yet succeeded in producing in dogs or guinea-pigs locomotor ataxy, sclerosis in patches, or progressive muscular atrophy. The experimental pathologist may divide the posterior columns of the spinal cord, or even remove them bodily (which latter operation, by the way, proves rapidly fatal); but he is utterly unable to induce in those parts that peculiar state of irritation and gradual wasting of nerve-fibres which forms the characteristic feature of sclerosis. Such are the facts, quite independently of the great difficulty that is experienced in appreciating the alterations produced, not so much, perhaps, in the sphere of motion as in those of sensation, the instinct, and intellect. Experimental pathology can, therefore, never supplant clinical observation to any extent; all it can do is in some instances to account for symptoms, and perhaps lead us in time to clearer scientific notions on the nature of certain diseases. Nor has this branch of study as yet furnished us with any very important data for the prognosis and treatment of nervous diseases. It is true that a knowledge of the physiological effects of certain medicines, such as atropine and pilocarpine, may give us hints as to their therapeutical powers; yet we must remember that the effects of medicines in healthy animals are not identical with those that may be produced in patients suffering from nervous affections, and cannot in many instances even explain them. Thus nitrate of silver, which does excellent service in the initial stage of locomotor ataxy, owes its well-established reputation exclusively to observations made at the bedside of patients afflicted with that disease.

To clinical observation and pathological anatomy, in which of late years more especially the French school of La Salpêtrière has done excellent work, we must, however, add, as an important link, the study of the *evolution of the nervous centres in the fœtus*, which has recently been pursued with the most gratifying success in Germany by Dr. Flechsig; and on this part of the subject I must now say a few words, as these researches, which have been given to the world in a singularly unattractive form, are as yet scarcely known in this country.

It was in the study of the successive and gradual formation of the myeline sheaths of the central nerve-fibres, that Flechsig found a new and important means of recognising peculiarities of organisation in the central nervous system, where other modes of examination appeared to encounter insuperable difficulties. He has shown that certain fibres and strands of fibres, which in the adult are so intimately welded together that they appear identical, may, during certain phases of embryonic life, be plainly distinguished from each other, inasmuch as some of them are still naked axis-cylinders, while others have already become covered with a sheath of myeline. By noting this fundamental difference, it is possible to trace, in the medullary masses of the brain and cord of the fœtus, certain peculiarities which later in life disappear altogether. Since, then, in the different periods of intra-uterine existence, some strands are seen to follow invariably peculiar laws of evolution, we are justified in assigning to them a separate place in the general plan of arrangement of the nervous centres. Fibres, the continuity of which is undoubted, have been found to become provided with their myeline sheaths at the same period of fœtal life; while others, apparently continuous with or contiguous to them, and which in the adult can no longer be distinguished, only become fully developed several months later. The study of evolution, therefore, shows such fibres and strands to be distinct from each other, and has served as an important factor in determining the relations of certain portions of the cord to other tracts in the medulla oblongata and the brain.

The main body of fibres appertaining to equivalent centres is provided with medullary sheaths at the same period; and where, in this respect, differences amounting to several months are encountered, any systematic equivalence of such strands can no longer be assumed. It has also been shown that the evolution of those strands of the spinal cord and medulla oblongata which are in direct connection with the higher cerebral and cerebellar centres takes place, without exception, at a very late period of fœtal life; and this fact alone throws doubt on the assumption that the posterior longitudinal strands have any definite connection with cerebral centres.

These considerations are sufficient to show what an important aid the study of evolution must afford to the pathological anatomy of what is now known as the secondary degenerations, in which we meet with considerable alterations in the morphological characters of certain strands of fibres throughout their course in the cerebro-spinal axis. In some instances, indeed, Flechsig is inclined to think that evolution furnishes more perfect data than pathology. At any rate, it cannot be denied that, where both lines of inquiry yield the same results, these are rendered much more reliable.

The specimens on which Flechsig founds his conclusions have been prepared partly with perosmic acid, which gives a black coloration to the fully developed fibres, but leaves those without a sheath of myeline quite clear; and partly by means of a new mode of impregnating the nervous centres with gold, which appears to furnish the most perfect preparations. If sections, which have otherwise been carefully prepared, be left for a short time in a half per cent. solution of perchloride of gold, the white matter is seen to assume a dark violet colour, and those nerve-fibres which already possess a sheath of myeline are more deeply tinged than others. All the other parts appear light and transparent, or have been destroyed altogether, whereby the appreciation of the points at issue is wonderfully facilitated.

The pathological doctrines of the school of La Salpêtrière have been considerably modified by these researches; and Charcot, its leader, has fully acknowledged this in his most recent lectures on cerebral and spinal localisation. This concession on his part is all the more welcome, as Flechsig had, with scant courtesy, qualified Charcot's evolutional doctrines as "an airy structure" and an "ingenious speculation", so that another Franco-German war on a small scale appeared to be imminent.

The great automatic centre of motor power and muscular nutrition

and tonicity resides in the spinal cord, and, more strictly speaking, in those gigantic ganglion-cells of the grey anterior horns which are called motor or kinesodic cells, and some of which are of sufficient size to be visible to the naked eye when impregnated with carmine. In these cells, the power of motion is produced; and, unless they are in a state of integrity, there can be no effectual transmission of motor impulses from the brain to the extremities. Even while the muscles are at rest, and withdrawn from the influence of volition, as during sleep, these giant-cells keep up the muscular tone, which is an intermediate state between action and paralysis. The giant-cells send the force which constantly originates in them to the motor nerves and muscles, by means of the so-called Deiters's elongation or axis-cylinder. This latter is a large nerve-process, which is distinguished from a number of other similar ones branching off from each cell, by having darker and better

lopment of motor power is interfered with—as, for instance, in cases of infantile paralysis occurring very early in childhood—the histological evolution of these cells is arrested, and the parts remain rudimentary. Again, where motion becomes impossible later in life, as when limbs have had to be amputated, the cells corresponding to the removed limbs may waste away altogether. Giant-cells are absent in those portions of the brain which are not concerned with motion, and their intimate relation to this special function is firmly established. We have, therefore, an automatic and a volitional centre of motion, both being intimately connected by a commissure of white conducting fibres, known as the pyramidal strands, by means of which the will acts on the medullary centres.

A third important centre of motor power is constituted by the central ganglia which are situated on the floor of the lateral ventricles; or,

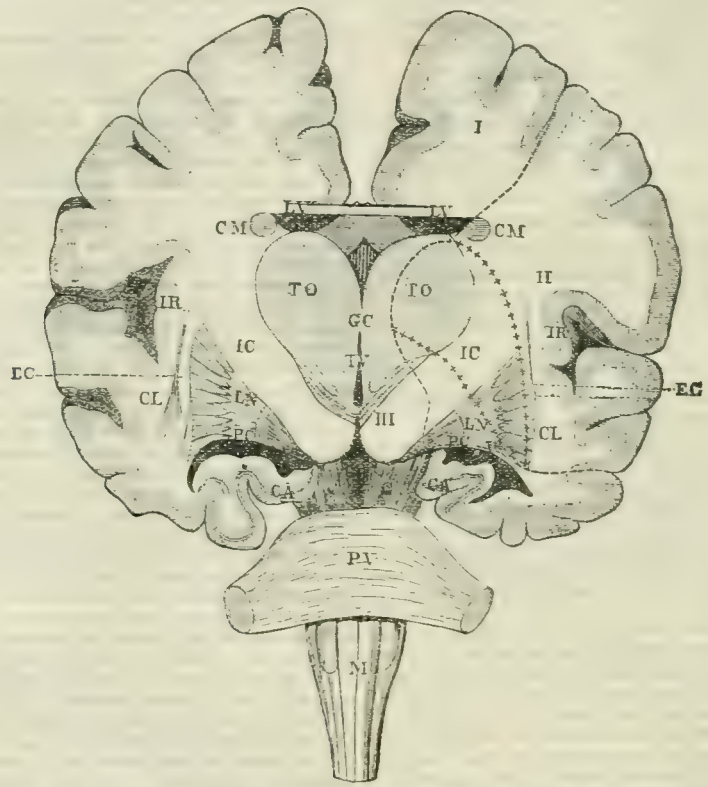


Fig. 1.—I. Sphere of the anterior cerebral artery. II. Sphere of the middle cerebral artery. III. Sphere of the posterior cerebral artery. LV. Lateral ventricles. PC. Posterior cornua of the same. CM. Corpora mammillaria. TO. Thalamus opticus. GC. Grey commissure. TV. Third ventricle. IR. Island of Reil. IC. Internal capsule. LN. Lenticular nucleus. EC. External capsule. Cl. Claustrum. CA. Cornu ammonis. PV. Pons Varolii. M. Medulla oblongata. CC. Crura cerebri.

defined contours. It also does not ramify like the others, but remains undivided, and, after proceeding for some distance, is surrounded by a sheath of myeline, and changed into a nerve-fibre which mingles with the anterior or motor nerve-roots. Destruction of these giant-cells, which occurs in infantile paralysis, causes loss of muscular power, tone, and nutrition; while irritation of them, which occurs through secondary sclerosis of the adjoining parts of the cord after attacks of apoplexy, produces that singular condition of *late muscular rigidity* which is one of the most striking consequences of cerebral hæmorrhage, and which is owing to an exaggeration of the normal function of these cells.

While, therefore, the giant-cells of the anterior horns furnish an instrument of motor power always ready to act if called upon to do so, the volitional impulses of motion originate in the hemispheres of the brain, where they are located in the grey convolutions bordering the fissure of Rolando. The intimate histological structure of these latter closely resembles that of the anterior horns, the principal feature in them being giant-cells, which have about the same dimensions as the cells of the anterior horns, and possess Deiters's elongations, which proceed from the grey cortex to the subjacent white medullary matter. These cells are scantier in children than in adults, and become gradually more developed as age advances, and as motor power is more exercised and differentiated. If, for some reason or another, the development of motor power is interfered with—as, for instance, in cases of infantile paralysis occurring very early in childhood—the histological evolution of these cells is arrested, and the parts remain rudimentary. Again, where motion becomes impossible later in life, as when limbs have had to be amputated, the cells corresponding to the removed limbs may waste away altogether. Giant-cells are absent in those portions of the brain which are not concerned with motion, and their intimate relation to this special function is firmly established. We have, therefore, an automatic and a volitional centre of motion, both being intimately connected by a commissure of white conducting fibres, known as the pyramidal strands, by means of which the will acts on the medullary centres.

A third important centre of motor power is constituted by the central ganglia which are situated on the floor of the lateral ventricles; or, more strictly speaking, the *corpora striata*. Indeed, of the two ganglia, the thalamus opticus may be disregarded in the present inquiry. Whatever may be the function of this nucleus of grey matter—whether it is a centre of common sensation, as many believe, or whether it has anything to do with the sense of sight, which is less probable—there can be no question that the presence of paralysis speaks against, rather than for, disease of the thalamus.

The corpus striatum consists of two grey nuclei and an intervening white tract, which is known as the internal capsule. The caudate nucleus is intraventricular, and is now by some pathologists called "corpus striatum" *per se;* the lenticular nucleus is extraventricular, and imbedded in the cerebral substance. The white internal capsule, which contains the pyramidal strands of the spinal cord and medulla, forms the connecting link between the two grey kernels, and also between the upper and lower centres; viz., the cord, medulla, pons Varolii, and crura cerebri on the one hand, and the convolutions of Rolando on the other. The two grey kernels generate motor power, while the white internal capsule simply serves as a conductor.

The exact functions of the lenticular and caudate nuclei are as yet more a matter of inference than of actual demonstration. It appears, however, probable that they are intended to render certain complex movements which are intimately connected with sensations, and which

are in the first instance only excited by volition and consciousness, gradually, as it were, mechanical and automatic, so as to leave the grey surface of the brain at liberty for the finer and more difficult kinds of work which falls to our lot in life. Thus full attention is required at first for learning the actions of walking, talking, writing, dressing, dancing, riding on horseback, singing, playing on musical instruments, and so forth, all of which are first carried out by conscious efforts on the part of the hemispheres, while after a time they may be performed mechanically and without conscious attention; and there is reason to believe that this organisation is carried on in the caudate and lenticular nuclei, which are, therefore, as it were, the familiar servants or private secretaries of the motor convolutions of the hemispheres. We have, therefore, three great motor centres—viz., the anterior horns, the corpora striata, and the convolutions of Rolando—disease of each of which will lead to certain well-marked forms of paralysis. But paralysis may also be owing to interruption in the conduction of the motor influence which is generated in these centres; and practically, therefore, disease of the conducting paths is as important as disease of the centres themselves.

The motor impulses, which are generated in the convolutions of Rolando and the corpora striata, are conducted to the centre of muscular tonicity and nutrition in the spinal cord by means of tracts of white fibres which are known as the *pyramidal strands*. Much light has been thrown on the relations of these parts by the researches of Flechsig, who found that they have a separate and individual existence at a period of fœtal life when other portions of the centre are still quite undeveloped; and they can then be plainly traced from the Rolandic convolutions down through the centrum ovale and the internal capsule to the crus cerebri, the pons Varolii, and the medulla oblongata. At this point of their course they form the structures known as pyramids, and undergo decussation, so that the right strand crosses over to the left side, and *vice versâ*; and they then proceed to the middle portion of the lateral column of the spinal cord.

The manner in which *pyramidal crossing* takes place has been particularly studied by Flechsig. You are no doubt aware that this crossing has given rise to warm controversies amongst pathologists. In the immense majority of cases, indeed, paralysis which is owing to brain-disease appears on the side opposite to the lesion; and this has always been explained by pyramidal decussation. In a small proportion of instances, however, paralysis has been observed on the same side as the lesion; and they have furnished Dr. Brown-Séquard, who is a fierce opponent of cerebral localisation, with a text for controverting that theory. The supporters of cerebral localisation replied to his argument that in such cases the usual pyramidal crossing had not taken place. This, however, was rather an assumption than a proof, since no reliable anatomical data existed with regard to this point. Now, Flechsig has shown that there are three different types of decussation, viz.:

1. In a certain number of cases, there is total crossing, so that all fibres of one side pass over to the other side;

2. In other cases, there is total crossing of one pyramid—either right or left—and semidecussation of the other; and, finally,

3. There is semidecussation of both strands, of which there are again two varieties, viz.:

a. Less than fifty per cent. of the fibres remain uncrossed; and

b. More than fifty per cent. remain uncrossed. The uncrossed fibres which proceed straight on to the anterior columns of the same side of the cord are called direct pyramidal strands, or Türck's columns. Such varieties having, therefore, been clearly shown to exist in the anatomy of these parts, we can now experience no difficulty in explaining Brown-Séquard's cases of direct hemiplegia in perfect accordance with the leading facts of cerebral localisation.

After decussation, the fibres of the pyramidal strands, in their further downward course in the cord, communicate freely with the giant-cells in the anterior horns. They have their greatest development in the cervical enlargement, and become attenuated in their further progress; and they are ultimately so reduced that, below the lumbar enlargement, only traces are left of them. These facts are of importance for the explanation of the symptom of muscular rigidity after apoplexy, to which I shall presently draw your attention.

The anatomy of the internal capsule and of the relations of the pyramidal strands to it has been much advanced by the researches of Flechsig, who did not confine himself to vertical and oblique sections, which had been exclusively practised by the French school, but made systematic horizontal or antero-posterior sections, which allow a far better insight into the topography of its diseases. We see in such specimens that the capsule consists of two distinct parts—viz., the anterior segment lying between the caudate and lenticular kernels, and of the posterior segment, between the optic thalamus and the lenticular kernel. The point where these two segments unite is called the *knee of the capsule*; and the pyramidal strands are found to be contained, not in the anterior segment, nor in the posterior third of the posterior segment, but in the two anterior thirds of the posterior segment, just behind the knee of the capsule. It is this portion which is frequently injured by hæmorrhage, leading to hemiplegia of the opposite side of the body.

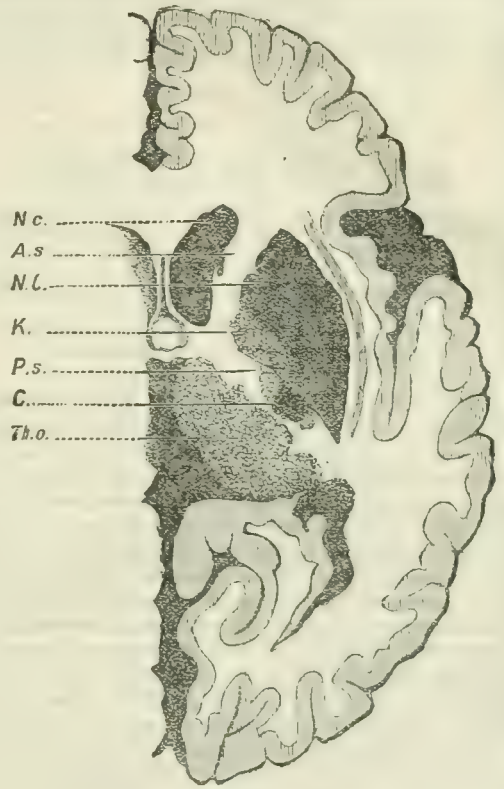


Fig. 2.—*N.c.* Nucleus caudatus. *A.s.* Anterior segment of the capsule. *N.l.* Nucleus lenticularis. *K.* Knee of the capsule. *P.s.* Posterior segment. *C.* Clot. *Th. o.* Thalamus opticus.

The chief peculiarity of diseases of the spinal cord is, that symmetrical and homologous anatomical and histological parts are affected, while neighbouring portions, which are intimately associated with them, escape. Thus we have, in locomotor ataxy, localisation in a portion of the posterior columns, in infantile paralysis affection of the anterior horns, and so on; while in the brain we find just the reverse. There is no systematic or symmetrical affection of histologically analogous parts, but disease progresses without the slightest regard to structure, affecting indiscriminately white and grey matter, and parts which are without any particular relation to each other, following simply the distribution of blood-vessels, whereby it is entirely guided in its origin and further progress. We have, therefore, as principal diseases of the brain, not affections of a set of convolutions, or of the whole of the thalamus opticus, or corpus striatum, etc., but hæmorrhage from, and thrombosis and embolism of, blood-vessels; and the alterations of brain-matter which follow are determined throughout by the extent of the vascular disease. No such maladies as thrombosis and embolism are met with in the spinal cord; hæmorrhage is likewise rare in that organ, and, where it occurs, is mostly owing to injury. A kind of neutral zone, however, exists in the pons Varolii and the medulla oblongata, where disease will sometimes take the cerebral, and at other times the spinal type, which is explained by these structures forming as it were a transition zone between the two great nervous centres.

Thus the most frequent disease of the medulla—viz., labio-glosso-laryngeal paralysis*—is found to affect the ganglionic cells of the nuclei of the motor nerves, more particularly the hypoglossus, the accessory, and the pneumogastric, in the same way as progressive muscular atrophy destroys the motor cells of the anterior horns of the cord. On the other hand, hæmorrhage, which is so frequent in the central ganglia, occurs also sometimes in the medulla, and then causes that lightning-like apo-

* I take this opportunity to protest against the term "bulbar paralysis", which is frequently used in English medical literature, and which is a literal translation from the French, which has no other choice. The French term for medulla oblongata being *le bulbe*, *la paralysie bulbaire* is a perfectly rational term; but as in English the medulla is never by any chance called "bulbus", it seems absurd to speak of "bulbar paralysis" the proper term being "medullary paralysis".

plexy in which death is so sudden that one is inclined to attribute it to heart-disease; for any sudden interference with the structure of the medulla, and the cardiac and respiratory centres contained in it, is incompatible with life. Hæmorrhage into the pons Varolii, which is already nearer the brain proper, is more frequent than into the medulla; and, as this part ranks next in vital importance to the medulla, hæmorrhage into it is likewise almost invariably fatal, although not with that extreme suddenness as when the effusion takes place into the medulla.

[*To be continued.*]

ABSTRACT OF LECTURES ON THE ANATOMY, PHYSIOLOGY, AND ZOOLOGY OF THE CETACEA.

Delivered at the Royal College of Surgeons of England.

By W. H. FLOWER, F.R.S., LL.D.,
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Lecture VII.—Toothed Whales: The Porpoise.

The *Odontoceti* or toothed whales form the second large group into which the cetacea are divided. While presenting the same general characters, they differ notably from the whalebone whales in possessing teeth instead of whalebone in both upper and lower jaws. In studying their anatomy, it is most convenient to take one species as a specimen of the group, in the same way that the *Balænoptera rostrata* was taken as a type of the whalebone-whales. The most convenient for this purpose is the common porpoise (*Phocæna communis*), since it is frequently obtained on our coasts, and, being of small size, is more easily dissected and managed than the larger members of the group. It was the first of the cetacea to attract the attention of naturalists. An excellent monograph on its anatomy was written by Tyson about two hundred years ago. Since then it has been the subject of no complete monograph, though many points in its anatomy and physiology are well worthy of more attention than has been hitherto devoted to them.

The full length of an adult porpoise is about 1.5 mètres (five feet). It is an inhabitant of the North Atlantic, our own coasts, and the coasts of Greenland, but does not enter the Mediterranean; so that it could not have been the species to which the name *Phocæna* was applied by the Greeks. An allied species has been found in the Pacific. In external appearance, it resembles the whalebone-whales, but differs from them in the small size of the head, the anterior part of which terminates abruptly in a rounded blunt extremity formed of a mass of fat situated immediately in front of the blow-hole. The lump of fat on the anterior portion of the head is not a peculiarity of the porpoise, as it is found in several of the toothed whales. A dorsal fin is present, and is situated a little posterior to the middle of the back. On the anterior part of the dorsal fin are a number of small tubercles, which are only found in this species of toothed whale.

Skeleton. In some respects, the skull of the porpoise resembles that of the whalebone-whales, though it differs in many essential points of detail. The brain-cavity is placed on the most superior part of the head; the condyles are directed backwards and upwards. There is a great development of the facial portion of the skull, though not to such an extent as in the whalebone-whales. The nostrils open on the top of the head. The nasal passages, which are separate, bend round the front of the brain-cavity, and are therefore directed at first downwards and forwards, and then downwards and backwards. The nasal bones are perched on the top of the head, immediately in front of the anterior crest of the supra-occipital bone, which projects over the parietal bones and the frontal to a much greater extent than in the whalebone-whales. The large mesethmoids are continued almost to the end of the rostrum, between the premaxillaries, which extend to the extremity of the beak. The maxillaries are prolonged upwards till they meet the supra-occipitals; they have likewise lateral expansions which shelve over the orbits. The orbits are supported on each side by a style of bone passing underneath them; there is no distinct lacrymal bone. The palate is broad and flat; the pterygoid bones are involuted. The petro-tympanic bones are smaller and much more loosely attached to the skull than in the whalebone-whales. The lower jaw has a true symphysis; there is a large funnel-shaped entrance for the inferior dental branch of the fifth nerve, which also contains a large arterial plexus.

The cervical vertebræ have thin bodies, consequently the series is short. The atlas is much larger and thicker than the others, which gradually become smaller towards the fifth, while the sixth and seventh are larger. All the cervical vertebræ are frequently ankylosed together, both by their centra and spines. Sometimes, however, the seventh is free. Ankylosis of the cervical vertebræ is a character common to many of the toothed whales. There are thirteen dorsal, fourteen lumbar, and thirty-two caudal vertebræ. The heads of a few of the anterior ribs articulate both with the lamina of the vertebræ and with the centra. Those farther behind in the series articulate only with the transverse processes of the vertebræ. This mode of articulation of the heads of the ribs is peculiar to the *Odontoceti*, and differs entirely from the manner in which the heads of the ribs articulate with the vertebræ in the *Mysticeti*, where they are attached only to the transverse processes throughout. The sternum is of considerable length, and has articular surfaces on each side for the articulation of the sternal ribs formed by the early ossification of the costal cartilages. Four of the true ribs articulate, through the sternal ribs, directly with the sternum, while several are attached to it indirectly by their sternal ribs, which are directed very obliquely. The scapula, which is placed very close to the head, is of much the same form as that of the *Balænoptera rostrata*. The anterior limb is reduced to a mere paddle. No clavicles are developed in this or any of the cetacea, the bones of the arm being very small, and flattened laterally. The carpus, which is fairly well ossified, consists of five bones arranged in two rows, the first of which contains three bones, and the second two. The digits are five in number; of these, the second and third are very long, and more completely ossified than in the whalebone whales. The larger phalanges have centres of ossification at each end. No muscles are developed in the limbs of the porpoise, except those which move the shoulder; but there are several bands of fibrous tissue to be found running down the limb, which may be the remains of muscles. Styliform pelvic bones are present; but there are no bony rudiments, such as are found in many of the *Mysticeti*, corresponding to the leg or thigh-bones. The hyoid arch consists of two sterno-hyals, connected to a flat and simple hyoid with large posterior horns by cartilages which sometimes become ossified. As the porpoise lives chiefly on fish about the size of herrings, and even larger, which it devours singly, like the sea-lions and seals, and does not take into its mouth large quantities of water with the food, its mouth is small, and the jaws are provided with numerous small flattened spade-like teeth, which differ from those of other dolphins in not being conical and sharp-pointed, but resemble them in being very simple; planted loosely in their sockets, not divisible into incisors, canines, and molars; and not preceded by a set of milk-teeth. The tongue is flat; its edges and tip are free, but it cannot be protruded. As the animal bolts its food, the œsophagus is wide. The stomach is very like that of the whalebone whales. The first cavity is thickly covered with epithelium. The second cavity is the glandular portion, and is smaller than the first, but possesses very thick walls and numerous rugæ. The third cavity is extremely small, so that it has been frequently stated to be absent, being only a small space between the walls of the second and fourth cavities. The fourth cavity is large and intestine-like, with a pyloric valve at its furthest extremity, beyond which is the duodenum, with the bile-duct opening into it. There is a great difference between the appearance of the stomach of a young and that of an adult animal. In both, the œsophagus opens at the junction of the first and second cavities, but in the young animal its opening is directed so that the food passes into the second or digestive cavity, which is of large size, the first being very small, with a narrow opening, whilst, in the adult, it opens into the first cavity. The intestinal canal is very simple, without any cæcum, and is slung on a simple mesentery. The liver is simple, and the gall-bladder is absent. The animal always comes to the surface of the water to breathe. The nostrils open externally in a single crescentic blowhole. Connected with the nares, is a curious arrangement of six air-sacs, the function of which is unknown. They are diverticuli from the passage between the anterior and posterior nasal passages, and seem to be homologous with the cavity in connection with the nose of the horse and some other animals. The larynx is very similar to that in the whalebone whales, but, if anything, rather more specialised. The arytenoid cartilages, which are united by fibrous tissue, pass up farther into the posterior nares, by which they seem always to be firmly grasped. The food, therefore, passes down into the œsophagus on each side of the elongated laryngeal opening. The passage of any water into the larynx during deglutition is thus rendered impossible.

ON MILK-INDIGESTION IN YOUNG CHILDREN.

By EUSTACE SMITH, M.D., F.R.C.P.,

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CHILDREN who are brought up, in the usual way, upon milk and milky foods may suddenly begin to exhibit symptoms of indigestion, which renders an immediate change in their diet indispensable, if serious consequences are to be avoided. In hand-fed babies, this unfortunate accident is common enough, and the mortality amongst such infants may be in a great measure attributed to it. The same thing may occur, however, in children who have been weaned at the usual age; and it is therefore sometimes met with in young children twelve or eighteen months old.

These symptoms are due, in the majority of cases, to an inability to digest cow's milk. Usually, the inability is merely a temporary infirmity, arising from some casual derangement of the stomach and bowels, which induces an acid change in the food. In such cases, milk quickly undergoes fermentation in the child's stomach, and an acid is formed which irritates the delicate mucous membrane, and increases the disturbance of the digestive organs. Severe symptoms are often the consequence of this indigestion; so that, unless prompt measures be taken to avert the danger, the child's life may be sacrificed. In other and less common cases, the fault is in the milk, which is too heavy for a child whose digestive organs are sound and healthy. Thus, infants who are weaned when very young, often find cow's milk to be beyond their powers of digestion; and, unless special precautions be taken to adapt it to their immature organs,* serious consequences may ensue. Other causes may make cow's milk appear to be indigestible. Thus, the child may be actually overfed, its meals being too large or too frequently repeated; or, again, the feeding apparatus may have been neglected, so that fresh milk put into a dirty, sour bottle may have begun to ferment before the child swallows it. These causes may, however, be put on one side. The kind of milk-indigestion now spoken of is that in which, for whatever reason, a perfectly pure fresh milk, given in suitable quantities, and with all possible precautions to make it digestible, is found to disagree. In such cases, the child begins very quickly to waste and to show all the signs of defective nutrition. The general symptoms may be divided into three classes, according as to whether the prominent feature is constipation, vomiting, or diarrhœa.

Cases where *constipation* is a marked symptom are generally found amongst young infants. The child is restless, and begins to be feverish at night. His tongue is coated with a thick white fur. He is evidently in a state of great discomfort: for his temper is peevish and fretful, his movements are uneasy and jerking, and he occasionally breaks out into piercing cries, drawing up his knees and twisting about his body under the influence of abdominal pain. At night, the griping is especially violent: the child scarcely sleeps at all; or, if he be quiet for a moment in uneasy sleep, he soon starts up again screaming with a fresh attack of pain. The motions are scanty and rare. The bowels sometimes remain confined for twenty-four hours or longer; and, when they are at last relieved, hard clay-coloured balls, stained with green mucus, are expelled with great effort and straining. These balls consist of masses of hard curd.

A full dose of castor-oil, which clears away the curd, allays the symptoms for a time; but usually, if the milk-diet be continued without any change, they return in a day or two, and the child is in the same distress as before. Violent convulsions may be induced by this cause, and the child's life be put in actual peril.

It is usually in cases of artificial feeding that these symptoms are found; but sometimes, although rarely, we see them in children who are nursed at the breast. When the indigestion is due to catarrh of the stomach, it is readily amenable to treatment. All that is necessary is to put a stop to the milk for a day or two, and to clear away undigested curd by a full dose of castor-oil. If, however, the fault be in the milk, and not in the digestive organs of the child, some change in the method of feeding is indispensable.

A curious instance of this difficulty in digesting curd in a child fed solely by the breast came under my notice some time ago. I was asked by a gentleman to go and see his child, a little boy of seven months old. I found that the child had been suffering for some weeks from severe abdominal pains. He was excessively peevish and fretful, and at night would wake up with a scream and twist about his body, evidently under the influence of severe griping pain. His bowels were very confined, and the motions consisted almost entirely of curd. He was taking nothing but the breast. Aperients had been found to relieve the child for a time, but the symptoms always returned when the effect of the purgative had passed away. Whenever the breast was stopped for a few days, he immediately improved, but relapsed as soon as suckling was resumed. The child was evidently suffering from his inability to digest the curd of his mother's milk; and it became a matter of the greatest importance to enable him to do so, otherwise he would have to be weaned and fed in a different way. The mother had herself, by taking saline and other medicines, and by making many modifications in her diet, under medical advice, endeavoured to alter the quality of her milk, but without success. Several methods of remedying the evil were tried. The intervals between the times of suckling were increased, so as to give a longer period for digestion; but this change had no effect whatever. Alternate meals of barley-water were then given from a feeding-bottle. By this means, the quantity of milk taken by the child in the course of the day was diminished, and the interval between the times of taking the breast was still further increased. No improvement, however, followed the alteration. The griping pains still continued; and the constant fretfulness of the child was most distressing to his mother. The plan was at last adopted of giving the child barley-water, from a bottle, immediately before he took the breast, in the hope that, by this means, the milk might be diluted directly it reached the stomach. This method succeeded perfectly; and the child had no further unpleasant symptoms. In this instance, the infant's stomach was in a perfectly healthy state. The fault lay in the mother's milk, which was too heavy for the child's powers of digestion. Should this happen in the case of a wet-nurse, the nurse must be changed, or the child be weaned and brought up by hand.

In the large majority of cases of milk-indigestion in infants reared at the breast, the fault is in the digestive organs of the child; an attack of gastric catarrh having rendered him for the time incapable of digesting his mother's milk. In these cases, the indigestion is a temporary failing, and is easily remedied by suitable treatment. Without judicious management, the derangement may be prolonged indefinitely; and it not unfrequently happens that the mother is ordered to wean her baby under the mistaken notion that her milk is unfit for its support.

In cases of gastric catarrh, where the complaint is acute and severe, *vomiting* is usually the most prominent symptom. Under such circumstances, milk becomes a positive poison; and no hope of alleviating the symptoms can be entertained while this diet is persisted with. A short time ago, I was asked to see an infant two months old, whom I found suffering from acute gastric catarrh, and in a state of great exhaustion. She had been brought up by hand, and was being fed upon milk and barley-water in equal proportions. This she vomited as soon as it had been swallowed, bringing it up curdled, and intensely acid. There was a sour smell from the breath, and, although the disease had only lasted a few days, the eyes were hollow, the face looked pinched, the fontanelle was deeply depressed, and she lay motionless on the nurse's lap with her eyes half closed. Her hands and feet were cold to the touch, and looked purple. For a day or two, her bowels had been much relaxed. She was taking small doses of lead and opium, to check the diarrhœa, but each dose was returned almost immediately. The child was ordered to be kept warm, and perfectly quiet. A weak mustard-poultice was applied for an hour to the epigastrium. The milk was stopped, and the child was fed with weak veal broth and thin barley-water, mixed together in equal proportions, and given cold, at intervals, with a teaspoon. A few drops of brandy were given occasionally, as seemed desirable. As a result of this treatment, the vomiting stopped at once, and the child, when seen three days afterwards, was found to be much improved. The breath had lost its sour smell; the face was no longer pinched; the eyes were not hollow; the fontanelle was not depressed; and, when asleep, the child closed her eyelids. The motions were still rather watery, although the number was natural. The medicine and diet were continued a few days longer, and the child was soon well. The most important part of the treatment in this case was the substitution of veal broth for milk. Directly the supply of fermentable matter was stopped, fermentation ceased, acid was no longer formed, and the digestive organs returned to a healthy condition. Here the derangement was acute. In the following case, the complaint was chronic, the inability to digest cow's milk having extended over a lengthened period.

A little girl ten months old, with four teeth, very thin and weakly-

* The chief obstacle to the digestion of cow's milk by young babies is the firmness of the clot formed by its coagulated curd. Mere dilution with water does not affect this property. Under the influence of the gastric juice, the casein runs together into a solid dense lump. To obviate this difficulty, we must either separate the particles of curd by adding barley-water or gelatine to the milk, so that the casein may be forced to coagulate in a multitude of little clots; or we must partially neutralise the gastric juice by the addition of lime-water.

looking, had been weaned at the age of eight months. Since that time, she had been unable to digest milk, vomiting it at once whenever it was given to her. For nearly two months, therefore, she had been fed on two dessertspoonfuls of farinaceous food, made with water into a thick cream, and given every two hours with a spoon. She refused to take it from a bottle. Twice a day the food was made with beef-tea instead of with water. After a meal, the child often vomited, but, when this happened, she was immediately fed again. The result of such a diet was to be expected. The child, although ten months old, was exceedingly weak, and could not sit up. She was becoming rapidly thinner. She slept very little, whining and crying the greater part of the night. She was said to show no signs of abdominal pain; but the bowels acted three times a day, and the motions were relaxed, and horribly offensive. The feet were almost always cold.

Gastric and intestinal disorders in children often date from the time of weaning: partly because at this time they are apt to be largely overfed with farinaceous foods (and it may be remarked that the phrase "food for infants", with which many farinaceous powders are labelled, has been the cause of very widespread mortality); partly because the change from human to cow's milk is often made abruptly, and with little care to make the new diet a digestible one. The heavy curd of cow's milk is often difficult of digestion, even by children ten or twelve months old, who have been accustomed only to the breast; and, unless measures be adopted to hinder the firm clotting of the casein, serious dangers may arise. Whatever may have been the cause of the disturbance in the case above narrated, a catarrh of the stomach had been set up which made the child incapable of digesting cow's milk; and the diet adopted as a substitute was one admirably devised for keeping up the derangement. Such a case, which is far from being an uncommon one, is readily treated, however severe may be the vomiting, by restricting the diet to equal parts of weak veal broth and thin barley-water, given cold in small quantities at a time; by warmth to the belly and extremities; by perfect quiet; and by suitable remedies. The best sedative is liquor arsenicalis—half a drop for the dose—given with a few grains of bicarbonate of soda in some aromatic water. After a few days of such treatment, the power of digesting milk usually returns. But at first it should be given sparingly, freely diluted with barley-water, and only once or twice in the day.

Looseness of the bowels is a common consequence of milk-indigestion. The stools are not at first watery: for a time, the motions are semi-solid, and have the colour and consistence of soft putty. They may have a faint sour unpleasant smell, but are not necessarily very offensive. Occasionally, the stools are streaked with green mucus, and sometimes with blood, on account of the straining exercised during their expulsion. This condition of the bowels is accompanied by gradual loss of flesh. The child becomes at first flabby, then obviously wasted. If proper treatment be not resorted to, the case becomes one of obstinate chronic diarrhœa, or else the child, in its weakly state, falls an easy victim to some intercurrent disease.

Such cases in the early stage—before a regular diarrhœa is established—are often spoken of as cases of "inactive liver", the white stools being supposed to be merely the result of insufficient biliary secretion. Cholagogues are, however, in such cases quite useless. A dose of grey powder produces, perhaps, one dark stool, but afterwards the motions are of the same character as before. They are white, because they consist of curd mixed with the farinaceous matter, which is usually given in large quantities at the same time; and their character can only be improved by a complete change of diet. When a chronic diarrhœa is regularly established, the cases are often called "consumption of the bowels". It is needless to say that they have no relation at all to "consumption", but are a purely functional derangement—a chronic catarrh of the bowels, excited and maintained by undigested food. The *post mortem* appearances, except for the wasting of all the tissues, differ very little from those of health; but, in long-standing cases, we may find ulceration of the bowels. There is, however, no sign of grey tubercle.

Some years ago, I saw in the country a little girl, aged 14 months, who had been losing flesh gradually for two months. Her friends were in a state of great anxiety about her, as her father had died of consumption. The disease had begun with feverish symptoms and relaxed bowels, and the motions had never since been healthy. During the greater part of her illness, she had been fed with milk and sago—the latter in large quantities; but, for a fortnight before my visit, she had taken nothing but pure milk, fresh from the cow. This change in the diet had, however, produced no alteration in the symptoms. I found the child very flabby and pale, although, to the eye, not very thin. Her face, when quiet, was placid-looking. She perspired freely about the head and neck. Her fontanelle was of medium size, and not depressed. She had no teeth, and the gums were not at all full. The tongue was rather dry and drab-coloured, with a little fur at the back. The abdomen was soft and rather full—not at all tender. The liver and spleen were of natural size, and no enlarged mesenteric glands could be felt. The child had not yet begun to walk when her illness began. Her joints were inclined to be large. The skin generally was harsh, but there was no loss of elasticity. Temperature in rectum 98°. She had a cough, and a little dry and coarse bubbling rhonchus was heard about the back. The bowels were open four times a-day. The motions were large, of the colour of putty and consistence of soft paste, without offensive smell. The child appeared to have no pain, and, although rather fretful, was not very troublesome.

In this case, there was evidently a certain amount of rickets present, shown by the profuse sweating of the head; the tendency to enlargement of the joints; the absence of teeth (at fourteen months); and the weakness of the lower extremities. The temperature, which was only 98° in the rectum (at about 3 o'clock P.M.), was almost sufficient by itself to exclude the notion of tuberculosis; but, besides this, the absence of any pinched look in the face, and the elasticity of the skin—for in tuberculosis the loss of elasticity of the skin is a marked symptom—enabled me to allay the chief anxiety of the mother. The case was evidently one of the class I am describing. The child, owing to a little intestinal catarrh, had a very limited power of digesting milk. The treatment was therefore obvious. Milk was almost entirely excluded from the diet, and the child was fed instead with whey and cream, veal-broth and barley-water, yolk of egg, and "Mellin's food" dissolved in barley-water. She took at first an alkaline solution of iron, with half a drop of liquor arsenicalis, in each dose. This was afterwards changed to quinine, dissolved in iron wine, and cod-liver oil; and it was not long before the child was convalescent.

In all cases of functional derangement in children, the tendency is to recovery, if nature be allowed her way. This is especially true of derangements affecting the alimentary canal. If the irritant, whatever it may be, which is the cause of the disturbance be removed, the organs quickly resume the normal exercise of their functions. Unfortunately, well-meant efforts to relieve the distress are often themselves the cause of its continuance. The child is weakly and wasting, therefore he requires nourishment; but the utmost care must be exercised in selecting the kind of food to be given. To continue the supply of fermentable material, when the stomach and bowels are already filled with the products of fermentation, is a certain way of hindering the child's restoration to health. If, on the contrary, we cut off the supply of fermentable matter, unless the strength be too much reduced, recovery follows as a natural consequence. In such cases, milk and the ordinary farinaceous foods must for a time be withdrawn from the diet. The best substitutes are those which have been mentioned—viz., weak veal-broth and barley-water, in equal proportions; cream and whey—a dessertspoonful to four ounces; yolk of egg (beaten up, in the case of infants, with whey or veal-broth); and Mellin's food for infants, dissolved in barley-water, or in equal parts of this and whey. Veal-broth or chicken-broth is better than beef-tea, for the latter is often irritating to the digestive organs of young children, especially if there be any diarrhœa.

Sometimes, when cow's milk cannot be digested, ass's or goat's milk is more successful; and, sometimes, a child, much reduced by digestive disturbance dependent upon an unsuitable dietary, at once recovers when put again to the breast. More often, however, milk of any kind seems to act as an irritant poison; and no hope of relief can be entertained until it is excluded from the diet.

QUEEN'S COLLEGE, CORK.—The following have been awarded prizes at the sessional examinations:—Fourth Year: *Practice of Medicine:* Havelock H. Charles and Daniel Lynch (equal); Patrick F. Grimes and D. M. Saunders (equal).—*Medical Jurisprudence:* Havelock H. Charles, Patrick F. Grimes, F. Dilworth. Third Year: *Physiology:* T. J. Crowley, William E. Hadden, Frederick E. Adams.—*Anatomy:* T. J. Crowley, William E. Hadden, George A. Rountree.—*Surgery:* T. J. Crowley, William E. Hadden.—*Midwifery:* T. J. Crowley, William E. Hadden (equal), Frederick E. Adams. Second Year: *Physiology:* William Barter, J. H. Swanton, Samuel F. Freyer.—*Anatomy:* J. H. Swanton, William Barter, John Bolster, Samuel F. Freyer.—*Materia Medica:* B. Mangan, William O'Keeffe (equal); Richard F. Kelly. *Practical Chemistry:* Benjamin Hosford, Daniel Lynch, Samuel F. Freyer, Wm. Barter, Richard E. Kelly, James Musgrave. The exhibition in Practical Surgery has been awarded to Havelock H. Charles.

ST. THOMAS'S HOSPITAL.—The following appointments have been made. *Assistant House-Physicians: Senior,* C. A. Ballance, L.R.C.P., M.R.C.S., L.S.A.; *Junior,* M. P. M. Collier, M.R.C.S., L.S.A. *Assistant House-Surgeon,* S. W. Sutton, L.R.C.P., M.R.C.S. *Resident Accoucheur,* W. F. Haslam, M.R.C.S., L.S.A.

ON THE VALUE OF EARLY AND REPEATED PARACENTESIS IN THE ASCITES DUE TO CIRRHOSIS OF THE LIVER.*

By W. A. DUNCAN, M.D., Croydon.

THE following case appears to me of sufficient interest to bring before your notice, especially as the treatment of the ascites due to cirrhosis of the liver, by early and repeated tapping, does not (I imagine) receive the attention it deserves from the general practitioner; nor is it advocated in our standard medical works on the subject—with, however (as I shall point out later on), two notable exceptions.

The patient was Mr. M., aged 46, a retired naval officer. *Family History.* His father died of cancer of the stomach, aged 49; his mother died from bronchitis, aged 71; one sister died of paralysis, aged 48, and another of consumption, aged 18.

Previous History. He had had measles, scarlet fever, and whooping-cough. He went to sea when ten years old. In 1852-3, he served in the Burmese war, where he received seven wounds; besides which, he suffered from cholera, dysentery, and slight sunstroke. In 1854, he went to the Crimea, and served all through the war, having ague and Crimean fever. In 1857, he had another attack of sunstroke whilst in Bombay. In 1862, he had a sharp attack of fever and ague. In 1874, he had another sunstroke; after which, he left the sea. He had always been a very moderate drinker, taking, on an average, one or two glasses of rum daily. He never had jaundice, piles, or morning sickness. In 1875, he had an attack of pleurisy on the left side. During 1876 and 1877, he suffered intensely from neuralgia and sciatica, during which time he took from half a pint to one pint of brandy daily, to enable him to bear the pain.

His *present illness* began, in the early part of 1879, with a cough, morning sickness, anorexia, and general debility. About the end of March, he noticed that his belly began to swell; and, on making an examination, fluid was detected in his peritoneal cavity. The liver-dulness extended from the sixth rib to a little below the margin of the ribs. On the left side, the spleen extended down to the level of the umbilicus, and anteriorly to within an inch of the median line. The patient said his spleen had been large since the last attack of ague in 1862. The ascitic fluid gradually accumulated until May 3rd, when paracentesis was performed with the usual trocar and cannula, and seventeen pints of straw-coloured serum were removed. Previously to the operation, there had been no dyspnœa nor œdema of the legs, and but little discomfort. No bad result followed.

May 14th. Paracentesis was again performed; this time with Southey's trocar and cannula. The fluid continued to flow for eight hours, and amounted altogether to twenty pints.

May 24th. He was again tapped; and, after six and a half hours, sixteen pints had escaped. After this, the fluid did not reaccumulate so rapidly, and tapping was not again had recourse to until August 11th, when, after seven hours, fifteen pints were removed. On September 11th, he was again tapped; and only three pints were removed. After the operation, a slight attack of peritonitis ensued, but soon subsided under the use of morphia. On September 25th, he was again tapped, but only one pint was removed, as the patient felt very faint. On October 3rd, eight pints were removed; slight peritonitis followed. On October 14th, five pints were removed in five hours. He had severe pain in the back; the feet and legs were puffy for the first time. On November 9th, three pints were removed in four hours; on the 25th, six pints in four and a half hours; and on December 6th, six pints were removed with a large trocar. Much weakness followed, with some peritonitis and a troublesome cough. Some fluid was detected in both pleuræ. The feet and legs were much puffed. On December 21st, four pints were removed in nine hours; on January 2nd, 1880, ten pints in seven hours; on the 21st, eighteen pints in seven and a half hours; and on February 9th, nine pints in eight hours. From this date, I took charge of the patient, who, from the commencement of his illness to the present time, had been attended by my brother, Dr. P. T. Duncan (now of Putney), to whom is due all the credit of the successful treatment adopted. On March 14th, eight pints were removed in four and a half hours; and on April 6th, six pints in seven hours. On April 24th, tapping was again required; but no result followed insertion of the needle in the median line, probably because the peritonitis, which followed some of the previous tappings, had caused adhesions at this part. The needle was reinserted about midway between the median line and the anterior superior spine of the right ilium, when eight pints were drawn off in six hours. From this time, the patient began to improve—so that paracentesis was not again performed until May 23rd, when three pints were removed in five hours. On May 26th, the patient was out of bed and dressed in his ordinary attire—the first time for six months. On June 6th, three pints were removed in four hours. On June 26th, he had continued to improve since the last tapping. On July 31st, he was sent to the seaside, where he remained two months; and, on his return, was able to walk to my house and report himself.

November 30th. He continued to improve and gain flesh, and went out walking daily. There was no fluid in the peritoneal cavity. The liver-dulness extended two and three-quarter inches in the right nipple line.

March 10th, 1881. I have seen the patient this morning, and find him still improving; no reaccumulation of ascitic fluid; the only complaint being of troublesome constipation.

REMARKS.—The general treatment (to which the patient willingly submitted) has been the absolute withdrawal of alcohol. At first, purgative doses of compound jalap-powder, with diuretic pills of mercury, squills, and digitalis, were tried; but were not persevered with, as they had no effect on the ascites. After paracentesis was commenced, a saline aperient of the sulphates of soda and magnesia was given every morning, and occasionally ether mixtures, to relieve the flatulent distension, which was at times distressing.

I will now, with your permission, give the opinions of some of the best authorities on the subject of this paper.

Dr. Aitken says: "Ascites depending on diseased structure of the liver is rarely recovered from, unless the primary disease be cured." (*Science and Practice of Medicine*, vol. ii, page 1036.) "In this form of dropsy, the peritoneum becomes more impaired in its power to absorb the fluid than in most of the others; the fluid is, therefore, seldom reduced, and the patient generally requires the *last* imperfect resource of our art—viz., tapping, or paracentesis." (Sixth edition, vol. ii, page 1037.)

Dr. Bristowe (Reynolds's *System of Medicine*, vol. iii, page 268) says: "But when the abdomen has become very much distended, and the patient is suffering seriously from the inconvenience and distress which attend such distension, the removal of the dropsical fluid by paracentesis becomes necessary. The time for the performance of this operation must be determined by each case—less by the actual distension of the belly, than by the gravity of the symptoms which attend that distension. The operation is generally postponed as long as possible, and I believe rightly.....It is generally a harmless operation; but sometimes peritonitis ensues, and is apt to be rapidly fatal."

Niemeyer (*Medicine*, vol. i, page 622), after discountenancing diuretics and advocating drastic purgatives, says: "The operation of tapping is almost always free from danger, and it removes the fluid from the abdomen more certainly than any other method of treatment. But, the more the slight danger and certain effect of tapping speak in its favour, the more necessary it becomes to enumerate its bad subsequent results. We should never forget that we do not remove water, but an albuminous fluid, from the abdomen; and that the fluid evacuated is almost always soon replaced by a new effusion. This is a severe tax on the patient's strength and supply of blood. Daily experience teaches that, after the first tapping, emaciation progresses much more rapidly than previously. From what has been said, it follows that, in ascites, the abdomen should only be tapped where life is immediately endangered by obstruction of the respiration, or by threatened gangrene of the skin."

Frerichs (*Diseases of the Liver*, vol. ii, page 95) says: "When the ascites is so extensive that the respiration is impeded, and the meteorism very troublesome, the best plan is to remove the fluid by paracentesis. This operation is rarely dangerous from the supervention of peritonitis (which I have only seen ensue in two cases); but it *must not* be repeated unnecessarily, because the exhaustion is, of course, increased by the rapid return of the effusion, and the remarkable loss of albuminous substances. Hence paracentesis should only be had recourse to as a matter of necessity."

Thierfelder, in Ziemssen's *Cyclopædia* (page 210, vol. ix), after deprecating the use of drastic cathartics, says: "It results, therefore, that, in the operation of paracentesis, we possess the means of lessening, with greater certainty and promptness, serous accumulations within the abdominal cavity, the judicious use of which is not commonly attended with any direct danger; the wound thereby inflicted gives rise relatively quite seldom to erysipelas of the abdominal integument, or to peritonitis. The functions of the stomach and intestinal canal are even wont to be improved after puncture; while, with the removal of the pressure previously exerted by the mass of ascitic fluid, and by the tension of the distended abdominal integument upon the vessels of the intestinal serosa, there results a decided filling up of the latter, accompanied by a diminution of the

* Read at a meeting of the East Surrey District of the South-Eastern Branch.

venous hyperæmia in the remaining coats of the intestinal wall. But, there again ensues also, from the more completely filled peritoneal vessels, when the obstruction to the hepatic circulation continues, a more copious transudation, and an increased loss on the part of the blood—of its plasma, rich in albumen. This offers an explanation why tapping affords invariably, but transitory, amelioration; and why, notwithstanding the improvement which in many respects is thereby induced, it cannot arrest the progress of the general impairment of the nutritive functions. This operation, therefore, must not be undertaken unnecessarily, but only in response to an urgent indication. Such an indication is offered when the dyspnœa, from upward displacement of the diaphragm, threatens life, or when an obstinate vomiting is probably attributable to mechanical derangement of the digestive canal, due to the large amount of ascites; if, under these circumstances alone, we resort to paracentesis, it will accomplish all that can be expected from any symptomatic treatment."

We see, then, that these five eminent authorities consider that paracentesis should only be performed as a *dernier ressort*.

The two exceptions to which I alluded are my much lamented teacher, Dr. Murchison, and Dr. Roberts of University College Hospital.

Dr. Murchison (*Diseases of the Liver*, second edition, page 288), says: "The operation, when delayed until the last, is often followed by rapid sinking, with typhoid symptoms.....The advantages of early tapping are these. First, by removal of pressure, the establishment of collateral circulation through the more healthy portions of the liver itself, as well as the veins of the abdominal parietes, is promoted. Secondly: the functions of important parts, which had been impaired or arrested by the pressure, are restored. Not only are the lungs relieved; but, by the removal of pressure from the portal and renal veins, assimilation and the secretion of urine are increased. Thirdly: diuretic and other remedies, which, when the abdomen is full of fluid, have produced no effect, probably from not being absorbed, will often (after paracentesis) act powerfully, and thus retard or prevent the accumulation of fluid in the peritoneum. As soon, therefore, as the abdomen becomes moderately distended with fluid, I would recommend you to lose no time in having recourse to paracentesis. Even should the fluid reaccumulate repeatedly, you need not despair."

Lastly: Dr. Roberts, when speaking of the treatment of dropsy, says: "There is one class of cases in which paracentesis may not uncommonly be performed as a curative measure, as far as the ascites is concerned—namely, when it is dependent on cirrhosis of the liver. In such cases, I have for some years had recourse to repeated paracentesis, as a systematic method of treatment, the fluid being taken away again and again, should it reaccumulate; and the results have been most satisfactory—due care being, of course, exercised in the performance of the operation, and in the subsequent management of the case."

GOUT AS A TROPHO-NEUROSIS.

By SOLOMON C. SMITH, L.R.C.P.Ed.,
Surgeon to the Halifax Infirmary.

DR. DYCE DUCKWORTH's article in the JOURNAL of March 26th, on Gout considered as a Tropho-neurosis, will have been read with interest by all who are dissatisfied with the current explanation of the cause of that disease; but I think there will be many who, although glad to accept the suggestion as to the part taken by trophic nerves in producing the attack, will hesitate to follow him in considering nerve-influence the first cause in regard to time, and will be rather inclined to retain the belief that uric acid is the cause, and that trophic nerve-disturbance is the mode by which the symptoms are produced.

The sudden invasion, the occasional rapid retrogression, the perfect recovery and absence of permanent organic change even after the most acute early attacks, its alternation with various neuroses, such as neuralgia, asthma, and angina pectoris, and its obvious production by shock, worry, and other nerve-depressants, all suggest its connection with nerve-influence; and, now that recent researches have shown that perverted action of trophic nerves may, by itself, lead to inflammation and destruction of joints, the link seems to have been found by which gout and the gouty neuroses may be connected together; so that, instead of looking at them as alternating conditions, we may consider them all alike as various neurotic expressions of a state of system which we have to describe by the term "gouty".

But the suggestion that this gouty habit is itself a neurosis—that the lithæmia is to be looked at as the result of a still earlier alteration of some hypothetical trophic centre—is one which will not very readily be accepted. It is difficult to understand why an affection of one trophic centre should produce both lithæmia and arthropathy, and that it should be often associated with a varying series of other neuroses, if it were itself the primary lesion; but, if we accept the proposition that the perverted action of the trophic centre which produces gout is due to its being poisoned by blood containing uric acid, just as it is admitted that the other neuroses are due to poisoning of their centres by the same cause, we have a fair working hypothesis, and can put into form many facts which have hitherto appeared somewhat unconnected.

Men vary greatly in the manner in which they perform their tissue-metamorphoses, and in the ease with which they get rid of their nitrogenous excreta, and hence in the readiness with which they become the subjects of lithæmia. The nervous system of different individuals, and even of the same person at different times, also varies much in its power of resisting toxic influence. All men are not made drunk by the same quantity of alcohol, nor do they all show its effects in the same way. So it is with lead, with tobacco, and many other poisons; and so, I think, it is with uric acid. One nervous system is so resistive that it requires high feeding and a sedentary life to produce a dose large enough to lead to symptoms. Another is so susceptible that a single incautious meal will produce an attack; and this attack will vary according to the nerve-centre affected. It may be asthma, angina, or neuralgia; or, if it affect certain trophic nerves, it may show itself as herpes, or as that inflammation of joint-structures which we have always hitherto called gout, but which we may in future have to describe as lithæmic arthropathy. By a theory such as this, giving a due value to both the toxic and the neurosal factors in the production of gout, we are able, I think, to explain more fully its varied phenomena, and its connection with other morbid conditions, than by attributing its causation entirely either to nerve or to uric acid.

CRIMINAL ABORTION: A FŒTUS OF THREE MONTHS CUT UP WHILE IN THE UTERUS: PERITONITIS: RECOVERY.

By GEORGE E. WHERRY, M.B.Cantab., F.R.C.S.,
Surgeon to Addenbrooke's Hospital, Cambridge.

A FINE young woman, aged 19, consulted a Cambridge chemist named Ransome, and his wife, a professed midwife, and took medicines with intent to produce abortion, but without the desired effect. On Sunday, December 5th, 1880, she was induced by the Ransomes to submit to an operation at the hands of a man named Lepper, who came from London. After payment of £10, he passed up "a silver hook", which "hurt her very much", and blood came away. No witnesses were present. Another similar operation was performed a few hours later, causing great pain, and some loss of blood. On both occasions, she walked a distance of more than a mile to the chemist's shop where the operation was performed.

On the following day, December 6th, I saw her. She had great pain in the abdomen, which was very tender and tympanitic; constant vomiting and retching; pulse 120; temperature 102.5°; with other signs of peritonitis. The os uteri was small, within easy reach of the finger. Blood passed in small quantities.

On December 7th, the symptoms were very urgent, and Professor Humphry saw the case with me. In the evening, parts of a fœtus passed from her, consisting of the extremities and trunk; the head came away an hour or so afterwards. There was no decomposition; the skin was rosy and firm. The legs were separated from the trunk and upper extremities, and the head severed from the body. The fœtus was about three months old; the head was large; there were indications of the eyelids; the membrana pupillaris was visible; the mouth was open, showing the tongue. The toes and fingers were nearly separate; nails were commencing. The cartilaginous arches of the upper dorsal vertebræ were closed.

On December 8th, there was no improvement in her condition. Vomiting and retching continued as before. Pulse 124; temperature 100.5°. Dr. Humphry again saw her, and removed the placenta.

December 9th. Pain was very severe. Vomiting and retching continued. The abdomen was tender and tympanitic. Pulse 120; temperature 101.5°. She had great pain in the right elbow and forearm.

December 11th. She was so very ill that, by my advice, her depositions were taken by the magistrates.

December 14th. The symptoms had continued, without any improvement. A red flush, like erysipelas, appeared about the umbilical scar of the swollen abdomen.

December 15th. She kept down a little milk and port wine. The redness was spreading over the abdomen.

December 16th. The symptoms were as before; hiccough was troublesome; loose stools, with very foul smell, passed from her. There was rather less distension of the abdomen.

December 18th. She was still very ill, and suffering as before. She had rapid breathing, cough, and expectoration; there were *râles* at both bases of the lungs, and slight dulness.

The symptoms continued until the end of December, with the addition of pelvic pains, tenderness over the uterus, and dulness on percussion. The stools were still very foul. She then began slowly to mend, and, in spite of one or two relapses, was able to leave her bed eight weeks after the operation, and can now walk slowly. In relapses, a large quantity of matter and blood passed from the uterus. The treatment consisted in the diet of milk and beef-tea, port wine, milk, and soda water ice. Opium was not kept down, and did not relieve. Morphia injections were used with the best effect, and the patient was under the influence of morphia for more than five weeks. Diarrhœa, with foul-smelling stools, occurred now and then. Constipation was relieved by injections, and, later on, by castor-oil and tincture of belladonna.

REMARKS.—This is of some interest as a medico-legal case. The fœtus having been cut up into pieces *in utero* at such a period of pregnancy is extraordinary. The symptoms which followed are best explained by supposing that the instrument used perforated the uterine wall, and so caused peritonitis. The girl was unable to appear when the prisoners were brought up for trial; and, in consequence of some legal flaw, the depositions of the patient herself were not admissible as evidence, and the case rested on the medical opinion that nothing but instrumental interference could have cut up the healthy fœtus in the uterus. Lepper and the Ransomes were convicted, and each sentenced to five years' penal servitude.

CLINICAL MEMORANDA.

CONGESTION OF THE LUNGS IN SUNSTROKE.

MUCH discussion has taken place concerning congestion of the lungs in sunstroke, and different views are entertained as to its cause. It appears to me, however, that the cause of this phenomenon, in the cerebro-spinal variety of sunstroke, is sufficiently evident.

When we carefully consider the symptoms and *post mortem* appearances, I believe we can have no doubt that congestion of the lungs results from paralysis of the pneumogastric nerves, at the same time that there is irritation of the sympathetic; and, moreover, that death is in a great measure due to these lesions. The symptoms that point to this are occipital headache, difficulty of deglutition, oppressed and laboured breathing, tumultuous action of the heart, rapid full pulse, and nausea with endeavours to vomit. On *post mortem* examination, the heart is found rigid and firmly contracted; the arteries are empty, while the venous system is overloaded; and the lungs are gorged with blood, and more or less œdematous.

Now, if we contrast these with the symptoms and *post mortem* appearances where division of the pneumogastric nerves has existed, we will at once see a striking analogy between them. Thus, in cases where the pneumogastric nerves have been divided, the symptoms are exactly similar to those above stated. There is the same difficulty of deglutition; the respiration is laboured and oppressed; the heart's action is violent and spasmodic; while nausea and fruitless efforts to vomit are also present. After death, we find the same striking resemblance in the appearances seen in both cases. The heart is contracted and rigid; the arterial system is empty, while the venous is distended. The lungs also are engorged, and the small bronchi choked with mucus.

The probability of the symptoms above detailed being due to paralysis of the pneumogastrics, is further increased by the fact that the sun exerts its principal influence on the medulla oblongata, and that, in these cases, there is always more or less evidence of paralysis of the other nerves arising from this part of the brain. Death is, I believe, in a great measure due to the same cause; though of course the fatal result is hastened by the injurious effects on the general system of an exceedingly high temperature.

Under these circumstances, would it not be advisable, in severe cases of sunstroke of the cerebro-spinal variety, to try stimulation of the pneumogastric nerves by electricity?

G. HARRISON YOUNGE, L.K.Q.C.P.I., etc.,
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HÆMOPTYSIS REMOVED BY MENSTRUATION.

HIPPOCRATES (*Aph.* v, 32) says, "Hæmoptysis in a woman is removed by an eruption of the menses". Illustrations of the truth of this aphorism are not common, but the following appears to be a case in point. Catharine T., aged 24, widow, was admitted as an out-patient at the General Hospital on March 24th last, complaining of bringing up bright red frothy blood. She first spat blood two years ago, after carrying a heavy trunk, when it lasted a week. It came on again last spring, and lasted a week. Just before Christmas, she spat a great deal of blood, and, since that time, it had come on every month for a week before menstruation, and had stopped at the establishment of that flow. Menstruation had lasted only two days, and had been scanty. She had a slight cough in the morning, but no expectoration except blood; no dyspnœa, pain, wasting, or sweating. The tongue was clean; the appetite good; the bowels open; she slept well. The heart-sounds were normal. There were some slight flattening, and diminution of the breath-sounds at the right apex. Under the use of ergot, the hæmoptysis has not recurred.

ROBERT SAUNDBY, M.D.Edin., M.R.C.P.Lond., Birmingham.

THERAPEUTIC MEMORANDA.

IODOFORM IN SKIN-DISEASES.

IT is satisfactory to find that my proposal to employ iodoform as an efficient remedy in some skin-diseases other than those due to syphilis, is confirmed by two observers so competent as Dr. Radcliffe Crocker and Mr. Rickman Godlee. I take it that the sum of my communication and of Dr. Crocker's reply to it comes to this: namely, that iodoform employed as ointment, or, as I myself prefer it, as "glycerole", is an efficient application to moist purifluent raw surfaces, such as present themselves in confluent impetigo; and that, when the purulent discharge has, by means of this application, become serous, then iodoform has done its duty by advancing the diseased condition through an important stage towards recovery, and ceases to have that special efficacy as to further stages of recovery, which it exhibits in carrying the morbid surface rapidly through its suppurating stage. If this be so, my communication to the JOURNAL has been the means of establishing an important gain to cutaneous therapeutics, since it is not too much to say that, hitherto, it has been found a remarkably difficult matter, in a preponderating majority of the cases of confluent impetigo, to induce, at will, a rapid involution of the suppurating stage of that disease.

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BELLADONNA IN THE SICKNESS OF PREGNANCY.

SEVERAL severe cases of sickness having lately been under my care which had resisted all the usual remedies, it occurred to me to employ belladonna in repeated small doses. The results hitherto have been most encouraging; and I am able to promise relief with an amount of confidence which could not be justified by the usual effects of bismuth, bromide of potassium, etc., in my hands.

Mrs. F. had suffered terribly in her first pregnancy; constant vomiting had reduced her to a skeleton; and the most serious results were feared. I proposed Copeman's method, but, in consultation, this was decided against; and in this miserable condition she was carried on to full time by nutrient enemata. After a tedious convalescence, she became pregnant again, and came to me in great distress, sickness having at once begun. The usual treatment again failed; I therefore gave her two minims of tincture of belladonna in a drachm of water every hour. The same day she was better, and has had no return which does not at once yield to the same treatment.

Mrs. S. had suffered much during two previous pregnancies. When called to see her during her third pregnancy, I ordered the same as in the last case, and was much disappointed, on my next visit, to find she was no better. The medicine, instead of allaying, only made the sickness worse. I asked to see the bottle, and found that the chemist, in the village near where she lived, had dispensed syrup instead of water, probably owing to my indistinct writing. When this was corrected, the relief was immediate.

In Miss L., severe sickness, coincident with an attack of acute ovaritis, was followed by general peritonitis. Several days' incessant retching had reduced the patient so greatly, that collapse was hourly expected. Five minims of the tincture in water were given every hour until six doses. On my next visit, she had only vomited once; and this symptom never returned. I should say, however, that the acute peritoneal symptoms disappeared at the same time, the ovaritis still remaining.

I do not know whether the drug has been used in this way, in repeated doses at short intervals. My experience of it in this has been most gratifying; and I would be glad to hear if it has been so successful in other hands.

W. MACFIE CAMPBELL, M.D., Princes Gate, Liverpool.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

CHARING CROSS HOSPITAL.

TWO CASES OF POPLITEAL ANEURYSM TREATED BY LIGATURE OF THE SUPERFICIAL FEMORAL ARTERY.

(Under the care of Mr. BELLAMY.)

FOR the use of the notes of these cases we are indebted to Mr. H. WHITEHEAD, F.R.C.S.

CASE I. *Double Popliteal Aneurysm: one Vessel tied with the Ox-Aorta Ligature, the second with the Chromicised Catgut Ligature: Recovery in both Instances.*—John K., aged 29, was admitted on February 1st, 1881. He had served in the Guards for five years and a half; four years ago he left the service, and has acted as a domestic servant since. Five years ago he had a hard chancre, followed in about seven months by a roseolous eruption. Five years ago, also, he had "rheumatic fever". In October 1879, he first noticed a pulsating tumour in the left ham, and then came under Mr. Bellamy's care. The superficial femoral was tied at that time with Barwell's ox-aorta ligature; and the patient made a good recovery, being discharged from the hospital a fortnight after the operation. When readmitted on the present occasion, there was a pulsating tumour in the right popliteal space, which had all the characters of an aneurysm. He had noticed a swelling in that situation for about five months. He suffered very little pain. There was no evidence of venous obstruction. The sac of the aneurysm appeared to be considerably thickened. There did not seem to be any general atheroma of other arteries.

On February 10th, Mr. Bellamy tied the superficial femoral at the apex of Scarpa's triangle. The ligature used was the chromicised catgut ligature introduced by Mr. Lister, and fully described by him in his address to the Clinical Society (reported in these columns February 12th, 1881, p. 219). Strict antiseptic precautions were observed.

On the following day, the sac of the aneurysm felt quite solid. The general body-temperature was 100°; that of the affected limb was about one degree below the normal. On February 12th, the temperature had risen to 101°; but, on removing the dressing, the wound was found to look well. The aneurysm had certainly decreased in size; the circumference of the knee being 15¼ inches, against 15¾ inches before the operation. On February 14th, the temperature had fallen to 99°; the dressings were again changed. The edges of the wound looked inflamed, and there was a rather copious thin watery discharge. The temperature and general appearance of the limb appeared quite healthy. On February 21st, the wound looked well. The temperature had been normal since the 15th. A simple carbolic dressing was used. On March 1st, the wound was entirely healed, with the exception of one inch in the centre; here there was a cavity which led down nearly to the artery. On March 12th, the wound remained in much the same state. On March 14th, the patient left the hospital unexpectedly.

CASE II. *Deligation with the Ox-Aorta Ligature.*—William G., aged 50, a carpenter by trade, was admitted on March 28th, 1881. He described himself to be a healthy and steady man. When nineteen, he had two sores on the penis, apparently soft sores. No history of constitutional syphilis could be elicited. About nine months before admission, in lowering a long ladder, the weight came suddenly on his right shoulder. For several days he was stiff, and movement was painful. A few days later, he found a little lump in his ham, "as big as a nut". Since that time it had grown steadily larger, and four months later he first noticed pulsation in it. On admission, a pulsating swelling about the size of a racket-ball was found in the right popliteal space. The sac could be emptied, and the tissues over it seemed to be healthy. The patient did not appear to be in very robust health. He was rather pallid; there was a slight arcus senilis; and the arteries were thought to be generally atheromatous.

Esmarch's method was first resorted to, but without success. On April 9th, therefore, Mr. Bellamy tied the superficial femoral artery. On tightening up the ligature, an ooze of arterial blood was seen coming from the seat of ligature. Possibly the broad ligature had been tied too tight, or was not sufficiently soaked, so as to be quite flaccid, and some "kink" had cut the vessel. This being the condition, Mr. Bellamy immediately tied above and below the original seat of ligature, but did not divide the vessel between according to the usual principles; the strict antiseptic precautions taken, and the nature of the tissue used as ligature, in his opinion, rendering such a proceeding unnecessary.

On April 11th, his condition was very good. All pulsation in the sac had ceased; and the temperature of the limb was but little, if at all, below that of its fellow. He continued to improve, and on April 25th he was allowed to leave his bed. The wound had then healed, except at the upper part. On May 4th, about a drachm of dark-coloured blood oozed from the wound; but the hæmorrhage did not recur. On May 9th, he was discharged. The tumour itself was well consolidated. At the upper part of the wound there was still a small sinus. (This has since healed.)

REMARKS.—Were the various opinions which have been held as to the treatment of the aneurysms of distal arteries to be arranged in chronological order, they would afford a curious instance of the fluctuations of surgical opinion. "The Arabians", says the elder Bell, "in their operations for aneurysms, first tied their ligatures, and then cut across the artery"; and in the delightful essay from which we make the above quotation—an essay remarkable alike for the lucidity of its style and the keenness of its satire—he attacks the doctrines held at the end of the last century. He ridicules the various ingenious devices—the split quill, the "serre-artère", the roll of lead—which had been devised for making a graduated pressure on the artery. "In proportion", he writes, "to the surgeon's ingenuity has been the patient's danger." He advocated a return to the Arabian practice of double ligature and severance of the artery; and in this he coincided with the opinion of Abernethy. Though surgeons did not long continue to believe it to be necessary to divide the artery in this manner, it has been almost universally held that, in order to produce an efficient closure of the artery, it was proper to apply the ligature sufficiently tightly to cause the rupture of the inner and middle coats. Almost universally we say, for there was at least one illustrious dissentient. "I undertook", says Sir Charles Bell in an annotation in the edition of his brother's works published in 1826, "to prove that the inner coat of the artery need not be cut, to ensure the interruption of the blood and the full effect of the ligature. It was curious to see the sulky rejection of my proposal.....I have, in a former commentary, proved that, where an artery is injured, there coagulation of the blood will take place. But, to show that the injury committed was not of the nature supposed, I laid this coarse ligature in contact with the proper coats of the artery, without drawing it; and the effect of this foreign body lying in contact with the living membrane was sufficient to produce that change which operated its effect on the blood, caused its coagulation, and the rest was a natural consequence." Two years ago, Mr. Barwell returned to this point, and attempted "to show the advisability of leaving all the coats of arteries tied in continuity intact"; and the flat ox-aorta ligature subserves, he contends, this purpose. Admitting, for the sake of argument, that it is desirable not to cut through the inner and middle coats of the artery in tightening the ligature, it seems to us that the second case here reported throws grave doubts on the suitability of the ox-aorta ligature for this purpose. We had not the opportunity of witnessing the operation; but, from the wording of the report, Mr. Bellamy seems to have had no doubt that the "ooze of arterial blood" which was seen "coming from the seat of ligature" really proceeded from the femoral artery. In this case, therefore, *all* the coats of the artery were cut through at some one or more points by the ox-aorta ligature—an event which, occurring in the hands of so skilful a surgeon, demonstrates the truth of the apprehension very generally felt, that it will be impossible for the surgeon so to graduate the force used in tightening the ligature as to avoid rupturing the inner and middle coats.

UNIVERSITY COLLEGE HOSPITAL.

CASE OF IDIOPATHIC CYSTITIS.

(Under the care of Mr. BERKELEY HILL).

(From the notes of Mr. STANLEY BOYD, Surgical Registrar.)

CASE I.—W. N., aged 35, was admitted November 26th, 1880. Five years ago, he had gonorrhœa; since then, his health had been good. On October 26th, he caught cold. He began to have suprapubic pain and sharp pain during micturition along the urethra, most severe in the perinæum. No pain was experienced in the lumbar regions. Micturition became more and more frequent, till it took place every half-hour. Straining followed the micturition, and often, when the urine ceased to flow, a few drops of blood were passed. In this condition, he was admitted. In two days, his sufferings were less. The urine was retained sometimes for three or four hours, and the pain had diminished, though it was still considerable at the end of micturition. The stream was full, and there was less effort. The urine was acid, uniformly

tinged with blood; it contained about one-eighth pus and mucus, and about one-eighth albumen. The prostate was slightly enlarged, but very tender; there was also tenderness on pressing the belly above the pubes. From this time, the patient continued to improve, in the main, though with several relapses, until he had so far recovered on December 31st that he could be made an out-patient, and he has continued his convalescence since he left the hospital. In five days after admission, the blood had almost disappeared from the urine, while the muco-pus was much less. Two days later, the irritability of the bladder returned, the pain at the end of the penis became again severe, and the amount of blood in the urine gave it a dull crimson colour. The urine was passed every hour, and the calls were more urgent by night. It contained one-fourth albumen. The temperature was 99.2° in the forenoon. This was the highest point reached, no evening record being beyond 99.4°.

On December 10th, the desire to void urine being constant, and that which was passed being ropy, crimson, and alkaline, Mr. Hill passed a soft catheter. About one ounce of urine was drawn off, of similar character to that ejected naturally, except that it was only moderately tinged with blood, and faintly acid. The catheter was tied in, with the object of continuously draining the bladder; but the presence of the instrument caused so much pain, that it was withdrawn in a few minutes. The following night was a bad one; constant micturition of urine nearly free from blood, though loaded with mucus. The urine passed on the following morning was again crimson with blood, and was voided with much pain. This was on December 13th. Thereafter, improvement continued steadily. Spasm ceased, and the urine rapidly lost its admixture of blood. The muco-pus had nearly all disappeared by the 28th; the urine was held for four or five hours, and hardly any pain followed micturition. He was discharged on December 31st. Since his discharge, the patient has completed his recovery. When last seen (January 14th, 1881), he held his urine all night, and five or six hours by day; had lost all pain or discomfort, and the specimen of his urine was free from sediment.

MANCHESTER ROYAL INFIRMARY.

CASE OF ACUTE TRAUMATIC TETANUS, TREATED BY CHLORAL-HYDRATE: RECOVERY.

(Under the care of Mr. WHITEHEAD.)

[Reported by Mr. HENRY BOTT, House-Surgeon.]

JOHN C., aged 13, labourer, on March 4th, 1881, had his right thumb caught by a circular saw, splintering the bone of the first phalanx. He attended a neighbouring dispensary, where the surgeon attempted to save the thumb. On March 10th, he began to feel pain and stiffness in the back, especially between the shoulders, extending subsequently to the neck, chest, and abdomen. On admission to the Infirmary, on March 16th, all the above symptoms continued: the muscles of the body generally were in a condition of tonic contraction, those of the chest and abdomen being very hard; the skin of the forehead was wrinkled, and the risus sardonicus well marked; the mouth could be opened a quarter of an inch at the interval between the spasms, which came on every four to five minutes, all the symptoms being greatly aggravated, the pain being very intense; the back arched so that the trunk was raised from the bed; the jaws firmly clenched, and respiration interfered with. The thumb was amputated on the same day just above the metacarpo-phalangeal joint, and dressed antiseptically. Mr. Whitehead then ordered him chloral-hydrate and bromide of ammonium, of each twenty grains every hour, until sleep was produced; in the six following days, he had 110 doses of the drugs, administered with very few exceptions by the rectum. At the end of this period, his condition was very much improved; the spasms were less frequent and less violent; and in the intervals the mouth could be opened so that he was able to take solid food. During the treatment, the face, chest, and arms were temporarily studded with rose-coloured maculæ. The medicine was eventually given less frequently; the thumb-stump was healed on the fifth; and he was sent home quite cured on the 16th of April, exactly a month after admission.

SANITARY INSTITUTE OF GREAT BRITAIN.—At the annual meeting of the Sanitary Institute of Great Britain, held on Wednesday, May 25th—Dr. B. W. Richardson, F.R.S., in the chair—a favourable report was presented by the Council on the progress made by the Institute during the past year. Particular attention was drawn to the ordinary meetings held by the Institute for the reading of papers and discussion upon subjects relating to sanitary science. Dr. Richardson gave an interesting sketch of the formation and growth of the Institute; and the Council and officers for the ensuing year were elected, His Grace the Duke of Northumberland being President.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, MAY 4TH, 1881.

J. MATTHEWS DUNCAN, M.D., President, in the Chair.

Placenta from Triplets.—Dr. GALABIN showed, for Dr. JOHN BASSETT, the placenta from a case of triplets. On the fœtal side were attached three umbilical cords, and the remains of three sets of membranes, without any appearance of separation in the placenta.

Abnormal Attachment of Placenta.—Dr. GALABIN also showed for Dr. BASSETT a fœtus with the placenta adhering to the cerebral membranes. The vault of the skull was absent, and no brain-substance was developed. The placenta, which was previous, adhered to the cerebral membranes. These membranes contained some fluid. The child was delivered by version, and breathed for about an hour.

Pessaries of Xylonite.—Dr. MEADOWS showed pessaries made of the new material xylonite, a compound of paper and nitro-glycerine. It was more elastic than vulcanite, and could be more completely softened for moulding by boiling water.

Leiter's Temperature-Regulator.—Dr. GODSON showed a new apparatus for applying heat or cold to the surface of the body. It was known by the name of Leiter's temperature-regulator, and consisted of a coil of pliable metallic tubing, which could be adapted to different parts. A continuous stream of hot or cold water could be circulated through it. He thought it might be valuable in *post partum* hæmorrhage.

Fleshy Substance discharged from Uterus.—Dr. CLEVELAND showed a cylindrical fleshy substance, about three inches by three-quarters of an inch. It had a remarkable resemblance to a uterus, having a mouth with lips at one end, and a central canal. It was expelled with pains and slight hæmorrhage three days after delivery of a seven months' child. The lady, who had borne previously eight children, said that, in her last two labours, a similar substance, but rather larger, had been expelled on the third day.

Case of Phlegmasia Dolens with Lymphatic Varix.—Dr. MATTHEWS DUNCAN described this case. He said that he was disposed to support the view of Tilbury Fox and others, that phlegmasia dolens was due to venous and lymphatic inflammation and obstruction; and that, of these two, the lymphatic disease was the more important, being probably present in every case, while the venous disease was occasionally absent. The case of white leg occurred in the downward progress of a characteristic case of cancer of the womb. During its presence, there appeared lymphangiectasis of a part of the skin of the thigh, and this disappeared as the phlegmasia disappeared. The part visibly affected was at the upper and outer part of the anterior surface of the left thigh, and constituted an oval or triangular area, broader above than below, and of such extent as might be nearly covered by the hand. There was no pain nor tenderness. The projecting vessels covered by epidermis, having a yellowish-white tint and pearly lustre, were seen and felt; and the prick of the small point of a knife allowed a large drop of limpid lymph to immediately exude. A similar affection of the lymphatics occurred during a slight attack of phlegmasia in the right limb, which began as the disease was slowly disappearing from the left. The lymphangiectasis occurred in an area of skin mechanically weakened by being the seat of closely set, spindle-shaped, ribbon-like skin-cracks. These cracks were obscured by the lymphatic distension, and did not subsequently become again visible as skin-cracks, except in small parts. The lymphangiectasis was probably the result of general lymphatic tension in the whole limb, the special varicose lymphatics becoming so in consequence of being imperfectly supported by the weakened cracked skin. Similar phenomena were observed in the abdominal skin-cracks of pregnancy under circumstances not regarded as morbid.—Dr. PLAYFAIR said that many clinical facts proved that thrombosis of the veins was not of itself sufficient to account for the phenomena of the disease. Thus there were cases of thrombosis of the veins of the lower extremities, occurring in gouty subjects, in connection with which nothing like phlegmasia dolens was observed. Dr. Duncan's cases showed the probably intimate connection between a certain amount of septic absorption and phlegmasia, which was not uncommon in connection with cancer of the uterus. He did not think that there was ground for assuming that lymphatic obstruction had more to do with phlegmasia than venous obstruction. He had never seen any lymphangiectasis in puerperal cases, and, in some instances, thrombosis of pulmonary arteries preceded the phlegmasia.—Dr. GRAILY HEWITT thought that there was no doubt that, in typical cases of this disease, both lymphatics and veins were affected. It was known that the venous obstruction origin-

ated in coagulation in the uterine sinuses extending to the iliac trunk, and it was possible that the lymphatic thrombosis occurred in a similar way.—The PRESIDENT would not attempt to estimate precisely the comparative influence in phlegmasia of venous and of lymphatic obstruction. He would only say that, while sometimes venous obstruction was certainly absent, we could not say the same of lymphatic obstruction.

Laceration associated with Intra-uterine Fœtation: Abdominal Section.—Dr. GALABIN described the case of a patient, thirty-six years old, who was married in the spring of 1878, in the summer of that year had an abortion, and in April 1879 was delivered by forceps of a full term child. She expected her second confinement in September 1880, and engaged Mr. Thomas Duke of Rugby to attend her. During the fourth and fifth month of pregnancy, she had considerable pain and tenderness in the right side of the abdomen. Two tumours were discovered; that on the left side gave the usual evidences of fœtal life, and was clearly the pregnant uterus; over the tumour on the right side nothing could be heard by auscultation; and Mr. Duke, as well as several other medical men who examined the patient, concluded that the case was probably one of an ovarian tumour complicating pregnancy. On June 16th, symptoms of rupture suddenly occurred, followed by those of peritonitis; and the outline of the right-hand tumour was found to have disappeared. The patient's state having become very critical, the author was sent for, and reached Rugby on the evening of the 19th. He was inclined, from the history, to agree with the diagnosis of ruptured ovarian cyst, but the possibility of combined extra- and intra-uterine fœtation existing was suggested. He suggested an exploratory operation as the only chance for life, and performed this on the morning of the 20th. A large quantity of blood and clot was found in the peritoneal cavity, and an extra-uterine fœtus, contained only in its thin membranes. The placenta, attached to the back of the pregnant uterus, and posterior surface of right broad ligament, was left *in situ*, and a drainage-tube placed in the wound, entering the general peritoneal cavity. The operation was performed under carbolic spray. The patient appeared to be doing well for the first two days, and the temperature never rose above 99.8°. Labour, however, came on on the morning of the 22nd, and a child, which presented by the breech, was delivered still-born. Though there was very little hæmorrhage by the vagina, a great deal occurred through the drainage-tube. On the 23rd, the temperature was normal, but hæmorrhage still went on through the drainage-tube; and she died, apparently from loss of blood, on the 24th. The author attributed the secondary hæmorrhage to the shrinking of the uterus in the expulsion of the fœtus, and consequent further detachment of the extra-uterine placenta from its posterior wall. Both fœtuses appeared to be of about 6½ months' development, but the extra-uterine fœtus weighed only 1½, the intra-uterine 2¾ pounds. A review was appended of similar recorded cases, in all of which the extra-uterine pregnancy appeared to have been of the abdominal form, while in none of them was a complete diagnosis made while both fœtuses remained within the abdomen.—Dr. ROUTH said that it appeared that death was due to the further detachment of the placenta in labour; and he suggested that it would have been expedient to reopen the abdomen, and arrest hæmorrhage by the actual cautery. He had seen adhesions in ovariotomy, even adhesions to the liver, successfully treated by the actual cautery.—The PRESIDENT regarded uncontrollable hæmorrhage as the great difficulty in surgical interference with extra-uterine pregnancy, and this even many months after the death of the fœtus. He did not look with much hope on the actual cautery as a means of arresting this or any kind of hæmorrhage, as he had used it, and seen it used, in vain.—Dr. GALABIN said that, on account of the distance of the patient, he had not had the opportunity of deciding on the expediency of reopening the abdomen. He thought that a styptic, such as perchloride of iron, would be more effectual than the actual cautery in arresting hæmorrhage in such a case.

Midwifery in Private Practice during Forty-three Years.—Mr. GEORGE RIGDEN read a paper on this subject. He stated that 5,682 mothers were delivered of 5,751 children, viz., 2,947 males, and 2,804 females; 65 were twin cases, and there were two cases of triplets. Of the children, 5,422 presented by some part of the head, including the face, 156 presented by the breech, 89 by inferior, 84 by superior, extremities. There were 45 placental presentations included in the above; 255 children were still-born, 165 being premature, 105 had been dead some time; 259 were delivered by forceps; in two cases, craniotomy had to be performed. Previously to 1860, forceps were used only once in 222 cases, while, in the last twenty years, they were used about once in fifteen cases. The proportion of still-births was but very slightly diminished during the latter period, and the author attributed this slight advantage rather to greater experience than to the more frequent use of forceps. There were thirteen maternal deaths, viz., two from puerperal convulsions, five from peritonitis, two from heart-disease, one from fright, one from cancer of the tongue in an advanced stage, one from bronchitis, and one from scarlet fever.—Dr. EDIS thought great credit was due to Mr. Rigden for his exceedingly low maternal mortality. It was curious that the proportion of still-births did not seem to vary with the change from ergot to forceps. He believed that the timely use of forceps diminished materially both infantile and maternal mortality, especially in large cities.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 24TH, 1881.

ANDREW WHYTE BARCLAY, M.D., F.R.C.P., President, in the Chair.

THREE CASES OF HEPATOTOMY. BY LAWSON TAIT, F.R.C.S.

THIS paper contained the narration of three cases, in which the author performed operations on the liver similar to those in two cases already received by the Society. Abdominal section was performed, and the liver was found not to be adherent to the parietes in any of them; the contents of the tumours were removed, and the edges of the wounds in the liver were stitched, by continuous suture, to the edges of the wounds in the abdominal wall, and drainage-tubes were fastened in. Two of the cases were operated upon for hydatids of the liver, and the other for a large cystic abscess, enclosing a loose piece of liver-tissue, weighing about an ounce, and which had apparently been a slough. All three patients made good recoveries, and were, at the time of reading the paper, in perfect health. Mr. TAIT said that the results of his observation had been such as to lead him to prefer abdominal section to aspiration in all cases of hydatid disease of the liver.—Mr. HENRY MORRIS objected to the proposal to perform abdominal section in cases of unilocular cyst; aspiration had been found successful in a sufficient number of these cases to justify its use. He had met with two cases, in one of which he had aspirated the tumour twice, and in another for the second time; and, so far as he knew, both had done well. Aspiration should be done, in cases of unilocular cyst, before attempting abdominal section. Of course, in multilocular cysts, aspiration would be useless, and abdominal section must be performed.—Dr. HEYWOOD SMITH asked if pressure was sufficient to restrain the hæmorrhage from the liver-tissue during the operation.—Mr. HULKE said that much of the success in operations on the abdomen depended on attention to minute details. He would ask Mr. Tait how he succeeded in preventing extravasation of the contents of the cyst into the abdomen. He was persuaded that, in many cases of hydatid cyst, especially those attended with suppuration, better results would have been obtained by free opening.—Mr. TAIT said that the hæmorrhage from the liver was readily stopped by pressure; much more easily than was generally supposed. There was some difference of opinion as to the treatment of unilocular hydatids; but his own experience, and that of others, especially Australian surgeons, led him to believe that aspiration rarely succeeded in producing permanent cure. Tapping removed the fluid, but did not prevent the cyst from again secreting. The prevention of the escape of the contents of the cyst into the abdomen was principally due to the manual dexterity of his assistant, who seized the cyst with forceps and held it up—a sponge being at the same time applied to each side of the wound.

REMOVAL OF UTERINE APPENDAGES FOR THE ARREST OF UTERINE HÆMORRHAGE. BY LAWSON TAIT, F.R.C.S.

The author commenced his paper by referring to the use of the statistical method in testing the real value of operations, and specially instanced ovariotomy as one which would not have obtained the complete acceptance it had received, had not the careful statistical method of Mr. Spencer Wells shown that its results could be favourably compared with those of every other major operation in surgery. Mr. Lawson Tait wished to lay his experience, in another portion of the department of abdominal surgery, before the Society, in order to obtain its decision as a guide for the future, for himself and others. After protracted trials of drugs for the arrest of uterine hæmorrhage, he had come to the conclusion that all were absolutely without effect, save ergot and some salts of potash—the chlorate and the bromide—and these were by no means uniformly successful in giving permanent relief. In all the cases he had to relate, these drugs had been fully tried before the question of operating was discussed. He had entitled his paper "The Removal of Uterine Appendages", because his experience seemed to show that the removal of the ovaries was not a certain method of arresting menstruation; while removal of the Fallopian tubes as well seemed to be so. The author related thirty-one cases, of which four were fatal, twenty-seven recovering from the operation. A table was appended to the paper, which was a complete list of the operations and

results. The author summed up with the following conclusions, which, he considered, might be legitimately drawn from them. As far as its primary results are concerned, removal of the uterine appendages, for the arrest of intractable uterine hæmorrhage, was an operation which was quite as easily justified as any of the major operations of surgery. As far as its secondary results were yet known, it was an operation which yielded abundant encouragement for its further trial. He thought that removal of the ovaries alone was not sufficient to arrest menstruation; but that removal of both tubes and ovaries did at once arrest it. So far as some of the cases had gone, the arrest would seem to be permanent. This conclusion was quite in harmony with what was known of removal of both ovaries for large cystomata; for, in such cases, the Fallopian tubes were almost uniformly included in the drainage or ligatures. Three, at least, of the cases, and probably two others, showed that the arrest of menstruation by this means led or must lead to the atrophy of the tumour. Finally, there was some close connection, here pointed out, he believed, for the first time, between uterine myoma and its accompanying hæmorrhages, and cystic disease of the ovaries. In two of the cases, the cystic disease seemed to be the cause of the hæmorrhage, without any myoma intervening.—Dr. GRAILY HEWITT said that the paper was one of much importance, and deserved careful study. He thought, however, that Mr. Tait did not attach sufficient importance to uterine conditions having connection with the causation of the hæmorrhage; he appeared to attach much importance to the ovaries, and but little to the uterus, and to consider that the hæmorrhage could not be controlled except by removal of the ovaries. Hæmorrhages, however, were very frequent in severe cases of uterine displacement, and could be successfully treated by removing the displacement. Two classes of cases seemed to be described in the paper, and in the accompanying table: those in which there was a tumour of the uterus, and those in which there was cystic disease of the ovary. The removal of the ovaries was, no doubt, a means of arresting hæmorrhage in these cases, though he had seen recovery occur without operation. Many cases of chronic hæmorrhage had been cured by treating the uterus itself. Giving Mr. Tait all credit for the able and candid manner in which he had brought forward his cases, he still believed that a considerable number of them might have been cured without removal of the ovaries.—Dr. HEYWOOD SMITH said that it was very important to recognise the state of the ovaries before operating. In about sixteen of Mr. Tait's cases, the ovaries were stated to be cystic. Was there, in the early stage of cystic disease of the ovary, a greater tendency to uterine hæmorrhage, than in advanced stages of the disease? Mr. Tait had rightly insisted upon the importance of diagnosing the condition of the ovaries, as recognisable by the finger; the change in them was not always of size, but sometimes of hardness and of irregularity of surface. What was called "normal ovariotomy" was probably really performed in very few cases; in most, there was probably some change of structure.—Dr. HICKINBOTHAM had seen many of Mr. Tait's cases: he had at first distrusted the operation, but now recognised it as a means of arresting hæmorrhage when all other means had failed, and the life of the patient was in danger.—Mr. TAIT said that at first he doubted the value of the operation, and abandoned it for some time; and, it was not until after he had observed the failure of other remedies, that he returned to it. He regarded the objections to the removal of the ovaries as having little or no force. His experience, and that of Hegar and others, had shown that there was no real line of distinction between ovariotomy and oöphorectomy. He never used drainage-tubes in ovarian operations. The peritoneum would generally do all that was required with regard to effusions; but, if too much strain were put on it, a calomel purge would give relief.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS IN IRELAND.

WEDNESDAY, MAY 4TH, 1881.

THOMAS FITZPATRICK, M.D., in the Chair.

Aneurysm of Arch of Aorta with Consolidation of Contents of Sac, Consequent on Treatment by iodide of potassium.—Dr. GEORGE F. DUFFEY exhibited a specimen of aneurysm of the thoracic aorta, which furnished an example of the disease in a condition approaching to cure, by the coagulation of the blood within the sac of the aneurysm; such result being fairly attributable to persistent treatment with large doses of the iodide of potassium. The aneurysm was not the immediate cause of the patient's death. The subject was an army pensioner, aged 42. He was admitted into Mercer's Hospital on the 13th of March, 1880, under the care of Dr. Mason. A prominent pulsating tumour about the size of a small orange then presented itself at the right side of the manubrium sterni, extending behind the third and the second costal cartilages of the same side. The tumour was soft and elastic, and evidently contained fluid blood. There was no bruit. The heart appeared to be in every way normal. Iodide of potassium was administered in gradually increasing doses, until at last the patient was taking from 30 to 40 grains three times a day. The effects of these large doses was most satisfactory. They produced no unpleasant effects. He obtained complete relief from the pains; the tumour materially diminished in size—it became quite firm and hard to the touch; and the pulsation in it, from being forcible, elastic, and visible, was now barely perceptible. He was discharged from hospital in this satisfactory condition on 23rd July, 1880, after being under treatment therein a little over four months. An attack of bronchitis, last February, was followed by a fatal attack of pneumonia and collateral hyperæmia of the lungs early in April. The *post mortem* examination was made five hours after death. A globular false aneurysm, intimately adherent in front to the manubrium sterni and first segment of the mesosternum, sprang from the right side of the aorta, commencing abruptly two inches above the semilunar valves, at its sinus, and extending along the transverse portion of the arch to within a short distance from the orifice of the left carotid. With the exception of a channel of about the calibre of that of the aorta of an adult, the sac of the aneurysm, measuring 13 inches in circumference was filled with fibrin, deposited in a laminated manner, its cross section measuring, when quite recent, $4\frac{1}{2} \times 3\frac{3}{8}$ inches. A flattened band of fibrin, attached by a broad pedicle to the clot, floated free within the channel of the aorta. The remainder of the arch of the aorta was atheromatous, but the great vessels arising from it were not materially affected. Dr. Duffey added that he had at present at Mercer's Hospital a case of aneurysm of the aorta, which he was treating with thirty-five grain doses of iodide of potassium, and great improvement had been already produced.—The CHAIRMAN said the question was, whether it was the treatment by iodide of potassium that had the effect of consolidating the sac.—Dr. HENRY KENNEDY said it was still an open question how far it was the iodide of potassium that produced the consolidation, although no doubt it afforded relief. Mr. Tufnell's treatment under many circumstances consolidated the sac. Sir William Gull had observed that aneurysms and other tumours in the thorax, by their interference with the action of the lung, had a tendency to produce disease in the lung itself.—Dr. HAYDEN was of opinion that iodide of potassium was useful in the treatment of aneurysm to bring about consolidation of the contents of the sac; but he was by no means certain that that property was not common to all alkaline salts. They possessed the property of weakening the force of the heart, and of thereby bringing about a state of minor tension of its walls. He could not agree with Dr. Kennedy's observations as to the effect of tumours in the chest upon the lungs. In fact, he thought there was almost an incompatibility between thoracic aneurysm and ordinary chronic disease of the lungs, such as tuberculosis, chronic pleuritis, and so on. He did not include effusion into the pleura, which might be the result of the pressure of a tumour. In cases, also, where a large tumour interfered with the pulmonary circulation, under the influence of any ordinary cold, it was not at all unlikely that congestion of the lungs would take place.—Dr. FINNY said one of the first things that struck him in this case was the absence of hypertrophy of the left ventricle. It was a point not as thoroughly recognised as it ought to be, even after the teaching of Dr. Stokes, who held that aneurysm of the arch of the aorta, no matter how near to the mouth of the aorta, was not necessarily followed by eccentric hypertrophy, or by any hypertrophy of the left ventricle. Nature's method of curing aneurysm was by depositing layers of fibrin in the sac from without inwards. Of these layers the outer were the harder, and the inner, being washed by the blood, were the softer. Anything which tended towards that fibrinisation of the blood would tend towards a cure; and iodide of potassium was one of the best medicines not only for effecting this, but also for relieving the pain. Greater honour ought to be paid to Mr. Tufnell's treatment by rest. Iodide of potassium aided the rest by lowering the action of the heart, and consequently diminishing the tension of the vessels. Mr. Tufnell's treatment was inefficacious where the sac was composed partly of the walls of the ruptured vessel, and partly in bones in contact with it. Unless the wall of the vessel or some analogous membrane were in contact with the blood, fibrinisation did not take place.—Dr. DUFFEY, in reply, said that, according to his recollection of Sir William Gull's paper, the particular effect of intrathoracic tumours to which he referred, was not so much an interference with the nervous functions of which Dr. Kennedy had spoken, as with the circulation and consequent nutrition of the lungs by pressure on the bronchial arteries. It was a well recognised fact that, apart from the co-existence of valvular cardiac disease, aneurysms did not cause hypertrophy of the heart; and this might perhaps be explained by the fact, to which Dr. Reuben Harvey had called his attention, that an essential condition of all aneurysms was one of diminished vascular tension, whereas the opposite condition—viz., increased vascular tension—was the usual cause of hypertrophy of the heart.

The Use and Abuse of Respirators.—Dr. HAYDEN read a paper on this subject, in which he arrived at the following conclusions. The nasal passages are the natural channels for the introduction of air into the lungs and its expulsion therefrom; they are, by their construction and organisation, admirably adapted to serve as such, and, if judiciously employed, and in a healthy condition, are adequate for this purpose, under the varying conditions of weather and climate, unaided by artificial appliances of any kind. The mouth and fauces constitute the natural passage for aliment; they are not designed for use as air-passages, and should not be employed to supersede the nares in breathing. By their communication with the larynx they are, however, obviously designed to serve as alternative air-passages, supplementary of the nares when the latter are obstructed, or from any cause incapable of conducting air to the lungs. The use of oral respirators is based upon a misconception of the functions of the mouth in regard to respiration, and they should not be employed, because they are not only unnecessary, but positively mischievous, by the habit which they induce of breathing through the mouth. Nasal respirators may be useful, under special circumstances, to exclude dust from the air passages. Muffle-respirators may be used to protect from draughts of cold air, but the muffler alone will serve equally well for this purpose. Finally, respirators for the occasional administration of certain medicines by inhalation are often useful, and may for this purpose be either oral or nasal.—Dr. QUINLAN believed the best protection against catching cold was the practice of sluicing the whole head, face, and neck, every day with cold water. When passing from warm into cold air, it was advisable to keep the mouth closed. He thought that the putting on of an ordinary respirator was useful, because it covered the mouth, and because it reminded them not to talk to people in cold air. Nasal respirators he condemned, but he had himself experienced the advantage of wearing a respirator, under the circumstances he had mentioned. He disbelieved in mufflers.—Dr. J. W. MOORE remarked that healthy infants always breathed with the mouth closed. There was no doubt that breathing through the mouth was an acquired habit.—Dr. FINNY said he had adopted the practice of putting a small quantity of cotton-wadding up the nostrils on going from warm into cold air, and had found the greatest benefit from it.—Dr. HAYDEN, in reply, said it should not be forgotten that the act of speaking involved an act of expiration, not one of inspiration. He never breathed through the mouth, and yet he never experienced the slightest impediment in addressing his friends.

Case of Abscess of the Liver: Aspiration: Recovery.—Dr. GEORGE F. DUFFEY detailed the case of a man, aged 39, who had been invalided from the Royal Artillery for deafness in 1878, after nineteen and a half years' service, fourteen of which were passed in India. While there, he drank freely, chiefly rum; had attacks of "fever and ague" every hot season; and occasionally suffered from dysentery. He returned to England from India in December, 1873, and for the following year drank very hard. In 1875, he was for about one month in his regimental hospital, with symptoms of hepatitis. He had never felt any pain in the region of the liver until then. Since his discharge from the army, he had been employed in a cutler's establishment making wooden handles for "slash hooks". His health had been good; and his habits, he stated, moderately temperate. He denied ever having had syphilis. On admission to Mercer's Hospital, Dublin, on July 10th, 1880, the patient, like most men who had been many years in India, presented the characteristic appearance of malarial cachexia. He complained of severe pain about the epigastric region, which commenced suddenly, and without any apparent cause, as far as he knew, seven days prior to admission. The day following this sudden access of pain, he noticed that there was a slight swelling where the pain was situated. On examination, the right hypochondriac region was seen to be evidently enlarged; and a small and well-defined prominent tumour, about the size of a pigeon's egg, was observed in the epigastric region, one inch to the right of the mesial line. Pressure on this tumour, or the act of coughing, aggravated the pain. The edge of the liver—which organ extended three inches in the right mammary line below the ribs, and was extremely sensitive to the touch—could just be felt below the tumour. The latter moved with the liver on inspiration and expiration, and had a slight visible pulsation, communicated apparently to it. He was kept awake at night by the pain of the tumour, and was thirsty. He complained of a feeling of weight and heaviness in the right hypochondrium, and was unable to lie on his left side; no pain in the right shoulder-tip. The apex-beat of the heart was in the fifth intercostal space, and almost in the nipple line, the area of cardiac dulness extending outwards to a corresponding situation. No cardiac murmur was detected; pulse normal; temperature 99°; urine acid, loaded with urates, specific gravity 1025, no albumen; tongue coated; appetite poor; bowels confined; no rigors, vomiting, or jaundice; no splenic enlargement. No fluctuation was detected in the tumour; the skin over it was not discoloured or œdematous, and there was but slight tension of the rectus muscle. Six days after admission, obscure fluctuation was detected in the tumour; and on July 20th (ten days after his admission), an exploratory puncture was made with the needle of a hypodermic syringe into the most prominent portion of the swelling, the integument being first drawn downwards, and a small quantity of yellowish "laudable" pus withdrawn. He slept well that night; and, on the following day, half an ounce of similar pus was withdrawn by means of an aspirator. A very small cannula was used, and its becoming clogged prevented a larger quantity of pus from being removed. Nevertheless, the patient felt much relieved; he passed a good night without either chloral or morphia, which he previously was obliged to take to procure sleep. There was no rise of temperature after either paracentesis. The puncture in both cases was simply dressed by applying over it a piece of lint, dipped in carbolic oil, underneath a pad and bandage. Three days after the second puncture, an ounce of pus was removed by aspiration. From this time, he improved rapidly, and was discharged on August 7th, 1880.—Dr. FINNY mentioned a case, in which a hepatic abscess had been successfully tapped in the City of Dublin Hospital.—Dr. QUINLAN said a very simple plan of ascertaining whether purulent matter was hepatic or not, had been suggested by Dr. MacMunn, of Wolverhampton: namely, by spectroscopic examination.—Dr. HENRY KENNEDY detailed a case, where hydatid disease of the liver had been followed by abscess, in a woman aged 45, rupture of the abscess sac into the pleura through the diaphragm causing death.—Surgeon-Major JACKSON said that, a couple of years ago, he aspirated a man at Shorncliffe for a large abscess of the liver, but he died a couple of days afterwards. In cases of this kind, the thermometer was of very little use. Enormous deposits of pus were often formed in the liver, and scarcely any indication of it would be given by the thermometer.—Dr. DUFFEY briefly replied.

The Society adjourned until next November.

REVIEWS AND NOTICES.

A PRACTICAL TREATISE ON SURGICAL DIAGNOSIS: DESIGNED AS A MANUAL FOR PRACTITIONERS AND STUDENTS. By AMBROSE L. RANNEY, A.M., M.D., Adjunct Professor of Anatomy and late Lecturer on the Surgical Diseases of the Genito-Urinary Organs and on Minor Surgery in the Medical Department of the University of the City of New York, etc. Second edition. Enlarged and revised. W. Wood and Co., New York.

THIS is a very complete publication, chiefly of use as a work of reference. The bulk of this volume consists of the familiar double columns, where the symptoms of two diseases are placed side by side. In the diagnosis of surgical injuries, this arrangement is more fitted for the memory than a succession of heavy paragraphs, and few surgeons handle a case of injury to the hip or shoulder without associating it with the well known tables found in all surgical text-books. Dr. RANNEY increases the value of these tables by adding a list of "symptoms in common" to each of them, for the idea of the absolute difference of certain injuries and diseases is false and misleading. We regret to see terms like "morbus coxarius", when "hip-joint disease" would be far better; and would match "sacro-iliac disease", which, being rarer, would deserve a more classical appellation, if ever such a distinction were deemed necessary; we likewise object to the confusing old definitions quoted in distinction of a fracture and a dislocation. "A solution of continuity" is hackneyed and pedantic, but true; "a solution of contiguity" is ultra-pedantic, wilfully confusing, and incorrect, since not a word about a joint is introduced, and dislocated bones may touch each other to a greater extent than they do within their normal articulations. It must be remembered that these are but special, not general, errors; the style of the entire work is extremely simple, and the tables have been compiled and revised with great care. For systematic and clinical lectures, and in the library of a house-surgeon, the treatise will prove of high value; and we can cordially recommend it to all engaged in teaching or exercising practical surgery.

DONATION.—The Newcastle-on-Tyne Throat and Ear Hospital has received £100 from "A Benefactor".

RECENT FRENCH LUNACY STATISTICS.—In 1877, there were treated in the forty-six public departmental French asylums 34,142 patients, and in the national asylum at Charenton 745; in the refuges, 7,534; in the private asylums, 12,574. To these should be added 2,317 insane patients treated in the better class of private asylums. The total number of insane persons was, therefore, 57,312. There has been a continuous increase in this class since 1873, when the number was 52,478.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JUNE 4TH, 1881.

SOLDIERS' WIVES AS NURSES.

IT appears, from a meeting that took place at Woolwich on the 25th May, that an association has been formed for training and employing soldiers' wives as nurses in times of war and peace; and that the movement, which has originated with certain philanthropic ladies, is patronised by such distinguished officers as Lord Chelmsford and Sir Frederick Roberts, who attended and spoke at the meeting in question. The instruction given is on the same plan as that imparted in the classes of the ambulance association of the Order of St. John of Jerusalem; and, indeed, the leading members of the committee of this last named society also constitute part of the committee of the association for training soldiers' wives as nurses. No one can, of course, object to the aims of this new association; everyone, indeed, must sympathise with them, whether the contemplated improvement which the soldiers' wives may derive from the instruction given to them be regarded, or the intention of the promoters to benefit the sick and wounded soldiers of the army be had in view; but, when the general education and ordinary habits of life of the majority of soldiers' wives are remembered, and the nature and amount of instruction that can be given to them by the members of the society are taken into account, it becomes important to consider what amount of truth there is in the statement "that the services of women, so trained, would be invaluable in the event of war or of an epidemic breaking out in any colony in which they might be stationed". It is true that, at the meeting at Woolwich, Dr. Crookshank, secretary and examiner of the new association, is stated to have testified to the special aptitude of soldiers' wives for nursing duties; and that certificates of competency were presented by the Viscountess Strangford, who also pinned on the breast of each recipient a bronze medal bearing the words, "Certificated Military Nurse, 1881". The question is, how far these certificates can be accepted by the public and by the army authorities as guarantees that the women who have received them are, indeed, sufficiently qualified to be entrusted with the serious duties which devolve on hospital nurses, and for which "certificated nurses" may well be held to be responsible when they are placed in service on the sick and wounded. Have the military officers who joined in the meeting any notion of the amount of technical knowledge, manual dexterity, powers of observation, not to mention personal qualities, which a "trained nurse" is supposed to possess in the present day? Sir F. Roberts said, in the course of his remarks at Woolwich, according to newspaper reports, that "all the good results which had followed the arrival of Florence Nightingale and her band of nurses at Scutari were to be achieved in similar cases by the soldiers' wives". Is the gallant officer acquainted with Miss Nightingale's publications on nursing, and that lady's description of the qualifications, personal and professional, which a nurse must possess to fit her for an efficient performance of her duties?

It is in no carping spirit that we make these observations; but we feel it to be a duty to utter a word of warning on the subject, lest it may be taken for granted that the army has a large establishment of persons competent to take the position of nurses in military hospitals on the occurrence of war or epidemic disease, because it has a number of soldiers' wives certificated in the manner above described. Soldiers' wives, it must be recollected, have their own duties to perform to their husbands and families. It is well known that the wives of soldiers are not allowed to leave the country with their husbands when troops are ordered abroad in time of war. The rule is a wise one; for the presence of women with soldiers under such circumstances could only be an incumbrance and source of anxiety to the men, as well as a cause of constant difficulty to the commanding officers; while those who have children to look after, probably a large proportion of them, could not possibly do this as it ought to be done in a country where military operations were in progress. Nor is it considered advisable to send them abroad under such circumstances, with the idea that they may be temporarily accommodated at a distance from the places where hostilities are actually proceeding. Even were other difficulties overcome, such an arrangement would not only lead to a great deal of trouble to the women generally, but would certainly, in some instances, be a source of moral evil of a very objectionable character. This has been abundantly proved on occasions when war has broken out unexpectedly in foreign countries; as, for example, in India during the Sepoy mutiny, where the wives and families of the soldiers had unavoidably to be separated and collected in places remote from the theatre of warfare, and, for purposes of protection and convenience of access to markets, were placed near large towns. If, then, for all these reasons, the wives have to be detained in England when regiments are sent on active service in time of war, how could they be rendered available for attendance on the wounded, supposing them to be fit for the charge? Under the ordinary circumstances of foreign service in time of peace, a certain proportion of the wives of married soldiers accompany their husbands; and they are very useful in performing such extra work as washing, which they can do without neglecting the legitimate duties of cooking for their husbands and children, and other household matters. It could very rarely happen that any of these women would be sufficiently free from other concerns, for them to undertake a regular engagement as hospital nurses.

Under the special conditions in which military hospitals are usually placed, the existing subordinate medical establishment of the army, consisting of a hospital corps of men specially trained for hospital service, and for ministering to the sick and wounded under the directions of the army medical officers, appears to be far the most suitable, because the most to be depended upon under every variety of circumstance in which troops are liable to be placed, and, at the same time, the most in accord with all military organisation. We have recently called attention to the noble self-sacrificing manner in which these men have devoted themselves to the wounded in the field, and the efficient way in which they have performed their duties afterwards in the hospitals. It is well known, too, that there is in the Army Medical Department an establishment of female nurses, comprising persons of education who have, previously to entering the military service, undergone a year's practical training in such institutions as the Nightingale nursing institution at St. Thomas's Hospital or other similar training establishments. Some of these ladies are now serving in the general hospitals in South Africa, and, from their thorough education as nurses, are, beyond doubt, of inestimable value in affording the assistance which they are specially competent to bestow on the patients in such hospitals, many of whom are always in states of extreme debility from the effects of long-continued sickness and wounds for which they have been treated in their early stages in the hospitals moving with the troops or in places near them. From every point of view, therefore, the arrangements already existing in the military service for affording medical aid to the sick and wounded appear to be the best calculated for the purpose; and it is obviously wiser to devote attention to its development, and to improving it where improvement is required, than to try to introduce a new element of nursing, which, for the reasons we have stated, is neither likely to be serviceable in itself, nor even available for use in the time of greatest need.

THE INDIAN MEDICAL SERVICE.

In our issue of April 16th, we referred to the serious injury which has been inflicted upon the senior officers by the late reorganisation of the Indian Medical Service. We pointed out that certain surgeons-major who, under their old covenant, usually obtained their promotion to the rank of deputy surgeon-general in about twenty-six years, cannot secure it under the new *régime* until they have completed twenty-nine or thirty years' service. We revert to the subject, with a view to emphasise the importance of such a violent alteration of the terms of the service, the immediate effect of which is to postpone promotion to the extent of three or four years. This may be regarded as the measure of the calamity which has befallen the senior officers at the top of the list of surgeons-major in Bengal; but it fails to express in adequately strong language the amount of injustice which must overtake the unfortunate victims lower down the list. Indeed, it is more than probable that, owing to the co-operation of the existing system of supersessions and the fifty-five or fifty-eight years' rule, many of these men will be declared ineligible for promotion. That this change in the condition of the local medical services in India represents a substantial grievance, not only in Bengal, but proportionately also in Madras and Bombay, on the part of the senior medical officers, must be manifest.

Due prominence, moreover, has not as yet been given to the prejudicial results of the General Order of March 1880, issued in the Home Department of the Government of India. Recognising the average period of service required for promotion under former regulations, this order directs that the sanitary commissioners for Bengal, North-West Provinces, Punjab, Madras, and Bombay, shall be invested with the rank of deputy surgeon-general, carrying with it a special pension on the completion of the twenty-sixth year of service. If, as has been stated, promotion is now delayed on the military side till after twenty-nine or thirty years' service, it must be plain that every one of these sanitary commissioners will of necessity supersede all their seniors of twenty-seven, twenty-eight, twenty-nine, and, it may be, of thirty years' service, amounting, in Bengal, to about thirty officers. In truth, some of these lucky sanitators will have finished their quinquennium of duty in the rank of deputy surgeon-general, before their aggrieved seniors at the lower end of the list can possibly have entered upon more than the initial stage of promotion. Of the flagrant injustice of an order involving such an infringement of the rights and privileges guaranteed by Act of Parliament, there can be no difference of opinion. We venture, therefore, to recommend, equally in the interests of those gentlemen who are suffering under grievous wrongs and of justice and fair play, the case of the superseded surgeons-major of the three Presidencies to the equitable consideration of the Government they have served so well and so long. That they cannot be otherwise than discontented with the hard conditions under which they have been recently placed is beyond all question. Is it wise or expedient to detain them—smarting, as they are known to be, under a keen sense of humiliation and injustice—in a service so changed that their reasonable hopes and expectations (grounded on their original covenants with Government) of preferment in it have been materially damaged or altogether destroyed? We think not; and, so thinking, would respectfully suggest that their exodus from the department should be facilitated on fair and liberal terms. Government has the unquestionable right to make what arrangements it likes for the benefit and good of the public service; but we hold that, in doing so, equity and ordinary fair dealing demand that its present servants should not suffer. It was in accordance with this principle that Government treated the senior officers of the old line regiments and artillery. Is it asking too much to urge that analogous measures may be meted out to the aforesaid aggrieved officers? Any actuary with the facts before him would be able to furnish the authorities with a scale for the compensation of the senior officers affected. This might assume the shape of a bonus or an increased pension, the option of accepting the same being left to the discretion of the gentlemen concerned.

The new pension scheme does not, so far as we can judge, touch upon the case of the superseded officers. It does not seem to be much, if, indeed, any, better than that of the Army Medical Department. This is not very encouraging to a large body of gentlemen whose career is all tropical or Indian. It entirely ignores the very unfortunate position of those officers whose promotion has been retarded or virtually prevented, and who have been heartlessly superseded, although their rights and privileges were guaranteed by Parliament in the famous and celebrated "Henley clause". The limit of time at which a sanitary officer has been allowed to attain the rank of deputy surgeon-general has been fixed at twenty-six years. This might probably be made the basis or point of departure in calculating the loss which each of the injured officers has sustained through the postponement of his promotion, and in fixing the rate of compensation to recoup him for the same. As liberal compensation was granted to the senior officers of the old line regiments and artillery, the equity of our proposal cannot be disputed. We trust, therefore, that the Secretary of State and the Viceroy will be pleased to take such steps as to them may appear fair and honourable, with a view to redress the grievance which we have exposed in its true colours.

THE EDINBURGH MEDICAL SCHOOL.

We have recently received a copy of the *Guide to Students*, 1881-82, issued by the Edinburgh Medical School, an useful pamphlet clearly displaying the methods by which students are prepared for the medical profession in the Scottish capital. The first pages are devoted to an "address" to students, including the ordinary unavoidable details, and introducing certain delicate questions familiar to us all. The compilers lament the absence, in Edinburgh, of the control which English university authorities are empowered to exercise over their undergraduates; we are informed that attempts to introduce college life and regulations have failed, owing to the inability of some students to pay the fees, and the want of bursaries to assist those who may earn such help. Residence in the houses of medical men is strongly recommended, as tending to improve the general bearing of students; and there may be valid ground for the candid avowal that "the want of that ease of manner which betokens true culture, frequently—and, we regret, often with justice—attributed to Scotch graduates, undoubtedly results from the Bohemian mode of life led by students, and which is engendered by the Scottish university system". This confession, like many other confessions, goes very far; the chief excellence of the Edinburgh system is the facility it offers for the acquirement of a degree, after a sound course of instruction and a fair series of examinations. Such a system must involve certain disadvantages; but these are more than counterbalanced by the real value of the degree, to gain which the most polished English students are not ashamed to cross the Tweed. In contrast to the Caledonian system, with its good curriculum and its unobstructive regulations, have we, after all, in England, methods of medical education so very superior? One ancient foundation has no medical school, and less than one hundred graduates; a newer university, with its tedious regulations and its overdone standard of excellence, is non-resident, like its Edinburgh sister, leaving its undergraduates at large in a capital which teems with innumerable deteriorating influences. We say nothing against the good work done by any of these institutions, we merely indicate the evils inherent in each of them respectively; and, in this matter, Edinburgh authorities need not feel, relatively, ashamed of themselves. Will new regulations manufacture "perfect gentlemen"? Let us dismiss at once this question, which, after all, is of secondary importance.

In the remainder of the address, we find little to arrest attention beside the recommendation that students should begin their studies in summer. Apart from the local advantages of this arrangement, it is highly advantageous that the student should be able to step into the dissecting-room on the 1st of October, ready at once to dissect or to work at his bones, and not dazed by the novelty of his surroundings, as

will be the case, to his loss, if he have not had several months' knowledge of medical life beforehand. Summer session work is not so much affected in this manner, and it is a great advantage to gain a fair knowledge of chemistry and botany as early as possible.

Perhaps the most useful part of the Guide is that which defines what is meant by the Edinburgh Medical School. The aspirant for a Scotch degree, and the qualified medical man, educated elsewhere, but desirous of knowing the true significance of qualifications gained in Edinburgh, both ought to bear in mind that there are a School of Medicine and an University, the former dating from 1505, the latter not possessing a true faculty of medicine till 1720. The Guide extols the advantages resulting from the rivalry of the university and the older school; "and the effects of this rivalry react healthily on the other Scottish universities". It is the union of the two bodies that constitutes the "Edinburgh School of Medicine". As this term is also applied to the older school occasionally, the Southron may be excused for feeling a little confused on the subject, but the faithful study of other pages of the Guide will do much to enlighten him.

The remainder of the Guide bears, of necessity, a strong family resemblance to other prospectuses and calendars of educational foundations. The incorporation of an university tailor's advertisement in the body of the book, opposite the regulations for "Graduation and Academic Costume", would hardly be found in homologous publications issued this side of the Tweed, and reminds us of a practice, nearly as offensive, which disfigures many shilling magazines published in London; but their advertisements are merely interpolated between two pages of text, and have not any portion of the text printed behind them.

As for the merits of the Edinburgh School, they speak for themselves, and in absence of petty parochial ideas in the choice of new men to fill vacant chairs, the Scotch authorities have been second to none, as the most recent election, among others, can testify.

THE BROAD LIGAMENT AND PELVIC CELLULITIS.

THE anatomical and pathological relations of the broad ligament to the cellular tissue of the pelvis have recently been occupying the attention of several distinguished French authorities. The internal female organs lie very conspicuously in the pelvic cavity, and are so characteristic in outline as to be fairly familiar to every student. Much has been written on the nature of pelvic cellulitis and pelvic peritonitis by the greatest authorities on the diseases of women, and it is easy to beg the question, and to accept the doctrine, not as yet entirely discarded, that injuries and diseases of the vagina and uterus may set up forms of inflammation in the cellular tissue of the broad ligament, ending in the formation of an abscess within that structure. The layers of this ligament, closely applied to each other between the Fallopian tube and the ovary, diverge widely below the ovary; and the anterior continues forwards, to form the serous investment of the bladder, the posterior passing backwards as the peritoneum forming Douglas's pouch. It is a common idea that the pelvic cellular tissue fills up the lower part of the broad ligament, where the peritoneal layers are diverging towards the bladder and rectum, and, passing upwards, forms a thin but distinct stratum of cellular tissue between the folds of the ligament as far as to its very uppermost limit below, or rather around, the Fallopian tube. If this were really the case, the formation of abscess between the folds of the broad ligament would be of very frequent occurrence in pelvic cellulitis.

The presence of a distinct layer of cellular tissue in the interior of the ligament is, indeed, taught by the authors of one of the best and most widely studied French text-books; for in Cruveilhier and Sée's *Traité d'Anatomie*, it is written: "The broad ligaments are formed by two peritoneal folds and by an intermediate layer of cellular tissue, through which pass the numerous vessels and nerves supplying the uterus and ovary, as well as a quantity of muscular fibres derived from the uterus." Whatever may have been the views of past authorities on the anatomy of the ligament, they almost universally admitted the frequency of abscess within it. Dr. Matthews Duncan has shown, in his work *On Perimetritis and Parametritis*, that such a condition is "very far from being common". The error, he believes, arose from the frequency of the presence of pus within the veins and lymphatics of the ligament, in fatal cases of puerperal fever. At necropsies, these purulent collections were taken for circumscribed abscesses.

MM. A. Guérin and Lebec have recently made the broad ligament an object of special study, and the fruits of their researches will be found in the *Gazette Hebdomadaire de Médecine et de Chirurgie*, April 15th. They insist on the selection of perfectly normal adult bodies for the dissection of these parts, subjects not easy to obtain; for slight attacks of adhesive inflammation in the parts around the internal organs are very common. In detaching the peritoneum from the bony walls of the true pelvis, a layer of cellular tissue is pulled up with it; this layer, almost as aponeurotic as the pelvic fascia itself, they call the fascia propria. This layer seals up hermetically the outer extremity of the broad ligament, which lies entirely below the fimbriæ of the Fallopian tube and the ovary. Another layer of dense cellular tissue is given off horizontally from the fascia propria, and forms a complete floor to the broad ligament. Hence the interior of this ligament is bounded by the uterus internally, by the tube above, and by the fascia propria below and antero-externally. The amount of cellular tissue between the layers of the ligament is very small, and cannot be said to constitute a "layer". By carefully scratching a hole in the anterior layer of the ligament, a few grammes of coloured fluid or tallow may be injected between the layers, care being taken to stop the injection the moment that slight resistance is felt, otherwise the material will force itself under the peritoneum to an indefinite extent. When properly injected, the real cavity of the broad ligament, thus produced, measures a little over an inch vertically, somewhat less laterally, and not quite half an inch antero-posteriorly. Its boundaries will be those given above as bounding the broad ligament, except that it does not extend so high as the tube; and it will be found to be cut off from the walls and the lower part of the pelvic cavity by the fascia propria. Now, a parametric phlegmon, long held to be entirely situated between the layers of the ligament, forms a mass far bulkier than the cubic capacity of the cavity of the ligament.

It might, however, according to older theories, be believed that abscess could actually begin between the layers of the broad ligament, and readily extend lower and lower into the pelvic cellular tissue below. Guérin and Lebec deny that this extension of suppuration can occur, as the horizontal layer of their fascia propria seals up the lower limits of the ligament. The development and extension of inflammatory deposit in the pelvic cellular tissue must be traced to their sources; in short, to the lymphatic vessels.

The lymphatics of the vagina empty into larger vessels, which join each other at the level of the superior *cul-de-sac*—the level, in fact, of the body and the cervix of the uterus. Under the cervical mucous membrane is a very dense lymphatic plexus, which communicates with the large vessels of the upper part of the vagina. From these united vessels, one or two large trunks pass outwards towards the pelvic walls, running along the base of the broad ligament, but entirely below it, and therefore separated from its cavity by the impermeable flooring of fascia propria. The trunk-lymphatics ultimately empty themselves either into one single gland, or else, more commonly, into a series of glands situated on the inner aspect of the ischium, close to the obturator foramen. From thence, lymphatic vessels ascend behind the pubes, and directly communicate, at the level of Poupart's ligament, with vessels from the thigh. They then ascend, in front of the peritoneum and behind the rectus and its sheath, and follow the epigastric vessels upwards. The lymphatics of the body of the uterus, on the other hand, actually pass between the layers of the broad ligament on their way to the lumbar glands, but they pass in its very uppermost part, quite above its cavity.

The course of the lymphatic vessels from the vagina and cervix explains certain symptoms frequent in pelvic inflammation, symptoms which cannot be logically referred to abscess in the broad ligament,

but which represent what M. Guérin terms *adéno-phlegmon juxta-pubien*. Postpubic lymphangitis will sound a trifle less objectionable to British ears; but rather let us banish such terms, and say that, according to M. Guérin, pelvic cellulitis (evidently the same thing) begins as lymphangitis, produced by any severe irritation to the vagina or cervix; then the large lymphatic trunks below the broad ligament become involved; the gland or glands close to the obturator foramen enlarge, and may be detected on digital examination by the vagina; and the inflammation may extend to behind Poupart's ligament, or even form a hard mass palpable through the rectus, and following, from the groin upwards, the course of the epigastric arteries, as in a case described by M. Rigal. When the morbid process extends, the tissue round the lymphatics may become indefinitely involved, and abscess form at any point along the track above described. This condition represents the "parametritis anterior" of some authors. Hence the ill-defined extensive hardenings and the scattered collections of pus frequent in pelvic cellulitis. In short, says M. Lebec, the anatomy of the lymphatics of this part thoroughly explains the clinical symptoms of pelvic cellulitis. The structure of the broad ligament proves how rarely this affection can start from that appendage of the uterus; so that we may say, with M. A. Guérin, that the clinical symptoms of abscess situated actually and primarily between the layers of the broad ligament have yet to be discovered.

It is stated that the Local Government Board will probably consent to the erection of tents for small-pox patients in the neighbourhood o Finchley.

The opening of the new wing of the Royal Hospital for Incurables by the Duke of Connaught, originally fixed for the 9th July, has been altered to the 16th.

Consul-General Plowden has forwarded a telegram from Bagdad, dated May 26th, in which he says, "the increase of plague at Nejef continues. There are no fresh outbreaks in new localities. Bagdad and Busreh are clean."

The Rev. Professor Haughton addressed, last week, a short sermon to students of medicine in the Chapel of Gonville and Caius College, Cambridge, on the death of Christ considered physiologically. The sermon s published in the *Church of England Pulpit* of Saturday, May 28th.

On the occasion of the celebration of Her Majesty's birthday, the Queen was pleased to make Dr. Halliday Macartney an ordinary member of the third class, or Companion of the Most Distinguished Order of St. Michael and St. George. Dr. Macartney is well known as the English secretary to the Chinese Legation.

The following is the subject for the Jacksonian Prize of the Royal College of Surgeons of England for the ensuing year; viz., Wounds and other Injuries of Nerves; their Symptoms, Pathology, and Treatment. For the present year, it is the Pathology and Surgical Treatment of Diseases of the Hip-Joint.

We regret to learn that Dr. Heschl, the Professor of Pathological Anatomy in the University of Vienna, died on May 27th, in the fifty-seventh year of his age. The cause of death was an affection of the lungs, from which he had suffered during several months. Dr. Heschl succeeded the celebrated Rokitansky in the professorship a few years ago.

The Army Medical Service in France has just lost one of its oldest members, Dr. Guillon. He was born in January 1793. He commenced his military career at the age of nineteen years as an assistant-surgeon of the 17th regiment of Lancers, and, with this regiment, went through the campaigns of 1812, 1813, and 1814. He died at Paris on May 17th, in the eighty-ninth year of his age.

The prevalent report that scarlet fever is "raging" in Leicester is unfounded. There were, however, we learn, twenty-one fresh cases reported in the week ending May 28th, against seven cases reported in the corresponding week in March. The subject is receiving the attention of the sanitary authorities, who, under the existing system of notification of cases of infectious disease under the local Act, are in a good position for ascertaining the facts.

The Royal Commission on the Medical Acts met on Friday, Saturday, and Monday, at 2, Victoria Street, Westminster. There were present the Earl of Camperdown (chairman), the Right. Hon. W. H. F. Cogan, the Master of the Rolls, Sir William Jenner, Mr. Simon, C.B., Professor Huxley, Dr. M'Donnell, Professor Turner, Mr. Bryce, M.P., and Mr. John White, secretary. The evidence of Dr. Acland, Sir James Paget, and Mr. Erichsen was taken.

The French Minister of War, General Farre, has nominated Médecin-Principal of the 1st Class Dr. C. Gaujot, Professor of Clinical Surgery in the military medical school of the Val-de-Grâce; and Médecin-Principal of the 2nd Class Dr. F. Poncet, one of the staff of the St. Martin Hospital at Paris, to represent the French Army Medical Service at the International Medical Congress of London in August next.

A statue of Inspector-General Dr. Baudens, of the French Army Medical Service, has just been erected at Aire (Pas-de-Calais), where this distinguished surgeon was born. The name of Dr. Baudens is familiar to English army surgeons, not only on account of his various writings on military surgery, but also from the prominent position he held in the French service during the Crimean war. He died in December 1857, and shortly afterwards appeared his well-known posthumous work, *La Guerre de Crimée, etc.*

The attention of practitioners should be directed to the official advertisement of the Registrar of the General Medical Council, as to the necessity of every medical man, when changing his residence, sending to the Registrar by whom he was originally registered, immediate notice of the change in his address, in order that his correct address may be duly inserted in the *Medical Register*. Otherwise, he is liable to have his name erased from the *Register*, and thus to lose the right to hold public appointments, sign valid certificates, or recover charges in courts of law.

We understand that Mr. Reginald Harrison of Liverpool has consented to become a candidate for the Council of the College of Surgeons at the ensuing election. Mr. Harrison was announced as a candidate last year, in obedience to the request of a very large number of Fellows of the College. Under circumstances which will be remembered, and to avoid compromising the success of Mr. Cadge, the senior provincial Fellow among the candidates last year, Mr. Harrison withdrew; but, in justice to the large number of Fellows who signed the requisition, Mr. Harrison's candidature this year follows in natural sequence.

Dr. James R. Wood has, by a deed of gift, presented to the mayor and commonalty of the city and county of New York his collection of anatomical preparations and specimens of morbid anatomy in Bellevue Hospital, to form the foundation of a "Wood Museum" in the hospital. The collection is to be in charge of the Commissioners of Charities of New York, and is to be under the management of the donor during his life, with such advisory board as may be appointed by the commissioners; and, after his death, under that of his son, assisted by a board, consisting of at least four medical men.

INTERNATIONAL MEDICAL CONGRESS.

A list of upwards of one thousand intending members has already been prepared, and 130 medical men, including many leaders of the profession, both in London and the provinces, have paid their membership subscriptions, and inscribed their names on the Register of the Congress. Professor Maurice Raynaud, an orator of great literary

ability, the giver of the French address, has chosen for his subject, "Le Scepticisme en Médecine au Temps Passeé, et au Temps Présent". A large number of papers for the various Sections continue to flow in from home and abroad, and are undergoing translation preparatory to being published at the time of the Congress. The Committee have received a grant of £26 5s. to the general fund from the Royal College of Surgeons in Edinburgh, this raising the total sum received from the various corporate bodies to £292 15s. Very great effort has been made to induce the railway companies to reduce their fares to gentlemen proposing to attend, but without success, although our Foreign Minister, Earl Granville, addressed the ambassadors at the various European Courts on the subject. A notable exception has been made by the South-Eastern, and the London, Chatham, and Dover Companies, and the Chemin de Fer du Nord of France, who have most generously granted permission for our visitors to travel from Paris to London and back for a single fare. The Norwegian passenger-steamers from Christiania to England will carry our Scandinavian *confrères* for a single fare for the double journey.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

PROFESSOR GERALD YEO will commence his course of three lectures on the Contractile Tissues in the theatre of the Royal College of Surgeons on Monday next, the 6th instant; and will be succeeded on Monday, the 13th instant, by Professor Jonathan Hutchinson, who will deliver six lectures on the Laws of Inheritance in relation to Disease. The following is the programme of Dr. Yeo's lectures: 1. Monday, June 6th: The Phases and Varieties of a Single Contraction; 2. Wednesday, June 8th: The Summation of Contractions and Tetanus; 3. Friday, June 10th: Fatigue and Recuperation.

PROPOSED MEMORIAL OF MR. ERICHSEN.

A CIRCULAR, signed by Professors Wilson Fox, Graily Hewitt, John Marshall, and A. W. Williamson, has been recently issued, stating that the approaching completion of Mr. Erichsen's year of office, as President of the Royal College of Surgeons, appears to be a fitting occasion for endeavorring to obtain some permanent memorial of his long connection with and great services to, the School of Medicine of University College. It has been proposed, at a meeting of Mr. Erichsen's old colleagues a pupils, to invite former students of University College, and others of Mr. Erichsen's friends, to contribute to the expense of such a memorial, including a bust to be placed in University College. Subscriptions may vary from half a guinea to two guineas; and intending subscribers are desired to forward their names and intimate the amount of their subscriptions to Mr. Marcus Beck, 30, Wimpole Street, W., who has undertaken to act as Honorary Treasurer; or Mr. W. A. Meredith, 14, Old Burlington Street, W., the Honorary Secretary. Mr. Erichsen's services to surgery, and his high and excellent personal example, have been such as to extend the circle of his friends and admirers far beyond the limit of his personal pupils, and we apprehend that others than they will desire to be permitted to join in the subscription.

NATIONAL HEALTH SOCIETY.

THE series of drawing-room lectures given under the auspices of the National Health Society, at the residence of Mr. Matthews, Hertford Street, Mayfair, was concluded on the 27th May, by a lecture by Mr. H. C. Burdett, on "Hospitals Old and New; Hospital and Home Nursing." The lecturer glanced at the ancient history of hospitals, and showed that, from the earliest times, among many nations, it was recognised as a duty to provide for the suffering poor of the community. He then passed on to review hospital provision at home and abroad, and contrasted the present excellent provision of hospitals for the poor chargeable to the rates, with the provision which existed before the passing of Mr. Gathorne Hardy's Act of 1867. He pointed out the great advance which had been made as to the nursing of the Poor-law sick, for in place of the sick poor being intrusted to the care of irresponsible pauper nurses, and the sick of all classes mixed together, there were trained nurses in attendance upon the sick poor, and the sick were now properly classified. Mr. Burdett insisted upon the necessity for training nurses, and he urged that when hospital patients could pay they should be made to pay.

HOSPITAL SUNDAY.

A MEETING of the Council of the Metropolitan Hospital Sunday Fund was held at the Mansion House, on Monday last, at which the Lord Mayor, M.P., presided; and there were present, among others, Alderman Sir S. H. Waterlow, M.P.; Bishops Claughton and Beckles; Canons Harvey, Fleming, Nisbet, and Spence; Sir Rutherford Alcock; Sir J. Risdon Bennett; Major Ross, M.P.; Mr. Coope, M.P.; and Mr. H. N. Custance, the secretary. Vacant seats on the Council, caused by the death of the Rev. Dr. Punshon and the retirement of Mr. G. A. Spottiswoode, were filled by the election of the Rev. E. E. Jenkins (President of the Wesleyan Conference) and Mr. J. H. Buxton. The Lord Mayor undertook, with the Sheriffs, to attend in State at Westminster Abbey on the morning of Hospital Sunday (June 19th), and at St. Paul's in the afternoon, when Her Majesty's Judges will also be present. It was resolved unanimously: "That, having heard the statements of the deputations from the only two surgical appliance societies which responded to invitations to attend the Special Committee convened to receive them, in obedience to the resolution of the general body of constituents of this fund; but, finding that the societies represented still consider themselves compelled to encourage the system of obtaining letters, or money equivalent to letters, from patients, this Committee are of opinion that the system of the Hospital Sunday Fund for providing surgical appliances as at present in operation is preferable, and is sufficient to meet all necessitous cases. They are, therefore, not prepared to recommend any scheme which would interfere with what is at present working with so much advantage." The Secretary read the report of a special committee, convened to consider a communication from the All Saints' Convalescent Hospital, Eastbourne, to the effect that its committee wished it perfectly understood "that, in making an application for a grant from the fund this year, only ten letters of admission to the hospital can be given for each hundred guineas awarded by the Council". A resolution, by Sir Sydney Waterlow, seconded by Dr. Glover, was unanimously carried, to the effect, that the Committee of Distribution be authorised to grant an award to the hospital at Eastbourne in similar proportion to that of last year; and that for this year the hospital letters offered by the institution be accepted, in order to try and throw as few difficulties as possible in the way of what was reputed to be a well-managed hospital. A vote of thanks to the Lord Mayor for presiding closed the proceedings.

TIP-CAT.

WE are glad to see that the police are at last awakening to the dangers arising from allowing the game called tip-cat to be played in the streets, and that Mr. Barstow has fined two boys 5s. each, or in default five days' imprisonment, for playing at tip-cat in Union Street, Islington. A police-inspector stated that this game was greatly on the increase, and that during the past month a little boy had been blinded through being struck in the eye with a "cat".

THE CHELSEA HOSPITAL FOR WOMEN.

THE fancy fair to be held at the Royal Albert Hall, Kensington, in aid of the fund for completing the new building of the Chelsea Hospital for Women, on the 8th, 9th, and 10th of June, promises to be one of the most brilliant and fanciful fairs yet held in the metropolis. The new building will be transformed into the semblance of an old English village, and the stalls will be held by the flower of fashion and beauty. The fair will be held under Royal and most notable patronage. Infinite fancy, taste, and skill have been employed in introducing all the novelties which can be devised for making this fantastic and pleasant aid to charity one of the most notable social events of the season. Literature, art, and music lend their aid. Ballads have been composed; poems and essays written; and the typographical work of all

the preliminary documents has been remarked for its antiquarian exactness, and for the remarkable beauty of the printing, which is due to Messrs. Falconer of Manchester, who have developed recently quite a new branch of artistic typography, conceived in the old English taste. The object is a good one; and, with such an array of varied ability of every kind, the fair can hardly fail to be, as it promises, the most successful and most interesting of its kind yet held in London.

PRINCE LEOPOLD ON HOSPITALS AND PROVIDENT DISPENSARIES.

In his address at the annual meeting of the Charity Organisation Society, Prince Leopold very strongly referred to the need for reform of hospital administration, and in particular to the advisability of cultivating the independence of the working classes, and inducing them to adopt the principle of insurance against sickness by the institution of well arrayed provident dispensaries. He said "Our hospitals are a charity of which any nation may well be proud, but it is plain that the immense increase of population has somewhat altered the conditions under which they can be of most use. The time and attention of eminent physicians are generously placed at the service of the poor; but, unfortunately, eminent persons have no more time than persons who are not eminent, and when a million out-door patients apply at the London hospitals in one year it becomes rather a delicate arithmetical question, how many seconds can be bestowed on each of them. The hospital staffs are the consulting physicians, the operating surgeons, the trained nurses of the poor, and it is too much to expect of them, to be their family doctors and their druggists into the bargain. Provident dispensaries are the key to this problem, and I believe, I may say, that it was mainly from our society, that the movement for setting those on foot arose. It was certainly an honoured member of your society, Sir Charles Trevelyan, whose hopeful energy has been mainly instrumental in making the movement a success. I had hoped that he would have addressed us upon this subject, but he is, I regret to say, unavoidably prevented from being with us to day."

VOLUNTEER AMBULANCE DRILL.

Last week, a very interesting inspection of the volunteer ambulance drill of the 1st Hants Volunteer Engineers, was made by Surgeon-General Longmore, C.B. The training carried out by Surgeon Cæsar, on the method of Surgeon-Major Sandford Moore, was very complete; and at the close of the proceedings, Surgeon-General Longmore addressed the Bearer Company and volunteers present, in a speech in which he expressed his warm approval of the admirable manner in which the corps had been trained, and made some valuable observations on the use of a thorough and well carried out ambulance drill among the volunteers. "If the volunteer forces should," he said, "ever be called on to join with the regular forces in the serious business of war, then the advantage of having a proportion of the volunteers trained for giving the first necessary help to the wounded, and for skilfully conveying them to the appointed stations for definite treatment, will be obvious enough. Indeed, with the ideas which now happily prevail in all civilised countries, an adequate system of removing wounded soldiers from a conflict, and for administering some help to them, according to their most urgent necessities, is as essential a part of any body organised for military purposes as the fighting organisation itself. This is the special function of Bearer Companies. But even in ordinary peace manœuvres, the services of the stretcher-bearers are constantly in requisition. No body of troops can be collected for military exercises or movements without a liability to the occurrence of accidental injuries; and on every such occasion the presence among them of trained bearers may prove of vital importance to the sufferers. I would add, further, that if the volunteer ambulance organisation obtains the complete development which at present it promises to do, it may be turned to account for a still larger sphere of usefulness in peace time. Any city or town which has in its midst a body of men trained to military discipline, organised for acting together under military control, and at the same time possessing the special knowledge which is required for meeting the needs of a large number of wounded —such as a railway collision, an explosion, accidents at factories, or any other disaster, may suddenly occasion—has within reach an institution which offers the means of affording incalculable personal and public benefits, not unlike those which a highly disciplined Fire Brigade is able to afford in the particular kind of calamity which it is organised for meeting. Some may have read an account of a terrible accident which occurred in Paris a year or two ago, when some lofty houses, with people living on every storey, were suddenly brought down to the ground through an explosion. A police cordon was drawn round the ruins to prevent interruption of those who had to search for and extricate the wounded; an 'ambulance volante', or dressing station, was at once organised close to the spot—that is, a tent was put up, in which a surgeon, dressers, restoratives, and the materials requisite for rendering preliminary surgical aid, were collected; and as the injured people were got out from beneath the ruins—a work of time—they were taken directly into this ambulance tent to be attended to. After this first aid had been given, those whose condition admitted of the transit were sent, properly protected against the dangers to which the movement would otherwise have subjected them, in suitable conveyances, to the hospitals, where they would receive definite nursing and treatment. Contrast the effects of such a methodical system, with the probable aggravation of injury and suffering which would result from people in such a condition being lifted about and carried by untrained persons, and then sent off in any vehicles that might be at hand, without any suitable precautions, to a hospital situated, perhaps, a long way off from the site of the disaster." Surgeon-General Longmore added the official announcement, to which we refer in another column, on the subject of volunteer ambulance training.

CONVERSAZIONE AT ST. BARTHOLOMEW'S HOSPITAL.

On Friday, May 27th, a *conversazione* was given by the treasurer, medical officers, and lecturers of St. Bartholomew's Hospital. The Prince and Princess of Wales, attended by Lady Suffield and Lady A. Ellis, were present, and about 1,600 guests attended, including old students from every part of the kingdom. The long courtyard between the new medical school and the nearest block of hospital buildings was covered in with tarpaulin, boarded and carpeted, and the walls hung with curtains, etc., so that a spacious reception-room was thus formed. The pathways in front of the Hall block, and between that block and the West Smithfield gate were also covered in, so that the guests were entirely under cover. The Great Hall, Pharmaceutical Laboratory, and all the rooms in the new school buildings were decorated and utilised for the evening. A selection of vocal music was performed, under the direction of Mr. F. Walker, in the Anatomical Theatre, the Coldstream Guards' band played in the Museum, and Sibbold's City of London band in the "Anatomical Class-room", *i.e.*, dissecting-room. Busts, oil-paintings, and works of art, kindly lent by governors, members of the staff, etc., were exhibited in the principal rooms of the school buildings.

REVACCINATION.

A note which we publish to-day from Dr. Renner, concerning revaccination with calf-lymph, shows, in a conclusive manner, the very highly unprotected state of the adult population against small-pox, owing to the neglect of revaccination. In 81 cases in which persons had not been revaccinated since the first vaccination in infancy, 90 per cent. of the revaccination with calf-lymph proved successful; showing that, in 90 per cent. of those persons, the protection afforded during early life had worn out, and the necessary protection to be obtained by revaccination after the age of fifteen had been neglected, until the present alarm, owing to the epidemic prevalence of small-pox, had reminded them of the extreme danger of such neglect. As a matter of fact, it is essential, as a protection of the population from small-pox, that each individual should be successfully revaccinated after the age of fifteen. The rule is very simple, and the evidence overwhelming. Our soldiers, sailors, postmen, small-pox nurses, all of whom are revaccinated, enjoy an almost absolute immunity from small-pox, even during epidemic periods, and when surrounded with

disease. The like immunity may be obtained by every rational member of the community who chooses to submit himself after the age of fifteen to revaccination. The present epidemic of small-pox is a lamentable monument of the human folly and neglect, which leave out of view a harmless and necessary precaution against so fatal and loathsome a disease. The responsibility of the misguided persons who seek to deter from obtaining this protection is great indeed; and it is difficult to use words of moderation in viewing all the fanatical ignorance and obstinate perversion of the truth of the facts with which they stimulate and maintain their reckless and mischievous crusade.

DEATHS FROM ZYMOTIC DISEASES IN LONDON.

THE fatal cases of small-pox in London, which had been 69 and 103 in the two preceding weeks, were 92 last week, and exceeded the average by 43; 56 were recorded in the Metropolitan Asylums Hospitals at Fulham, Homerton, Stockwell, and Deptford, one in the Highgate Small-pox Hospital, and 35 in private dwelling-houses. Of the 92 persons whose deaths from small-pox occurred within registration London, 42 had resided in the South (exclusive of a fatal hospital case admitted from Richmond), 27 in the East, 15 in the North, 4 in the West, and 3 in the Central groups of registration districts; 7 fatal cases belonged to Hackney, 16 to Shoreditch, 6 to Camberwell, and 18 to Greenwich and Deptford. The number of small-pox patients in the Metropolitan Asylums Hospitals, which in the three previous weeks had increased from 942 to 1,390, further rose to 1,552 on Saturday last, which included 538 in the Convalescent Camp Hospital at Darenth; and the new cases admitted to these hospitals, which had been 379 and 346 in the two previous weeks, were 402 last week. The fatal cases of measles, which had been 77 and 66 in the two previous weeks, rose to 86 last week, and exceeded the average by 49; they were proportionally most numerous in the East group of districts. The deaths from scarlet fever and whooping-cough differed but slightly from recent weekly numbers; the former exceeded by 2, whereas the latter were 39 below, the average. The 8 deaths referred to diphtheria corresponded with the average. The 14 deaths from enteric fever included 5 in the West, and 4 in the North groups of registration districts.

THE APPOINTMENT OF MEDICAL OFFICER OF HEALTH FOR HASTINGS.

A VERY extensively and influentially signed requisition has been presented to the Mayor of Hastings requesting him to summon a meeting "to protest emphatically against the late appointment of medical officer of health contrary to the general wish of the inhabitants, and which we consider calculated to do infinite damage to the trade and prosperity of the town, by bringing disrepute upon it as a health-resort, which is assuredly evinced by strictures passed in the leading medical journals, and is thus brought under the notice of the profession, who will assuredly refrain from recommending their patients to come here if such appointment be maintained". The mayor replied: "He frankly admitted the right of the inhabitants to call a public meeting, and to meet in public assembly upon any subject which they might think conducive to the best interests of the borough, and for that purpose to appoint their own chairman; but for him, as mayor, to convene such a meeting as that proposed, on a matter entirely within the province of the Town Council, would be, he conceived, an anomaly and unprecedented. He must, therefore, decline to call the meeting." The mayor having thus chosen to interpose this obstruction to remedy the evil in creating which he has concurred, it has, we learn, necessarily been determined to call a public meeting of the inhabitants, independently of the mayor. At this meeting, no doubt, the more enlightened inhabitants will express themselves in strong condemnation of the recent appointment, and of the conduct of the Town Council in the matter; and it may be hoped that means will be found at this meeting for removing the incubus which has been imposed upon the town, and under which Hastings at present does, and in the near future must still further, suffer. We have already pointed out that it is of the utmost importance, that the professional health-adviser of a health-resort, such as Hastings, should be a gentleman acting in cordial concord with the profession at large, and likely to receive active support in the performance of his delicate, difficult, and important duties. A town such as Hastings depends in no small degree upon the good opinion of the medical profession and of the public, who now more and more clearly see the necessity for an active sanitary and medical supervision of the surroundings of the inhabitants. Visitors to health-resorts will certainly view with great disfavour any arrangement such as that to which the Town Council have recently become parties, by which disunion is introduced between the sanitary authority and the medical profession at large; so that the sanitary authority is robbed of the most important means of efficiently carrying on the health-administration of the town, and the visitors are deprived of their most valuable safeguards.

INVALIDS FROM NATAL.

A CORRESPONDENT writes: Ninety-five invalids leave Natal for England in the *Thames* on April 30th. Most of these are men of the 58th, 60th, and 92nd Regiments, who were wounded at the battles of Laing's Nek, Schuin's Hoogte, and Amajuba Hill. The shower of bullets must have been heavy indeed, for many of these men are shot in two or three places. There are penetrating wounds of the chest, abdomen, groins, hips, legs, arms, joints, and eyes. An examination of these men and their wounds proves how much credit is due to Drs. Babington, Ring, and McGann, of the army, and Dr. Mahon of the navy, who were in the front during the whole of this critical period, for the care and skill which has resulted in the recovery of such serious injuries. Surgeon-Major Stokes, at the base-hospital, Newcastle, had many successful cases after the battle of the Ingogo.

THE WOUNDED IN THE TRANSVAAL.

A CORRESPONDENT writes: Two further convoys of movable wounded have been sent down to embark for England. The necessary medical boards on these cases are held locally, previously to their departure, which saves delay and trouble at Maritzburg. Of the seven dangerously injured who were left at Mount Prospect, five have been brought in most comfortably and effectively by the bearer company, who carried the men on stretchers the entire journey, twenty miles, without a fault. It is satisfactory to see such efficiency displayed by the stretcher-bearers under Surgeon-Major Johnston. There are now but three bad cases at Mount Prospect, one of which is that of Major Singleton of the 92nd, whose thigh was amputated at length as a secondary operation for gunshot-wound of the knee-joint, which injury did well at first; but latterly, some constitutional disturbance having set in, the leg was removed, and the case is not reported as very favourable so far. There is a rumour of the existence of enteric fever having been noticed at Mount Prospect; and, if so, it will be well to break up the encampment there. The wounded here are doing well, including the officers operated on, Lieutenants Hill and Hamilton. Captains Lovegrove and Morris, and Major Hay, 92nd, are all improving. Two deaths, however, have occurred amongst the men after secondary operations. Dysentery and diarrhœa, ague and rheumatism, are the chief diseases, and respectively in the order named, which affect the present field-force. To-day, there are 31 cases of dysentery, 25 of diarrhœa, 18 of ague, and 12 of rheumatism, in a total sick-list of 130 out of 3,284 men. But there is no sign of enteric fever yet, although we have been now stationary for nearly a month; and the camps are beginning to wear a well-worn aspect. The sanitary condition is maintained satisfactory, however, in spite of the usual difficulties attending the sanitation of camps in the field. Assistant Commissary-General Young has arrived as Commissioner for the Society for National Aid to the Wounded; and he is empowered to supply all the extra medical comforts and delicacies for the sick and wounded, which are not allowed by the administrative officers of the Army Medical Depôt.

EXCISION OF CANCER OF THE STOMACH.

THE patient on whom Professor Billroth performed his first operation of excision of cancer of the stomach, in January last, died on the night of May 23rd, of a return of the disease. This was colloid cancer, which very probably had proceeded from the retro-peritoneal lymphatic glands, and which spread over the whole of the peritoneal lining of the abdominal cavity. The external surface of the stomach, the transverse colon, and the adjacent portions of the duodenum and jejunum, were also covered with colloid cancer; so that it was difficult to isolate the stomach and duodenum. The stomach retained its natural form; so that no one, who was unaware of the previous operation, would have imagined that a piece fourteen centimètres (five inches) long had been removed from it. Its size was that of a greatly contracted stomach, such as is often met with in necropsies. In this case, the duodenum was fixed to the smaller curvature, and it was imagined that a large diverticulum would have been found at the greater curvature. The necropsy revealed, in fact, a sacciform dilatation of the greater curvature at a point corresponding to the incision; this was, however, by no means sufficient to produce trouble in digestion. There was no stenosis at the junction between the stomach and duodenum, which easily admitted the thumb. In the part where the sutures were applied, the union was so close that there was no cicatrix, and the line of union could only be found with difficulty.

SCOTLAND.

WEATHER EFFECTS IN SCOTLAND.

ON Sunday last the heat in Scotland was most oppressive, and has been so since. On that day, a lad thirteen years of age, residing in Alloa, was found lying insensible in a park. He was attended to by Dr. Home Hay, who considered it a case of sunstroke. The lad is recovering under treatment. On Saturday, a man working in and residing at Newton Colliery was killed by lightning. He was in the kitchen of his dwelling-house with his two children, when all were struck by lightning. When his wife entered the room, she found her husband seated in a chair, almost lifeless; he died in a few minutes. The children were lying on the floor near him, stunned; they have since recovered.

ABERDEEN UNIVERSITY MEDICAL BURSARIES.

THE Provisional Order with respect to mortifications for educational purposes, promoted by the Town Council, has received the sanction of the Home Secretary. The Faculty of Medicine in this university, will receive eight bursaries of £20 each. The order will be laid before the Town Council at its next meeting, so that it is expected that these bursaries will be competed for very soon.

PREVENTION OF SMALL-POX IN SCOTLAND.

THE Board of Supervision in Scotland have directed the attention of local authorities to the danger that exists of small-pox becoming epidemic in Scotland. In the circular issued, the board states that one instance of importation of the disease from London to Scotland has already been observed. Another important point also is the passage through Scotland of unvaccinated foreigners. These are landed on the east coast, and cross the country to Glasgow and elsewhere, to be shipped for America. Cases of small-pox have actually occurred among these emigrants during their journey through Scotland. The Board, therefore, direct the immediate attention of local authorities to the powers they possess under the Public Health Act, and the duties incumbent on them for the prevention or mitigation of the disease; and, in the circular issued, the board point out in detail the four precautionary measures to which the local authorities should at once attend; these being, vaccination and revaccination, removal of nuisances, notice of cases, hospitals and isolation of the sick; means for the carrying out of these being provided by the Public Health Act.

TWO CASES OF NARCOTIC POISONING.

ON Saturday, a labourer employed in the chemical works of Messrs. T. and H. Smith, Edinburgh, was admitted to the Royal Infirmary there, apparently suffering from the effects of a narcotic; he was insensible on admission. Everything that could be done in such a case was tried; but he died a few hours after admission. On Tuesday night, a widow was also admitted to the Royal Infirmary insensible; and, two phials labelled laudanum having been found in her house, she was treated accordingly, and subsequently recovered.

THE RECENT FATAL ASSAULT IN MERRYFLATTS ASYLUM.

THE committee of the above asylum have had under consideration the recent fatal assault case, which has been noticed in the JOURNAL, and for which two of the asylum-warders are at present undergoing imprisonment. As a result of their deliberations, it has been decided to rearrange to some extent the hospital accommodation in the asylum, with a view to the isolation of patients in extreme cases. This has been done by providing, in addition to the larger wards, four small rooms for a patient each, so that a noisy and outrageous patient could be kept in one of these single apartments, and thus not hinder others from obtaining their night's rest. The committee have also recommended the doctor to use mechanical restraint whenever, in his judgment, this may be necessary. While we are sure the committee are anxious to do their best for the welfare of the patients in the asylum, we think that it would be wise for them to move, in these matters of hospital arrangements and mechanical restraint, in harmony with the views of the Commissioners of Lunacy, and obtain their full sanction for any alterations they may think necessary.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending May 21st, it appears that the death-rate in the eight principal towns was 19.9 per 1,000 of estimated population. This rate is 4.9 under that for the corresponding week of last year, and 0.7 under that for the previous week of the present year. The lowest mortality was recorded in Dundee—viz., 16.0 per 1,000; and the highest in Leith—viz., 27.8 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 2.4 per 1,000, or 0.8 under the rate for last week. Four deaths from typhus were registered in Leith. Acute diseases of the chest caused 96 deaths, or 15 less than the number registered last week. The mean temperature was 49.0°, being 1.6° under that of the week immediately preceding, and 1.2° above that of the corresponding week of last year.

LOCH KATRINE WATER.

THE monthly report of the quality of Loch Katrine water has been issued by Professor Mills of Anderson's College. The results are returned in parts per 100,000: total solid impurity, 2.92; organic carbon, 0.129; organic nitrogen, 0.015; ammonia, 0.000; nitric nitrogen, 0.008; total combined nitrogen, 0.023; chlorine, 0.62; hardness, 0.95. The water was sampled on May 17th, when it was pale brown in colour, and contained very little suspended matter.

WATER-SUPPLY OF ELIE.

ONE of the most favoured watering-places on the east coast of Scotland is Elie. Unfortunately for it, however, it not only suffered from a deficient supply of water (a considerable portion of which had been condemned on analysis), but also from a majority of local magnates, who were perversely blind to the absolute necessity that existed for a proper supply of water, if Elie is to retain or improve its position as a health-resort. Last week several elections were made to the Police Commissioners, which now gives a majority in favour of a water-scheme. This will be submitted forthwith, and will probably embrace a scheme for supplying St. Monana as well as Elie.

IRELAND.

THE outbreak of scarlet fever in Midleton Union has subsided; and, as the medical officer has certified that the district is now free from contagious disease, the schools which were closed have been reopened.

IN the Londonderry Fever Hospital during last year, 57 cases were under treatment, of whom 46 were discharged cured, 6 died, and 5 remained under treatment on January 1st, 1881. Fifty-three were cases of fever, and two small-pox.

ADDRESS AND PRESENTATION TO DR. JOSEPH EWING MILLER, J.P.

A SPECIAL meeting of the Londonderry Town Council was held last week, for the purpose of presenting this gentleman with an illuminated address on the occasion of his retiring from the Council, after occupying the office of alderman for nearly fifty years, and that of mayor on five several occasions. In addition to the address from the Corporation, a handsome solid silver centre-piece, in form of a highly ornamented candelabrum and flower-stand, subscribed for by members of the Town Council and the citizens generally, was at the same time presented to Dr. Miller, as a token of esteem and regard. The address was voted by the Corporation on the 1st of last December; and the Mayor, Sir Edward Reid, in presenting it last week, spoke in very complimentary terms of the very many excellent qualities of Dr. Miller, and the valuable services he had conferred on his fellow-citizens. His friends, he added, were glad to see him amongst them still, in the enjoyment of good health, and a prominent figure in the honourable profession of which he had been so long a distinguished member. Dr. Miller returned thanks in suitable terms; and his observations were supplemented by his son, Sir William Miller, M.B., J.P., who read the reply, in which he assured his friends that he appreciated their valuable presentation and address, not so much for its intrinsic value, costly though it was, as for its being the gift of kind hands and loving hearts—a mark of affection and esteem. The address was handsomely illuminated, and consisted of four pages bound in crimson morocco; while the piece of plate contained the following inscription: "Presented to Joseph Ewing Miller, Esq., M.D., by his friends and fellow-citizens, on the occasion of his retiring from the Corporation of Londonderry. He filled the office of burgess, and afterwards alderman, in the ancient Corporation, and was the last mayor elected by that body in the years 1840 and 1841. He was successively town councillor and alderman in the present Corporation from its first election, and under it served the office of mayor five times successively. 1880." On the opposite side are the arms of the Corporation and those of Dr. Miller. The address and presentation are gratifying evidences of the great esteem in which Dr. Miller is held by his fellow-townsmen, and must be regarded by that gentleman with the utmost pride and satisfaction.

THE LADIES SANITARY ASSOCIATION.

THE first of a short course of lectures on subjects connected with public health, was delivered before the association, which is affiliated with the Dublin Sanitary Association, on May 24th, by Dr. T. W. Grimshaw, the Registrar-General for Ireland. The subject of the lecture was "The Causes of Disease and Death in Dublin".

THE IRISH MEDICAL ASSOCIATION.

THE annual general meeting of this Association will be held (by permission) at the Royal College of Surgeons, on Monday next. The report of the Council for the past year, and a statement of the financial condition of the Association, will be submitted, the officers and Council for the ensuing year elected by ballot, and resolutions concerning the interests of the profession considered. Dr. McClintock, President of the Royal College of Surgeons in Ireland, will entertain the members of the Association at Breakfast at the Shelbourne Hotel, on the morning of the annual meeting. The annual dinner will take place in the Albert Hall of the College of Surgeons, in the evening. We understand that the Committee of Council of the Association have unanimously passed a resolution disclaiming any responsibility for the article—which it appears was inserted without their knowledge—in a contemporary last week, on the notification of infectious diseases in Ireland.

ROYAL COLLEGE OF SURGEONS OF IRELAND.

IN accordance with the declared opinion of the majority of the Fellows, the annual general meeting of this College will be held this day (Saturday); and the meeting for the election of President, Vice-President, and Council, will take place on Monday, the 6th instant. Previously, the annual general meeting was held the day week before the election meeting, an arrangement which prevented a number of country Fellows from taking part in both meetings. The annual report of the Council to be presented at to-day's meeting will show that, during the year ending April 5th, 1880, 14 candidates were admitted to the Fellowship of the College, and 103 gentlemen received the letters testimonial; 10 licentiates obtained the diploma in midwifery; 94 candidates for the junior class examination were rejected; and 40 candidates for the final examination were rejected; 335 candidates presented themselves for the preliminary examination; of these, 92 received first class certificates; 82 received second class certificates; 73 received pass certificates only; and 88 were rejected. 111 gentlemen received the diploma in dental surgery. These figures show a diminution (19) in the number of gentlemen who received the letters testimonial as compared with last year, and an increase in the number of candidates rejected for both the junior and the final examinations. The entire number on the lists of the College amounts to 350 Fellows, 3,156 licentiates in surgery, and 270 licentiates in dental surgery. The Council of the College, we are glad to observe, purpose making arrangements to prevent and discourage the open canvassing that formerly went on within its walls on the occasions of the annual elections. Voting papers, with the list of Fellows who have sent in their names as candidates for the Council, are to be sent to the Fellows, who will thus be enabled to prepare them at home without unseemly importunity and button-holing, and effusive shaking of hands. And arrangements are to be "provided within the room in which the election is held, to enable Fellows to mark their ballot-papers without being overlooked". As the subject of consultation with homœopaths has recently engrossed much attention in England, the following ordinance adopted by the College last year, and now published in the report, is of some interest. "Resolved: 'That it be an ordinance of the Council that no Fellow or Licentiate of the College shall seek for business through the medium of advertisements, or by any other disreputable method, or shall consult with, advise, direct, or assist, or have any professional communication with any person who professes to cure disease by the deception called homœopathy, or by the practices called mesmerism, or by any other form of quackery, or who follows any system or practice considered derogatory or dishonourable by physicians and surgeons.'" Furthermore: "'That, in the opinion of the Council, it is inconsistent with professional propriety, and derogatory to the reputation, honour, and dignity of the College, to engage in the practice of homœopathy or of mesmerism, or of any other form of quackery as hereinbefore set forth.'"

NENAGH WORKHOUSE.

IN consequence of a recent investigation, it appears that no responsible person sleeps in the male infirmary; and the attention of the guardians has been directed to this matter by the Local Government Board, who refer to the system which exists for attendance on the sick, both as regards medicine and nursing. The guardians considered that an additional paid nurse was not required, as the wants referred to by the Local Government Board could be efficiently attended to by means of the wardsmen who act as night-nurses. This suggestion, however, has not been agreed to by the board, as they object to pauper inmates acting as nurses, and have requested the guardians to appoint a responsible person to perform the necessary duties.

BELFAST ROYAL HOSPITAL.

A QUARTERLY meeting of the General Committee of the Belfast Royal Hospital was held last Monday; and, from the report of the Board of Management, it appears that, while the institution is carried on in a thoroughly efficient manner, the receipts have so far fallen short of the expenditure, that it has been found necessary to utilise the large sum of money received at the late bazaar, a portion of which, it was hoped, could be held in reserve for a year or two. At a previous meeting, it was shown that the yearly deficiency of income was estimated at about £1,500; and this the Committee expected to be able to obtain by new subscriptions and an increase in the old. In consequence, steps were taken by having the various wards allocated to several members of the Committee; but the results so far have not been so successful as was expected; and, indeed, no material progress appears to have been made by this canvass. The Committee report that a circular from the honorary secretary of the hospital was forwarded to the heads of the various religious denominations in Belfast, requesting them to confer with their clergy, with the view of adopting the last Sunday in November as the most suitable day for the Hospital Sunday collection, but that no replies had as yet been received. During the quarter, 428 patients were treated in the hospital, while 1,656 were extern patients. Mr. John C. Clarke was appointed, on the recommendation of the medical staff, dental surgeon to the hospital.

CORK OPHTHALMIC AND AURAL HOSPITAL.

SINCE the 1st January last, 80 patients have been treated in the wards, and several hundreds at the extern department of the hospital. The financial condition of the institution is, however, unsatisfactory, the funds being quite exhausted; the hospital, moreover, is in debt; and, were it not for the payment of the intern cases, it would be impossible to work the hospital. It has been suggested to hold a half-yearly meeting on July 1st, to take into consideration the financial state of the hospital, when the subscriptions for this year have been collected.

THE COOMBE LYING-IN HOSPITAL.

THE annual meeting of this hospital was held on Tuesday, May 24th, under the presidency of the Right Hon. the Lord Mayor of Dublin. During the year, 502 women were received into the hospital for their confinements, and 2,105 were attended at their own homes, making a total of 2,607 aided during childbirth. In the wards devoted to the reception of patients suffering from the diseases peculiar to women, 117 were treated, while at the dispensary, for the treatment of the same class of cases there were 1,783 attendances, and at the general dispensary 6,585. We regret that the hospital is indebted to its bankers to a sum of over £1,000. To meet the deficiency, the master of the hospital, Dr. Kidd, has generously contributed a sum of £100, and special effort will be made to clear off the debt. Dr. Gordon has been appointed consulting physician to the hospital, *vice* the late Dr. Hudson; and Dr. Poole, assistant-master.

POISONING BY HEMLOCK.

TWO children, aged 4 and 6 years respectively, died last week at Macroom, County Cork, from eating the leaves and seeds of hemlock. Death, as usual in these cases, occurred in a few hours. Two others were seriously indisposed from the same cause, but are now recovered.

PRESENTATION.—Dr. Baird of Perth was recently waited upon by a deputation, and presented with a cheque for two hundred guineas, as a token of the esteem in which he is held in Perth and the district, and as an expression of sympathy with him in the affliction which has unfortunately laid him aside, in the meantime, from the pursuits of active life. Dr. Baird was not only highly esteemed as a medical practitioner, but during his residence in Perth he took a lively interest and part in almost every movement for promoting the welfare of the citizens.

THE LONDON TEMPERANCE HOSPITAL.—The annual meeting was held on Monday evening in the hospital, Hampstead Road. Mr. E. Stafford Howard, M.P., presided. The report showed that the in-patients for the past year numbered 143. The receipts amounted to £1,579, and the expenditure to £1,435. The hospital had been opened, free from debt, at an expense of £25,000.

SELECT COMMITTEE ON THE CONTAGIOUS DISEASES ACTS.

ON Monday, May 16th, Dr. Nevins, one of the principal opposition witnesses, was recalled to answer some further questions, and to reply to Inspector-General Lawson's criticisms of his tables and calculations. Table No. 2, in the published report of Dr. Nevins' evidence in 1880, was condemned by Mr. Lawson as absolutely incorrect and misleading. Now, this Table No. 2 professes to show the relative position, in reference to the number of primary sores, of 20 selected stations from 1867 to 1877, as a means of gauging the effects of the Acts. But, on going over the calculations for himself, Mr. Lawson found them wrong in very many important details; and this result he communicated to the Committee in the course of his evidence.

Dr. Nevins, in reply, states that the heading of Table No. 2, "from 1867 to *1877*", is an error, and should be printed "1867 to *1873*". But, on turning to the published report of Dr. Nevins' own evidence, it will be found that he himself refers to this table, and states expressly (Questions 147 and 148) that he had brought it up to *1877*, and had not included 1878 for certain reasons which he mentions. Moreover, at his cross-examination, when Table No. 2 was severely criticised by Colonel Alexander, he put in another, viz., No. 6, as an alternative, and, in a foot-note thereto, the method by which Table No. 2 was worked out will be found explained. Thus, he himself repeatedly refers to the figures "1877" as being correct. Further, it is found that the proposed alteration to *1873* does not solve the difficulty, as, to obtain the figures which he gave, for twelve out of the twenty-eight stations, periods varying from four to eleven years have to be taken.

One of Dr. Nevins' chief arguments against the Acts is, that the gradual diminution in venereal disease at the subjected stations, which had set in before these Acts were passed, has not been continued with the same uniformity since they came into force. This he illustrated by means of a diagram, on which the comparative rates of fall at unsubjected and subjected stations were shown by means of lines on a descending scale. He also stated that the actual diminution at the subjected stations is not more than might be expected from the sanitary improvements effected there since the Acts, which thus, he alleged, have been of no benefit at all. On these sanitary improvements, he laid great stress, and was decidedly of opinion that they were of the highest importance as regards the *morale* as well as the *physique* of the men. He had gone through the Army Reports for successive years, and considered them to show that these sanitary improvements had been carried out to a much greater extent at the subjected stations than at the unsubjected. He did not wish to impute dishonest motives to the Government, in trying to magnify the effects of the Acts by deliberately neglecting those stations where they were not in force; but he thought it a pity that the same advantages had not been extended to stations of both classes. However, Dr. Nevins admitted that the unsubjected stations, though the more numerous, were, with three exceptions, all very small, and that it was reasonable to attend first to those at which large bodies of troops were located. Moreover, it is a well-known fact that a great many of what Dr. Nevins calls improvements at Aldershot, Shorncliffe, and the Curragh, were all included in the original plans of those camps, and have simply been gradually completed as the state of military finance permitted. Examined as to the nature of these "important sanitary improvements", he stated that they were the establishment of canteens in barracks, improvements in water-supply and latrines, additional accommodation for married soldiers, establishment of cricket-grounds and fives' courts, and improved arrangements for bathing and ablution. Having no personal knowledge of barracks anywhere, he was unable to state to what extent these institutions were already in existence at unsubjected stations, and could not deny that few even of the smallest were unprovided with space for games such as cricket and fives. He was not prepared to state to what extent cricket and fives might obviate sexual desire, or that the mere muscular exertion involved in those games was of more value in this respect than the drills and exercises. He did not think the men at the subjected stations were a more moral class, but he thought they were exposed to less temptations than those at the unsubjected. This part of Dr. Nevins' evidence, after all, amounts to no more than this: that, *in his opinion*, the great decrease which he admits to have taken place in primary venereal sores at the subjected stations as compared with the others is due, not in any way to the Acts, but entirely to the different degree of completeness with which these sanitary improvements have been carried out at the two sets of places. He confessed that he had no personal knowledge of either, and was unable to state, from his own observation, that any such difference in degree does really exist.

Another, and as we think curiously perverse, objection to the comparison of the subjected with the unsubjected stations is, that ample

hospital accommodation for diseased women is provided at the one, and not at the other. Surely, it must be obvious that the provision of hospital accommodation is a *sine quâ non* in the working of the Acts, and the very essence of the comparison is to show what effect is produced by it. The Government has no power to provide hospitals, or to induce women to enter them, at any stations except those mentioned in the Acts; and when Dr. Nevins admits that such hospitals are urgently needed, he uses the strongest possible argument in favour of the extension of the Acts.

Another point which Dr. Nevins brought forward was a tabular statement of the comparative length of stay in hospital of patients for secondary syphilis at unsubjected and subjected stations; whence it appears that the average stay is longer at the latter. The figures, however, given by Dr. Nevins show the difference to be very small; and the argument may be accepted for what it is worth, like that founded on the footpans and fives' courts. Dr. Nevins omitted to mention that the actual number of cases of secondary disease had diminished at the subjected stations to almost one-half of what they were before the Acts came into force, while at the unsubjected they were nearly as numerous from 1873 to 1878 as they had been from 1861 to 1866.

With reference to the question of compulsory detention in hospital of prostitutes affected with venereal disease, he retained his old opinion—viz., that the practice was unjustifiable and unnecessary, as the patients were generally willing to remain till cured. He had been making inquiries as to the system prevailing in workhouse hospitals and infirmaries, with which object he had written to upwards of 160 medical officers of workhouses in the United Kingdom, and had received a large proportion of answers to the effect that there was no practical difficulty in inducing patients to remain till cured. But it may be reasonably objected that workhouse infirmaries furnish no true test of the question. The prostitutes who resort to them belong to the most miserable class imaginable—they are mostly "tramps", old and broken-down, utterly destitute, and many of them actually starving; so that they are too willing to stay, not only till they are cured, but as long as they may be allowed any place of shelter. The prostitutes who are actively practising their calling, and who voluntarily apply for admission as in-patients at the London Lock Hospital or elsewhere, belong to a totally different category. According to the evidence of Mr. Lane, founded on twenty-five years' experience, they do not apply till they have become severely diseased; and, if they did, the existing accommodation would be miserably insufficient. In fact, the slighter cases, which are really the most likely to communicate disease, prefer to be treated as out-patients; and, as is well known, they are for the most part so treated at the various hospitals and dispensaries, and thus are enabled to pursue their calling longer than would otherwise be the case. These, we submit, are the very cases which it is most important to get at by some system of compulsory examination and detention like that carried out under the Acts.

In condemning the practice of comparing different stations one with another for the purpose of showing the effects of the Acts, Dr. Nevins remarked that the only two stations that could be fairly set one against the other were Hounslow and Windsor. This was an unfortunate choice. In the returns, Hounslow may perhaps show an actually smaller number of venereal cases than Windsor; but, on examining the same returns, it is found that there has been an *increase* of cases at Hounslow from 1870 to 1873 at the rate of 10 per cent., against a *reduction* of 44 per cent. at Windsor during the same period—facts which point to a conclusion not contemplated by Dr. Nevins.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

CONSIDERABLE surprise has been expressed in metropolitan and provincial schools at the deplorable rejections which have recently occurred at the Royal College of Surgeons amongst the candidates at the primary and final examinations for the diploma of membership; but most especially in reference to the final examinati on which was brought to a close on the 19th ultimo. Of the candidates examined, fifteen were rejected the first day out of twenty-four, nine of whom had previously passed other recognised institutions. On the second day, thirteen out of the same number were rejected. On the third day, twelve, or one-half, were rejected. On the last day, six out of twenty-one were rejected, making a total of forty-six out of ninety-five, who were referred to their professional studies for six months. Seven were approved in surgery, and when qualified in medicine will be admitted members of the College. This examination compares unfavourably with the corresponding period last year, when, out of the eighty-four examined, thirty-seven were rejected.

We learn from an eye-witness that just two dozen of these industrious hard-working students had been "up" before. Four had been examined on two occasions; one had paid his respects four times to the Board, who were still obdurate; but the last, and certainly not the best, felt quite at home on his sixth appearance.

Our readers must not think the fault is with the examiners. More than one candidate called a longitudinal section of the penis a section of the spine, and described another section of it as "a human kidney". Another had never seen a hydrocele, and was utterly unable to understand why the kindly examiner held him a lighted taper.

THE VOLUNTEER REVIEW AT WINDSOR.

WE are enabled to give fuller details than heretofore of the ambulance arrangements for the contemplated review on the 9th July. A full bearer company of the Volunteer Ambulance Department is being formed to attend at Windsor, exactly on the lines in the regulations as laid down for the Army Hospital Corps, and the whole of the medical transactions during the review will be performed by the Volunteer Ambulance Corps, under the command of a medical officer of the Army Medical Department. There will be two field hospitals, one for each division of the forces; and the whole bearer-corps will march past, complete, behind the force. By permission of the authorities, this corps is being drilled at the Wellington Barracks, St. James's Park, and General Higginson has kindly consented to inspect the corps as soon as it is considered efficient. The usual arrangements with regard to ambulances, water-carts, and hospital equipments will be made, as heretofore, by the War Office authorities.

We trust that the initiation of that valuable corps will be brought to a happy issue, and Surgeon-General Shelton, representing the Army Medical Department, has taken a laudable and practical interest in ensuring success.

The men representing the bearer companies have been selected from regiments according to a proportionate scale. We are glad to be informed that His Royal Highness the Commander-in-Chief has given his sanction that two men per company of the whole force of Volunteers be selected as bearers, to each of whom, on examination, is presented a certificate of efficiency, in the War Office form, and are permitted to wear the Geneva cross as a badge upon the right arm. This force, when fully formed, will aggregate no less than 4,500 men.

THE PRESENT POPULATION OF THE METROPOLIS.

THE Registrar-General estimates, in his last weekly return, the present population of Greater London—that is, of the metropolis and its suburbs—at 4,788,657 persons, or little short of five millions. This estimate is based upon the numbers actually enumerated on 4th April last; these numbers have not yet been finally revised at the Census Office, but they are, in the meantime, judged sufficiently accurate to serve as the basis of trustworthy rates of mortality, for the purpose of the Registrar-General's periodical returns. It appears that by excess of births over deaths, and by aggregation, the increase of population in Greater London during the past ten years has been no less than 878,671, and equal to 22.6 per cent. upon the numbers enumerated at the census in 1871. In Inner (or registration) London, the increase per cent. of population during the decade just completed was equal to 17.2, while in the outer ring of suburban districts it was no less than 50.4. The most remarkable increase of population in the outer ring has been recorded during the past ten years in Croydon, Bromley (Kent), Chiswick, Acton, Willesden, Hornsey, Tottenham, Edmonton, West Ham, Leyton, and Walthamstow registration subdistricts. In Inner (or registration) London, the population enumerated at the first national census in 1801 did not exceed 958,863 persons, whereas on the 4th April last the number counted was 3,814,571, showing a fourfold increase in the eighty years. The increase of population within this area has been remarkably steady during this period. The largest percentage of increase during any census decade was 21.2 in 1841-51; and the smallest increase was 16.1 between 1861 and 1871. The rate of increase declined pretty steadily during the thirty years 1841-71; and the Registrar-General, in framing his estimate for the ten years since 1871, assumed that the decline in the rate of increase would be maintained. It now appears, however, that the rate of increase during the past ten years considerably exceeded that which prevailed in the preceding decade. The population of London in recent years has therefore been somewhat under-estimated, and the calculated birth and death rates proportionally over-stated. Registration London is now credited with a population exceeding by more than 100,000 the estimate that has been used for statistical purposes since the beginning of the year. In the central districts of London, as might have been expected, the population actually declined during the past ten years, and declined at a greater rate than in the preceding decade; the residential population of the City of London is now considerably less than half what it was

twenty years ago, the decrease per cent. in the past two decades having been 33.0 and 32.5 respectively. It is in the Strand, St. Giles, and Holborn districts that the decrease in the past ten years has been so much greater than that recorded in the preceding decade. In the east, west, and north groups of registration districts, the increase of population during the ten years 1871-81 showed a considerable decline from that which prevailed in the previous inter-census period. This was more than balanced, however, by the remarkable increase recorded south of the Thames. Since 1861, the population of South London has nearly doubled; in that year, 773,175 persons were therein enumerated, whereas in the two following decades increases of 25.2 and 30.8 per cent. were respectively recorded, which raised the population of this portion of London on April 4th last to more than a million and a quarter. The largest portion of this remarkable increase in the population of South London occurred in the districts of Wandsworth (including Battersea and Streatham), Camberwell, and Lewisham. The percentage of increase of population during the past ten years was also remarkably high in the districts of Fulham, Kensington, Hampstead, Hackney, and Poplar.

SOUTHERN AFGHANISTAN.

A CORRESPONDENT writes from Quetta, under date April 26th:—Deputy Surgeon-General Bruce returns to India to take up duty in Bombay. During the last year, he has had some very trying service: first, in the Murree country; then with Major-General Phayre's division on the march by the Bolan and Rojak Passes to Kandahar; and, afterwards, as principal medical officer there, having administrative charge of the largest force ever in one command during the Afghan campaign. Latterly, he has been stationed at Quetta, as principal medical officer of the line of communication, and is at present on a long and arduous tour of inspection to Thull Chotiali, again down the Hurnai route and Murree country, from which he proceeds to India.

Dr. Simpson, Deputy Surgeon-General, from Kandahar, will arrive at Quetta with General Hume's head-quarters about the 4th or 5th of May. In the meantime, the duties of principal medical officer of the line of communication are carried on by Surgeon-Major Wilson, A.M.D., the senior medical officer at Quetta.

The Pisheen moveable column, with a section of No. 3 field hospital, in charge of Surgeon-Major Gillespie, A.M.D., returned last week from the Hurnai Valley to Quetta, and was broken up to form part of the permanent garrison of that place.

At the railway terminus at Pirchowki, Surgeon-Major O'Farrell, A.M.D., in charge of No. 3 field hospital, is preparing for the arrival and transit of troops. The heat there is already becoming uncomfortable—about 105° Fahr., in double tents, during the day. The nights, however, are still cool.

For so far, the evacuation of Kandahar and march down have been unmarked by any untoward event. The weather is favourable at last; and, it is only when the lower Bolan is reached, that fever and insolation are to be feared. The railway journey, too, across Sind and the Punjab, will be very trying. Most of the men are by this time well seasoned; and, the weakly having been already eliminated by disease, any unusual amount of disease is not anticipated. The medical arrangements are as complete as circumstances will permit; and, if too free indulgence in alcoholic liquors can be prevented, it is expected that, from a medical point of view, our "scuttle from the country" will be a success.

The same correspondent writes from Quetta, under date May 4th:—Deputy Surgeon-General Simpson arrived at Quetta, with General Hume's head-quarters, on May 4th, having marched round by Khushdil Khan, through the upper part of the Pisheen Valley. Quetta will henceforth be the centre of the command, and the residence of the Governor-General's agent in Baluchistan. Everything seems peaceful in the extreme; but, to be ready for any contingency, the South Afghan force will, in medical, as well as other arrangements, remain equipped on the field scale. A permanent and effective hospital corps is one of the first requirements, and the want of it has been much felt in all the hospitals. Reports have been called for from medical officers who have had experience during the late war; and, if only acted on, many deficiencies will be supplied and defects remedied, in hospital and ambulance services, before we take the field again. Even in peace, it is to be hoped, the time of untrained ward coolies has expired; and that trained men, under experienced European ward-masters, will be found to attend on the sick of British regiments.

SURGEON-GENERAL BEATTY having taken leave to England, Deputy Surgeon-General W. J. Moore has been appointed to officiate as Surgeon-General with the Government of Bombay.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION:

FORTY-NINTH ANNUAL MEETING.

THE Forty-Ninth Annual Meeting of the British Medical Association will be held at Ryde, Isle of Wight, on Tuesday, Wednesday, Thursday, and Friday, August 9th, 10th, 11th, and 12th, 1881.

President.—G. M. HUMPHRY, M.D., F.R.S., Professor of Anatomy in the University of Cambridge; Senior Surgeon to Addenbrooke's Hospital.

President-elect.—BENJAMIN BARROW, F.R.C.S., Consulting-Surgeon to the Royal Isle of Wight Infirmary.

An Address in Medicine will be delivered by JOHN SYER BRISTOWE, M.D., F.R.S., F.R.C.P., Senior Physician to St. Thomas's Hospital.

An Address in Surgery will be delivered by JONATHAN HUTCHINSON, F.R.C.S., Senior Surgeon to the London Hospital.

An Address in Obstetric Medicine will be delivered by JOHN G. SINCLAIR COGHILL, M.D., F.R.C.P.Edin., Visiting Physician to the National Hospital for Consumption, Ventnor.

The business of the Association will be transacted in Four Sections and one Subsection, viz.:—

SECTION A. MEDICINE.—*President:* Edward Long Fox, M.D., Clifton, Bristol. *Vice-Presidents:* W. Withers Moore, M.D., Brighton; Bushell Anningson, M.A., M.D., Cambridge. *Secretaries:* William Hoffmeister, M.D., Townsend House, Cowes, Isle of Wight; Robert Saundby, M.D., 71, Newhall Street, Birmingham.

SECTION B. SURGERY.—*President:* W. Martin Coates, M.R.C.S., Salisbury. *Vice-Presidents:* Charles Macnamara, F.R.C.S., London; Alexander G. Davey, M.D., Ryde. *Secretaries:* Ed. Allan Waterworth, M.D., 40, Quay Street, Newport, Isle of Wight; Herbert W. Page, M.A., M.B., 146, Harley Street, London.

SECTION C. OBSTETRIC MEDICINE.—*President:* Sir E. B. Sinclair, M.D., Dublin. *Vice-Presidents:* John Livesay Whitehead, M.D., Ventnor; Edward Malins, M.D., Birmingham. *Secretaries:* Robert Cory, M.D., 14 Palace Road, Albert Embankment, S.E.; James Mann Williamson, M.D., South Cliff Cottage, Ventnor, Isle of Wight.

SECTION D. PUBLIC MEDICINE.—*President:* Arthur Ransome, M.D., Bowden, Cheshire. *Vice-Presidents:* George Wilson, M.D., Leamington; William Armistead, M.B., Cambridge. *Secretaries:* James Neal, M.D., Barcelona House, Sandown, Isle of Wight; H. Aubrey Husband, M.B., 13, Northumberland Street, Edinburgh.

SUBSECTION: OTOLOGY.—*Chairman:* Urban Pritchard, M.D., London; *Secretaries:* E. Cresswell Baber, M.B., 4, Preston Street, Brighton; W. Douglas Hemming, F.R.C.S., Glenalmond, Bournemouth.

Honorary Local Secretaries.—J. M. Pletts, M.D., Kent House, Melville Street, Ryde, Isle of Wight; W. E. Green, Esq., Belgrave House, Sandown, Isle of Wight.

SECTION A.—MEDICINE.

DR. T. LAUDER BRUNTON, F.R.S., has kindly consented to open a debate on Jaundice; and Dr. Gowers to introduce the subject of Acute Spinal Paralysis. Members desirous of taking part in these discussions will kindly send in their names before June 30th.—WILLIAM HOFFMEISTER, M.D., Townsend House, Cowes, Isle of Wight; ROBERT SAUNDBY, M.D., 71, Newhall Street, Birmingham.

NOTICE OF MOTION.

Notice is hereby given that, at the Annual Meeting to be held in the Town Hall, Ryde, on Tuesday, the 9th day of August next, at [illegible] o'clock in the afternoon, Mr. Arthur Jackson will move, and Dr. Grigg will second, an alteration of the By-laws, of which the following is a copy:

Alteration of Meeting.—In fifth line, and after "Committee of Council", "if he do not reside in the district of any Branch, in which case his name must be brought before, and be approved by, the Council of that Branch".

BRANCH MEETINGS TO BE HELD.

MIDLAND BRANCH.—The annual meeting of this Branch will be held at the Infirmary, Leicester, on Thursday, July 14th, at 2 o'clock. Members wishing to read papers are requested to communicate with Mr FRANCIS H. HOLMES, Honorary Secretary for Leicestershire; or with C. HARRISON, M.D., Lincoln, Honorary Secretary Midland Branch.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting of this Branch will be held at the Royal Hotel, Preston, on Wednesday, June 15th, at 1 P.M. The Secretary will be glad to receive intimation of papers to be read.—A. DAVIDSON, 2, Gambier Terrace, Liverpool.

SOUTH-EASTERN BRANCH.—The thirty-seventh annual meeting of this Branch will be held at the Public Hall, Reigate, on Wednesday, June 8th, at Two o'clock precisely. The President-elect kindly provides luncheon at the Public Hall before the meeting, from 12.30 to 2 P.M. After the meeting, members will be afforded the opportunity of visiting the following places: 1. Gatton Park and the Marble Hall, by the kind permission of R. McCalmont, Esq. 2. The Philanthropic Society's Farm-School, by the kind permission of the Rev. C. Walters, Resident Chaplain 3. The Earlswood Asylum for Idiots. The Superintendent, Dr. G. W. Grabham, will kindly receive the visitors, and provide tea and coffee. 4. Henry Webb, Esq., of Redstone Manor, Redhill, has kindly promised to show members his fine collection of china and coins. Carriages to convey the visitors will be provided by the Local Committee. Dinner will be served in the Public Hall, Reigate, at 5 30 P.M. Tickets (not including wine) 7s. 6d. each.—CHARLES PARSONS, M.D., Honorary Secretary, 2, St. James's Street, Dover.—May 24th, 1881.

METROPOLITAN COUNTIES BRANCH.—A general meeting of this Branch will be held at the rooms of the Medical Society of London, 11, Chandos Street, Cavendish Square, on Friday, June 10th, at 8 P.M., to receive the Report of the Subcommittee on Hospital Reform.—ALEXANDER HENRY, M.D., W. CHAIMAN GRIGG, M.D., Honorary Secretaries.—May 26th, 1881.

SOUTH-WESTERN BRANCH.—*(Amended Notice.)* The annual meeting will be held in Druid's Hall, Redruth, on Wednesday, June 22th, at 11.15 A.M. R. Hogarth Clay, M.D., President, will resign the chair to R. Hudson, M.D., President elect. An address will be delivered by Mr. William MacCormac, Surgeon to St. Thomas's Hospital, London. After the meeting, luncheon will be provided at 10, Treavirgie Road. Excursions will be arranged for the afternoon. Dinner at Tabb's Hotel at 6 P.M. Members intending to make communications, or to be present at the dinner, are requested to send notice to S. REES PHILIPPS, M.D., Honorary Secretary, Wonford House, Exeter.

SOUTH MIDLAND BRANCH. The annual meeting of this Branch will be held at the Anchor Hotel, Newport Pagnell, on Thursday, the 9th of June, at 2.30 P.M.; H. Rogers, Esq., President-elect. The members will dine at 5.30 P.M. Members intending to read papers are requested to communicate with G. F. KIRBY SMITH, Esq., or Dr. BRYAN, Honorary Secretaries.—Northampton, May 9th, 1881.

EAST ANGLIAN BRANCH.—*President:* F. S. Worthington, Esq. *President elect:* Charles Palmer, Esq., Senior Surgeon Great Yarmouth Hospital. The annual meeting of this Branch will be held at the Guildhall, Great Yarmouth, on Thursday, the 16th inst., at 2.30 P.M. Gentlemen who are desirous to read papers, or to bring any subject before the meeting, are requested to give early notice to one of the Honorary Secretaries. Dinner at 6 P.M.; tickets, exclusive of wine, for dinner and dessert, 7s. 6d.—M. BEVERLEY, M.D., Norwich; W. A. ELLISTON, M.D., Ipswich, Honorary Secretaries.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: ORDINARY MEETING.

AN ordinary meeting of this Branch was held at the Cawdor Arms, Llandilo, on April 28th. Present: T. D. GRIFFITHS, M.D. (President), in the chair, and seventeen other members.

Medical Benevolent Fund.—A letter was read from Mr. G. A. Brown to the Honorary Secretary, concerning the local Medical Benevolent Fund; and it was resolved, in accordance with this letter, that no further action be taken in the matter at present.

New Members.—The following gentlemen were elected members of the Association and Branch: G. O. Willis and C. J. Woollett, Monmouth; T. W. Scale, Cyfarthfa; Alfred James, Brynteg; A. Plain, M.B., Penarth; T. G. White, Tredegar; E. A. Applebe, Hay; C. J. Watkins, Cardiff; A. G. Thomas, M.D., Newport, Monmouthshire (Branch only).

Representatives in the General Council.—The following gentlemen were elected: H. N. Davies, Esq., T. D. Griffiths, M.D., J. G. Hall, Esq., Evan Jones, Esq., Talfourd Jones, M.B., J. Probert, Esq., J. Russell, Esq., Jabez Thomas, Esq.

The International Medical Congress.—It was resolved unanimously that ten guineas be subscribed from the funds of the Branch to the International Medical Congress.

Papers, etc.—The following communications were made:

1. Mr. D. J. Williams (Llanelly) gave a History of a Case of Stricture of the Urethra and its Consequences: with Specimens. The resulting disease in this interesting case was limited to the right side, the testicle, cord, bladder, ureter, and kidney being affected, abscesses being found in and around the latter organ. Limited to the immediate neighbourhood of this kidney were distinct tubercular deposits—on the under surface of the liver, etc. The temperature in the axilla was subnormal for a month before death.

2. Mr. Jabez Thomas (Swansea) gave notes of a Case of Inguinal Hernia in which he had performed Spanton's Operation and effected a radical cure. Some swelling of the testicle and effusion into the tunica vaginalis had followed.

3. Mr. Evan Jones (Aberdare) spoke favourably of the results of his treatment of various diseases by the administration of Nitro-Glycerine.

4. The President made some remarks on Temperature-Taking, illustrating the fallacy of relying on temperatures taken in the axilla.

CORRESPONDENCE.

CONSULTATIONS WITH HOMŒOPATHS.

SIR,—Dr. Handfield Jones, in quoting from a lecture delivered by Dr. Richard Hughes at the London School of Homœopathy, in 1878, has clearly shown that there are homœopaths who still believe in "the peculiar dosage" which keeps rational practitioners and themselves apart. Had I been able to "number on my list of friends" any of the teachers in that school, I should not have given the reference I did; but I took my cue from the homœopathist referred to in Dr. Markham's letter, and from Dr. Kidd, and assumed there were others of a like stamp—"hybrids", it may be, but able and honest men notwithstanding.

Dr. Handfield Jones thinks no good could result from a rational practitioner meeting in consultation one who would prescribe the decillionth of a minim; but I would submit whether it is probable, supposing the barrier between homœopaths and ourselves were removed, that such a consultation would ever take place? Is it not more likely that, if the homœopath in attendance held strong views on the potency of infinitesimal doses, he would voluntarily retire before the allopath was called in; or, if a less pronounced believer, would defer to the opinion of the consultant, as in the Kidd and Quain case; or, lastly, that a consultant would be selected who held the same views as himself? In any case, this good would result, that the odium of declining to meet a brother practitioner would be avoided.

The object of my letter of the 2nd instant was not to put myself forward as a champion of homœopathy and its followers, but in the interest of my "friends" Fair-play and Good-policy, to advocate a reconsideration of our relations with regard to the homœopathic practitioner; and I wish now to invite attention to these two points: 1. Whether we have not committed a blunder in holding aloof from him as we have done; and 2. Whether the time has not come when we might with advantage adopt a different policy. My contention is, that we have, and that it would be a gain to all parties—to the public, to the homœopaths, and to ourselves—that these abnormal relations between us should cease. I contend that no mere difference of opinion or practice is a sufficient justification for our refusing to meet in consultation any duly qualified man who practises his profession honourably and honestly; nothing, indeed, short of dishonesty or dishonourable conduct on the part of its professors can justify us in thus acting. I hold, therefore, that our bearing towards homœopaths cannot be defended, either on the ground of morality or of expediency; and that, because the doctrine of Hahnemann may seem to us to be monstrous and absurd, it is no reason why we should commit a monstrous injustice. That it is really so, will appear, if we consider what has been our attitude towards the homœopath. It has not been one of simple antagonism, but of hostility—ostentatious hostility; for, in refusing to meet him, if we do not proclaim aloud that he is either a fool or a knave, our conduct certainly suggests it; it is equivalent to telling the patient that his medical adviser, and peradventure friend, whom he had always trusted and had confidence in till then, is unworthy of his confidence, and must be got rid of, and "give place to honester men". This conduct on our part, however much it may be applauded and held up to admiration by members of our own profession, is viewed in a very different light by the outside public. They regard the homœopath, who has had to walk out of a house before the orthodox practitioner would walk in, as simply the victim of class prejudice; and they compare him with the workman who has been turned out of the workshop because he is a non-unionist. It is well we should recognise the fact that such a feeling very largely prevails, and ask ourselves whether, by ignoring it, we are not lowering rather than raising ourselves in public estimation. The exclusion of the homœopath from our ranks, the social and professional ostracism to which we condemned him, was undoubtedly prompted by high and honourable motives, and was based on the assumption that the doctrine of infinitesimals was too absurd for any sane man to believe; any one among our own ranks, therefore, who should profess such a belief, must be practising a fraud on the public, and was unworthy to associate with honourable men. But times are changed; and the marvels of modern discovery equal, if they do not eclipse, those of homœopathic cures. Even we must acknowledge that our opinions on the subject of dosage have undergone some change in the homœopathic direction.*

The old adage—"who is to decide when doctors disagree?"—has really been already decided by the public: they read our books, and they read theirs—the homœopaths'—and they recognise in them two

* Witness the recommendation by Dr. Ringer of one-drop doses of tincture of cantharides in certain affections of the urinary organs, and similar and even smaller doses of tincture of aconite in pericarditis, and of ipecacuanha wine in certain forms of vomiting.

directly opposed systems—one acting on apparently rational principles, the other apparently in direct violation of them: the advocates of the latter, however, adduce positive evidence of the value of their system, which is confirmed, they say, by numerous independent witnesses who have no motive to deceive, indeed quite the reverse, for they suffer persecution because they have the courage to announce and to practise what they believe to be true. Opposed to this positive evidence of large numbers of self-sacrificing men, they see arrayed on the other side the great bulk, including the *élite*, of the profession, but who simply pit against it their negative evidence, and rational and scientific opinion; in other words, their unbelief against firm belief from conviction. Can we doubt what must be their verdict? Homœopathy and allopathy they have decided to be only two rival systems, in each of which truth and error are blended; they accordingly patronise both indifferently,* and go to the physician who can relieve them, whether on rational principles or otherwise they care not.

We may not yet be ripe for the change; but the time will assuredly come when it will be seen that the honour, dignity, and interests of our profession will be best maintained by sweeping away the barriers which now separate its members, and opening its portals to all of them, irrespective of creed.—Yours obediently,

London, May 23rd, 1881. C. HOLTHOUSE.

THOUGHT-READING.

SIR,—You state in your issue of the 21st ultimo on the above subject, that I requested Mr. Moncure D. Conway to fix his attention on the article he had hidden, and not upon the place in which it was concealed, and upon this statement you proceed to found an elaborate argument. I beg to inform you that I requested Mr. Conway, Dr. Playfair, and Professor Croom Robertson each to think of the object he had concealed, and of the place in which it was hidden, and I stated that these conditions were absolutely essential to the success of the experiments; in corroboration of which, I beg to refer you to the gentlemen themselves, and also to the following extract from the *Lancet* of the 14th ultimo, in which it is reported: "The condition for success was, that the 'thinker' should be all the time forming in his mind an exact and vivid picture of the place where the object was."

You further add that, although my eyes were bandaged, I was not thoroughly blindfolded; and, as you lay some stress upon this, I would call your attention to my second experiment with Dr. Playfair. I first found the spot on which he had placed an article, and afterwards discovered the article itself in its final hiding-place. Had my eyes been open, that fact would not have detracted from the value of the first part of this experiment as a test of my power.

In your concluding remarks, you state that I entirely repudiated the kind of thought-reading described in Dr. Carpenter's letter. This statement I most emphatically deny. When asked to give my own explanation of the phenomena which had been witnessed, I distinctly declined to do so, on the ground that the witnesses themselves were, by reason of their eminent scientific attainments, more qualified to explain them.

In your own article, you have explained how I found out the pain in Professor Ray Lankester's face, viz., by guessing; and how I discovered that Mr. Conway had shut his eyes—viz., by a knowledge of the associated muscular movement.

In the face of these explanations, it would be mere presumption on my part to put forward any theories on the subject; but I am presumptuous enough to believe that a subject, to the consideration of which Dr. Carpenter, Professors Huxley and Croom Robertson, and Messrs. Francis Galton and G. J. Romanes, have devoted considerable time and thought, and to which the last three are still giving their attention, is one which the scientific world will continue to be interested in, notwithstanding the "no uncertain verdict" which you have felt it your duty to pass upon my recent experiments.—I am, Sir, your obedient servant, W. IRVING BISHOP.

SILVERLOCK'S MEDICAL REFERENCE BOOK.

SIR,—In a critical notice of Silverlock's *Medical Reference Book*, which appears in the JOURNAL of the 21st, you take me to task for permitting the publication in it of a List of Consulting Physicians and Surgeons. I shall feel obliged if you will permit me to state that I had nothing whatever to do with the compilation of that list, and in fact knew nothing whatever about it until some time after the work was published. It is true that I am supposed to have edited the *Reference Book*, and I compiled a portion of its contents; but, unfortunately for my reputation, Mr. Silverlock did not take me into his confidence as to what should or should not be published in its pages. Had he done so, I should have emphatically vetoed the publication of the List of Consultants, or my name would not have appeared on the title-page of the work as editor.

It is now beyond Mr. Silverlock's power to repair the injury he has done me by affixing my name to that for which I am in no way responsible; still I hope he will at least do me the justice of suppressing the remaining copies of the edition.—Yours faithfully,

5, Gibson Square, May 23rd, 1881. GEORGE BROWN.

REVACCINATION WITH CALF-LYMPH.

SIR,—I have revaccinated at my establishment 345 persons. In 181 of them, I had the opportunity of examining the results.

Eighty-one cases of the latter number were first revaccinations. In sixty-nine of them, two or more perfect and characteristic vesicles were developed; in four, there was only one perfect vesicle, the other insertions being either papular elevations or indifferent; and six cases were complete failures. Therefore, rather more than 90 per cent. proved successful in first revaccination.—I am, sir, yours obediently,

C. A. RENNER.

DR. LYONS AND THE COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES.

SIR,—I must respectfully take exception to the statement of your Dublin correspondent, in your number of to-day, that the recent action of Dr. Lyons, M.P., in arresting the progress of Mr. Gray's Bill for the compulsory notification of infectious diseases, is extensively disapproved of here; as far as I can gather, the feeling is quite the opposite.

The cardinal principle of Mr. Gray's Bill is, that the attending physician should be the direct informant; and the proposal has been emphatically and officially condemned by all our leading medical bodies and by the vast bulk of the profession. They do not, however, appear to object to notification, provided that that duty be imposed exclusively upon the occupier of the infected dwelling; but this plan Mr. Gray does not accept.

I think that Dr. Lyons has done good service by having this important question held over till next year, when it will be more ripe for consideration; and when, above all, we can have the experience of its working in the only large centre of population which has adopted it. The question might thus be referred to a Select Committee, who would hear and calmly consider both sides of the case; and, on their report, a measure satisfactory to all might be framed.—I am, sir, your obedient servant, F. J. B. QUINLAN, M.D., M.R.I.A.,

Fellow of the College of Physicians, Ireland.

29, Lower Fitzwilliam Street, Dublin, May 28th, 1881.

THE BRITISH MEDICAL TEMPERANCE ASSOCIATION.—On Friday, May 27th, the annual meeting of the British Medical Temperance Association was held in the rooms of the Medical Society of London, Chandos Street. Dr. B. W. Richardson presided. The report was read by the Honorary Secretary, Dr. J. J. Ridge, and gave a *résumé* of the operations of the Association during the past year. It stated that the membership had increased to two hundred and fifty, and the number of associates (who are medical students) to sixteen. The president and other officers had been re-elected for another year; and in returning thanks, the chairman said that he felt increasingly the value of such an association, and looking at the large number of medical men who were now abstainers, there was no reason why their numbers should not be soon doubled or trebled. An excellent paper on the Practical Treatment of Dipsomania was then read by S. S. Alford, Esq., in which he insisted most strongly upon the necessity for complete and unbroken abstinence from alcohol, which was rarely possible, unless with compulsory powers of detention. Tonic remedies were often required at first, but subsequently moral measures must be brought to bear, and, above all, religious influences. An animated and interesting discussion followed the reading of the paper, in which the following gentlemen took part: Dr. Eyton Jones, Dr. Norman Kerr, E. Meacham, Esq., Rev. J. H. Gatchell (Chaplain to the St. James's Home for Inebriates), Dr. A. Carpenter, Dr. C. R. Drysdale, and Dr. Branson. On the motion of Dr. Edmunds, the discussion was adjourned till June 24th.

* Any one passing the Homœopathic Hospital a week ago might have noticed a large placard announcing an entertainment in aid of its funds, and patronised by the Prince and Princess Christian, the Duke and Duchess of Teck, the Duke of Westminster, etc. The latter is President of the Westminster Hospital. If homœopathy be "a sham, delusion, and a snare" its patrons must be aiders and abetters of the fraud.

OBITUARY.

JOSEPH BARNARD DAVIS, M.D., F.R.S., HANLEY.

WE regret to record the death of this venerable practitioner and eminent anthropologist, which took place on May 19th, at his residence, Hanley, Staffordshire. Dr. Davis had nearly completed his eightieth year. He was born at York on June 13th, 1801. When a medical student, in 1820, he sailed to the northern seas, as surgeon to a whaler; and, in the arctic regions, must have seen much to confirm him in that taste for science which afterwards brought him so much distinction. He took the diploma of L.S.A. in 1823, and soon afterwards settled in the Potteries. Up to the time of his death, he held the appointments of Union Medical Officer and Public Vaccinator at Stoke-upon-Trent, and performed all his duties in a conscientious and unobtrusive manner. He did not take the diploma of M.R.C.S.Eng., until 1843; in 1862, he became M.D. of St. Andrew's.

He modestly attributes, in his great work, the commencement of his labours as a craniologist to an accidental conversation with a friend, which rekindled the interest he had felt in reading Lawrence's *Lectures on the Natural History of Man*. In conjunction with Dr. Thurnam, he brought out, in 1856, the celebrated *Crania Britannica;* and later wrote several monographs on the skulls and skeletons of many primitive races. It must be remembered that all his works showed that his strong points were untiring energy in collection and record of specimens, rather than any deep power of observation, judgment, or induction. During these researches, he amassed—partly by purchase, partly by presentations from his scientific admirers—a vast collection of skulls and skeletons, for the demonstration of which he completed, in 1867, an invaluable descriptive catalogue, full of measurements and abundant literary references. His *Thesaurus Craniorum*, and its supplement, published in 1875, describes the entire collection of 1,700 specimens, mostly crania. For his scientific merits, Dr. Davis was made a Fellow of the Royal Society, and a corresponding member of the Anthropological and other scientific societies of nearly every metropolis or important seat of learning in Europe.

Few have ever shown, like Dr. Davis, what a vast amount of scientific work, even of a purely categorical nature, may be done in the intervals of the arduous and monotonous duties of general practice; none have ever left a more stable monument of scientific labour behind them. We have, during the past twelve months, frequently alluded to the transference of Dr. Davis's vast collection to the museum of the College of Surgeons. The transport and arrangement of the specimens could not be effected in a shorter time than over twelve months; and, by a strange coincidence, the last batch of crania and skeletons were permanently installed at the College almost on the day of Dr. Davis's death. The *Thesaurus* and its supplement will be placed in the museum for reference, like the new catalogue of the previous College collection, brought out by Professor Flower in 1869. We enter into these details, believing that we can pay no higher sign of respect to the memory of Dr. Barnard Davis, than by showing how the invaluable product of his labours may be made accessible to all workers in science.

HUGH JAMESON, F.R.C.S.,

DEPUTY INSPECTOR-GENERAL, R.N.

A WELL known and much respected veteran of the naval medical service has passed away. Mr. Jameson was a native of Inverness, received his classical education there and at Aberdeen University, and, as was the wont at that time of young men from the extreme north of Scotland, came to London for his medical studies. He spent some years at St. George's and at the Middlesex Hospitals, and at the Windmill Street School; took the diploma of the College of Surgeons in 1825; and, having entered the Royal Navy, served for many years with distinction, chiefly on the West Coast of Africa and in the Mediterranean. At the bombardment of St. Jean d'Acre, in 1840, Mr. Jameson was principal surgeon of the frigate *Castor*, which bore the brunt of the enemy's fire, and suffered severely in the action; and he had an unusual opportunity of exercising his operative skill, for he was a well trained and excellent surgeon, with a marked predilection for that branch of the profession. He subsequently served in the *Winchester* flag-ship at the Cape of Good Hope, the *Victory* at Portsmouth, and the *Rodney*. In 1854, he was appointed to the Melville Hospital at Chatham, and afterwards to Woolwich Dockyard, the medical charge of which he retained till his retirement from the service in 1864. While serving abroad, he was, in 1844, nominated a Fellow of the Royal College of Surgeons of England, an honour which he highly appreciated, as testifying to the estimation in which he was held by Sir Charles Bell, Sir Benjamin Brodie, and other eminent men to whom he was well known in his London student life. Mr. Jameson was greatly esteemed and respected by a wide circle of naval friends, both medical and executive, and spent a happy green old age at Upper Norwood till his health, in 1879, was seriously affected by partial paralysis. He became gradually weaker, and died on the 16th May, in his seventy-seventh year.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, May 26th.

Vaccination.—Mr. P. A. Taylor, asked the President of the Local Government Board, whether his attention had been directed to the fact that an absolute diversity of opinion exists amongst the highest medical authorities, in regard to certain lymph still used; Sir Thomas Watson declaring that the lymph which had been largely used at Brighton and elsewhere for the last forty years was variolous, and such as "must have spread about a vast amount of mitigated small-pox"; while Dr. Carpenter asserted that "no vaccinator could be charged with propagating small-pox even though it were put beyond doubt that his vaccine lymph had been remotely derived from small-pox pustule:" and, whether he did not think it would be safer to discontinue the practise of vaccination altogether until medical authorities could agree upon the point, whether the lymph employed was a protection against small-pox, or whether it might not be simply an agent for the diffusion of small-pox.—Mr. DODSON:—I believe Sir Thomas Watson did say that the lymph which had been largely used in Brighton and elsewhere, for the last forty years, was variolous, and such as "must have spread about a vast amount of mitigated small-pox", in a letter which he wrote to the BRITISH MEDICAL JOURNAL on January 17th, 1880. On the same subject he wrote a letter to the same JOURNAL under date February 28th, 1880, in which he said, referring to the answer he had previously made, "having carefully studied the question, I am now convinced that I was then in error, and I believe I am in duty and honour bound, to acknowledge my mistake and to apologise to the gentlemen who are responsible". I cannot admit that this is any disagreement amongst the highest medical authorities, as to "whether the lymph employed is a protection against small-pox, or whether it may not be simply an agent for the diffusion of small-pox." As far as the bulk of the profession is concerned, they are agreed that the use of lymph is a means of checking small-pox, and not a means for the diffusion of it. At the same time, I would point out to the hon. member with reference to the last part of this question, that if all measures for the prevention or cure of disease, with regard to which some difference of opinion amongst doctors may be found, are to be postponed until they all agree, not only vaccination, but all medical treatment, would have to be suspended probably to an indefinite number of centuries.

Monday, May 30th.

Vaccination.—Mr. HOPWOOD asked the President of the Local Government Board whether it was the fact that the matron and one or more nurses at the hospital at Halifax had recently taken small-pox a few days after revaccination; whether there was any reason to believe the vaccination was of variolous matter; and whether it was the fact that there was in use in the country a large quantity of vaccine which was, in fact, variolous matter, or small-pox communicated from the human subject to cattle, and from them extracted and used in inoculation under the Vaccination Acts.—Mr. DODSON: At the end of March last, a small-pox patient was sent to the Halifax Fever Hospital, and thereupon the matron and staff were strongly urged to be vaccinated; but they all refused. Three weeks afterwards, the matron showed symptoms of the disease, and on the day following four of the nurses were vaccinated. In one of them, a slight attack of small-pox showed itself in two days; and in another a more severe attack in four days afterwards. It is evident, therefore, that they must have been under the influence of the disease when the vaccination took place, and at a stage when the latter could be of no avail. The other two nurses escaped altogether. There is no reason to believe that the vaccination was of variolous matter; and the medical man who vaccinated them distinctly states that it was good vaccine lymph. As to the last question, if by variolous matter is intended the matter of small-pox, or matter capable of producing small-pox, there is no such matter used in vaccination under the Vaccination Acts; and, as a matter of fact, all attempts of late years to produce small-pox in cattle by inoculation with variolous matter would seem to have proved altogether abortive.

Notice of Motion.—Dr. CAMERON has given notice on an early day

to move a resolution condemning the conduct of the Local Government Board in refusing to take the most obvious means of encouraging revaccination; and in witnessing the compulsory closing of small-pox hospitals without causing provision to be made for the reception of small-pox patients.

MILITARY AND NAVAL MEDICAL SERVICES.

STATISTICS OF THE ARMY MEDICAL DEPARTMENT.

SIR,—The War-Office *Gazette* of the 17th instant contains the promotion to the rank of brigade-surgeon of the medical officer whose place was one-hundredth on the list of surgeons-major on November 29th, 1879, the date of the last Royal Warrant for the Army Medical Department. This is a fact which has possibly escaped the notice of many; the fact that, within a period of seventeen months, the surgeon-major's list has been "toptapped" to the number of one hundred, and as follows:

By promotions to the rank of brigade-surgeon (*Gazette*, February 24th, 1880)	48 (*a*)
By subsequent promotion to the rank	20 (*b*)
By those passed over, and not subsequently promoted	20 (*c*)
By retirements	10 (*d*)
By promotion to the rank of deputy surgeon-general (*Gazette*, June 23rd, 1880)	1
By death	1
Senior surgeons-major November 29th, 1879	100

(*a*) Excluding 1 promotion cancelled May 18th, 1880.
(*b*) Including 4 previously passed over, and excluding the promotion of 1 brought in from half-pay August 24th, 1880.
(*c*) Of whom 8 have since retired.
(*d*) Retired, not having been passed over.

A further analysis of these shows that 8 are now deputy surgeons-general, 48 are now brigade-surgeons, 12 are still surgeons-major, 5 have died (4 brigade-surgeons and 1 surgeon-major), and 27 have retired (of whom 9 were brigade-surgeons).

The following table of numerical changes amongst the administrative and executive officers of the department is a supplement to Table C, BRITISH MEDICAL JOURNAL, June 7th, 1879, page 874.

YEARS.		YEARS OF SERVICE. To Half-pay. Under 10	10 to 20	20 to 25	Over 25	Deaths. Under 10	10 to 20	20 to 25	Over 25	Resignations. Under 10	Over 10	Loss. Under 20	Over 20	TOTAL LOSS.	TOTAL STRENGTH (approximate).
1876	Adm.	..	..	..	17	..	..	..	1	..	..	..	18	65	893
	Exc.	5	8	10	7	2	7	3	3	1	1	24	23		
1877	Adm.	..	..	..	5	..	..	..	1	..	..	..	6	50	868
	Exc.	1	8	14	9	1	3	3	..	5	..	18	26		
1878	Adm.	..	..	..	1	..	..	..	..	..	..	..	1	40	874
	Exc.	..	5	11	6	3	5	2	1	5	1	19	29		
1879	Adm.	..	..	..	5	..	..	..	1	..	..	..	6	50	815
	Exc.	2	8	8	15	3	4	6	1	3	1	20	30		
1880	Adm.	..	..	..	7	..	..	..	1	..	..	..	8	83	837
	Exc.	1	4	30	22	6	5	2	4	..	1	16	59		
Aver. of the 15 years prior to 1880	Adm.	..	..	..	4	..	..	..	0.7	..	..	..	4.7	48.4	From 1100 to 800
	Exc.	2.6	7.7	5.3	7.8	5.3	6.2	2.1	0.6	4.3	1.2	27.9	15.8		

I am much obliged to "A. M. D." for pointing out an error in my table, published in the JOURNAL of May 14th. Its occurrence admits of a simple and satisfactory explanation. The *Gazette* of March 9th, 1875, appointed sixteen medical officers to the service; and sixteen is the number given in my table. "A. M. D." states that it ought to have been seventeen, and he is right. On reference to my notebook, I find an interlineation showing that, by the *Gazette* of July 6th, 1875, a medical officer was appointed to the service, his commission being antedated to September 30th, 1874. I overlooked this interlineation; and, having fully accounted for sixteen officers, the death of Surgeon Mullane escaped notice. I have, however, an entry of his death at Chexbores, Switzerland, on July 30th, 1877; so I must ask those interested to make the following corrections:—29th Session, Winter 1874: Candidates gazetted, 17. Subsequent casualties: Deaths, 1.

Yours faithfully,
J. P. H. BOILEAU, B.A., M.D.,
Diplomate in State Medicine, Univ. Dublin.

Woolston, May 21st, 1881.

BOMBAY MEDICAL DEPARTMENT.

THE affairs of this Department have been exciting considerable attention of late, owing to the numerous supersessions in the list of surgeons-major by the selection of junior men for the new rank of brigade surgeon, those in military employment seeming to come off only second best. Nearly all the men so selected are now holding, or have held, lucrative civil appointments; and it is believed that some of them will forego rather than accept promotion, which might involve retirement from an extensive private practice to take up the official duties of administration, to say nothing of the six months' apprenticeship as medical officer of a native regiment required as a qualification by a recent order. As the Indian Medical Departments are entirely a military service, it is, we think, to be regretted that the "ability and merit" required for promotion—and which, no doubt, those fortunate enough to be selected possess—should not have been more exercised with the armies of which the possessors form a part; while others, with perhaps greater proclivities for soldiering and equal talent, though with less opportunity of showing it, have been left to do the more troublesome but less remunerative work. While thinking it right that a high standard should be fixed, we can scarcely believe that, out of thirty men at the head of the list of surgeons-major, twenty-one are wanting in the "ability and merit" requisite to continue their executive duties under the new title. If so, they have been ineffioient for some time; and if not, it seems hard to deprive them of the better rate of retired pay to which long and good service would entitle them if advanced one step in rank. The number of deputy surgeons-general is so small that only a very few can ever hope to attain that rank; but a reasonable expectation of reaching the next lower grade should be possible to the majority of the service. Many of the unfortunate have given their best services to the army; and, from long practical experience of it, must know enough of its regulations and requirements to be able to perform any casual administrative duty a brigade-surgeon may have to undertake. And, after all, the duties of a deputy surgeon-general are more administrative than professional. It then seems unfair that those who get the "loaves" of professional appointments should also absorb the "fishes", to which army service ought to entitle the more special army surgeon. Men getting civil appointments are merely lent from the army, but often for such a length of time that they are supposed to have forgotten its usages and regulations so far as to require to learn them again by service with a regiment prior to promotion.

As to private practice, that, we presume, should not be prevented, so long as military or professional duty is not interfered with, or anyone having claim to unpaid services neglected. In a country like India, everyone is glad to obtain the best professional aid when unfortunate enough to require it; and it is not every town or station in which civil practitioners are so plentiful or so well qualified as in Bombay.

THE PENSIONS FOR WIDOWS OF NAVAL MEDICAL OFFICERS.

SIR,—You have stated on authority that a correspondent, "Medicus Navalis", is quite wrong in supposing that pensions and allowances to widows and children of officers retired after April 1st, 1881, are disallowed under the new Medical Warrant, and that Paragraph 20 of the Order in Council merely deals with the cases of officers who may quit the service with gratuities, and not on retired pay; also that there is no ground in the Order in Council for the inference that such a serious curtailment of privileges is intended.

Now, the Paragraph 20 in its entirety is: "Where an officer retires or withdraws on a gratuity, his widow and children to have no claim to pension or compassionate allowance"; and the only question is, who are those that, and under what circumstances do they, retire on gratuity? The reply is in Paragraph 14: "An officer retired with less than twenty years' service on account of disability contracted in, but not attributable to, the service, to receive: (*a*) If he has over eight years' full pay service, either a gratuity or half-pay, according as we think fit; (*b*) If he has less than eight years' full pay service, such gratuity as we may think fit, not to exceed the rate of £125 for each year of full pay service."

It, therefore, is evident, and not at all inferential, that the officer who is disabled in and not by the service (as it is defined), shall, if retired under eight years' service, receive gratuity only, and not retired pay; or, if retired under twenty years' service and over eight, either a gratuity or the half pay of his rank as retired pay; not as the sufferer, but as the Admiralty may think fit. The diseases need not be enumerated who have classified as "in and not by" at all surveys of invalids from the fleet. The fact stands that gratuity in lieu of retired pay is, to a large extent, compulsory with us in the navy, and that, by Paragraph 20 of Order in Council of April 1st (and truncate date), 1881, claims of widows and fatherless children are definitively established. If we compare this with the army status, we find that its "covenanted" officers of Class A. lie under no such limitations, but only those of Class B., engaging to serve for ten years, which class is doomed to die out.

Under this light, I cannot concur with nor accept the authorised statement you have published; and as it is safer for the helpless to be secured by the provisions of an Admiralty Circular than by this Order in Council as it stands, I hope you will ventilate the question. It is this: that, the correlated Paragraphs, 14 and 20, seeming to have deprived the widows of surgeons retired under six years' service of their pension of £150, and under eight years £80 a year, and their helpless children of the compassionate allowances, varying from £5 to £12 a year, ought not the expected Admiralty Circular to put them in the same position, beyond question, as previous to the late Order in Council?

I profess to be only a Dundreary, not able to see through things that no fellow can understand, such as (*a*), (*b*), (*c*), clauses of Paragraph 11, allowing optional retirement after eight, twelve, or sixteen years' service on gratuities, with severance of all connection with the service; but it seems to me that this severance will cut off the claims of their widows and children, and that, if so, in mercy to them, it should be expressed in plainer terms. I think, after my unsophisticated manner, that under the new order of things, the interests of naval doctors will be prejudiced in the matrimonial line. Indeed, I would not induce or persuade any young lady to engage with one of us before he is quite free from the gratuity obligations.—I am, your constant admirer, DUNDREARY.

The Rag and Famish, Pall Mall.

THE NAVAL MEDICAL SERVICE.

SIR,—Nobody can deny that the new Naval Medical Warrant is a great improvement; and we should all feel grateful for the increase of pay, retirement, etc., which it gives us; but is this new warrant good enough to induce young medical men to enter the naval service of the country in sufficient numbers to meet the demand? I say, without hesitation, No.

If I were commencing life again, and at this particular period, nothing would induce me to enter the Naval Medical Service. I have two young relatives at present who have almost completed their art and medical studies in an university, and who both look forward to serving Her Majesty in one or other of the public services of the country; but they shall do so in the army, and not the navy, if I have any influence over them. Not that I have been unhappy in the Navy—indeed, quite the reverse. I have never served in an unhappy ship, nor with one single captain with whom I would not serve willingly again to-morrow. I have never been badly treated by the Admiralty, nor have I ever known them to do an act of real injustice; on the contrary, I have always found their rule fair and lenient. But I suspect nothing would induce me to enter the navy now with the army open to me, simply because it is an inferior service. As an "investment", it presents no opening to a young, active, zealous man; he can get nothing but his daily pay, though, it is said, this is seven per cent. in excess of the army; but there are no allowances; and it is just these same allowances which make all the difference, and place the army remuneration considerably in excess of the navy. Again, it is impossible for the naval doctors to supplement their pay by any emoluments derived from civil appointments, many of which are open to their army compeers; and, further, the lucky "one" in "four hundred" who is elevated to the post of Director-General, receives an income less annually by £300 than his opposite number in the army; and so on, did I but choose to continue enumerating the financial advantages the army has over the navy.

Now, let us compare "life" as it is in the two services. Indeed, there is no comparison at all; under what conditions could a man exist on shore which would place him in an equally miserable state of existence with an officer in a small craft in the Persian Gulf, on the West Coast of Africa, East Indies, etc. Personally, I would prefer three years in Portsmouth prison, to work with the Dockyard gangs, to a three years' commission on these stations in any of the smaller vessels which are employed there; and I speak from bitter experience.

In my humble opinion, the parturient mountain has once more brought forth the mouse. The long looked-for warrant is disappointing, and is surely not the embodiment of the recommendations of the very capable Committee which deliberated upon its formation, but the mutilated abstract of interpolation. As such, it will defeat its own ends. Time will show that nothing but a substantial difference in pay—not seven per cent., as it is now said to be, but seven per cent. in excess of all allowances—will ever induce men to enter the navy, with all its unavoidable, and, to some, unbearable, drawbacks, in preference to the sister service.—Yours truly,

BIDE-A-WEE.

MEDICAL OFFICERS OF VOLUNTEERS.

SIR,—When I joined as an assistant-surgeon, I supposed that, after five years' service, I should hold relative rank as captain; but, shortly after I saw my name in the *Gazette*, an order was published that we were all to be termed acting surgeons, and hold the relative rank of lieutenant for ever. I see that this absurdity is continued in the new and very incomplete volunteer regulations just published. You are informed that you are to wear the uniform of your corps, excepting that you are to wear a cocked hat; surgeons appointed before 1877 are to have the feathers of the plume one inch longer than those surgeons who are appointed after 1877. Nothing is said as to the kind of belts to be worn, whether they are to be of the Army Medical Department pattern, or the same as those of the combatant officers of the regiment or corps. I am of the opinion that the patterns of uniform, belts, cocked hat, cap, etc., should be the same as those worn by the Army Medical Department, silver being used instead of gold braid, etc., as in the Militia Medical Department; and that promotion and general regulations should be the same. At present, all is chaos. Let us have a Royal Volunteer Medical and Ambulance Department. Let us all pull together, and we shall carry our non-combatant views. I enclose my card.—Yours obediently,

ACTING SURGEON OF FIVE YEARS' STANDING.

P.S. I see that acting chaplains rank as captains, but are not compelled to find uniforms; whereas the acting surgeon, who may be a Doctor of Medicine of the same university of which the chaplain is B.A. or M.A., is only to rank as lieutenant. I think that the relative rank of captain should be allowed all acting surgeons, who certainly, during camp-time, are put to much trouble and inconvenience when a camp is distant. I know many volunteer surgeons and acting surgeons who are justices of the peace. I gave up all idea of going in for any examination when I found that my rank was to be stationary; and I should not recommend anyone to pass an examination until the Volunteer Medical and Ambulance Department is founded, and not whilst the authorities continue to treat volunteers as more of a joke than as a reality.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

EXAMINATION IN STATE MEDICINE.—The next examination for the certificate in Sanitary Medicine given by the University of Cambridge will commence on Tuesday, October 4th. Any registered practitioner, who is in his twenty-fourth year, may present himself. Applications for admission or for information should be addressed to Professor Liveing, Cambridge.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology for the Fellowship of the College, at a meeting of the Board of Examiners on May 26th, and when eligible will be admitted to the pass examination.

Messrs. Frederick Deighton, B.A.Cantab, and Percy Edgelow, students of St. George's Hospital; John B. Sutton, of the Middlesex Hospital; Bertram H. L. Stevens, of King's College; James Wilson, of the Belfast School; William R. Buckell, of University College; Arthur B. Prowse, of the Liverpool and St. Mary's Hospitals; Richard F. Rand, of the Edinburgh and Glasgow Schools; and Alfred Lingard, M.R.C.S. April 1873, of St. Thomas's Hospital.

Eleven candidates, having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for six months, making a total of fifty-seven out of the ninety-eight candidates examined.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, May 26th, 1881.

Douty, Joel Harrington, Middlesex Hospital.
Goddard, Walter Horace, 11, Norfolk Crescent, W.
Green, Henry, 11, Norfolk Crescent, W.
Odling, Alfred Edward, St. Thomas's Hospital.
Ranson, William Edward, 29, Alfred Place, W.C.

The following gentleman also on the same day passed the Primary Professional Examination.

Clay, Augustus Frederick, General Hospital, Birmingham.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, May 9th, 10th, 11th, and 12th, the following candidates obtained the Licences to practise Medicine and Midwifery.

Augustus James Arthur Browne, Balla, Co. Mayo; Louis John Patrick Carroll, Dublin; Walter John Clarke, Blackrock, Co. Dublin; Edmond Francis Flynn, Dungarvan, Co. Waterford; James Garland, Dublin; Edward Gloster, Limerick; Thomas Higgins, Clonmellon, Co. Westmeath; William Wall Jacobs, Curragh Camp, Co. Kildare; Patrick Andrew McDermott, Drumcondra, Dublin; Harry Strickland McGill, Royal Hospital, Dublin; John Henry Cornelius Maw, Rathmines, Dublin; George Cathcart Moutray, Dungannon, Co. Tyrone; William Joseph O'Keeffe, Delvin, Co. Westmeath; Thomas Kay Whitehead, Rawtenstall, Lancashire.

The subjoined Licentiates in Medicine of the College, having complied with the by-laws relating to Membership, have been duly admitted Members of the College.

Henry Lamb, 1860, Surgeon-Major A.M.D.; Edward Joseph Nugent, 1872, Dublin; Arthur Henry Cole Dane, 1874, Surgeon Bombay Army; Patrick J Whitty, 1876, Waterford; Laurence Pereira Marques, 1877, Hong Kong.

MEDICAL VACANCIES.

THE following vacancies are announced :—

BELFORD HOSPITAL—Surgeon. Salary, £150 per annum. Applications to N. B. McKenzie, Secretary, British Linen Bank, Fort William, by June 20th.

BELMULLET UNION—Medical Officer for Knocknalower Dispensary District. Salary, £100 per annum, exclusive of sanitary, registration, and vaccination fees. Election on the 6th June.

BRIGHTON, HOVE, AND SUSSEX THROAT AND EAR DISPENSARY 17, Grenville Place, Brighton.—Honorary Surgeon. Applications by June 8th.

BROOKWOOD ASYLUM—Assistant Medical Officer. Salary, £2 2s. per week. Applications to Dr. Brushfield.

BURTON-ON-TRENT DISPENSARY—Dispenser. Salary, £80 per annum. Applications to Mr. J. Allen, Secretary, Walton Villas, Pranstone Road.

CITY PROVIDENT DISPENSARY AND SURGICAL APPLIANCE ASSOCIATION, 164, Aldersgate Street, E.C.—Assistant-Surgeon. Salary, £120 per annum. Applications by 15th June, to J. P. Cæsar, Secretary.

COUNTY AND CITY OF WORCESTER PAUPER LUNATIC ASYLUM—Resident Medical Superintendent. Salary, £650 per annum. Applications by 4th June.

HALSTEAD UNION—Medical Officer. Salary, £45 per annum. Applications by June 10th.

HYDROPATHIC ESTABLISHMENT, SCOTLAND.—Resident Medical Superintendent. Applications to "Hydropathic", Messrs. Keith and Co., 65, George Street, Edinburgh, by June 4th.

INVERNESS DISTRICT ASYLUM—Matron. Salary, £50 per annum. Applications by June 11th.

KNIGHTON UNION—Medical Officer for Presteign District. Salary, £40 per annum. Applications by 9th June.

LAMBETH INFIRMARY, Pleasant Place, S.E.—Assistant Medical Officer and Dispenser. Applications by 31st June.

MONAGHAN DISTRICT LUNATIC ASYLUM—Assistant Medical Superintendent. Salary, £150 per annum. Applications by June 9th.

MULLINGAR DISTRICT LUNATIC ASYLUM—Visiting and Consulting Physician. Candidates should lodge their testimonials with the resident medical superintendent. Election on the 12th proximo.

OWENS COLLEGE, Manchester—Demonstrator in the Physical Laboratory. Applications by 14th June.

ST. MARY'S HOSPITAL, Paddington.—Curator and Pathologist. Applications to the Dean of the School.

SHEFFIELD UNION—Assistant Medical Officer. Salary, £100 per annum. Applications by 8th June.

SUSSEX LUNATIC ASYLUM, Hayward's Heath—Junior Assistant Medical Officer. Salary, £100 per annum. Applications by June 15th.

THE CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road—Assistant Surgeon. Applications by 6th June.

THE DISTRICT INFIRMARY, Ashton-under-Lyne.—House-Surgeon. Salary, £80. Applications by June 25th.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY, Torquay—Junior House-Surgeon and Dispenser. Salary £90. Applications by June 6th.

TOWCESTER UNION—Medical Officer for the Blakesley District. Salary, £60 per annum. Applications by 13th June.

WESTERN GENERAL DISPENSARY, Marylebone Road.—Honorary Physician. Applications by June 13th.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Junior Dispenser. Salary, £60 per annum. Applications to the Secretary by June 4th.

WORCESTERSHIRE COUNTY ASYLUM, POWICK.—Medical Superintendent. Salary, £650 per annum, with house, coal, washing, vegetables, and all articles of provision at contract prices. Testimonials to be sent to the Clerk to the Visitors, by the 4th June.

MEDICAL APPOINTMENTS.

BENHAM, Frederick L., M.R.C.S., appointed Assistant Medical Officer of the St. Marylebone New Infirmary.

BIRCH, Geo., M.R.C.S., appointed Medical Officer to the Hackney Union, *vice* Mark Long, M.D., resigned.

BOOTH, Lionel, M.D., M.R.C.S.E., appointed Medical Officer to the Sherburn Hospital, Durham, *vice* R. W. Gillespie, M.R.C.S.E., resigned.

BRAILSFORD, Mr. and Mrs. Henry, elected to the joint appointment of Steward and Matron of the Devonshire Hospital, Buxton.

CORRY, William, M.D., appointed Medical Officer to the Drumquin Dispensary District, co. Tyrone, *vice* John Johnstone, M.D., deceased.

EADON, W. F. B., L.R.C.P., appointed District Medical Officer to the Barton Regis Union.

FRASER, Archibald Henry, L.R.C.P.Ed., appointed Medical Officer and Public Vaccinator to the Braintree Union, No. 7 District.

GODRICH, Alfred, M.A., M.R.C.S.Eng., appointed Medical Officer of Kensington District, No. 5.

GUNN, Robert Marcus, M.R.C.S., appointed Ophthalmic Surgeon to the North-West London Free Dispensary for Children.

HADDEN, W. B., M.D., M.R.C.S.Eng., appointed Physician to the St. George's and St. James's Dispensary, *vice* M. H. Lackersteen, M.D.

LUNN, John R., M.R.C.S., appointed Medical Officer of the St. Marylebone New Infirmary.

MORGAN, W. Lewis, L.R.C.P., M.R.C.S., appointed Honorary Surgeon to the Radcliffe Infirmary, Oxford, *vice* John Briscoe, F.R.C.S., resigned.

STUART, John Alex. Erskine, R.C.S.Ed., L.M., appointed District Medical Officer and Public Vaccinator to the Dewsbury Union, *vice* T. B. Oldfield, M.R.C.S., deceased.

THURSTAN, E. Paget, M.D., M.R.C.S.E., appointed Obstetric Physician to St. Marylebone General Dispensary.

WALMSLEY, F. H., M.D., appointed Senior Assistant Medical Officer to the Metropolitan Asylum, Leavesden, *vice* C.A. Mercier, M.B., F.R.C.S., resigned.

WILLEY, C. Henry, M.B., M.R.C.S., appointed Junior House-Surgeon to the Borough Hospital, Birkenhead.

WILLIAMS, W. Roger, L.R.C.P.Lond., M.R.C.S.Eng., appointed House-Surgeon to the St. Peter's Hospital for Stone and Urinary Diseases, *vice* W. H. Neale, M.B., B.S., resigned.

WILLIAMS, F. M., M.R.C.S., appointed Medical Officer to the Dunmow Union Rural Sanitary Authority, *vice* William Armitage, M.B.

WHITEHEAD, Hayward, F.R.C.S., appointed Assistant-Surgeon to the Royal Westminster Ophthalmic Hospital.

WHITEHOUSE, John, M.R.C.S., appointed Junior House-Surgeon to the Sunderland Infirmary, *vice* C. H. Welford, M.B., C.M.

WOODHEAD, G. Sims, M.B., M.R.C.P.Ed., appointed Demonstrator of Pathology and Assistant to the Professor of Pathology of the Edinburgh University.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

BATEMAN.—On May 27th, at Whitchurch, Oxon., the wife of Francis Bateman, M.B.Lond., of a son.

SHAPLEY.—On May 31st, at 20, Leam Terrace, Leamington, the wife of H. T. Shapley, M.B., M.R.C.S., of a son.

MARRIAGE.

JONES SPEARS.—On the 26th ult., at College Chapel, Stepney, by the Rev. Prof. Estlin Carpenter, M.A., Arthur Lloyd Jones, M.R.C.S., of New Cross Road, to Margaret Alice, eldest daughter of the Rev. Robert Spears, Bow, London.

DEATHS.

BIRD.—On the 1st June, 1881, at 3, St. Leonard's Place, York, William Bird, Esq., M.D., aged 49.

LYLE.—At 102, Ryehill, Newcastle-on-Tyne, on the 24th of May, Robert Lyle, M.D.

THE Hon. T. C. Smart, F.R.C.S.E. (brother of Dr. A. Smart, Edinburgh) has been unanimously elected to represent Hobarton in the Tasmanian Legislative Assembly.

THE following appointments have been made: Surgeons Henry M. Levinge, to the *Flirt*, and James Hitchcock, M.B., surgeon and agent at Gamrie, N.B.

THE LATE DR. JOHN SIMPSON.—A meeting of the personal friends and class-fellows of the late Dr. Simpson was held in Aberdeen. It was resolved to erect a monument over the grave of this accomplished young doctor, whose brilliant career was brought so prematurely to a close last year. Dr. Simpson passed first in the competition for the Indian Army and died just on the eve of his departure for India.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—At the recent pass examination for the Fellowship, twenty-seven candidates were examined. Of these, seventeen passed; but two of them will not receive their diplomas until they are twenty-five years of age; and ten candidates were rejected. As all the candidates had previously obtained medical licences or had been examined in medicine at the College, they were not required to undergo an examination on this subject.

HEALTH OF BIRMINGHAM.—In his report for the first quarter of the year, Dr. Hill, the medical officer of health for the borough, states that, with an estimated population of 400,680, the number of births registered during the quarter was 3,965, against 3,964 in the first quarter of 1880, giving a birth-rate of 39.59 per 1,000. The deaths registered were 2,133, making a death-rate of 21.29 per 1,000, against 22.36 in 1880. The diminished total death-rate of the quarter was partly owing to the lesser mortality from zymotic diseases, all of which had been less prevalent. The total number of deaths was less than in any of the first quarters of the five preceding years; and, although the deaths in 1880 were unusually few, those in 1881 were still fewer, and 385 below the corrected average of the first quarters of the preceding five years. The deaths from the seven principal zymotic maladies numbered 159, as compared with 219 in the corresponding quarter of 1880. Whooping-cough caused 70 deaths, against 75; diarrhœa 33, against 46; scarlet fever 31, against 23; fever 11, against 15; diphtheria 9, against 12; and measles 8, against 40. Small-pox, which did not cause any death in the first quarter of last year, proved fatal this year in five cases, three of which, however, did not truly belong to the borough, but were sent by the King's Norton sanitary authority to the Borough Hospital. The number of cases of small-pox which had come to the knowledge of Dr. Hill was 17, of which 9 arose in persons living in the borough, and 8 were received for treatment in the Borough Hospital from two suburban districts, viz., 7 from King's Norton, and 1 from Aston. In the corresponding quarter of last year, only two cases of small-pox occurred in the borough, neither of which proved fatal. During the quarter, 32 cases of scarlatina and 16 cases of small-pox have been treated in the Borough Hospital, against 45 cases of scarlatina and 29 cases of small-pox in the corresponding quarter of 1880. On the whole, the report exhibits, except in reference to the cases of small-pox, an improvement in the general and special health of the borough. Dr. Hill points out that there have been some indications of an impending visitation of small-pox. As cases arise, they will be isolated, and it is hoped that, by this course, combined with the energetic employment of revaccination, the disease may be held in check. He has addressed a circular to all his brethren practising in the borough, urging them to press upon their patients the necessity of revaccination in all suitable cases, and reminding them that the last epidemic of small-pox cost the borough 1,200 lives.

PUBLIC HEALTH.—The annual rate of mortality for the week ending May 28th (the twentieth week of this year), in twenty of the largest English towns, averaged 20.8 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Hull 13, Brighton 14, Leeds 16, Portsmouth 17, Plymouth 17, Leicester 17, Bradford 17, Bristol 18, Sheffield 20, Birmingham 20, London 20, Sunderland 21, Norwich 21, Salford 21, Newcastle-on-Tyne 22, Nottingham 22, Wolverhampton 23, Manchester 24, Liverpool 25, and Oldham 25. Measles showed the largest proportional fatality in Bristol and Sheffield; and scarlet fever in Wolverhampton, Sunderland, and Oldham. The 20 deaths from diphtheria in the twenty towns included 9 in London, 7 in Portsmouth, and 2 in Bristol. Small-pox caused 114 more deaths in London and its outer ring of suburban districts, and one in Salford, while no fatal case of this disease was registered in any of the eighteen other large provincial towns. In London, 2,463 births and 1,488 deaths were registered. The deaths exceeded the average by 14, and gave an annual death-rate of 20.9. During the past seven weeks of the current quarter, the metropolitan death-rate averaged 21.5 per 1,000, against 24.8 and 20.3 in the corresponding

periods of 1879 and 1880. The 1,488 deaths included 103 from small-pox, 66 from measles, 23 from scarlet fever, 9 from diphtheria, 30 from whooping-cough, 3 from typhus fever, 9 from enteric fever, 2 from ill-defined forms of continued fever, 14 from diarrhœa, 2 from dysentery, and one from simple cholera; thus, 262 deaths were referred to these diseases, being 26 above the average. The deaths referred to diseases of the respiratory organs, which had steadily declined from 395 to 254 in the five preceding weeks, were 256 last week, and 16 below the average; 140 were attributed to bronchitis, and 86 to pneumonia. Different forms of violence caused 58 deaths; 47 were the result of negligence or accident, among which were 20 from fractures and contusions, 4 from burns and scalds, 4 from drowning, 2 from poison, and 8 of infants under one year of age from suffocation. Ten cases of suicide were registered. At Greenwich, the mean temperature of the air was 53.1°, and 0.9° below the average. The mean degree of humidity of the air was 78, complete saturation being represented by 100. The general direction of the wind was S.W., and the horizontal movement of the air averaged 17.9 miles per hour, which was 7.6 above the average. Rain fell on six days of the week, to the aggregate amount of .53 of an inch. The duration of registered bright sunshine in the week was equal to 35 per cent. of its possible duration. The recorded amount of ozone showed a considerable excess throughout the week.—The annual rate of mortality last week, which was the twenty-first week of this year, in twenty of the largest English towns, averaged 20.0 per 1,000 of their aggregate population, which is estimated at 7,608,774 persons in the middle of this year. The rates of mortality in the several towns were as follow: Plymouth 13, Birmingham 15, Brighton 16, Bristol 17, Wolverhampton 17, Hull 17, Bradford 18, Norwich 19, Salford 19, London 19, Newcastle-on-Tyne 20, Sunderland 20, Leeds 20, Portsmouth 20, Nottingham 20, Leicester 21, Manchester 22, Sheffield 22, Oldham 22, and Liverpool 24. Small-pox caused 100 more deaths in London and its outer ring of suburban districts, one in Brighton, and one in Norwich, but no fatal case of this disease was registered in any of the seventeen other large provincial towns. In London, 2,411 births and 1,452 deaths were registered. The deaths exceeded the average by three. The annual death-rate from all causes was 19.8. The 1,452 deaths included 92 from small-pox, 86 from measles, 33 from scarlet fever, 8 from diphtheria, 31 from whooping-cough, 14 from enteric fever, one from continued fever of an ill-defined form, 13 from diarrhœa, 2 from dysentery, and not one either from typhus or simple cholera; thus, 280 deaths were referred to these diseases, being 44 above the average. The deaths referred to diseases of the respiratory organs, which had been 254 and 256 in the two preceding weeks, declined to 241 last week, and were 16 below the average. Different forms of violence caused 41 deaths; 33 were the result of negligence or accident, among which were 15 from fractures and contusions, 6 from drowning, and 8 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 59.5°, and 3.6° above the average. The mean degree of humidity of the air was 73, complete saturation being represented by 100. The general direction of the wind was easterly, and the horizontal movement of the air averaged 8.8 miles per hour, which was 1.5 below the average. Rain fell on three days of the week, to the aggregate amount of 0.39 of an inch. The duration of registered bright sunshine in the week was equal to 45 per per cent. of its possible duration.

HEALTH OF FOREIGN CITIES.—A table in the Registrar-General's last weekly return gives the following statistics, affording indications of the recent health and sanitary condition of various colonial and foreign cities. In the three largest Indian cities, the annual death-rate averaged 36.7 per 1,000, and was equal to 36.2 in Calcutta, 35.4 in Bombay, and 38.9 in Madras. The fatal cases of cholera in Calcutta, which had been 83 and 123 in the two previous weeks, declined to 81, and 52 deaths from small-pox were returned in Madras. In Alexandria, the rate was equal to 36.4. According to the most recent weekly returns, the average annual death-rate in twenty-one European cities was equal to 30.2 per 1,000 of their aggregate population, showing a marked excess upon the average rate in twenty of the largest English towns, which during last week did not exceed 20.0. The rate in St. Petersburg was no less than 62.8, but showed a further slight decline from still higher rates in the preceding weeks; typhus and typhoid fevers caused no fewer than 127 deaths, against 138 and 128 in the two previous weeks. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged 27.0; and the highest rate was 29.3 in Copenhagen, where the 132 deaths included 6 from whooping-cough. The Paris death-rate was 26.3, and showed a further decline from the rates in recent weeks; typhoid fever, however, caused 39, and small-pox 21 deaths. The deaths in Brussels, which included 4 from typhus and typhoid fevers, were equal to 22.6 per 1,000, and differed but slightly from the rate in Geneva, which was 22.8. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the death-rates ranged from 19.8 in Rotterdam to 24.7 in the Hague. The Registrar-General's table includes seven German and Austrian cities, in which the death-rate averaged 29.2, and ranged from 23.8 and 24.5 in Berlin and Hamburg, to 38.9 and 39.1 in Buda-Pesth and Munich. Small-pox caused 14 deaths in Vienna, and 11 in Buda-Pesth. The death-rate averaged 30.2 in three of the largest Italian cities; it was equal to 26.2 in Turin, 29.0 in Rome, and 33.0 in Naples. Typhoid fever showed fatal prevalence in Turin and Rome. In four of the principal American cities, the death-rate, calculated upon estimates derived from the enumerated numbers of 1880, averaged 27.5; it was equal to 23.0 in Philadelphia, 23.4 in Baltimore, 24.6 in Brooklyn, and 33.2 in New York. Thirty-five fatal cases of small-pox were recorded in Philadelphia, and 12 in New York; and both scarlet fever and diphtheria also showed fatal prevalence in New York.

CHARING CROSS HOSPITAL.—The following appointments have been made at this Hospital. *House-Physician:* J. Barrington Baker, L.R.C.P., M.R.C.S. *House-Surgeon:* F. Ernest Taylor, M.R.C.S.Eng. *Resident Obstetrical Officer:* F. J. Grindon, L.S.A. *Assistant House-Physician:* C. R. C. Lyster. *Assistant House-Surgeon:* H. R. Morse.

BEQUESTS AND DONATIONS.—Mr. Charles Stephen Barron, of Orsett Terrace, Hyde Park, bequeathed £4,000 to St. Mary's Hospital, £2,000 to the Surrey County Hospital, £2,000 to the Brompton Hospital for Consumption, etc.; and £1,000 each to the Royal Hospital for Incurables, the Highgate Small-pox Hospital, the Great Northern Hospital, the Ventnor Cottage Hospital, the Metropolitan Convalescent Institution, the East London Hospital for Children, the Middlesex Hospital, and the Charing Cross Hospital.—Mr. George Marples, of Brincliffe Tower, bequeathed £500 to the Public Hospital and Dispensary, and £300 to the Jessop Hospital, Sheffield.—General Charles Gascoyne bequeathed £100 to the Royal Hospital for Incurables, and £100 to the National Hospital for the Paralysed and Epileptic.—The London Lock Hospital and Asylum has received £100 from the Grocers' Company, and £10 10s. from the Vestry of the parish of St. Martin Ongar.—Mr. John Christian Bergmann, of Ampthill Square, bequeathed £50 to the German Hospital.—"Thank-offering" has given £50 to the Cancer Hospital.—The Western Ophthalmic Hospital has received £25 from the Fishmongers' Company, and £10 10s. from the Skinners' Company.—Miss Mary Ann Hancock Henery, of Arlington Road, Camden Town, bequeathed £500 each to the Royal Free Hospital, the Middlesex Hospital, University College Hospital, the Hospital for Paralysis at Putney, and the Brompton Hospital for Consumption.—Mr. Edward Baker, of Clapham Common, bequeathed (at his wife's death) £300 each to the Earlswood Asylum for Idiots, the Hospital for Incurables, and the Clapham General Dispensary; and £200 each to the Brompton Hospital for Consumption, the Royal Sea Bathing Infirmary, and the City of London Hospital for Diseases of the Chest; and the remainder of such part of his real and personal estate, as may be by law applied for charitable purposes, to the principal London hospitals, at the discretion of his trustees.—The East London Hospital for Children and Dispensary for Women has received £142 from the Accountant-General in Chancery, out of the "residue" of the estate of Mr. T. Hall.—Mr. Peter Reid has given £55 5s. (additional) to the National Hospital for Consumption at Ventnor.—The Goldsmiths' Company have given £25 to the London Lock Hospital and Asylum.—Mr. Adam John Macrory, late of Duncairn, Belfast, has bequeathed £250 to the Belfast Royal Hospital, and £250 to the Belfast Charitable Society.—The late Mr. Malcolm McCracken has left £50 to the Belfast Royal Hospital.

BUCKINGHAM RURAL DISTRICT.—Mr. De'Ath's report, though brief, shows him to be interesting himself in the sanitary condition of his district. He waxes eloquent on the subject of overcrowding, and the evils to which it gives rise. Looking to the present scandalously deficient cottage accommodation in the district, it certainly seems to us imperative that the local authority should at once take steps for its improvement. Mr. De'Ath chronicles a somewhat curious outbreak of enteric fever at Padbury, the causation of which he does not seem to have discovered. A man who always worked away from home came home ill with it; his wife took the disease, as well as his mother (aged 53), who helped to nurse him, and who lived some distance off. Her two sons who lived with her also had it, and eleven others in different parts of the village were attacked. It would have been interesting to have further particulars about this outbreak.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th.; 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 2; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

SILVERLOCK'S MEDICAL REFERENCE BOOK.

SIR,—Referring to the notice in your paper of the above, we write to inform you that Mr. George Brown did not furnish the list of consultants complained of. That information was volunteered by a member of the profession at the time when the work as edited by Mr. G. Brown was in hand, and was then accepted as an addition to the work.

We wish to call attention to the fact (which does not appear to be generally noticed) that the list is made out on a principle "Authors on special subjects only" as notified at the beginning; whether wisely or not, we do not pretend to have any opinion. We only wish the author had made a happier hit.—Yours faithfully,

HENRY SILVERLOCK.

THE O'BRIEN JONES FUND.

SIR,—May I ask you to publish a third and final list of subscriptions to the above fund, with thanks to those who have thus kindly expressed their sympathy with Mr. Jones in the late prosecution. The total amount from all sources is £345 1s. 6d. The account will now be closed.—I am, sir, obediently yours,

17, Chepstow Villas, Bayswater, W. ED. HART VINEN, M.D., Treasurer.

Third List of Subscriptions.

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VACCINATION WITH CALF-LYMPH.

SIR,—I read with eagerness your editorial paragraph in the JOURNAL of the 21st inst. respecting vaccination with calf-lymph, hoping to find some explanation for my failure with several specimens of it. I have used it both for vaccination and for revaccination, and with very unsatisfactory results. You say: "Calf-lymph has the undoubted disadvantage of not keeping well, and that, after twenty-four hours, the prospect of successful vaccination from any sample becomes more and more hypothetical." This, if true, is unfortunate for many of us who may not be able to use the lymph within the prescribed time, unless it could be conveyed by telegram; but may I presume to ask why bovine lymph should possess this ephemeral character? If it be lymph pure and undiluted, I opine that it should retain its potency just the same as lymph from any other source. There is a fallacy somewhere, which should be speedily explained and remedied, as the disappointment, to say nothing of the pecuniary loss, is "quite too much" for the equanimity of

Yours truly, R. HARVEY HILLIARD.

Fairmead House, Upper Holloway Road, May 23rd, 1881.

SIR,—In reply to Mr. Barker's note in this week's BRITISH MEDICAL JOURNAL, I can refer him to Mr. E. Darke, 3, Hemmings Row, St. Martin's Lane, W.C., who, I am certain, can supply him with either calf-lymph or humanised lymph of excellent quality. I have been borough vaccinator for twenty-seven years, and have had a supply of lymph for over twenty-five years. Thinking the lymph I used had become weak, I obtained a large point (ivory) charged with calf-lymph from Mr. Darke. According to the printed directions for those unaccustomed to its use, I vaccinated one healthy child, and obtained five mature and healthy vesicles; from these I vaccinated six children, and have certainly got a better stock of lymph which never fails.—Yours faithfully, T. W. CRASTER, M.D.

Middlesboro', May 25th, 1881.

SIR,—As facts bearing on the efficacy of calf-lymph are worth recording, I beg to add my mite to the sum total of information, and am sorry to be compelled to state that my experience, though smaller, has been equally unfortunate with that of Mr. Robert Barker, who stated, in the JOURNAL of May 21st, that both primary and secondary vaccination had invariably failed in his hands. My cases were only two, one of each kind. The lymph, between glasses, had, according to the label, been collected three days before, and was carefully used according to the directions given by Dr. Cook, of Manningtree, an experienced cultivator of the virus. If it should prove, as some assert, that calf lymph cannot be kept a couple of days without spoiling, its usefulness will be seriously diminished.—Yours, etc.,

St. Leonard's-on-Sea, May 25th, 1881. W. T. LAW, M.D.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

CONSULTATIONS WITH HOMŒOPATHS.

SIR,—Admitting, as I think we must, that the wishes of Her Majesty the Queen placed the consultants in the case of the late Lord Beaconsfield in a peculiar position, we may take comfort, I think, from knowing it is only under very exceptional circumstances that such a compelling influence is likely to act; and we may also hope that no conscientious member of the profession will be likely to appeal to what has recently taken place as a justification for parleying with homœopaths in the future. So far as the profession is concerned, there cannot be much difficulty in arriving at an understanding on this question; but there is another view of the matter, taken by the public, which equally concerns us, and is rather more difficult to deal with. It has, I fancy, been often said, during the last few weeks, "What a shame it is, when human life is at stake, that the doctors should squabble about etiquette". To say so, however, is obviously an unworthy attempt to shift responsibility from those on whom it properly rests to the shoulders of the medical man whose aid may be sought for. We may reply: If patients and their friends do not believe homœopathy to be equal to all emergencies, why do they resort to it? If their faith remains unshaken, no one desires to tamper with it; but, if they have really broken away from homœopathy, their feelings would certainly not be so much outraged by candidly saying so, and dismissing the homœopath in attendance, as would those of the unsectarian practitioner who is asked to take part in the mockery of a consultation with him. When I say mockery of a consultation, I assume, of course, that the homœopath is prepared to abide by his convictions; when he is willing to forego them for the occasion, another phase of the question arises which calls for brief comment. Sir William Jenner, as might be expected, advanced the proper plea, and avoided being drawn into any ambiguous position, by saying he declined to meet "a reputed homœopath". It is undeniably this question of reputation with which our whole concern is, and not the details of treatment which the possessor of such reputation may have adopted, or be willing to adopt, in any particular case.

It is pretty well understood, even among laymen, that the homœopathy of Hahnemann is, to a great extent, a thing of the past. The homœopathy, however, of some medical men of the present day is a practice carried on by them because they well understand it has an influence over a certain section of the community which is easily captivated by specious arguments for eclecticism; and which, moreover, thinks that it shows a praiseworthy liberality of mind by upholding the man who professes "to see good in both systems". Trimmers, however, in any calling or creed, are not people to command our respect; and from such "twilight animals, true to neither cause", it behoves us to be as far apart as we have hitherto been from the genuine and more upright disciples of Hahnemann.—

I am, yours, etc.,
GEO. F. ELLIOTT, M.D.
Hull, April 30th, 1881.

SIR,—The fair and liberal views expressed by Mr. Holthouse in the JOURNAL of last week will, I venture to think, be shared by everyone who has carefully observed the recent development of therapeutics. In the works of our best authorities, such as Ringer and Wood, there is ample evidence that the difference between "ordinary" and "homœopathic" treatment is by no means so great as to preclude the possibility of useful consultation. If we compare the chapters on many important drugs (*e.g.*, aconite, arsenic, antimony, belladonna, cantharides, ipecacuanha, mercury, nux vomica) in these text-books, with those on the same medicines in the standard modern work of homœopathy, (Hughes), we find that there is a close resemblance in the teaching. And the harmony of view is further indicated by the fact that the authors of both schools acknowledge their indebtedness to one another. It is evident, therefore, that the men who are best qualified to form an opinion upon questions of therapeutics are not unwilling to recognise the value of any honest work tending to enlarge the general store of medical knowledge. In medicine, as in higher subjects, "our little systems have their day", and we can ill afford to allow antiquated sectarian views to retard progress in that branch, which is confessedly the most difficult and least satisfactory, viz., the action of remedies in disease. Fortunately, we have no tests of orthodoxy in medical questions, and dogmatism is incompatible with progress. It is our privilege to be ever advancing towards fresh acquisitions of knowledge. The bitter prejudices of past times are probably regretted alike by orthodox practitioners and homœopaths. Mr. Holthouse justly remarks that many of the latter are "as honourable, talented, and intelligent as ourselves"; but they are professionally ostracised, because "we ignore their remedies, and consider their doctrines opposed to rational medicine". And he discusses with perfect fairness the grounds on which this assumption rests. I believe that, in the profession, there is a general misapprehension as to the principles and practice which are so freely denounced. It is unreasonable to suppose that homœopaths prefer their present isolation, involving, as it does, not only exclusion from medical societies and appointments, but the sacrifice of any prospect of honours and official positions in the profession. If, after full and candid investigation, we had even arrived at the conviction that their doctrines and practice were entirely irrational and unsuccessful, we might at least afford to be charitable, and admit their honesty of purpose. But we have seen that suggestions and remedies emanating from the homœopathic school are now adopted by our leading therapeutists. The value of these new drugs, and the successful results obtained by using old medicines in small doses, are confirmed by our everyday experience. Indeed, the whole tendency of modern therapeutics seems to be to amalgamate the teaching of both schools into the general body of medical science. This is "a consummation devoutly to be wished for"; and, when it is reached, we shall not have a repetition of such episodes as that which lately agitated the public mind, and called forth the unpleasant comments of the press on our boasted liberality.—I remain, yours obediently,
ALFRED PULLAR, M.D.
Cheltenham, May 10th, 1881.

SIR,—The objections commonly felt to consultation may, I think, be referred to two sources: 1. The unbecoming ethical position of "homœopathic" medical practitioners; 2. Their special doctrines.

That ethical position, considered apart from associated doctrines, is utterly opposed to true scientific custom. This is with myself a matter of earnest conviction, in spite of the bias of natural ties and early influential associations; and I am prepared for the reproach, if reproach it be, that this conviction fully ripened only by degrees. The first practical adoption by Hahnemann of a peculiar ethical position may be traced back to the year 1808. Dr. Dudgeon, writing as a homœopathic advocate, says that Hahnemann "appealed from the injustice of his professional brethren to the unprejudiced judgment of an enlightened public, and henceforth published his strictures on existent medicine, and his projects for its reformation, in a magazine of general literature and science entitled the *Allgemeiner Anzeiger der Deutschen*. During the years 1808 and 1809 he published in that journal a succession of papers, etc. (*Lectures on Homœopathy*, p. 50). Now it is to be remarked that this appeal of Hahnemann to an "enlightened public" was associated in the same year with his declaration of the distinctive name by which his followers still describe themselves to the public. "After the latter date" (1828), writes Dr. Dudgeon (p. 51), "we meet with the term homœopathic". It is evident that there is much in the public use of such a name. In considering its effect, we may compare the case of a modern surgical innovation. What would be said of the establishment of "antiseptic" hospitals, dispensaries, and societies, of a directory of antiseptic surgeons? What would be thought of practitioners, some of whom inscribed "antiseptic surgeon" on their door-plates, who gave public lectures on their speciality, published Antiseptic Domestic Practices by the dozen, edited an Antiseptic Review or World largely addressed to the public, and containing the names and addresses of the professional editors? What would be the effect if such practitioners supported and directed their patients to "antiseptic chemists" or instrument-makers; these same tradesmen being active popular propagandists, displaying in their windows a large bust of a distinguished Scotch surgeon, and exposing on their counters popular literature setting forth the cures of antiseptic surgery, and the evils of all different practice? Lister's method had to encounter no little professional opposition, without being embarrassed by unscientific errors, and crotchets like those of Hahnemann. But what treatment would the profession have accorded to it had it adopted methods like the above? Yet all these would correspond to the action of professed homœopaths in the present day. Whatever palliation may be offered for the original adoption of any such methods, they are far less excusable now. Circumstances have rendered me familiar with the subject; and I write thus earnestly because I fear no healing can be real or permanent that does not fully deal with this aspect of the breach.

As to doctrines, I cordially agree with those of your correspondents who, like Mr. Holthouse, recognise a mixture of truth and error. The idea of a natural "law of cure" can be shown to be utterly unscientific and erroneous; but evidence may, I think, be yet adduced, that the crude formula *similia similibus* imperfectly shadows forth a truth which is in scientific accord with certain facts of anatomy, physiology, and pathology.

Surely there are some cases in which certain doctrines, honestly held, need be no barrier to consultation. But as to the ethical position of professed "homœopaths", I do not see how that can be condemned in the case of those who still maintain their unprofessional attitude in regard to the public. It is a good sign, that some of the broader section of "homœopaths" show a disposition to depart from such an attitude. Probably something less than the capital punishment of invariable ostracism would have a better repressive effect.—Yours obediently,
London, May 7th, 1881. W. WILBERFORCE SMITH, M.D., M.R.C.P.

SIR,—I write to ask, whence the quotation in Dr. Kidd's letter in the JOURNAL of May 21st. By the vigorous application of "one set of convictions", I do not understand what Dr. Kidd means. The statement about Sir William Jenner and Sir William Gull is not according to my taste. "Let another man praise thee, and not thine own mouth."—I am, sir, yours obediently,
NEMO.

SIR,—It would without doubt be advantageous to Dr. Kidd, to the medical profession, and to the world of suffering humanity, if he would publish his successful method of treatment in a particular case where Drs. Jenner and Gull failed to relieve the patient. Dr. Kidd's diagnosis would also be interesting, as possibly that may have been the secret of success. By taking this step, Dr. Kidd will make an advance in introducing a catholic spirit into medicine; whereas, by keeping his treatment a secret, he exposes himself to the unpleasant reflections that are always associated with secret remedies.—Your obedient servant,
ALDI ALTERUM PARTEM.

AMERICAN DIPLOMAS.

INQUIRER asks: Does a diploma granted by the Cleveland Medical College, United States, after an examination by two medical men in London, enable a man legally to practise as doctor of medicine in this country?

*** Certainly not; it being assumed that the person referred to has no British diploma.

COLONIAL PRACTITIONER will be glad to know where to obtain "fluoric acid", as recommended by Dr. Woakes for goitre; also whether it is H F (hydrofluoric acid) in watery solution, or H_2FO_3. He will also be glad to know the dose.

TREATMENT OF WHOOPING-COUGH

SIR,—I should be glad to receive information from some of your members as to the remedies that have proved most successful for whooping-cough, uncomplicated either with any other pulmonary affection. As the complaint is existing as an epidemic, not only in this locality, but also in others, it would be rendering great service to know of a remedy most suitable, as well as beneficial. I have tried various remedies, but hitherto have not realised the success that I could wish. As the diet forms an important part of the treatment, I should be glad to know also what is considered the most suitable.—Yours, etc.,
A MEMBER OF THE ASSOCIATION.

SIR,—Can I claim a fee under the following circumstances? and, if so, to whom should I apply? On May 19th, at 10.30 P.M., I was sent for by a sergeant of police to see a man, in a public house, about half a mile from my residence, stated to be insensible and in a dying state.—I am, yours faithfully,
H. M.

CHLORIDES OF IRON.

SIR,—I need not say that many preparations almost identical in composition differ very widely indeed in therapeutic action. Dr. Charles Bell, of Edinburgh, has on several occasions pointed out, in the strongest manner, that a very wide difference does exist in the therapeutic action of the several tinctures of iron; in fact, he has stated that the tincture of the muriate of iron of the *Edinburgh Pharmacopœia* is the only one of them that possesses a specific action in erysipelatous disease. From my own experience, I can fully corroborate that statement.

May I ask Mr. Masterman why the chlorides of iron should be identical in action? Is the chemical affinity between the iron chlorides much closer than between the chlorides of mercury? Why should not the chlorides of iron differ in action as widely as do the chlorides of mercury? I had imagined that this question had been set at rest long ago; and when I published my case of "puerperal septicæmia", I had no idea that anyone would for a moment give me the credit of originating a method, or of discovering the great difference in the therapeutic value of the tinctura ferri perchloridi (*B.P.*) and the tinctura ferri muriatis (*Ed.Ph.*).—I am, sir, yours faithfully,
WILLIAM DONOVAN.

Royal College of Surgeons of England.

The following questions were submitted to the candidates at the recent half-yearly primary examination for the Fellowship of the College. *Physiology.*—1. Describe the minute structure of the two outer layers of the Retina. What are their functions? Describe the effects of Light upon them in the Living Eye. 2. Contrast the tension of the Oxygen and Carbon Dioxide contained in Venous and Arterial Blood respectively with the partial pressure of those Gases in the Pulmonary Alveoli. Compare the Gas-interchange which takes place normally with that which occurs in Suffocation. 3. Enumerate the different kinds of Proteid Substances found in the Human Body. State where they are found, and give their distinctive characters. 4. Describe the formation of a Blood-Clot. Upon what does it depend? Mention the circumstances under which the blood may clot within the vessels, and describe the stages of the process. How may the coagulation of shed blood be prevented. *Anatomy.*—1. Describe the Arches of the Foot, and the Ligaments and Muscles by which they are maintained. 2. Describe the Dissection necessary to expose the Left Vertebral Artery from its origin to its entrance into the Skull. 3. Describe the Spinal Column as a whole: first, in reference to its Curves, and the manner in which the several Vertebræ are modified in shape in association with these Curves; secondly, in reference to the Movements which take place in its different parts, and the means by which these Movements are effected and regulated. 4. The Subject being in the Supine Position, describe the Dissection by which you would expose the whole of the Obturator Externus Muscle and its Tendon.—The following were the questions at the pass examination for the Fellowship. 1. Describe the Anatomy of Dermoid Cysts, and discuss the question of their mode of origin. In what regions are they usually found? what symptoms do they produce in each region? and what treatment should be adopted? 2. In a case of Aneurysm at the Root of the Neck, on the right side, what circumstances would aid you in fixing its seat? What methods of treatment are applicable, and what would influence your selection of each method? 3. Mention the Nerve-Trunks of the Upper Extremity which are especially liable to be injured in Accidents, and give the Symptoms which would result in each if the Nerve concerned were completely divided. 4. Describe the various risks encountered by a patient who has undergone the operation of Lithotomy; state the best means of their prevention, and the treatment to be adopted in each complication.

The clinical cases at the recent final examination for the membership of the College were: Ununited Fracture of the Femur; Lymphadenoma; Cyst in the Spermatic Cord; Lupus; Strumous Disease in the Axilla, Neck, etc.; Encysted Hydrocele; Varicose Veins; Cyst on Eyelid, and Ganglion on the Wrist, in the same Patient; Facial Paralysis; Flat Foot; Bursa on the Head of the Tibia; Chronic Arthritis; General Struma; Malignant Disease of the Eyeball; Hydrocele of the Tunica Vaginalis; Excision of the Os Calcis; Syphilis; Strumous Disease of the Carpus and Contraction of the Tendo Achillis in the same Patient; Diseased Spine and Lumbar Abscess; Varicocele of the Lip; Enlarged Testicle and Hydrocele; Gumma; General Struma; etc.

At the examination for the Fellowship, the clinical cases, selected from the London hospitals, were the following: Synovial Disease of Knee, Bursa of Semimembranosus; Diseased Skull; Rupture of Enlarged Testes; Tumour of Orbit and Antrum (Polypus of Nose); Disease of Antrum; Diseased Knee; Disease of Carpo-Metacarpal Joint; Epithelioma of Lip and Jaw; Infantile Paralysis; Paralysis of the Fifth Nerve; Nerve-Lesion and Burn; Amputated Toe; Paralysis of the Cranial Nerve; Diseased Testis; Tumour of Upper Jaw; Rheumatism of Knee; Scirrhus of Male Breast; Hydrosarcocele; Epithelioma; Ulcer of the Face; Epithelioma of the Tongue; Diseased Hip; Ulcerated Tongue; Pelvic Abscess; Ununited Fracture of Femur; Caries of the Ilium (Abscess of Hip); Lichen Rubra.

Mr. Morris's Case of Intramural Fibroid Tumour of the Uterus.

Sir,—I trust that Mr. Morris will accept my criticism in the spirit in which it is intended, and forgive me when I say that I think the account of his case does not justify the conclusion to which he comes, that no operative proceeding would have done any good. If he had opened the abdomen, either before the peritonitis occurred, or immediately after it became apparent, and removed the ovaries and Fallopian tubes, I think he might have saved his patient; and, if so, he certainly would have cured her. There is now under my care a lady who suffered in quite the same way as Mr. Morris's patient, and from the same cause. I could not remove the tumour, but I removed the tubes and ovaries; the tumour has shrunk, and all her symptoms are relieved. The doctor who placed her under my care for the operation is a near relation of his patient; and in due time a complete history of the case will be given. May I also point out to writers on these subjects that it is time the old and incorrect name of "fibroid" should be replaced by the modern and correct term "myoma".—I am, etc.,

Lawson Tait.

A Warning.

Sir,—A very much "got up" elderly man called at my house a few days since, and giving his name as Edmunds, requested to see me; and finding, as he probably anticipated, that I was from home, with great affectation of earnestness of purpose, pleaded to see my wife. The servant, quite deceived by his audacious assumption of manner, showed him into the drawing-room. He pretended to have called with a recommendation from Colonel P., and expressed a wish that I should call and see his family at Bayswater. As he rose to leave, he found that he was minus his purse; and, with an off-hand pleasantry of manner, requested the loan of a few shillings, which he would, "of course return when I called". The abrupt manner in which he was ordered to leave the house a little disconcerted him, but not sufficiently to prevent his carrying on the "same old game" in the house of another medical man in the immediate neighbourhood, hence my reason for troubling you with this letter.—I am, sir, your obedient servant,

H. J. P.

Warwick Road, Maida Vale, W., May 24th, 1881.

A. P.—Yes; at an early date.

Placenta Prævia.

Sir,—In regard to the communication of Mr Ashworth, in the Journal of May 28th, as a practitioner of some duration, although not a specialist, allow me to say that I consider that the deaths in his cases possibly arose from shock, and not from hæmorrhage; at least, that shock in such and in all cases is the most likely to kill. Severe hæmorrhage may produce shock, but a more likely cause I believe to be artificial dilatation of the os uteri, and possibly too rough manipulation; not perhaps so probably in his, but in obstetric cases. I suggest leaving the dilatation requisite for turning to nature, and not so much fearing the inevitable hæmorrhage. I am sure that Mr. Ashworth is a most humane and careful obstetrician; and in reference to surgery and midwifery generally, I hope I shall not be considered irrelevant in remarking that the camp and the field are the places for heroism, but operations in either of the two former are not military evolutions.—I am, sir, your obedient servant,

Surgeon.

Arum Maculatum.

Sir,—In reference to the case of poisoning by the above at p. 668, and Dr. Murrell's letter on the same, p. 720, I may add that, more than a year ago, I had collected and prepared an expressed juice from a quantity of the fresh plants arum maculatum, for the purpose of having its properties investigated. It having been shown (*Pharm. Journ.*, 1880, pp. 849 and 887) that the active drug in the nostrum Tonga was, in all probability, part of the stem of a species of Raphidophora belonging to the same natural order, Araceæ, the arum-juice was tried by a medical friend in a case of obstinate neuralgia which was relieved by Tonga; but the latter, to the patient, was an expensive medicine. The *Succus arr.* in one-drachm doses, gave similar relief, I was informed; further than this I have not known it tried.—Your obedient servant,

Wm. Martindale.

10, New Cavendish Street, W., May 7th, 1881.

The Antiseptic Treatment of Chest-Diseases.

Sir, Professor Lister's *Antiseptic Principle in the Practice of Surgery*, first privately circulated among Surgeons in 1866, and afterwards made more generally known through the columns of the British Medical Journal and the *Lancet* in 1867, is, I am glad to observe, about to form a new epoch in the history of medicine as well as surgery. Having studied antiseptic treatment in relation to chest-cases for the last eleven years, I read with great pleasure Dr. Coghill's able paper on Antiseptic Inhalation in Pulmonary Affections, in the Journal for May 28th.

Antiseptic treatment is undoubtedly of great value in certain kinds of lung-disease, and deserves more general and extended trial than has yet been accorded it. My friend Mr. Anthony Bell of Newcastle has recently invented an instrument by which he uses, in phthisical cases, "medicated respiration". I only name this that I may express satisfaction at the new direction in the study of chest-cases. In 1870, I wrote an essay on the prevention of bronchitis and pulmonary consumption; the mode being by depositing, through the medium of snuff, osonised atoms on the "convoluted walls of the tortuous nasal channels". During eleven years, the ozone plan has been very extensively tried by many hundreds as a preventative of pulmonary complaints, and in conjunction with hypophosphites and other remedies in their relief; and so far has quite come up to expectations; indeed, has surprised and surpassed them.—I am, etc.,

J. Carrick Murray, M.D., Physician to the Northern Counties Hospital for Diseases of the Chest.

Newcastle-on-Tyne, May 30th, 1881.

Sir,—Can any of your correspondents inform me as to whether the injection of oil into the uterus would be of any use in facilitating the delivery of the child when the os is fully dilated?—Yours faithfully,

Inquirer.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. G. White Wallis, London; Mr. G. W. Graham, Wimborne; Our Glasgow Correspondent; Mr. Charles Pridham, London; Mr. W. B. Hadden, London; Dr. R. D. Lyons, London; Mr. E. W. Wallis, London; Mr. Munro Scott, London; Dr. W. T. Law, St. Leonard's-on-Sea; Mr. Lawson Tait, Birmingham; Mr. Thomas Sanctuary, Hayle; Volunteer Surgeon; Omega; H. M.; Dr. J. H. Bell, Bradford; Mr. W. Whitton, Towcester: Inquirer; Mr. G. Eastes, London; Dr. Goodhart, London: Mr. Barnardo, London; Dr. M. Gavin, Boston; Dr. Edwin Rickards, Birmingham; Messrs. Grey, Dawes, and Co., London; Mr. Balmanno Squire, London; Mr. H. Silverlock, London; Our Aberdeen Correspondent; Dr. Harrison Younge, Netley; Dr. J. Murray Lindsay, Derby; Dr. J. Johnston, Boston; Dr. F. J. Quinlan, Dublin; Mr. S. S. Alford, London; Dr. J. Ewart, Brighton; Our Dublin Correspondent; Dr. J. Rogers, London; Mr. T. Jenner Verrall, Brighton; Mr. C. Young, Chilton Polden; Dr. Barrett Roué, Bristol; Dr. W. Milsted Harmer, Hawkhurst; Mr. W. Donovan, Whitwick; Mr. T. L. Walford, Reading; Dr. T. Henderson, Helensburgh; F.R.C.P.; Mr. C. Roberts, London; Dr. R. Lee, London; Mr. G. Carrick Steet, London; Dr. J. Urquhart, Aberdeen; Dr. William Murrell, London; Mr. J. B. Woolby, Cape Colony; Mr. Joseph Cook, London; Dr. J. W. Byers, Belfast; A Member of the British Medical Association; Dr. C. D. Hill Drury, London; Dr. J. H. Bell, Bradford; Mr. T. Jones, Manchester; Mr. H. Cameron, Liverpool; Dr. Crookshanks, London; Dr. A. Perigal, New Barnet; Dr. J. J. Ridge, Enfield; Mr. S. H. Steel, Abergavenny; Messrs. Roberts and Co., London; Mr. W. J. Todd, North Petherton; Dr. A. O. Grosvenor, London; Dr. S. Rees-Philipps, Exeter; Mr. W. Owen, London; Dr. Rabagliati, Bradford; Mr. D. E. Flinn, Walsall; Dr. R. Neale, London; Mr. S. Lodge, Bradford; Dr. W. A. Elliston, Ipswich; Mr. J. M. Mackay, Glasgow; Mr. Stanley Smith, London; Messrs. J. and C. Lloyd and Co., London; Dr. W. Johnston, Leicester; Mr. Adam Moore, Reading; Mr. F. Hawthorn, Uttoxeter; Dr. E. Haughton, London; Dr. John Bassett, Birmingham; Dr. T. Partridge, Stroud; etc.

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OBSERVATIONS
ON
RECENT IMPROVEMENTS IN THE MODE OF REMOVING UTERINE TUMOURS.

By T. SPENCER WELLS,
Vice-President of the Royal College of Surgeons; Surgeon to the Queen's Household.

In two valuable articles on "Abdominal Surgery" in the *Boston Medical and Surgical Journal* of March and April last, the removal of uterine tumours is spoken of as "a direct outgrowth from ovariotomy", and the history of the operation is sketched from my first case in 1861 to the present time. In 1863, my experience of four cases led me to the conclusion that "it would only be under most unusual circumstances that I would again remove an interstitial fibrous tumour of the uterus; a peritoneal outgrowth, or an ingrowth towards the uterine cavity and vagina, offering, in my opinion, far more probability of successful removal than an interstitial tumour". Ten years later, in 1873, further experience had brought me to the opinion quoted by the Boston reviewer, that "when a uterine tumour is pedunculate, or can be separated from the principal part of the uterus, or when the whole of the fundus and body of the uterus, with or without the ovaries, can be removed, leaving the cervix and its vaginal attachments uninjured, the operative question is a different one, and recent experience is leading to a more encouraging view of the surgical treatment in such cases".

After five years' additional work, I brought the surgical treatment of uterine tumours before the College of Surgeons in the Hunterian Lectures, giving the result up to that date of all my operations through the abdominal wall, amounting to forty-five cases. Tables of these cases may be seen in the BRITISH MEDICAL JOURNAL of July 27th, 1878. In the two years which followed this lecture, I adopted two important modifications in the operative procedure—first, the more complete use of antiseptic precautions; and secondly, the union by suture of the peritoneal edges of the divided uterine wall. I also contrived better pressure-forceps for securing divided blood-vessels before tying. In the paper read at the Cambridge meeting of our Association in August 1880, and published in the BRITISH MEDICAL JOURNAL, September 4th, 1880, I said, "Whatever doubt some may entertain as to the value of my experiments on animals, and practice on women, in leading most operators in the present day to bring divided edges of peritoneum together whenever they have been separated by wound or by operation, I myself have no doubt whatever about it; and just as strongly as I assert that it is, and must be, better, when the abdominal wall is divided, to bring the peritoneal edges and surfaces of the opening together, restoring the complete closure of the peritoneal cavity, than to leave the cavity free to the admission of fluids oozing from wounded muscle, fat, and cellular tissue, and to allow contact of intestine and omentum with anything more than peritoneum; so strongly—more strongly if I could—would I insist that the peritoneal edges of the divided uterine wall, or of the connecting part of the outgrowth with the uterine wall, should also be carefully brought together..... by many sutures, or by uninterrupted suture along the whole extent of the gap". In concluding that paper, I alluded to a case then under observation, which I brought forward partly to illustrate the advantage of completely uniting by suture the divided edges of the peritoneal wall, and partly to argue that when the uterine cavity has been opened, it is better not to close the mucous surfaces also by sutures, after the method of Schröder, as the opening left for some oozing of blood through the vagina may sometimes be useful. A few more details of this case may be now given.

On June 9th, 1880, I saw a married lady, aged 62, in consultation with Dr. Richard Smith, of Haverstock Hill, who had been called in about a fortnight before, on account of uterine hæmorrhage. This, after twelve years' absence, had come on at the end of 1879, and had recurred since every three weeks, lasting one week. She had consulted an obstetric physician four years before, who said that there was "ovarian enlargement". She had been married twice, had one child by her first husband, twenty-nine years ago, and had never been pregnant since. With the return of the uterine hæmorrhage, there occurred enlargement of the abdomen, which increased rapidly, loss of flesh, shortness of breath, and very obstinate constipation. The girth of the abdomen at the most prominent part was 42 inches. The uterine cavity only measured 2¾ inches, but the cervix moved in all directions with a large semi-solid tumour, which filled the whole abdomen quite up to the ensiform cartilage. I removed the tumour on the 21st of July, 1880, cutting away nearly all the supravaginal portion of the uterus, and after tying all bleeding vessels carefully, sewing together the peritoneal edges of the divided uterine wall. For about three days afterwards, a little bleeding went on through the vagina, but the patient recovered without any febrile elevation of temperature, and is now in excellent health. The doubt as to the tumour being ovarian was accounted for by the fact that a large cyst-like cavity in the centre of the tumour contained thirteen pints of bloody fluid, while the solid portion weighed only a little more than two pounds. I am much indebted to Dr. R. Smith for his assistance at this operation, and for his care of the patient afterwards, as she remained in his charge during my absence from London.

In this and previous cases, I had been content with the pressure-forceps described and figured in the BRITISH MEDICAL JOURNAL, vol. i, 1879, p. 928; but, feeling the want of more effectual means of securing bleeding vessels before dividing them, I had forceps made similar in form, but with longer handles, and a compressing surface more than an inch in length. With several pairs of such forceps, applied before any tissues are cut through, large tumours may be cut away with only very small loss of blood. They were used, with excellent effect, in the following case.

On September 27th, 1880, assisted by Mr. Thornton and Mr. A. Doran, I removed a large solid uterine fibro-myoma from a single lady, aged 41. By an incision eight inches long, the tumour was exposed, or rather the omentum, containing very large veins, which covered the tumour and adhered to it. Two ligatures were applied to the omentum, which was then divided between them. Some adhesions to the abdominal wall were then separated, and the tumour turned out entire. It was an outgrowth from the left side of the fundus uteri. The band of connection between the uterus and the outgrowth was between two and three inches in length, and about one inch in breadth. This was first compressed and held by two of the large forceps just described, and the tumour was cut away. Then a large needle and double thread was pushed through the uterine tissue behind the forceps, and each thread was tied as the forceps were taken off. Lastly, the peritoneal edges of the divided uterine wall were brought together by an uninterrupted suture of fine carbolised silk. After the removal of the tumour, the rest of the uterus appeared to be quite normal in size and consistence. Both ovaries were healthy. Recovery went on without fever—the highest temperature was 100.2°. There was unusual nervous irritability during convalescence, perhaps explained by the facts that her father and an uncle had both been insane, and attempted suicide; but she went away thirty days after operation, in a very good state of health, and has since been quite well. Mr. Doran described the tumour as a solid uterine fibro-myoma, weighing between seven and eight pounds.

The tumour in the following case was very much larger, and the patient in a state of the utmost distress from its weight and pressure. It was a solid fibro-myoma, which weighed twenty-five pounds, after all blood and serum had drained from it. I removed it on the 7th of October, 1880, assisted by Mr. Thornton, Mr. Vevers of Hereford, and Mr. Orton of Foleshill, near Coventry. The incision was eight inches long. Three to four pints of clear fluid escaped on dividing the peritoneum. A nodular solid tumour was covered by vascular adherent omentum. This was tied and divided. There was no pedicle. The growth was a prolongation, or irregular enlargement, of the fundus uteri. After fixing each end of the narrowest part of the neck of the growth by pressure-forceps, I amputated the fundus just beyond the forceps, opening the uterine cavity at the posterior part of the growth. Six portions of uterine tissue were tied, after three transfixions, with double silk ligatures, as the forceps were removed, and several large vessels were also tied separately. The peritoneal coat of the uterus was then united by a line of uninterrupted suture, so as to cover up the divided uterine tissue. The line of union measured between three and four inches. More than a pint of blood was lost. I made no note of the state of the ovaries. The patient was extremely weak for a fortnight after the operation; but she went to Coventry at the end of a month, and she called on me in May 1881, in excellent health. I could detect nothing by abdominal or pelvic examination, except the linear cicatrix in the abdominal wall, to show that any operation had been performed. The catamenia are quite regular, and had only been excessive for the two or three periods just after the operation.

I had seen this patient several times during the six years from the discovery of the tumour till the operation, and had at first dissuaded her from any interference, on account of a strong vascular thrill always felt in the left side of the vaginal wall. It was not till ascitic fluid

formed, and the tumour became more mobile, that I agreed to operate. The vascular thrill was explained by omentum adherent to the lower part of the tumour, and containing very large blood vessels.

The next case is also one of almost unexpected, but complete, recovery. In May 1876, a married lady, aged 38, called on me with a letter from Dr. Birch of Hazaribagh, in India, under whose care she had been since May 1875. She was married in 1871, went to India in the same year, had never been pregnant, but remained in good health until she suffered from fever in September 1874. In February 1875, Dr. Ewart of Calcutta discovered an abdominal swelling which he thought might possibly be early pregnancy, although there had been no irregularity in menstruation. The swelling increased rapidly in 1875, and, when I saw her in May 1876, the uterus was evidently enlarged to the size in the fifth or sixth month of pregnancy. As there were no urgent symptoms, she returned to India, and I did not see her again until May 1877. There had been some slight increase in the size of the uterus, and menstruation was becoming rather profuse; but she remained in fairly good health till July 1878, when her general health suffered after much anxiety and over-exertion; but she got over this, and went through 1879 pretty well. In June 1880, the tumour having considerably increased in size, Sir W. Jenner saw her with me in consultation as to the question of operation, and it was decided that there should be further delay, but that the tumour should be removed as soon as it became intolerable. Menstruation became still more profuse, size increased, she lost flesh, became unable to take any but very short walks, the feet swelled, and purpuric spots appeared on the legs. In December 1880, at another consultation with Sir W. Jenner, we found a large solid tumour, reaching quite up to the ensiform cartilage, and an ovary could be felt and moved in each iliac region. The uterine cavity was slightly elongated, but I thought the tumour and part of the fundus uteri might probably be removed without opening this cavity. It was agreed that I should attempt to remove the tumour; but that, if the difficulty proved to be greater than I expected, I should then remove both ovaries in the hope of thus leading to atrophic change in the tumour. We waited until after the cessation of another menstrual period, and I then went into Gloucestershire, and operated on February 12th, 1881, assisted by Dr. Forty and Mr. Simmons of Wotton-under-Edge, Mr. Wickham of Tetbury, and Mr. A. Grace of Sodbury. Dr. Day administered methylene. After making an incision from two inches above to six inches below the umbilicus in the median line, the enlarged solid uterus was exposed, free from adhesions, but covered by very large veins, and there was no distinct neck to the tumour or fundus. The left ovary was large, and both were easily separable from the tumour. My first intention, accordingly, was to be satisfied with removal of both ovaries, and leave the uterus alone. On drawing up the left ovary, a cyst, or corpus rubrum, in it burst, and much black clot was pressed out. I then transfixed, tied the connecting tissues between the ovary and the enlarged uterus, and cut the ovary away. Very free bleeding followed, and successive ligatures cut through a soft venous plexus. I, therefore, felt compelled to remove the tumour, and, after applying on each side, before and behind, four pairs of large pressure-forceps, I amputated the tumour, cutting through the fundus uteri diagonally from the right Fallopian tube, downwards and to the left of the bleeding surface, where the left ovary had been attached. The uterine cavity was not opened. Part of the fundus and the body left with the cervix were normal in size and consistence. The left Fallopian tube was removed with the tumour. The right remained; and the right ovary, although rather large, was not disturbed. Theoretically, it would have been better to remove it; but I was very unwilling to prolong a serious operation by anything not absolutely necessary. Several very large arteries and veins were secured, some by ordinary ligature of carbolised silk, some by ligature after transfixing the uterine tissue; and then the peritoneal edges of the divided fundus were brought together by suture. Although a great deal of blood was lost, the lips never lost their colour, and there was no vomiting. The patient was exactly an hour under the influence of the anæsthetic, and Dr. Day told me that he had never given so much methylene before at any of my operations. Nearly two ounces were used. I did not make any provision for drainage, as I had carefully sponged away all blood and clot; and the wound was united in the usual way by silk sutures. Phenolised spray was used, phenolised sponges, ligatures, and instruments, and dry dressing. The tumour was a solid fibroma, with several projections or outgrowths from the peritoneal surface. It weighed 11½ lbs.

The patient was left in charge of Dr. Forty of Wotton-under-Edge, and recovery was uninterrupted by any bad symptom. The temperature reached 101°, and the pulse 104, on the third day; but the convalescence may be said to have been without fever. I saw the lady in London on April 28th, quite well, and with nothing but the linear cicatrix in the abdominal wall to be detected as showing that there had ever been any disease of the uterus. The cervix was mobile, and nothing abnormal could be discovered anywhere. The catamenia appeared quite as usual the first week in May, after an interval of three months, and passed off quite normally.

These are all the cases in which I have removed uterine tumours entirely since August 1880, and all have recovered in the most satisfactory manner. In three other cases, I made simple exploratory incisions; doing nothing more, as the difficulties of removal appeared very great. One patient died a week after the incision, of peritonitis. The other two were neither better nor worse for the incision. In another case, a patient of Dr. Andrews of Hampstead, a single lady, aged 60, I was only able to remove part of a fibroma, after emptying a large cyst-like cavity. The patient died on the third day. And, in one other case, a patient of Dr. Monro of Newtown, Montgomeryshire, where I could only remove a projecting outgrowth from the main part of the tumour, the patient, who was in an extremely feeble condition before operation, died on the eighth day.

I feel very hopeful that, by the use of the improved pressure-forceps, the arrest of hæmorrhage will be effected much more easily and completely than before; that suture of the uterine wall will obviate more than one source of danger; and that, by careful attention to all needful antiseptic precautions, the removal of uterine tumours may now be undertaken with a far more confident expectation of a successful result than could have been reasonably entertained a very few years ago.

CLINICAL LECTURE
ON A
CASE OF CÆSAREAN HYSTERO-OÖPHORECTOMY, OR PORRO'S OPERATION; WITH REMARKS.*

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Mrs. B., aged 24, quintipara, had suffered from rickets in childhood. Her height is 4 ft. 8 in. The measurements of the pelvis are: interspinous, 9½ inches, or 24 centimètres; intercristal, 9½, or 24; external conjugate, 5½, or 14; diagonal conjugate, 3⅛, or 8; internal conjugate, 2¼, or 5.7; transverse at brim, 4¼, or 10.8; between the tubera ischii, 4½, or 11.5. At her first confinement, she had twins before the full time, and both still-born. At the second, the fœtal head was perforated. At the third, she came under Dr. Hart's care, who, finding a conjugate diameter about two inches and a half, and a small child, turned, hoping that the transverse diameter might be long enough to allow the head to pass. But the head could not be brought past the sacral promontory, and he had to perforate. At her fourth confinement, I delivered her by trephining the base of the skull through an opening in the vault, and crushing the head with Guyon's apparatus.

She menstruated last on May 20th, 1880, and, according to her calculation, was within a week of her confinement, when I again undertook her delivery. She was very anxious to have a living child, and I proposed to give her the chance offered by the Cæsarean section, supplemented by Porro's utero-ovarian amputation. On examination before the operation, the fœtus was found to be lying with the dorsum to the right side, and the head resting above the brim of the pelvis. There were occasional uterine contractions, but no true labour-pains, and no dilatation of the uterine orifice was found on vaginal examination. From the distinctness with which the outline of the fœtus could be made out through the abdominal parietes, it was judged that the placenta was not attached to the anterior wall of the uterus.

The operation was performed, in a lodging to which the patient had been removed, on February 21st, with the assistance of Dr. Halliday Croom, Dr. Berry Hart, and Dr. A. H. Barbour. Dr. F. M. Caird administered chloroform, and Messrs. Hewetson and Huxtable took charge of the instruments and sponges. Surgeon-Major Johnston was also present. The operation was done under the carbolic spray, and all antiseptic precautions were carefully carried out. An incision, fourteen centimètres in length, was made in the abdominal wall, in the middle line, ending about three centimètres above the symphysis pubis. It was observed that vigorous fœtal movements occurred when the skin was being divided. On cutting through the abdominal walls, bleeding occurred from a considerable number of vessels, which were tempora-

* Communicated to the Edinburgh Obstetrical Society.

rily secured with Péan's forceps before the peritoneal cavity was opened. The peritoneum was cut into with a sharp-pointed bistoury, and the incision extended with a probe-pointed one, guided by the finger. The clear red surface of the uterus came at once into view. Neither now, nor at any subsequent stage of the operation did the intestines or omentum give any trouble. An opening, sufficient to admit the point of the forefinger, was made in the wall of the uterus at the upper angle of the abdominal incision, and by means of a probe-pointed bistoury extended downwards to the length of thirteen centimètres. This was followed by a gush of liquor amnii, and a hand of the fœtus was extruded through the wound. Knowing the exact lie of the child, I passed my hand into the lower segment of the uterus and lifted out the head instantly. The body and the remainder of the liquor amnii followed at once. During the time that the opening was being made in the uterus and the child extracted, Dr. Hart kept the abdominal parietes in close apposition with the uterus; and, as the latter became evacuated, he caused it to emerge through the abdominal aperture, so as to be able to grasp and compress the vessels entering at the sides and neck. During this time, the amount of blood that escaped was very trifling—less than had occurred during the incision through the abdominal walls. The child, on its escape from the uterus, at once began to cry. The uterus contracted uniformly on the placenta, which was left *in situ*. The umbilical cord was ligatured and divided, and the child given to Dr. Croom, who found it so vigorous that he handed it over to the nurse. A piece of stout whipcord, made antiseptic, was passed round the broad ligaments and cervix uteri, drawn tight, and knotted firmly. This controlled all hæmorrhage. A double thread of carbolised silk was now passed, on a needle with fixed handle, through the broad ligament on the left side of the isthmus uteri. The loop of thread drawn through was divided, and one half tied round the broad ligament and Fallopian tube of the same side external to the ovary. A similar needle, armed with a single thread, was passed through the broad ligament at a corresponding point on the right side. This thread was tied round the broad ligament and Fallopian tube of the right side external to the ovary. Before the needle was withdrawn, it was used to draw back the posterior extremity of the free thread that had been introduced on the left side, so that this ligature embraced the isthmus of the uterus and the blood-vessels beside it. The pedicle thus consisted of three portions—one ligature controlling the ovarian arteries and venous plexuses on each side, a third embracing the isthmus uteri and uterine arteries.

The uterus was now amputated, the knife being carried along the line of the attachment of the broad ligaments to the uterus, and through the lower segment of the uterus, 1.5 centimètres above the ligatures. The whipcord ligature was cut through and removed. There was no hæmorrhage from the stump. The ovaries, which had not been removed with the uterus, were then cut away, and the whole surface of the stump secured with the Paquelin cautery.

There was no exposure or escape of the intestinal coils. The peritoneal cavity, into which but little blood had escaped, was carefully sponged out. Fearing lest some blood might have run down into the pouch of Douglas, I passed one or two sponges on fixed handles down behind the stump. The pouch was shallow and empty. Unfortunately this procedure caused a displacement of the ligature on the posterior aspect of the stump, from the surface of which some oozing now set in. To control this, a double thread was passed through the middle of the stump, and the central part was thus ligatured again in two portions. This stopped all oozing. The cautery was reapplied. The abdominal incision was closed with eight silkworm-gut and four horsehair sutures.

The child was removed from the uterus within twelve minutes from the commencement of the operation; the ligature and amputation of the uterus within half an hour; the completion of the operation required another hour and ten minutes. The head of the child presented the following measurements: Occipito-frontal diameter, 11 centimètres; biparietal, 8.2; bitemporal, 7.

After the operation, the patient's pulse was 110, and fairly good. The after-progress is as follows. February 20th, 8 P.M. Temperature 99.7; pulse 100, good and steady; six ounces of urine drawn off with catheter; she had no pain, and took iced milk occasionally. 12 P.M. Temperature 100.8; pulse 116; a quarter of a grain of morphia was given subcutaneously.—February 21st, 3 A.M. Temperature 100.6; pulse 106, good; she complained of slight pain in the abdomen; had slept at intervals. 8 A.M. Temperature 100.7; pulse 112; she complained of no pain; had slept quietly; eight ounces of urine drawn off. 10 A.M. Temperature 100.6; pulse 108; a quarter of a grain of morphia was given subcutaneously. 12 noon. Temperature 101.8; pulse 118. 4 P.M. Temperature 101.8; pulse 114.; one minim of tincture of aconite was given every half-hour; she had no pain, and slept occasionally. 9 P.M. Temperature 102.4; pulse 130.—February 22nd, 8 A.M. Temperature 102; pulse 116. 12 noon. Temperature 102.2; pulse 106. 6 P.M. Temperature 101; pulse 112; the wound was dressed under the spray, and looked quite fresh; a little serum exuded from the lower part of it, devoid of smell; perchloride of iron and turpentine were given every hour; a quarter of a grain of morphia was given hypodermically thrice daily; she complained of abdominal pain occasionally.—February 23rd. Morning temperature 102, pulse 132; evening temperature 102, pulse 140; she complained more of pain to-night, and had vomited occasionally.—February 24th. Temperature 101.8; pulse 170; she died at 11.50 A.M.

Post Mortem Examination.—The abdomen was distended, and contained a considerable quantity of serous exudation and lymph. The abdominal wound was healthy-looking, and adhesion had taken place along the whole line of incision. The intestines were matted to the pedicle with recent lymph. The pelvis and its contents were removed and placed in spirits. A sagittal section was made. The accompanying woodcut (see Fig. 1) represents the appearance of the left side of



Fig. 1.—Left surface of a Sagittal Section of the Pelvis and its contents—half the natural size.

the section. It will be seen that the site of the ligature is about two inches (5.2 centimètres) above the os externum. The empty bladder lies behind the symphysis pubis.

REMARKS.—The patient, who, so far as I know, is the first in Great Britain subjected to the operation I have described, had previously given birth to five children. These had all perished, in consequence of her contracted pelvis. The premature birth of the small but still-born twins made me hopeless in her case of any good result from the induction of premature labour. When she was in her fourth pregnancy, I was disposed to attempt Dr. Gaillard Thomas's laparo-elytrotomy;* the rather that I was impressed by the encouraging results of Skene's† cases and Gillette's‡. The woman was very willing to run any risk to have a living child. But the vaginal roof felt very narrow; and there was some induration still remaining in the right broad ligament, the result of a cellulitis from which she suffered after her delivery by cranioclasm. I therefore sacrificed that child also, using Guyon's apparatus for intracranial cephalotripsy, the successful employment of which led me to propose the basilyst§ as a safe and simple instrument for effecting the dissolution of the basis cranii. When I found that the woman was again pregnant, I was tempted to test the

* *American Journal of Obstetrics*, April 1879.
† *Ibidem*, vols. ix and x. ‡ *Ibidem*, January 1880.
§ See my *Contributions to Obstetrics and Gynæcology*, p. 323.

TABLE I.

No.	Date.	Operator.	Place.	Indication.	Result to Mother. Lived.	Result to Mother. Died.	Causes of Death.	Result to Child. Lived.	Result to Child. Died.
1	July 21, 1869	Storer	Boston	Uterine Fibroid	..	1	Shock	..	1
2	May 21, 1876	Porro	Pavia	Rickets	1	..	..	1	..
3	Jan. 3, 1877	Inzani	Parma	Osteo-sarcoma	..	1	Peritonitis	1	..
4	Mar. 28, ,,	Hegar	Freiburg	Rickets	..	1	Peritonitis	1	..
5	April 25, ,,	Previtali	Bergamo	Rickets	..	1	Moribund	..	1
6	June 22, ,,	Spaeth	Vienna	Malacosteon	1	..	..	1	..
7	Sept. 3, ,,	Spaeth	Vienna	Malacosteon	..	1	Peritonitis	1	..
8	Sept. 9, ,,	C. Braun	Vienna	Malacosteon	..	1	Peritonitis	1	..
9	Dec. 16, ,,	Chiara	Milan	Rickets	..	1	Shock	1	..
10	Feb. 4, 1878	Muller	Berne	Malacosteon	1	..	..	0	1
11	April 11, ,,	Franzolini	Udine	Dyspnœa	..	1	Pulmonary œdema	1	..
12	April 14, ,,	Wasseige	Liège	Rickets	..	1	Hæmorrhage	1	..
13	May 10, ,,	C. Braun	Vienna	Rickets	1	..	..	1	..
14	May 22, ,,	Chiara	Milan	Rickets	..	1	Peritonitis	1	..
15	May 28, ,,	Tibone	Turin	Rickets	..	1	Peritonitis	1	..
16	June 14, ,,	Litzmann	Kiel	Stenosis vaginæ	..	1	Peritonitis	1	..
17	July 9, ,,	Breisky	Prague	Rickets	1	..	..	1	..
18	Aug. 3, ,,	Wasseige	Liege	Rickets	..	1	Peritonitis	1	..
19	Aug. 23, ,,	Perolio	Brescia	Rickets	1	..	..	1	..
20	Sept. 16, ,,	Riedinger	Brunn	Rickets	1	..	..	1	..
21	Oct. 7, ,,	Fehling	Stuttgart	Rickets	..	1	Peritonitis	1	..
22	Oct. 19, ,,	Chiara	Milan	Malacosteon	1	..	..	1	..
23	Dec. 13, ,,	G. Braun	Vienna	Rickets	..	1	Peritonitis	1	..
24	Dec. 30, ,,	Previtali	Bergamo	..	..	1	..	..	1
25	Jan. 17, 1879	Tibone	Turin	Rickets	1	..	..	1	..
26	Feb. 2, ,,	Fochier	Lyons	Rickets	1	..	..	1	..
27	Feb. 11, ,,	Cozzi	Cremona	Rickets	..	1	Peritonitis	1	..
28	Feb. 24, ,,	Tarnier	Neuilly	Uterine fibroid	..	1	Septic-æmia	..	1
29	Mar. 1, ,,	Tibone	Turin	Rickets	..	1	Peritonitis	1	..
30	Mar. 20, ,,	Tarnier	Paris	Rickets	1	..	..	1	..
31	Mar. 20, ,,	Peyretti	Turin	Rickets	..	1	Tetanus	1	..
32	April 1, ,,	C. Braun	Vienna	Rickets	1	..	..	1	..
33	May 3, ,,	Previtali	Bergamo	..	..	1	..	..	1
34	May 16, ,,	Berruti	Turin	Rickets	1	..	..	1	..
35	May 25, ,,	C. Braun	Vienna	Rickets	..	1	Peritonitis	1	..
36	June 19, ,,	Mangiagalli	Milan	Rickets	1	..	..	1	..
37	June 20, ,,	C. Braun	Vienna	Rickets	1	..	..	1	..
38	Aug. 28, ,,	Chiara	Milan	Rickets	1	..	..	1	..
39	Nov. 1, ,,	L.-Championnière	Paris	Rickets	1	..	..	1	..
40	Dec. 3, ,,	,,	,,	Rickets	..	1	Peritonitis	1	..
41	Dec. 10, ,,	,,	,,	Rickets	1	..	..	1	..
42	Jan. 2, 1880	Hausner	Barmen	Rickets	..	1	Hæmrrgh.	..	1
43	Jan. 9, ,,	Previtali	Bergamo	..	..	1	..	1	..
44	Jan. 17, ,,	L.-Championnière	Paris	Rickets	..	1	..	..	1
45	Feb. ,,	Valenta	Venice	.	..	1	..	..	1
46	Feb. 17, ,,	Chiarleoni	Milan	..	..	1	..	1	..
47	Feb. 25, ,,	Mangiagalli	Milan	Rickets	1	..	..	1	..
48	Mar. 7, ,,	G. Braun	Vienna	Dwarf pelvis	1	..	..	1	..
49	Mar. ,,	Cuzzi	Modena	..	..	1	Peritonitis	1	..
50	Mar. 20, ,,	Hubert	Louvain	Rickets	..	1	Hæmorrhage	1	..
51	Mar. 21, ,,	Veit	Bonn	Malacosteon	..	1	Septic peritonitis	1	..
52	April 5, ,,	Taylor	New York	Rickets	..	1	Thrombosis	1	..
53	May 28, ,,	C. Braun	Vienna	Rickets	1	..	..	1	..
54	June 1, ,,	Omboni	Cremona	..	..	1	Peritonitis	1	..
55	June 13, ,,	Tarnier	Paris	Malacosteon	1	..	..	1	..
56	June 24, ,,	Perozzi	Liege	Rickets	1	..	..	1	..
57	July 3, ,,	Ramello	Turin	Rickets	1	..	..	..	1
58	July 4, ,,	Oppenheimer	Wurzburg	Rickets	1	..	..	1	..
59	July 31, ,,	Zweifel	Erlangen	Uterine fibroids	..	1	Septicæmia	1	..
60	Aug. 17, ,,	Agnew	Philadelphia	Uterine fibroid	..	1	..	..	1
61	..	Pasquali	Rome	..	..	1	..	?	..
62	Sept 13, ,,	Richardson	Philadelphia	Rickets	1	..	..	1	..
63	Sept. 18, ,,	Veit	Bonn	Rickets	1	..	..	1	..
64	Oct. 21, ,,	Filci	Warsaw	..	..	1	..	1	..
65	Dec. 3, ,,	Tibone	Turin	Malacosteon	..	1	Peritonitis	..	1
66	Dec. 13, ,,	G. Braun	Vienna	Rickets	1	..	..	1	..
67	.	Halbertsma	Utrecht	Partial rupture of uterus	1	..	..	1	..
68	Jan. 21, 1881	Pacona	Novara	Rickets	..	1	Tetanus	..	1
69	,, ,,	Kreuzman	Erlangen	Rickets	..	1	Peritonitis	..	1
70	,, ,,	Breisky	Prague	Rickets	1	..	..	1	..
71	Feb. 21, ,,	Simpson	Edinburgh	Rickets	..	1	Peritonitis	..	1
72	April 1, ,,	Olivieri	Naples	Rickets	1	..	..	1	..

value of the new instrument on the sixth child's head. But it was full time to give her the chance of obtaining her wish, and becoming the mother of a living child; and it seemed to me that the operation I carried out gave her the best chance of such a happy delivery. I was the more disposed to carry out this procedure, that, besides noting the growing favour which Porro's operation was attaining on the Continent generally, I had had the opportunity, when visiting Paris a year ago, of receiving from M. Tarnier a photograph of a patient on whom he had operated successfully, and of hearing from M. Lucas-Championnière how by means of it he, in four operations, had saved two mothers and four children.

HISTORICAL.—It was on the 11st of May, 1876, that Professor Porro of Pavia performed for the first time the operation with which his name will ever be honourably associated. I spare you the recital of historical details, as these are given in an able memoir on the subject by Porro* himself, and in sketches of the later progress of the operation by M. Pinard† of Paris, Dr. Fritz Levy‡ of Copenhagen, and, best of all, by Dr. R. P. Harris§ of Philadelphia, who has very carefully sifted and tabulated all the cases operated on up till November 1879. How Cavallini, a namesake of the woman on whom Porro performed his first operation, made experiments a century ago on the lower animals, with the view of determining whether the Cæsarean section would not be made less fatal by extirpating the uterus; how, more recently, similar experiments had been repeated by Blundell, Geser, Fogliata, Rein, and by Porro himself; how G. Ph. Michaelis of Harburg made the still-born suggestion, in the early part of this century, to extirpate the uterus, with the view of lessening the risks from the wounded uterus; and finally, how, in 1869, Dr. Horatio R. Storer of Boston, U.S.A., after removing a dead child from a gravid uterus which was the seat of a fibro-cystic tumour, and finding that the hæmorrhage could not otherwise be controlled, proceeded with great coolness to ligature the isthmus, to amputate the diseased uterine mass, to cauterise, and eventually to clamp the stump, and secure it in the lower part of the abdominal wound; with the unfortunate result, however, that the patient died in sixty-eight hours;—all this is fully related in the works to which I have referred, and need not detain us longer now. Since Porro published the history of his first case (which, happily, was attended with successful results), the operation has been repeated by many obstetricians, till the tabulated list that I have before me now amounts to a total of seventy-two well-authenticated cases. For the most part, full records of the individual operations have been published, and I need not repeat the references, which have been so carefully verified in the works of Harris and Levy. I have gathered some of the more recent cases from a "Cronaca dell' Amputazione Cesarea Utero-Ovarica", in various numbers of the *Annali di Ostetricia, Ginecologia, e Pediatria;* and also from the *Centralblatt für Gynækologie*. Nos. 58 and 71 are recorded by Zweifel in the *Archiv für Gynækologie*, xvii, 355. The list might have been lengthened by the introduction of such cases as those of Wasseige, Kaltenbach, and others, who have removed the uterus and ovaries in cases where the fœtus was not yet viable; or that of Salin, where the fœtus was in the by-horn of a malformed uterus. But it seems to me better to register only the cases where we have to do with labours at or near the full term, and in a uterus of normal configuration. The cases tabulated by Pinard, etc., of Prevôt and Fornari, are also omitted, on the suggestion of Dr. Harris, because the women has suffered a total rupture of the uterus, with escape of the fœtus into the peritoneal cavity. In both of these cases, the mothers and children were all lost. The seventy-two operations given in the table are distributed over the various countries as follows:—Italy, 30; Austria, 14; France, 8; Germany, 8; Belgium, 4; United States, 4; Switzerland, 1; Poland, 1; Holland, 1; Scotland, 1.

[*To be continued.*]

* "Dell' Amputazione utero-ovarica come complemento di taglio cesareo; pel dottore Edoardo Porro, Professore Ordinario di Ostetricia e Ginecologia nell' Università di Pavia", in the *Annali Universali di Medicina*, vol. 237, p. 289. Oct. 1876.

† *Annales de Gynécologie*, xii. 411; xiii, 22. 1879-1880.

‡ *Wiener Klinik*, vi, 267. November and December, 1880.

§ *American Journal of the Medical Sciences*, vol. lxxix: 1880. Dr. Harris has further extended his table in the same journal in the number for April, 1881, p. 515.

UNIVERSITY OF CAMBRIDGE.—Dr. Barclay of London, Dr. A. Ransome of Manchester, Dr. De Chaumont of Netley, and Dr. Corfield of London, have been appointed examiners for the Sanitary Science Certificate. The examination will commence on October 4th. Professor Liveing is the secretary.

BEQUESTS.—The late Miss G. F. Downil of Appin has bequeathed to the Edinburgh Royal Infirmary £500, to the Glasgow Royal Infirmary £500, and to the Edinburgh Medical Missionary Society £1,000.

ON THE DIAGNOSIS OF CARIES OF THE SPINE, IN THE STAGE PRECEDING ANGULAR CURVATURE.

By HOWARD MARSH, F.R.C.S.Eng.
Assistant-Surgeon and Demonstrator of Orthopædic Surgery at St. Bartholomew's Hospital; Surgeon to the Hospital for Sick Children, etc.

To say that a patient has cirrhosis of the liver, phthisis, or stricture, is to give a direct name to his disease. But, to say that he has jaundice, cough, or retention, is to name, not the disease itself, but one of its features or results.

There are many instances in medicine and surgery in which diseases are named according to this latter method, or, so to say, at second-hand. The name was originally given when, though some particular symptom was plainly marked, the disease which produced it was unknown; afterwards, when the nature of the disease was ascertained, the old name was still retained. Some names that have thus come down to the present time, though they are not scientifically correct, are so well understood in the sense in which they are used, that it is not worth while to change them. But, there are others which are open to the serious objection, that they tend to divert the mind from the disease under which the patient is suffering, and to fix it on some single symptom or result, which is perhaps inconstant in its appearance, or which may be developed only when the disease has made considerable progress, and when the period during which treatment would be most effectual has passed by. This delay, in diagnosis and treatment, sometimes results in the case of caries of the spine, from the fact that the disease goes by the name of "angular curvature".

If disease be suspected, the patient is examined for angular curvature; and, if none can be detected, it is sometimes concluded that the spine is sound. Angular curvature, however, cannot be formed till, in the course of inflammatory disease, some absorption of one or more of the bodies of the vertebræ has taken place; and, therefore, to wait for this symptom, is to allow the disease to advance to what may be termed its second stage before attempting to arrest its progress. It is obvious that, when caries has gone so far as to lead to curvature, its treatment will be much more tedious, and the result more doubtful, than if it is taken in hand while the disease is still incipient.

It may be useful to recall the fact, that, although angular curvature is proof positive that caries is or has been present, and although no other single sign has the same force, there are other symptoms, variously combined in different cases, which are quite sufficient to establish the existence of caries before any trace of angular curvature has been developed. The first of these symptoms consists of pain. This varies widely in different cases, both in the form which it takes and in the degree of its severity. Sometimes pain is constant and severe, either at the seat of the disease, or radiating to more or less distant parts. In some cases it is paroxysmal, and resembles severe cramp; while in some it is slight in its amount, and is suggestive only from the situation in which it is felt, and its combination with other symptoms. In disease involving the first two cervical vertebræ it is referred to the occipital region of the scalp, where the suboccipital and the great occipital nerves are distributed. Pain in this situation, if it be persistent, and associated with any stiffness or altered manner of carrying the neck, must always raise a suspicion, not to be lightly dismissed, that cervical caries is present. In other regions of the spine, pain, when it is present, is felt either at the affected part itself, or below it. It is very rarely indeed, I believe, situated at a higher level. If a patient complain of pain above the suspected spot, the presumption is either that it depends on caries at some point higher up, or (and this will often prove to be the case) that it is not due to caries at all, but to some other cause. Pain attending caries in the lower cervical region radiates over the shoulders, and down one or both arms; and sometimes also over the front of the upper part of the thorax. When the dorsal spine is affected, pain is felt round the sides of the thorax—sometimes on one side only, sometimes on both—or at the middle line in front. When the lumbar spine is involved, pain spreads over the loins and pelvis, and down the lower limbs—sometimes as far as the knee, sometimes even to the feet. The true meaning of pain, in these various situations, is apt to escape notice. A child, aged 5, was lately seen, who had been treated for several weeks with alteratives and restricted diet for pain "in the stomach", thought to be due to indigestion, but which really depended on caries of the fifth and sixth dorsal vertebræ. On examination, it was ascertained that the digestive organs and the excretions were healthy, and that pain was not increased after meals; that the child was always relieved while he was lying down, and was worse after exercise; that he was unable to stoop, and held his dorsal spine stiff; and, on careful inspection, a slight, though quite evident, angular curvature was detected. The same oversight may sometimes occur in the case of adult patients. A man, aged 30, applied at the hospital on account of pain in the left hypochondrium, of two months' duration, which was often so severe that it "doubled him up", and for which he had been ordered brisk aperients and hot fomentations, and the persistency of which had at length raised the suspicion that he had cancer of his descending colon. On examination, it was found that he had caries in the middle of the dorsal region. In both these instances, pain quickly and entirely subsided when the patients were placed in the recumbent posture. In a patient, with disease of the lumbar spine, pain, passing through the hip to the back of the thigh, had been attributed to sciatica—no doubt with the less hesitation because it was limited to one side. In other instances, again, pain, complained of in one knee, and accompanied by an altered gait, has led to the belief that the patients had hip-disease. The feeling of constriction—as if a cord were drawn tightly round the abdomen—which is put down in books as a common symptom of spinal caries, though it is occasionally met with, is, so far as I have observed, so comparatively rare that its absence is worth nothing as evidence that the spine is sound.

When the patient has given his own account of the degree and situation of his pain, there are certain questions to be put to him, the answers to which may be trusted to help very materially in making a diagnosis. These are: Whether it hurts him to cough, to sneeze, to travel in an omnibus or train, to make a false step in walking, to lift any heavy object? These questions apply chiefly to cases in which the dorsal or lumbar spine is suspected. They are of less value in respect to the cervical spine, though even here they may afford considerable light. In many cases of disease in the middle or lower part of the spine, they elicit very characteristic answers. The patient, at the mere mention of coughing or sneezing, looks uneasy and apprehensive, and says that these acts hurt him dreadfully, or that he is afraid to perform them. As to a false step, he says (almost with a shudder at the very thought of it) that it jars him terribly. The uneasiness or pain, caused by driving or railway travelling, is often very suggestive. Some patients who can walk slowly and cautiously without pain, suffer severely from the jarring of a vehicle. The explanation of the fact probably is, that, in the effort of walking, the surrounding muscles brace up and steady the spine; while, in the sitting posture, they are more relaxed. In the same way, it is occasionally seen that a patient, who is severely hurt by the jar of a false step, by a cough, or by a sudden turn in bed during sleep, may be able to stamp his foot with some force on the ground, or even to hop on either leg without very much inconvenience. In short, the most searching tests are those in which the spine is jarred when the surrounding muscles are relaxed.

The second order of symptoms by which caries of the spine, in its incipient stage, may be recognised, refers to the degree in which the column retains its natural mobility. These symptoms must be brought out by various exercises, which the patient is made to perform. It must be ascertained whether, while standing with his heels together, and keeping his knees straight, he can stoop without restraint, so as to bring the tips of his fingers towards his toes; whether he can stoop freely, and raise himself freely, in the act of picking up some small object from the floor; whether he can raise himself easily from the recumbent to the sitting or upright posture; and whether, when he lies on his back, he can turn readily on either side; and whether, in these various exercises, all parts of the spine are seen to contribute their proper share of movement; or whether any part is kept rigid, while movement is free above and below it. If the cervical region be suspected, in addition to the usual flexion and extension movements, the patient's power of nodding or rotating the head must be observed, in order to test the joints between the occiput and atlas, and between the atlas and the axis. The patient's manner of walking must also be scrutinised for the same purpose—of seeing whether the spine is movable in all its parts, or whether any region is stiff. Especial attention should be paid to the manner in which he turns round. A defect, either in movement or in the posture in which the spine is held, is sometimes perceptible during the act of turning round, which is not apparent while the patient is going straight forward. Sometimes, again, it will be found that the column is defective in its natural steadiness—that it seems insecure, and difficult to balance. The test of picking up some small object, difficult to seize—such as a coin or a pencil—is a very telling one, especially in the case of children. If the spine be sound, the patient will stoop and raise himself without a pause, without hesitation, and without restraint. But, if mischief be present, his proceedings are often very characteristic; and, in almost every case, peculiar enough to afford some information. A glance will show that he is

calculating how to manage so that he can keep his spine still. If his disease be acute, he will probably give up the attempt, and say that he cannot stoop. If he persevere, he will probably place himself so that the object is at his side; he will then cautiously bring his hand towards the ground, not by bending or inclining his spine, but by flexing his knees, while his spine is kept rigid and nearly perpendicular; having at length succeeded in grasping the object, he will pause, so as to be sure of his balance, and will then raise himself by straightening his knees; while, as before, he keeps his spine rigid and upright.

In children, the spine may be further tested by watching how the patient rises from the recumbent posture. It may often be observed that he moves himself slowly round till he is on his hands and knees, and then carefully gets up. Another plan is to make the child climb upon a sofa, or from a chair on to a table; for the movements required in these acts are good tests as to the mobility of the spine. This description of what may be observed in these cases is intended to be general, and, as far as it can be made, typical. In practice, numerous differences will be met with; but, in almost every instance, some of the defects of movement here alluded to will be apparent. Thirdly: especially in children, in whom the diagnosis of disease must often be made, not by observing two or three conclusive signs, but by fitting together numerous small fragments of evidence derived from different sources; the suspicion that caries is present is strongly confirmed by the observation, that the patient has some device for relieving the spine of part of the work of supporting the weight of the head and trunk. Thus, in disease of the cervical spine, he may be seen to rest his chin on his hand, or to support his head with his hands, especially in the effort of rising from the recumbent posture. Some children, with cervical caries, will sit for hours with their elbows on a table, and with the hands supporting the head. Others, who have disease in the dorsal or the lumbar region, have the habit of making their way to a chair, on which they place the palms of their hands, and over which, with their arms straight, they lean—so as to give themselves "high shoulders"; and so that weight is taken off the spine and transmitted through the arms. Another posture, very suggestive of mischief, is that in which the patient, having slightly flexed one knee, so that his limb rests on the toe, places his hand on the middle of his thigh, and then leans over to that side—so as to convey weight from the shoulder through the arm, and so to the thigh. These schemes for the "collateral transmission of weight" are always worthy of very careful attention.

On the other hand, I should like to remark that there are some tests of spinal caries in use, which seem so untrustworthy, that I feel justified in offering a strong caution against their use. These are: (1) the plan of tapping with the knuckles, or dealing a slight but sudden blow with the closed hand, on the spinous processes of the suspected vertebræ. This proceeding is very likely to make a child or an hysterical adult shrink, even though the spine is perfectly sound; while, on the other hand, as the blow is struck at right angles to the long axis of the spine, it can have very little effect in bringing vertebræ which may happen to be tender into firmer contact with each other, so as to produce pain by their sudden mutual compression. Moreover, the force of the blow, as it is transmitted through the spinous processes, laminæ, and articular processes, is apt to be dissipated before it reaches the bodies of the vertebræ—the parts in which disease is so commonly situated. Some surgeons, I am aware, deal the blow on the top of the head; but this may assuredly be dangerous in disease of the cervical vertebræ; while, owing to the formation of the spine as a series of blocks, and to the elasticity of the intervertebral discs, the effect of any slight concussion is lost before it can reach the lower regions of the spine. I have frequently seen patients wince under this test, although their spines were quite healthy. I have also often found that it produced no complaint in cases in which angular curvature was plainly marked. This test of jarring the spine is, in fact, as deceptive, and therefore as bad, as is that of tapping the knee or the heel in suspected disease of the hip-joint. Children, with hip-disease, may very often be seen, who make no complaint whatever when the hip is thus even forcibly jarred; while, on the other hand, the jar causes, in some cases, severe and quite unnecessary suffering—unnecessary, because painless and more reliable signs are within reach. (2). Another symptom, on which some observers lay much stress, is tenderness, or increased sensitiveness, found over the spinous processes, corresponding to the carious vertebræ; and I have seen this over-sensitiveness searched for by means of a hot sponge. I believe this test is quite untrustworthy. Tenderness, or over-sensitiveness, is a very common feature in cases of hysterical spine; and certainly tenderness is often absent when caries is distinctly in progress.

The period at which angular curvature becomes apparent, in the course of spinal disease, varies with the form that caries takes. In instances in which inflammation involves the general substance of the body of one or more of the vertebræ, and is attended with rapid softening and absorption, angular curvature very soon results. But, in some cases, inflammation is limited to the external surface of the bodies of the vertebræ and their investing ligaments. Here, extensive ulceration may take place, and even lead to the formation of a large abscess, before angular curvature ensues. Several examples have lately been seen, in which iliac abscess, due to caries of the vertebræ, was present before angular curvature was perceptible, although it was developed at a later stage.

FAURE'S SECONDARY OR STOREAGE BATTERY ALSO, SWAN'S ELECTRIC LIGHT, IN SURGERY.

By GEORGE BUCHANAN,
Professor of Clinical Surgery in the University of Glasgow.

THE recent invention of M. Faure has rendered electricity available for surgical use, in a way it has not been before. The secondary battery as he calls it, might better be called a storeage battery; seeing that it stores up or accumulates electricity generated in an active battery, to almost any amount. It consists of a cylindical vessel of lead, nine inches high and five inches in diameter, with a leaden bottom, but open at the top; into this is packed a kind of cushion, of a material which has the power of absorbing electricity. To this vessel are attached the two poles of a working battery; and, as long as the connection is maintained, the vessel accumulates the electricity flowing into it. When charged, it can be detached from its connection and kept for a long time, or carried from place to place, like the jars of compressed carbonic oxide, used for anæsthetic purposes.

When required for use, the cushion, which should always be kept moist, is wetted with dilute sulphuric acid; and wires connecting are attached to its poles, when it is converted into a powerful battery.

On June 3rd, I removed a nævoid tumour from the tongue. The nævus was situated on the anterior half of the right side of the tongue of a young gentleman 11 years of age. It had been in existence for many years, but latterly it had frequently been scratched, and then bled freely. As the growth was very vascular and invaded the tongue almost to the middle line, I determined to remove it by the thermo-cautery. Having occasion to see Sir William Thomson the day before the operation, he offered me the use of a Faure's battery, which had been sent from Paris only a few days before, and on which he was engaged in experimenting to test its value. He was so enamoured of its powers that he said, "It is a witch". And now it has the name of the "Electrical witch" at the University.*

In driving to my patient, I called at Sir William's laboratory, and got with me a battery which can easily be carried in one hand, and without the least difficulty. After having put the patient under chloroform, I attached its poles to a platinum wire-écraseur, and removed the tumour without a drop of blood.

This contrivance, which enables one to carry stores of powerful electricity in a jar no bigger than an ordinary preserved meat tin, will render the use of electricity much more extended than heretofore.

Supplies of these cumulative jars are being sent from Paris, and can be charged by any kind of battery to which they are attached.

Swan's Light.—This light is specially useful in examining parts of the body or tumours, which we wish to test by transmitted light. I have under my care, just now, a man who is compelled to be in the recumbent posture, from a severe fracture of the thigh. He has also a tumour in the scrotum with all the characteristics of a hydrocele; but it was almost impossible to judge of its translucency in consequence of its being bound down to the groin; and being of very old growth, was intersected by bands which made it more or less opaque. It was impossible, in the man's fixed position, to get a candle or lamp placed so as to judge of its translucency. At the same time as Sir William Thomson offered me the battery before alluded to he suggested that Swan's Light might be used for surgical investigations. He kindly provided me with a very powerful battery of the ordinary kind; sent his mechanic assistant to fit it up in my ward, and gave me a Swan's electric light lamp. This is a globe of glass about 1½ inches in diameter, containing a filament of carbon wire twisted into a loop, which, when rendered incandescent by the battery, gives out a powerful light. This globe, which is held by a handle of glass tube about four inches long, can be placed in any position, and, as it is not heated beyond what can be

* Notices of this extraordinary invention will be found in *Nature* for 19th May and 2nd June: also, in the London *Times* of 16th May, and in a letter from Sir William Thomson in the *Times* of June 8th.

easily borne by the skin, it can be placed in actual contact with the tumour in any place without danger of setting fire to the bed-clothes.

It proved most successful, for, even in a ward of the hospital, where the bright sun could not be effectually shut out, the translucency of the hydrocele was made apparent to every student.

ON WOOLSORTERS' DISEASE.

By JOHN HENRY BELL, M.D., Bradford.

DURING the investigation which has been made into the cause and nature of this disease, the following facts have been educed.

First: It is not confined to wool-sorters, but affects other classes of workpeople who manipulate the wool or hair after it has been sorted. Fatal cases have been observed in packers, washers, preparers, carders, overlookers, and buyers. Until recently, it was not known that wool-sorters were more liable to have external anthrax than other persons. This form of the disease has also been met with in persons who have accidentally come into contact with infective material. A case has been reported of a boy having anthrax on the temple, from lying for a short time upon a bale of mohair; and another, of a gentleman having anthrax on the right temple, from touching some "Van" mohair with his right hand at the warehouse of a friend.

Second: Alpaca and mohair are not the only infective materials. Many fatal cases have occurred from the manipulation of other dry and dusty hairs and wools. "Greasy" wools are less dangerous; it is probable that the "yolk" in them fixes the infective particles. All hairs and wools (excepting Algerian) may at times contain uncleansed fleeces from animals which have died from anthrax, and may occasionally communicate the disease to those who come in contact with them. I have seen such cases from the sorting of British wools, and have heard from my medical friends of others; but the proof is not yet complete.

Third: The disease is not confined to this district; fatal cases have been reported at Leicester, Norwich, Glasgow, Constantinople, and in Massachusetts. I think it will yet be found in other places; and certainly in Peru and Asia Minor, and at the Cape.

Twelve months ago, employers and representatives of woolsorters met Her Majesty's Inspector of Factories, and representatives of the Sanitary Authority, at Bradford, to consider what precautions should be taken to minimise the evils of dealing with foreign hair and wool. Certain regulations were agreed upon. Particular kinds of hair and wool, which were generally believed to be the most dangerous, were to be steeped in water, washed, and otherwise dealt with, before they were sorted. This regulation has been generally acted upon. The result has been most gratifying. Excepting one case, I have not heard of any illness from sorting materials thus dealt with. If "sorted while still damp, as early as possible after washing", as was agreed upon, there will be no risk (some months ago I wrote); "but, if dried too much, I should be afraid of a case cropping up occasionally, because I know the infective germs are not all destroyed by washing in water at 100° to 120° Fahr". The cases I have now to report are of this kind.

Within three weeks, three men, who worked in the same room, have recently died from this disease. These cases deserve particular notice, as each case differs in some respect from those previously published.

CASE I. *Anthracæmia.*—J. Gill, aged 72, a back-washer, had never been a day from work on account of illness, and had worked for the same firm over twenty-three years. On Saturday, May 14th, 1881, he complained of feeling tired (indeed he had not been very well for several days), but continued his work till giving-up time, about noon. When he returned home, he went to bed, and slept most of the afternoon; during the evening he felt rather cold, had some cramp in the fingers, and noticed that some of them were bloodless and numb. He slept well through the night. On Sunday morning, he complained of a feeling of oppression across the chest, for which he took an emetic. His appetite was not good, but he took some meat and vegetables for dinner. I visited him at 11 o'clock P.M. He complained of nothing except some uneasiness, as if he "had something on his lungs". He did not appear ill, and said he did not feel to ail much, except that, when he raised himself in bed, he felt weak and weary. Pulse 82, soft and full; temperature 97.2°, axilla; respirations 24. No pain or cough; skin moist; tongue slightly coated.

On Monday, May 16th, 10.30 A.M, he had passed a restless night, sleeping occasionally half an hour at a time. The uneasiness and weariness continued. He felt faint if he raised his head from the pillow. He had some thirst, but neither pain nor cough. The percussion-sound on both sides of the chest was clear; the vesicular murmur was on the right side inaudible, on the left side distinct. There were some bronchial sounds. Respirations 40; temperature in the axilla 93°, in the rectum 101°; pulse imperceptible. The extremities were cold; the blood was stagnating. He died at 11 A.M., in my presence, forty-seven hours after leaving work.

I have attended many cases of this disease when the cough was slight; this is the first case I have known without cough.

I examined blood taken from the finger ten minutes before death, and failed to detect any bacilli. A small quantity, given to a mouse, produced death in thirty-six hours. Non-mobile bacilli were numerous in its spleen.

No *sectio cadaveris* was allowed. Forty-eight hours after death, I saw the body; it did not present the appearances of rapid discoloration and decomposition, which are sometimes seen within twenty-four hours after death from this disease. The left side of the chest did not yield fluid. I removed some from the right side by a hypodermic syringe for examination; it contained numerous long motionless bacilli.

I visited the mill where the deceased had worked, and was shown the various processes to which the wool was subjected before arriving at the machine which he tended. I was told, that, during the last six weeks, a lot of 250 bales of "Van" mohair, which was considered of good quality, had been used. When taken out of the bales, the hair was washed in soap-suds at 120° to 130° Fahr.; then passed through rollers; dried by hot air; sorted; washed, and dried again as before; passed through five preparing machines (or carded), then combed, before it arrived at the back-washing machine, where it passed through soap-suds at a temperature of about 100° Fahr. (at the time of my visit 130° Fahr.). The hair had been manipulated by more than a dozen workpeople before it reached the deceased. At each stage, its infective powers would be weakened. Those who handled it most, when it was most virulent, did not suffer. From this, and many other corroborative instances, it appears probable that the virus may gain access to the blood through some accidental abrasion of the mucous membrane. It is important to notice, also, that twice washing in soap-suds at 130° Fahr. is not sufficient to destroy or remove all the infective particles.

CASE II. *External Anthrax.*—J. R. Baker, aged 58, machine woolcomber, on Monday, May 16th, tended the back-washing machine at which the deceased J. Gill had worked on the previous Saturday. He had always enjoyed good health, was very temperate, and had worked for the same firm nine years. Soon after he commenced work, his left forearm was touched by one of the cog-wheels of the machine—a small portion of skin on the outer surface was nipped and torn; he thought nothing of it, but washed the blood and dirt off with a little wool, which he wet in the warm soap-suds through which the "Van" mohair was passing in his machine. Three days afterwards (May 19th), his forearm was swollen; he was surprised at this, as he "had excellent healing flesh", and went in the evening to consult Mr. Kenyon. On May 20th, he discontinued work at noon; and I saw him immediately afterwards. He said he did not feel ill, but was afraid that he had got his arm poisoned. The forearm was swollen to the hand and the elbow, and pitted on pressure; the injured part was one and a half inches in length, of a crescentic form, and half an inch in breadth at its broadest part; it was not painful, and there was no redness of skin excepting at the edge of the wound. Blood taken from the margin did not appear to contain bacilli.

On May 21st, I saw him at 10.30 A.M., with Dr. Rabagliati and Mr. Kenyon. He had passed a moderate night; slept well, had no pain or feeling of general illness; appetite good, tongue natural. The arm was swollen to its upper third; the swelling of the forearm was very hard, and did not pit on pressure. There was a raised vesicular rim along the margin of the skin around the wound. Pulse 72; temperature, left axilla 97.5°, rectum 101.2°. Serum from vesicles, examined at 2.30 P.M., contained a few bacilli. Two tubes of this, given to a rabbit, had no apparent effect.

May 22nd, 12.30 P.M. He had rested well through the night; his appetite was good; he had no feeling of illness, no pain, except of fulness from swelling of the back of the hand, which was very tense, and did not pit on pressure. The swelling extended to the shoulder; the upper third of the arm was not so hard as the lower part. Pulse 84; temperature in the left axilla 98.2°, in the rectum 100.7°. Serum from vesicles contained one bacillus in about a score of fields. A small quantity, given to a rabbit, produced no perceptible result.

May 23rd, 10.30 A.M. He had a good night, and felt well; he had no pain, except fulness from swelling of the hand. Soft swelling had advanced over the clavicle and pectoral muscles. His appetite was not so good; he was more inclined to drink. Tongue natural; no cough. Pulse 104; temperature in the left axilla 101.4°, in the rectum 105°. The circumference of the left forearm was 3⅜ inches more than the right; of the arm, 4½ inches more than the other. There was no redness of skin beyond the vesicular margin of the wound, the surface

of which was covered with a dirty grey-coloured eschar. Serum from vesicles contained a few bacilli; half a drop, given to a rabbit, had no perceptible effect. 9 P.M. He had no pain or distress. The tongue was moist. He had taken food moderately. The swelling had extended over the scapula; as far as the middle, it was hard, terminating by a distinct ridge; beyond, it was softer. In front, the swelling had extended over the chest, and was not so hard as behind. Pulse 116, soft. After he had been helped up in bed to the sitting position, and lay down again, the pulse was 130, and irregular. Temperature in the left axilla 99.8°, in the rectum 104.1°.; respiration 24.

May 24th, 10.30 A.M. He passed a fairly good night; was not restless. He had no pain, but some uneasiness over the abdomen, which was relieved by vomiting. He appeared calm and composed. Pulse 130, very small, and difficult to count. Temperature in the left axilla 99.1°, in the right axilla 99.8°, in the rectum 102.3°; respiration 22. Serum from vesicles contained ten to twenty bacilli in each field. The contents of two tubes, given to a mouse, were fatal in seventeen and a half hours. 9.30 P.M. He had a restless day; passed no urine; his appetite was gone; his face shrunken. The swelling was extending; the extremities were cold; pulse imperceptible; temperature under the tongue 95°. He died ten hours afterwards. Serum from the arm contained bacilli; two tubes, given to a mouse forty-five hours afterwards, were fatal in sixty-five hours.

Post mortem examination, made by Mr. Kenyon, nine hours after death. The ends of the fingers were of a dark colour. The upper surface of the scrotum had a dark-red colour. The swelling of the arm was much more yielding than during life. The injured part of the forearm was removed; the cut surfaces were crowded with small interstitial hæmorrhages. There were no pleural effusions, nor enlargement of bronchial glands. The blood was fluid. There was no staining of the endocardium; no subserous petechial spots in the heart. All the viscera were apparently natural. Portions of the internal organs were sent to Professor Greenfield for examination. Serum from the arm contained numerous long motionless bacilli; after keeping two days in a capillary tube, the bacilli were very long and convoluted.

WOOLSORTERS' DISEASE.

By S. LODGE, M.R.C.S., Bowling, Bradford.

JOSEPH BOOTH, aged 62, had suffered from bronchitis several times. He was inconvenienced by hydrocele, and this I had tapped twice or thrice, at distant intervals. He was a somewhat weak, but temperate and regular workman, and found constant employment as a comber, washer, or carder of wool. He was engaged in the latter occupation up to May 4th, and he died early on the 6th.

On the 5th, a message was received from him of the usual character—not a particularly pressing one—and Mr. McArthur visited him. He found him sitting upright in bed, quite sensible, breathing rather quickly but easily; he complained of pain in the head and in the region of the liver; he had vomited some dark fluid. The tongue was furred, and red at the margins; the temperature low; pulse small and quick; the skin moist; and he was blue all over, but especially upon the extremities, both upper and lower. There was great congestion of the lungs, but no *râles* could be detected. The unfortunate man died after thirty hours' illness.

With respect to the certificate, we agreed that it would be safest not to assign a first cause of death; but, as the second, in Mr. McArthur's absence, I wrote "venous congestion".

For important sanitary reasons, it was necessary to have the body removed as soon as possible; but, before the interment, I determined, as far as circumstances permitted, to ascertain the *post mortem* condition; and, therefore, forty-eight hours after death, made a second external inspection of the body, and secured a few tubes of blood from the jugular vein. I had previously mentioned the case to Dr. Bell, and I believe he did the same.

Immediately after death, there was discoloration, almost amounting to blackness, over the face, neck, and chest; but, on my second inspection, when the blood was taken, this appearance had considerably changed; still there was much lividity of these parts, and of the extremities also.

The blood was immediately handed to Mr. Tacey for examination, and he reports having found a few rods, *i.e.*, bacilli, and, when the fluid was stained (according to Koch's method) with aniline violet, some spores. His observations were made with a Zeiss, 16 × 1500 diameters.

The remarkable point in connection with the foregoing case is, that the man was taken ill when employed at a carding machine. The material he was watching, as it passed through the process, had been previously twice washed at a temperature of 130°, and afterwards dried in a swift current of hot air. Of course, it had been carried through the preparing machines (five in number), and twice combed. In fact, when carded, it only required to be rolled into balls to finish it.

SIX CARDIAC AND VASCULAR CASES: WITH REMARKS AND ENGRAVINGS.

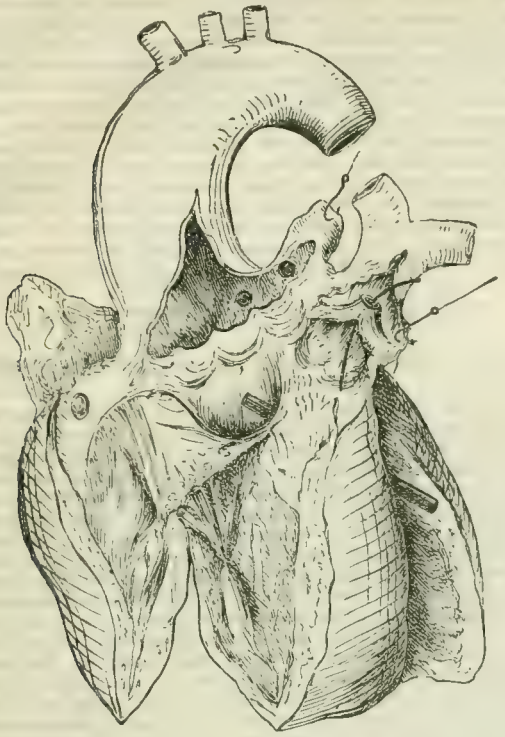
By EDWIN RICKARDS, M.A., M.D.,
Physician to the General Hospital, Birmingham.

CASE 1. *Stenosis of the Pulmonary Valve: Imperfect Ventricular Septum: Malposition and Narrowing of the Pulmonary Artery: Narrowing of the Descending Part of the Arch of the Aorta.*—John L., aged 21, was an out-patient at the General Hospital, January 1876. He was cyanotic; his lips, ears, fingers, and toes were of a purple hue; his skin was thin; his fingers bulbous; his nails incurved. From his account, there did not appear to be any family tendency to disease or malformation of the heart, rheumatism, syphilis, or disease of the lungs. He earned his livelihood by playing a whistle in the streets. All his life he had been blue-skinned, and subject to attacks of palpitation of the heart, accompanied with cough, shortness of breath, and pain in the chest, the pain extending from nipple to nipple. He was especially liable to these attacks at the end of a long tune and in cold weather. When he was so affected, he said, he became "as black as a coal, and his veins stood out". His hands and feet were always cold. He was fully developed, though somewhat undersized for his age. He was very intelligent. His chest was carefully examined. There were no signs of disease of the lungs; no marked increase of cardiac dulness; no thrill. The apex-beat and impulse were normal. A coarse superficial systolic murmur was heard at the base of the heart, having its maximum intensity at the second left costal cartilage. Between the base and apex of the heart was heard another murmur, soft and systolic, and having its maximum intensity over the sternum on a line with the nipples. At the apex of the heart, the two sounds were distinct, though the first was accompanied by a soft systolic murmur. The pulse, 80 per minute, presented no peculiarity; the temperature in the mouth was 97.4°; the urine was not albuminous.

In consequence of notes being taken of his case by Mr. Spofforth (the physicians' assistant), and of some remarks I made to the students, he was lost sight of until the following December, when he was admitted into the hospital with acute phthisis, of which he shortly died. Between his being an in- and an out-patient, he had three attacks of profuse hæmoptysis. At no period was there any dropsy.

A *post mortem* examination was obtained with difficulty, and was made under rigid conditions. The lungs were studded throughout with small cheesy masses of catarrhal pneumonia, some of which had softened. There were a few small cavities. The heart was slightly enlarged, and weighed ten ounces and a half; its muscle was healthy. The aorta was much narrowed beyond the origin of the left subclavian artery. The pulmonary artery was very narrow, and was situated on the right side of the aorta. The right chambers of the heart were dilated, and their walls somewhat thickened; the left chambers appeared of normal size. The septum ventriculorum was deficient at its base, so that the finger could be passed from the right to the left ventricle, and from the right ventricle into the aorta. The pulmonary valve was represented by a conical diaphragm, with a central aperture scarcely large enough to admit of the passage of a crow-quill; in this diaphragm were three deep indentations, showing its origin from the three segments of the pulmonary valve. The auriculo-ventricular and aortic valves were perfect; on all of them were small vegetations, evidently of long standing. The aorta appeared to come off from both ventricles equally. The foramen ovale and ductus arteriosus were both closed. The engraving shows the right ventricle opened along its right border; its anterior part removed; the pulmonary artery turned back and drawn over to the left side, so that the posterior part of that vessel is seen anteriorly in the engraving. A slit has been made in the posterior part of that vessel to expose the conical diaphragm, through which a fine curved probe has been passed. The left ventricle has been incised, and a thick probe passed from it through the abnormal aperture in the septum into the right ventricle. A slit has been made in the anterior part of the aorta. The small vegetation are only apparent on the tricuspid valve, and there indistinctly. I am

indebted to Dr. Philip Bindley for the drawing of the specimen from which the engraving was made.



REMARKS.—The record of this case may be useful for the purpose of statistics, and so help to throw light on the origin of perhaps the most common form of malformations of the heart—that of imperfect ventricular septum, associated with stenosis of the pulmonary valve. It also exemplifies other abnormalities of less frequent occurrence.

I am an advocate of the view that, in a heart where the ventricular septum is found imperfect and the pulmonary valve narrowed, the former condition is the result of the latter; that the pulmonary stenosis exists before the septum, under ordinary circumstances, would be complete; and that, this being the case, the blood in the right ventricle, not finding a free exit by the pulmonary artery, escapes into the left ventricle, and, by continuing to do so, prevents the closure of the septum. As to the origin of the stenosis of the pulmonary valve in such cases, I agree with those who think that it is generally, if not always, due to a fault in development rather than to disease; for, assuming the imperfect septum to be due to the pulmonary stenosis, from the frequent association of the two conditions, intra-uterine endocarditis would appear to be far more common before the end of the third month of fœtal life than afterwards, since it is at that time (say the embryologists) that the septum is perfected. In the case recorded, the segments of the pulmonary valve, had they become adherent from inflammation, would probably, by the fluxion of time, have been so altered and fused together that the origin of the conical diaphragm from three segments would not have been discernible. The presence of small vegetations on the otherwise healthy valves of the heart might be urged in favour of the amalgamation of the segments of the pulmonary artery being due to an intra-uterine endocarditis; but these warty growths may have been produced after birth, and in consequence of abnormal tension of the endocardium, and from obstructed circulation through the heart. The abnormality in the circuit of blood through the heart, occurring at such an early period of embryonic life, may, by pressure, have caused a disturbance of the normal relations of the great vessels, and thus the malposition of the pulmonary artery may be accounted for. The balancing power in the animal economy, by which physiologically the demand of blood to a part regulates the supply, may fairly be supposed to be in force during development, and to determine the size of a vessel by the amount of blood it will have to carry. By the acceptance of such a hypothesis, an explanation is afforded of the narrowing of the pulmonary artery and aorta. The stenosis of the pulmonary valve would limit the supply of blood to the pulmonary artery, and so to the ductus arteriosus, which in fœtal life supplies with blood that part of the aorta beyond the origin of the left subclavian artery, or, in other words, that part of the aorta which in this case is narrowed. Dr. Wickham Legg, in the record of a case of complete obliteration of the aorta at the point of insertion of the remains of the ductus arteriosus (*Trans. Path. Society of London*, vol. xxix), expresses the opinion that narrowing of the aorta at that point is due to changes which take place after birth in the ductus arteriosus. Dr. Peacock (*British and Foreign Med.-Chir. Review*, vol. xxv) urges that the defect is often associated with other congenital malformations, and argues that it is the result of faulty development of the branchial arches which form the continuation of the aorta from the origin of the left subclavian to beyond the insertion of the ductus arteriosus. The dilatation of the right side of the heart, and the great distension of the superficial veins of the body when the patient whistled, seem to support the view that, in the causation of the cyanosis, the imperfect oxidation of blood and the mixture of venous with arterial blood were minor factors, compared with systemic venous congestion. The age attained by John L. was in excess of that usually reached by the subjects of such malformations; and it is noteworthy that death was caused by disease of the lungs with hæmoptysis in one in whom there appeared to be no hereditary tendency to pulmonary disease. The lowered vitality of those organs, in consequence of defective circulation through them, doubtless predisposed them to degenerative disease.

SURGICAL MEMORANDA.

A NEW METHOD OF TREATING RECTAL FISTULÆ.

ABOUT three months ago I tried a plan of operating in a case of fistula in ano, which I believe to be novel—if there be anything new—and as the result was very satisfactory and rapid, I venture to draw attention to it, although I have only one case, so far, to record. The fistula was about two and a half inches long, and was divided in the usual way, then all pseudo-membranous tissue and granulations were scraped away with a sharp scoop, and the ordinary narrow blunt-pointed bistoury, buried for half its depth at the fibre of the fistula. Both surfaces of the wound being vivified and hæmorrhage having ceased, three deep silver sutures were passed, entering the skin about a quarter of an inch from the edge of the wound, and, passing well beneath the floor of the fistula, were brought out at the same distance on the other side of the wound. The upper stitch ran through the coats of the rectum into the surrounding tissue. These stitches were removed a week after the operation (but might have been removed sooner) when the wound was soundly healed. The patient has been perfectly well since. I intend to give this plan an extensive trial, as it promises to considerably expedite the cure of suitable cases of rectal fistulæ, and to do away with the painful dressings which have to be resorted to in the common mode of treating such affections. The bowels should be well opened by a purgative and enema before operating, and must be kept confined for about four days after the operation. All loose folds of skin about the fistulous track must be removed. I shall be glad if other surgeons will try this plan.—I am, etc. H. A. REEVES, F.R.C.S.

Assistant Surgeon to the London Hospital,
Surgeon to the Hospital for Women, etc.

6, Grosvenor street, W.

OBSTETRIC MEMORANDA.

LACERATIONS OF THE CERVIX UTERI.

THE modern gynæcological views of the frequency and importance of cervical laceration, during the process of parturition, require serious and impartial criticism. There are thousands of experienced and successful obstetricians in this country who have never recognised the condition even as a cause of serious hæmorrhage, and much less as necessitating an immediate complex operation, or being the occult complement of a chronic invalidism. In my experience of over two thousand labours, three-fourths of which were plebeian, no case of cervical laceration occurred which necessitated anything beyond a kite-tail temporary plug of dry cotton-wool, in addition to the usual every-day resources of cold, quiet, elevation of the pelvis, and bandage. Trickling hæmorrhage, with a firmly contracted uterus, may arise from anterior vulval, vaginal, or uterine tearing; and, when the locality is sought with eye, hand, or speculum, or by their combination, heat, cold, elevation, or temporary pressure will usually suffice to arrest it. As, however, a primiparous case is known to me, in which *post partum* hæmorrhage from a retro-

cervical scar killed the patient, in spite of cold, plugging, etc., I am quite prepared to admit that, in such exceptional cases, the wound should be immediately closely stitched, as advised by Dr. Pallen. I should certainly prefer this to the protracted vaginal plugging—the only safe substitute, as insisted upon by that gentleman. Moreover, I believe that the thermo-cautery, at a dull heat, and in the absence of skilled assistance, might be successfully and quickly substituted, especially with subsequent aseptic ablutions. Unhealed lacerations present themselves in patients suffering from mid-sacral pain, painful coitus, retarded involution and congestion, with or without displacement, and more or less general invaliding; and the performance of Emmet's operation of paring the edges and suturing the wound facilitates a return to the normal condition.

Benign or malignant disease, monstrosities, manual dilatation, or the use of instruments, may eventuate in laceration; but I do not think British practitioners can be accused of occasioning it by a blundering impatience. I am disposed to think the alleged frequency of such laceration in America is to be attributed to the more meddlesome and instrumental despatch with which modern transatlantic midwifery is conducted; and I regard its comparative infrequency in England, at least to any serious extent, as a matter of universal congratulation.

E. HOLLAND, M.D., M.R.C.P., F.R.C.S., etc.,
Assistant-Physician to the Hospital for Women, etc.

I HAVE been much interested in reading Dr. Pallen's papers on Lacerations of the Cervix Uteri; and, without being prepared to indorse all his views, I feel that he has done good service in drawing attention to this subject. The following case shows that such lesions are sometimes associated with serious complications.

The patient, aged about 25, had been twice previously confined. In the first case, the forceps were used; but, in the second, the labour, though tedious, was terminated naturally. In the present instance, the pains were strong; and, in about two hours from the time when I first saw the case, the child was born. The placenta and membranes came away easily, and there was good contraction of the uterus. Considerable hæmorrhage occurred; and on clearing the vagina of clots, I discovered that the cervix was torn quite up to the vaginal wall. A discharge of bright blood continuing, convinced me that it must come from the lacerated cervix. The application of solid perchloride of iron to the rent put a stop to it, and there was no more hæmorrhage, but the patient fell into a most alarming condition of collapse, which continued for more than an hour, the objects in the room appearing indistinct, and the mind wandering in a remarkable manner. She gradually recovered from this condition, but her state gave me some anxiety, as the pulse and temperature continued abnormally high, and there was an occasional tendency to rambling in her conversation; no other symptoms except slight cough could be discovered. She was most assiduously watched, and only allowed occasionally to go from her bed to the sofa. This continued for more than four weeks, when some difficulty of walking was experienced, and symptoms of pelvic cellulitis declared themselves. An enlargement could be felt in the left iliac region, and the uterus was pushed over to the other side. At this conjuncture, I asked Dr. Wallace to see the case with me; and, on his suggestion, the hot vaginal douche was diligently used, with mercurial pessaries and tonic treatment. The patient made a good recovery; the uterus regained its normal position; and the patient was able to go to the country, and returned in perfect health.

I have no doubt that, in this case, there was, in addition to the laceration of the cervix, a crack or fissure in the body of the uterus; giving rise, no doubt, to the shock at the time, and the cellulitis eventually.

Professor Pallen's remarks on the causes of laceration—instancing the attachment of the placenta to the side of the uterus—are very interesting; and I have known it to be caused by ovarian tumours diverting the uterus from the normal position.

A. H. F. CAMERON, Liverpool.

CLINICAL MEMORANDA.

EPILEPTIFORM CONVULSIONS OF SHORT DURATION, PROBABLY INDUCED BY THE PRESENCE OF TAPEWORM.

ON March 2nd, I was consulted by a farm-labourer, aged 20, who informed me that he had, for the last eight years, occasionally been suffering from symptoms indicative of gastro-intestinal irritation, with loss of flesh, irregular appetite, mental depression, headache, and restless nights. I learnt from prescriptions that, during this time, the patient took, in powerful doses, most of the anthelmintics, including turpentine, santonin, scammony, and some preparation of mercury, as his history pointed to profuse salivation and loosening of the teeth; but never to his knowledge did he pass any worms. Six months ago, he had a "fit", was convulsed, and became insensible for about two minutes, when he regained consciousness. Every second or third day, after the first paroxysm, "fits" of a similar character, but of less intensity and duration, occurred. The bromides, conium, Calabar bean, and other nerve-sedatives, were administered for four weeks, without any effect in checking the frequency of the paroxysms. On the morning of April 2nd, I ordered a full dose of the extract of male fern to be followed by castor-oil. In the course of the day, to my patient's great joy, a tapeworm twenty-three feet long was passed. A month has elapsed since the expulsion of the parasite, and without a recurrence of the paroxysms. The man expresses himself at present as being "all right". PRICE JONES, F.R.C.S. and L.R.C.P.Ed., Llangollen.

THERAPEUTIC MEMORANDA.

CASE OF BELLADONNA-POISONING CURED WITH PHYSOSTIGMA.

A GENTLEMAN, aged about 35, suffering from chronic disease of the ankle, to relieve the pain of which he was in the habit of taking sedatives, injected subcutaneously one evening four or five minims of a solution of morphia with atropia (the solution contained one grain of atropia to the drachm); he soon found that he had taken an overdose, and sent for me in a hurry. When I arrived, I found the patient perfectly unconscious, in a state of muttering delirium, and the pupils dilated. I could obtain no history, except that he had been perfectly well an hour before; therefore, suspecting poisoning, I administered a mustard and water emetic; this speedily acted, but was followed by no improvement of the symptoms. After about two or three hours, seeing that, if anything, the unconsciousness and delusions increased, and he was now unable to swallow, I sent for two other medical men in the town, to consult as to what should be done. From the state of the pupils, we judged that the poison was belladonna or atropia; and at 2 A.M. (eight hours after he had injected the poison), we injected subcutaneously a solution of the extract of physostigma. At that time, there was not the least trace of returning consciousness. In less than five minutes after the injection, the patient looked round in a surprised manner; and, in five minutes more, he was in complete possession of his faculties, and gave us a clear detailed account of the whole occurrence; and it was with great difficulty that we could persuade him into the belief that some seven and a half hours had elapsed since he had sent for me (his last act of consciousness).

This case is interesting from the marked promptness of action of the physostigma; and, though there is no evidence that the patient had taken a fatal dose of atropia, still he had taken sufficient to produce severe symptoms, which symptoms were immediately relieved by the Calabar bean. JAMES HUDSON, M.B., Nelson, New Zealand.

FUMING INHALATIONS IN ASTHMA.

THERE can be no question as to the value of fuming inhalations in the treatment of asthma. The ordinary nitre-paper often fails, because it is not strong enough. For some time past, I have been in the habit of using very thick and strong nitre-papers, which may be called "nitre-tablets". They contain both chlorate and nitrate of potash. Each consists of six pieces of white blotting-paper, about six inches square, and they are made by dipping them into a hot saturated solution of nitre and chlorate of potash. Before the pieces are quite dry, they may be sprinkled with Friar's balsam, spirit of camphor, tincture of sumbul, or some aromatic. The nitre-paper so prepared is as thick as cardboard, each piece consisting of six pieces of blotting-paper, closely adherent, and covered all over with crystals of saltpetre and chlorate of potash. The door and windows having been closed, the tablet is placed on a fire-shovel or piece of metal of some kind, and folded down the middle, so as to make it like a tent or the cover of a book. When lighted at each end, it burns very quickly, throwing out a flame often four or five inches long, and giving rise to dense volumes of smoke. The asthmatic patient almost immediately obtains relief, and drops off into a quiet slumber, from which he awakes refreshed. These tablets often succeed when the ordinary nitre-papers do no good. They nearly always induce sleep, and I have used them with success in cases of insomnia when most of the ordinary remedies have failed. Large pastilles composed of equal parts of nitre and lycopodium are also useful in asthma. WILLIAM MURRELL, M.D.,
Lecturer on Materia Medica and Therapeutics, Westminster Hospital.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

KING'S COLLEGE HOSPITAL.

TWO CASES OF UNUNITED FRACTURE OF THE PATELLA TREATED BY SUTURING THE FRAGMENTS WITH SILVER WIRE; ALSO A CASE OF UNUNITED FRACTURE OF BOTH BONES OF THE FOREARM TREATED IN THE SAME MANNER.

(Under the care of Mr. JOSEPH LISTER, F.R.S.)

[FOR the use of the notes of these cases, we are indebted to Mr. J. POLLARD, M.A. (Cantab.), Senior Clerk.]

CASE I. *Ununited Fracture of Patella.*—Martha F., aged 43, was admitted on November 5th, 1880. Eight weeks before, she had slipped while standing on an embankment; she tried to save herself, and felt something snap in her knee, and fell senseless on to her hands and knees; this was followed by swelling of the knee, and inability to move the joint. When admitted, a transverse fracture of the patella could readily be detected; the fragments were more than an inch apart. There was fluctuation between the fragments, and, evidently, fluid in the joint; the fragments could not be brought into apposition. The leg could not be extended nor raised. On November 12th, the patient being under the influence of chloroform, Mr. Lister made an incision, two inches long, over the patella, sawed off the edges of both fragments, drilled them, and passed a thick silver wire through the holes thus made. A dependent opening, through the capsule of the joint, was next provided, and through it was inserted a drainage-tube. The fragments —by complete flexion of the thigh on the abdomen and strong traction on the wires—were brought into apposition, and secured by twisting the wire. The wound was sewn up, leaving about one-fourth of an inch of the twisted wire projecting. An antiseptic dressing was applied, and the limb placed on a long back splint of "kettle-holder". The usual antiseptic precautions were used throughout. On November 13th, the knee was dressed; there had been a free discharge. On November 14th, all the silver sutures were removed; the drain was acting well. On November 16th, the drainage-tube was removed. The dressings were renewed on November 22nd and 29th; on the latter occasion, the dressing was merely precautionary, as all the wounds were healed. On December 8th, the dressings were again renewed; and again on December 16th, when the wire was cut level with the cicatrix; the wound was completely healed. On December 24th, it was again dressed; the skin had grown over the wire, and the cicatrix was complete. On December 30th, passive motion was tried; and, on January 3rd, the patient was allowed to get up; by January 8th, she was getting about the ward on crutches. On January 28th, after showing that she could voluntarily bend her knee a little, she was allowed to go out. She returned in about four weeks. An incision was then made, and the wire was taken out. In a few days, this wound was healed; she was, therefore, discharged, walking comfortably with little remaining stiffness. The fragments were in perfect apposition, and, as far as could be judged, there was bony union. This patient was last seen on May 31st. She could raise her leg, and was gradually gaining increased power of flexion; she was able to walk comfortably without a crutch, and there was no separation of the fragments whatever.

CASE II. *Ununited Fracture of Patella.*—This patient, J. R., aged 22, was a healthy-looking soldier. Whilst running across a green, on August 3rd, 1879, he slipped, and, in endeavouring to recover his balance, the right patella snapped transversely; he was treated in a military hospital by splints, followed by a starched bandage. His condition on September 27th, 1880, is thus recorded. "The fragments were separated by an interval of three-quarters of an inch; in this interval was a firm fibrous band, which united the two fragments. The upper fragment is the larger; each is separately movable. The limb was wasted, and sometimes there was pain. The knee-joint was quite stiff; there was no power of extension, but he could swing his leg forward in walking." Professor Lister forcibly flexed the knee, and the limb was put up on a back splint of "kettle-holder". On October 22nd, the patient having been put under the influence of chloroform, and, the parts having been cleansed, Mr. Lister made an incision two inches long over the patella. The fibrous tissue was scraped from the two osseous surfaces, leaving them clear; an opening for drainage was made through the capsule at the posterior aspect of the joint, and through this a tube was passed. Mr. Lister then drilled the two fragments, and passed a strong silver wire. The fragments were brought into apposition, and retained there by twisting the wire for about an inch and a half. The edges of the skin-incision were stitched together with silver sutures. The usual antiseptic dressings were used, and the limb was put up in a long back splint of "kettle-holder". The temperature was 99.6°. On October 23rd, the wound was dressed, and the drain removed; there was no discharge. On October 25th, the wound was again dressed, and the silver sutures were removed. The dressings were renewed on November 4th, 10th, and 19th; on the latter day, the wounds were entirely healed; the thick wire was cut off short. Passive motion was attempted, but, owing to the contraction of muscles, it was unsuccessful. The next day, the patient was placed under the influence of chloroform, and the joint flexed; there then occurred a cracking sound, followed by a sound of suction, indicating that something had given way, and that air had entered the joint. The joint was syringed out with eucalyptus and iodoform emulsion; antiseptic dressings were adjusted, and the splint reapplied. On November 21st, the dressings were changed; there was very little swelling, but some pain. The temperature was 98.4°. On November 22nd the temperature was 99°, and the dressings were renewed on that day, and again on November 23rd, when he complained of feeling the upper fragment move. Temperature 98.8°. He experienced some pain from November 21st, of a shooting character. On November 26th, Mr. Lister operated again (the patient being under the influence of chloroform), opening up the old line of incision. It was found that the wire had given way at its first twist; the edges of the fragments were, therefore, refreshed by the sharp spoon, and the wire was again twisted, and the wound sewn up, an opening being left in the lower part of the incision for drainage. On November 27th, the dressings were renewed, and there was a free discharge; some pain had been suffered; the temperature was 99.2°. On December 1st, he said that he had had much less pain since the second operation; the wound was again dressed. On December 8th, the knee was again dressed, and the silver sutures were removed. On December 16th and 23rd the dressings were renewed, and at the latter date the wound was entirely healed. He was dressed again on December 30th, and on January 6th; and on January 12th, he was allowed to get up and move about the ward. On January 19th, he managed to use crutches, but the weight proved too much for the limb; he was therefore kept in bed for a day or two. On February 5th, the patient left the hospital, walking fairly. He was desired to return, in order that the wire might be taken out. This was done about three weeks afterwards, and the wound healed in a few days. He has showed himself periodically since. When last seen, about two months after the operation, he walked well with a stick, and there was no separation between the fragments.

CASE III. *Ununited Fracture of both Bones of Forearm.*—The patient, John H., was twenty-three years of age. In the early part of February 1880, he caught his right arm in a strap in motion; he tried to free it with his left, both became entangled, and both were broken. The right arm sustained a simple fracture, and in six weeks was well. The fracture on the left side was compound and comminuted; some extruded muscle was removed, drains were inserted, and the limb put in splints. In three months, the wounds were healed, but the bones were ununited; he was, therefore, operated upon, the ends of the bones being rubbed together. The radius united, but not so the ulna, a false joint remaining. A Glasgow surgeon cut down upon the bone, and tied the fragments together with catgut. This operation failed, and the radius also proved to have united only by fibrous tissue. His condition when examined in King's College Hospital, on January 4th, 1881, is thus recorded. "The patient is an anæmic man; the bones of the left forearm are united only by fibrous tissue; pronation and supination are limited. The scars of previous incisions are visible on the outer and inner sides of the forearm in the middle third. A hard lump is distinguishable at the front and back of the arm in the middle line, about the size of a walnut; it is connected with one of the fragments of the ulna, and is probably one of the comminuted fragments exaggerated in size, and fixed to the ulna by callus. The index finger is permanently extended, with slight flexion at the metacarpo-phalangeal joint. Sensation is slightly diminished over the part supplied by the posterior branch of the radial nerve to the hand."

On January 14th, the patient was placed under the influence of chloroform, the limb was elevated for a few minutes, and an elastic band applied to render the operation bloodless. The usual antiseptic precautions having been observed, an incision was made on the ulnar side; the broken ends of the bone were found to be tilted towards the radius, and attached to the lower fragment was the "lump" above described; it was separated from the ulna with cutting pliers, and

removed. The periosteum was detached from the bone; the lower fragment of the ulna was then grasped with necrosis-forceps, and made to present in the wound; the soft parts were protected with a broad copper spatula, and a thin layer of bone was removed with the saw; the upper fragment was then treated in a similar way. An incision was next made on to the radius, the periosteum was stripped off, and a thin layer removed from the lower fragment; it was then found that nearly a quarter of an inch had to be removed from the upper fragment of the radius, to make the amount of shortening equal in the two bones. Up to this point, the operation had been absolutely bloodless; the elastic tourniquet was now removed. Very slight hæmorrhage occurred, necessitating the ligature of only two small arteries. The ends of the bones were now drilled; in using the drill, it was first held perpendicularly to the surface of the bone until it "bit", the handle was then depressed, and the point, by a continuance of the drilling motion, made to present in the middle of the medulla. In drilling the upper fragment of the ulna, the opening in the medulla was found not quite to correspond with that in the lower fragment; the medullary aperture was, therefore, slightly enlarged with another drill, it being most important, for the proper coaptation of the two ends of the bone, that the wire should pass without any irregularity. Two very stout silver wires were now passed through the apertures thus made, tightened, and twisted. The wounds were left open, as Mr. Lister felt certain that there would be a good deal of oozing, which, if the skin-wound had been closed by stitches, would have led to tension; perhaps, to suppuration, and that, possibly, to necrosis of the ends of the bones. An antiseptic dressing was then applied, which reached from the elbow to the tips of the fingers. Over the dressing, two "kettle-holder" splints, upper and lower, were adjusted.

The arm was dressed on January 15th and 16th; there was a free discharge. On January 17th, it was again dressed, because the patient complained of pain about the internal condyle. It was dressed again on January 19th. The clot in the wound was left undisturbed. The surface was covered with lymph, and sensation in the limb was complete. On January 20th, the dressings were changed. He stated that he could bend and straighten his index finger better since the operation, at all the joints. This was supposed to be due to the removal of the piece of bone, and the readjustment, allowing the flexor profundus to have more play. The dressings were renewed on January 23rd and 31st; and, on the last occasion, the wounds being then superficial, the use of the spray was discontinued. The temperature after the operation never varied much from the normal, 97.8° being the usual temperature. On February 7th, the wounds being nearly entirely healed, the cicatrices were padded, and covered by a boracic lint bandage, over which water-glass was painted from the wrist to above the condyles of the humerus. On February 11th, windows were cut in the splint, and the cicatrices were covered with protective gauze. About a fortnight later, and after his discharge from the hospital, the water-glass splint was removed. At that time, there was firm union between both the radial and the ulnar fragments. As a precautionary measure, another water-glass splint was applied, which he was directed to wear for six weeks.

In response to an inquiry kindly made for us by Mr. Penny, Surgical Registrar, the patient writes this week, from Glasgow, that, about six weeks after leaving the hospital, the water-glass splint was taken off, and that the medical man whom he consulted found that union was quite firm. The arm still feels strong, and he is ready, he says, for work, if he could find it.

In the course of a short address to the students after the operation on this case (on January 14th), Mr. Lister made some remarks, the purport of which was as follows. He said that when, as a young man, he was himself about to commence his first course of lectures on surgery, Mr. Syme had said to him in the course of conversation, "The worst of it is, there is nothing fresh to be done". And yet, if he threw back his mind to that time, how great in reality did the advances made by surgery, since then, seem to be. In the matter of this one operation alone, how striking the change in the methods employed, and in the confidence with which the surgeon looked forward to a favourable result; first, the use of anæsthetics, which removed the element of suffering on the side of the patient, and of haste on the part of the surgeon; secondly, the introduction of the bloodless method of operation, which allowed the surgeon to see clearly, as in a dissection, the parts upon which he was operating. Then, that the operation, as now conducted, was entirely subperiosteal, was a great advance; formerly surgeons had not dared to detach the periosteum, owing to an apprehension of necrosis—an apprehension which need not now be entertained. In operating beneath the periosteum it was not necessary to have any fear of wounding important arteries or nerves; the relations of these to the bones might not improbably be altered, but as long as all the manipulations were subperiosteal, there could be no fear of injury. Another improvement had been the resort to very stout silver wire for suturing the bones; by its use, very accurate and firm coaptation could be obtained. Last, but not least, there remained to be mentioned the dressings used. Formerly the surgeon, in attempting this operation, had to contemplate the probability of a long continued suppurative process with all its attendant dangers, not the most improbable of which was the occurrence of pyæmia. Now, by making use of the antiseptic dressings, no such fears need be entertained. Suppuration would probably not occur at all, and the chance of pyæmia was reduced to a minimum.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET.

QUIET VERTEBRAL CARIES.

(Under the care of Mr. EDMUND OWEN.)

A SICKLY-LOOKING boy, aged 10½ years, with old rachitic curvatures of the legs, was brought to the out-patient department on May 7th, by his mother, who said that he was suffering from "lumbago", though the pains were not sufficient to affect his appetite, or to disturb his sleep. Although he was still attending school, and running about much as usual, he was, the mother thought, losing flesh. On asking her how he came down stairs, she said that he now came down very slowly; that he would place each foot on every stair, and that he would always ease himself down by the balusters.

On stripping him, and placing him on his back on the couch, the crease of the right groin was found almost obliterated, and deep-seated fluctuation was detected in the iliac fossa, and in the upper part of Scarpa's triangle. By alternating pressure over these two regions, it became evident that the fluid (purulent) collections communicated beneath Poupart's ligament. The mother had noticed the fulness, for the first time, a fortnight previously.

The movements of the hip-joint were free. On turning the boy over, and examining the back, there was no tenderness discoverable along the spine; nor was there any abnormal projection to be detected. On telling him to stand down on the floor, he slid gently and cautiously off the couch, as if afraid of jarring himself; but as he walked naked once or twice across the room he stepped out boldly and held himself erect—unnaturally erect. On being asked to pick up a pin from the floor, he lowered himself at the knees, and a little at the hips, but kept his loins as stiff as a board. It was evident that the stiffness and the lumbago were due to disease of the bodies of the lumbar vertebræ, and consequent irritation of the roots of the neighbouring spinal nerves. The treatment was to consist in absolute and prolonged rest in bed.

REMARKS.—This is the kind of case which is very apt to be overlooked by either of those gentlemen for whom so many text-books are now being compiled—the busy practitioner and the student; the former from want of the time necessary for an exact examination, the latter from want of knowledge and method. For the thorough inspection of a child, it should be stripped stark naked, so that every movement, and the behaviour of every joint, may be viewed at the same moment. In the young and supple patient, when one joint is by disease or injury thrown out of working order, the deficiency is so cleverly made up by neighbourly and relative articulations, that the real pathological condition may possibly be unappreciated, or entirely escape detection. Thus, for example, the joints of the knee, and the spine, and the pelvis may supply the deficiences of the inflamed or ankylosed hip. And, in its turn, the hip, with the knee, apologises for the affected spine; and when the function of the shoulder-joint is temporarily or permanently impaired by inflammation or adhesions, the scapula plays so freely over the back and side of the chest that, unless the parts are quite uncovered, so that the movements of the two shoulder-blades may be watched and compared from the front and the back, there may be a failure of diagnosis. More than this, a physical examination carried out as suggested by these remarks, may be performed with equal satisfaction to the child and to the surgeon, for the latter may have been enabled to make up his mind as to the nature of the affection without touching his little patient; and as some irritated and apprehensive children cry as soon as they are touched, and assure one that the least handling of the soundest part causes pain, this preparatory inspection, even if it have not been all-sufficient, will probably have been the means of establishing a good understanding between those most concerned in the interview.

But to return to the subject of these clinical remarks. Caries in the lumbar region of the spine may advance much further, without recognition, than it could have done in the districts of the neck or chest. In

the last-named region, a slight falling-together of the bodies of the vertebræ would be accompanied by so obvious a projection of the spinous processes which are already prominent, that the mother herself notices the back "growing out", and applies for help; and, in the cervical region, the stiffness, the distressing pains in the head, neck, or chest, the chin propped upon the table, or supported by the hands, will be sure to obtain early attention. But when the lumbar vertebræ are diseased, and the child is suffering from that constant irritation of the lumbar nerves which he designates as "belly-ache", the mother believes herself to be quite competent to deal with the case; and if the pains be in the back, or along the thighs, so that the mother may call them rheumatism, lumbago, or sciatica, she is still equal to the occasion, for as yet there may be no apparent projection of spinous processes, although probably that part of the column is rigid and straight. After a further time the projection of a process may be detected, increasing between the masses of the erector spine.

When pains about the trunk or limbs are persistent, though of obscure origin, the question may well be asked, whilst the child is being undressed, "How does he come down stairs?" If the answer be, "Much as usual", or one hears that he sometimes comes securely down the middle of the course or by the wall, and that he jumps down from the bottom stair, the child is in little likelihood the subject of spinal disease; but if we are told that he asks to be carried down, or refuses to be led down, preferring the leisurely and cautious descent which he may make by himself with the aid of the balusters, and if, at the same time, he complain of pain in bilaterally symmetrical areas, by the linea alba, the groins, or the thighs, examination will probably reveal the existence of central (spinal) disease.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MAY 27TH, 1881.

JOSEPH LISTER, D.C.L., F.R.S., President, in the Chair.

Ununited Fracture of the Olecranon Process, in which Bony Union was obtained by Sutures of the Bones.—Mr. MAC CORMAC read notes of this case. The patient was exhibited. He was a piano-tuner, aged 26, who, four months before coming to St. Thomas's Hospital, had fallen upon the right elbow, and sustained a fracture of the olecranon. When admitted, the limb was wasted, especially the triceps muscle; there was no power of active extension; the line of fracture ran across the base of the olecranon, the detached portion being separated by two inches, and fixed to the back of the humerus, the condyles of which could be felt in the gap, no uniting medium being perceptible. On January 6th, Mr. Mac Cormac made a vertical incision, three inches long, exposing the fractured bone and the articulation. There was no trace of uniting material, the fractured surfaces were covered with smooth fibrous tissue, and adhesions existed between the detached process and the condyles, and also between the ends of the humerus and ulna. These adhesions were dissected out, and the periosteum being reflected, a thin layer of bone was cut off with a chisel, and by means of two wire sutures through holes drilled in the bone, the surfaces were brought into close apposition. The wires were twisted and cut off, so as to project at the centre of the wound, which was afterwards closed with catgut sutures. The operation was performed antiseptically the joint being washed out with carbolic solution (1 in 30) before the wound was closed. The first dressing was made on the fifth day, when the wound was found to be united, except where the bone sutures emerged; and these were removed in twenty-one days. In forty days he left the hospital with very good active movement at the elbow joint, and apparently firm bony union at the seat of fracture. From first to last he had no pain nor inconvenience. The wound healed without a drop of pus; the temperature occasionally rose to 99.8°, but was otherwise normal throughout. He had now perfect power of active extension; the arm could not be made absolutely straight, but he was able to follow his trade as well as before the accident.—The PRESIDENT said he believed he had been the first to perform this operation. His patient was an engineer, who was incapacitated from work in consequence of an ununited fracture of the ulna. Having exposed the ends of the bone, and pared away the fibrous coverings of them, they were united by a single silver wire suture, which could be easily removed subsequently, while being, at the same time, sufficiently strong. The case progressed without accident, and the recovered limb was as powerful as at any previous period of life. Another case occurred, in his charge, at King's College Hospital. In neither, however, was the fragment fixed above, nor were the broken ends so widely separated as in Mr. Mac Cormac's patient. Mr. Lister added that it was very gratifying to him to hear antiseptic surgery described as a matter of course by Mr. Mac Cormac; and he felt quite certain no one would think of incurring the risk of opening joints without antiseptic precautions.

Chromidrosis.—Dr. T. COLCOTT FOX read a paper on two cases of this disease, in which a deep blue-black pigment exuded upon the skin of the circum-orbital regions. The paper was illustrated by several beautiful drawings, kindly lent the author by Dr. Foot, the President of the Pathological Society of Dublin. One case occurred in a girl, aged 18, a partial deaf mute, but otherwise intelligent, and of good physique, who presented herself amongst Dr. Donkin's out-patients at the Westminster Hospital, for the relief of a conspicuous and symmetrical black pigmentation of the eyelids and considerable portion of the adjoining cheeks, which caused great concern to the girl and her friends. The catamenia appeared first at the age of 15, and had never since been regular in time or quantity; and since that time the girl had suffered from general malaise, severe headaches, and very marked habitual constipation. She was not an hysterical subject. The pigmentation was first noticed in September 1880, on the lower lids, whence it gradually spread itself over the adjoining portions of the cheeks. Through the kindness of Drs. Sturges and Donkin, she was placed under observation in the Westminster Hospital on three occasions; and it was found that the pigmentation varied considerably in amount and intensity, though present in some degree pretty continuously. It was always less at the catamenial periods, but seemed to bear a direct relation to the very obstinate constipation, and was more intense and extended the longer the interval between the relief of the bowels. It was found on many occasions that, whenever the latter were got into regular working order, the pigmentation disappeared. As a proof of its genuine character, Dr. Fox mentioned that one night in the hospital the face was thoroughly cleansed, and the girl, who was always much annoyed by the pigmentation, was put unexpectedly and suddenly into a strange bed, in a part of the ward away from her clothes and belongings, and a nurse watched by her bedside for thirty-six hours, yet the pigmentation steadily returned. The urine was examined on several occasions for indican, and it was found that the latter seemed always to increase markedly in amount *pari passu* with the constipation and the exudation of pigment on the face. This fact, and the relation of the exudation to habitual constipation, were new points in connection with the disease, noticed by Dr. Fox. The examination of the pigment showed that it presented characters in all respects similar to those hitherto recorded in other cases by Charles Robin and others. The Indian-ink-looking amorphous granules were found insoluble in almost all reagents, hot or cold, but displayed a deep-blue colour when moistened with glycerine: and, when dissolved in hot sulphuric acid, firstly gave a beautiful purple hue, and finally a bistre tint. The pigment was evidently indigogenous. The second case was a girl, aged 18, sent to the author by Dr. Donkin; she was hysterical and phthisical, and suffered from flatulent distension and constipation. The black powdery pigment afforded similar reactions to that in the first case, but the pigmentation was slighter and more fitful in appearance. In both cases, any heat, emotion, etc., which determined the blood to the face, increased the pigmentation. Dr. Fox, then, in consideration of the fact that these were the first cases presented to a London society, with the exception of one shown by Sir Benjamin Brodie in 1845, entered into a short *résumé* of the subject, and of other recorded cases, which might be found detailed in interesting and easily accessible monographs by Dr. Le Roy de Méricourt, of Brest, and Dr. Arthur Wynne Foot, of Dublin; and insisted on the reality of the affection, which he challenged anyone to disprove. To the thirty-nine cases collected by Dr. Foot, he added five others, making forty-four in all—six of them being in males and thirty-eight in females, at ages ranging between fifteen and fifty-seven years, with a mean age of twenty-two. The chief points discussed in this *résumé* were the causation, and the relation of the exudation to uterine troubles, general debility, and especially constipation; the influence of emotion, heat, etc., in increasing the pigmentation, and the sites it usually occupied; the probability of the substance being exuded in a soluble form in the sweat rather than sebum, and its subsequent oxidation into a coloured pigment by contact with the air; the varying shades of the colour (azure, deep-blue, ochreous, black) of the pigment in different patients, and at different times in the same patient; the constant chemical and physical characters of the pigment, which proved it to be indigogenous, and allied to similar products occurring occasionally in urine, pus, eczematous vesicles, milk, dropsical fluids, fæces, and vomit; and the arguments for and against malingering, showing undoubtedly that it was a real diseased condition. Lastly: Dr. Colcott Fox gave the results of the latest researches into the production of indican in the economy, and its connection with chromidrosis.—Dr. B. O'CONNOR asked if the patient had complained of continued tingling

or smarting of the skin. Also, whether the exuded material underwent change in colour, or was dark from the first. The advanced age (57) of one patient was a peculiar fact in connection with the affection. Was pain caused by the removal of the coloured material, as occurred in a case recorded in the *Medico-Chirurgical Transactions*, 1845? Were any constitutional effects produced by the removal? He did not question the reality of the phenomena, but regarded them as due to steatorrhœa, of which there were three distinct forms, chromidrosis being of the third or non-congenital kind. Did Dr. Fox think the sebaceous glands were involved? In an early volume of the Guy's *Hospital Reports*, Drs. Addison and Gull had described five cases of a somewhat similar kind. The affection generally attacked young and pretty women, was not dangerous, but annoyed the patient by the disfigurement it produced.—Dr. CAVAFY thought the *bona fides* of the disease could not be doubted. It was attested to by the results afforded by examination of the urine, and the abdominal distension favoured the view that the source of indican was the intestinal tract. Moreover, in chronic wasting diseases, such as phthisis and morbus Brightii, the same substance was found in the urine. It would be interesting to know if any of the patients described as secreting coloured sweat were phthisical. Variations in the hues observed could be explained in accordance with physiological and chemical principles; but he wished to be told whether the microscopic examination of the exuded material had yielded any evidence of bacteria, to the presence of which in blue pus its coloration was due. The corroboration afforded to the theory of a sweat centre by the emotional exacerbations was an interesting feature in the cases.—Mr. JAMES STARTIN inquired if any other parts of the body than those named were seen to be stained in these cases. He had seen coloration of both axillæ in a similar case, aged 40. He suggested that the oxidation of the colouring matter might be due to the action of a ferment produced during the secretion of the sebaceous and sudoriparous glands.—The PRESIDENT thanked Dr. Fox for his valuable paper, which, he said, recalled to mind the blue milk caused by chromo-bacteria in many of his own experiments. In this, colourless cells gave rise to alterations in the surrounding fluid; a bacterial origin, however, of the appearance in Dr. Fox's cases was negatived by the facts pointing to an evidently nervous producing cause.—Dr. FOX replied that, in his cases, there had been very little hyperæsthesia present; it had, in some cases here recorded by other observers, been nevertheless very marked. His examination of the pigment had been imperfect, by reason of the minute quantity available for the purpose. No constitutional effects followed the removal of the matter, nor, in the majority of the cases cited, was there any evidence of steatorrhœa. In one case, however, phthisis was suspected. No bacteria were discovered in the solutions of the pigment submitted to examination. Dr. Fox did not agree with Dr. O'Connor that any connection existed between these cases and those of xanthelasma.

A Case of Stretching of the Facial Nerve for Tic Spasmodique.—Mr. GODLEE read a brief account of the progress of this case related earlier in the session by Dr. W. A. Sturge, and himself. The patient on whom the operation was performed remained perfectly well till a month ago; then slight twitching of the orbicularis palpebrarum occurred, in connection with great mental worry; it was accompanied by some supra-orbital neuralgia. A blister was applied above the eye, and quinine was administered. The twitching had recurred twice since that time, again in connection with a mental shock, but it had now disappeared again; the patient only having some stiffness about the eye, and difficulty in opening it when exposed to a cold wind. Another patient, mentioned in the paper, in whom Mr. Godlee had stretched first one and then the other facial nerve, was also referred to; but as his case was not yet complete, it was decided to postpone a detailed account of it till next session.—Dr. DOWSE considered that the report confirmed ordinary experience to the effect that cutting and stretching operations performed on nerves were never more than temporarily successful. The success which attended persistent treatment, peripherally, was such as to render unjustifiable the more serious proceedings in cases of this kind.—The PRESIDENT suggested that there was no propriety in grouping under one head operations for cutting and stretching nerves. The rapidity with which the facial nerve reproduced itself after excision was truly marvellous. It was not correct to say there had been no permanent recoveries after stretching, since Nussbaum's records of the operation contained proof to the contrary. It would, he thought, be premature to describe Mr. Godlee's case as one of failure.—Mr. GODLEE said his patient had been under the best medical treatment for five years without avail. He would defend nerve stretching, on the ground that it produced no disfigurement, incurred no serious risk, and was, at any rate, partly attended with success.

Eczema of the Nipple.—Mr. GEORGE LAWSON exhibited a breast which he had removed on account of long standing eczema of the nipple. In the reports of the Society for last year, after recording a case in which cancer had followed an intractable eczema of the nipple, he suggested that in cases of eczema of the nipple which had resisted for a length of time all treatment, "the breast should be removed, in anticipation of a disease which does not then exist." The case which he had now to relate was that of a lady who suffered from eczema of the nipple which had resisted all treatment for over twelve months, and was extending. Feeling that the usual termination of such cases was diffused cancer, Mr. Lawson advised and accordingly removed the breast. The eczema presented the usual appearances of such cases. It was a red, scaly patch, raised slightly above the level of the skin, and extending for about two inches around the nipple. The breast was afterwards examined by Dr. Thin, and he discovered cancer-elements diffused throughout the organ. The preparation was now in the College of Surgeons.—The PRESIDENT referred to the serious difficulty surrounding such cases. It would be dangerous to assume cancer in every case of eczema of the nipple, and yet the latter often preceded the grave affection. Some time ago he had been called to examine a patient with eczema of the nipple, and contented himself with ordering the application of ointments only. He had learned at a later period that this patient was suffering from cancer of the breast.—Mr. LAWSON advocated excision of the whole gland, when eczema of the nipple had resisted all treatment.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

ORDINARY MEETING, WEDNESDAY, MAY 11TH.

J. C. OGILVIE WILL, M.D., in the Chair.

A Case of Rupture of the Tympanum, with Paralysis of the Face.—Dr. J. MACKENZIE BOOTH read the report of this case. He began by remarking that cases of traumatic facial palsy were not common, and that their connection with ear-lesion might readily escape notice in the presence of the more prominent facial symptoms. The case was that of a boy aged 7, who, eleven days before being seen, had, while playing at hide-and-seek on a first-floor landing, fallen over the railing of the stair, and had lighted on his head on the lobby-floor below. He had remained insensible for a little while, with a small quantity of blood issuing from his right ear; and, when he had recovered consciousness, his friends had noticed that the right side of his face was motionless and baggy. For twenty-four hours after the accident, he vomited everything taken; but, after that, the vomiting stopped; and, except the facial defect, nothing particular was noticed. When seen for the first time (eleven days after the fall), he presented a good picture of right-sided facial paralysis. He could neither wrinkle his brow, nor frown on that side. He could not shut his right eye, the lower lid being depressed, while the upper was drawn up by the levator palpebrarum, which was unaffected. The eye was full of tears, which constantly trickled down the cheek. The nose was flattened on the right side, and its lumen narrowed. The right cheek was flaccid. The mouth was pulled to the left; and, when he laughed, he did so only on the left side of his face. He readily protruded his tongue in the median line. On inspection, the uvula was seen to be deflected to the left; and, on phonation, the soft palate was elevated towards the left side. The taste-sensibility, as proved by touching each side of the tongue with alum, was decidedly inferior on the right side; and he stated that he did not taste his food so well on the right as on the left side. A watch normally heard at a distance of three feet was heard four inches from the right ear only; while, on the other side, it was heard at the normal distance. On examining with the ear-speculum, the drum-head was seen to be retracted, the manubrium foreshortened, the short process prominent, while the long process of the incus and the incudo-stapedial articulation were plainly seen through the posterior quadrant of the membrane. In front of the manubrium, a linear strip of blood-clot indicated the site of a rupture; and, in the meatus, there were lying a few crusts of dried blood. The Eustachian tube was easily pervious to inflation, and there was no perforation-hiss audible. On placing a vibrating tuning-fork on the vertex, it was heard much better in the left ear. The patient was stout and intelligent, without any history of previous deafness or discharge from the ear. The examination proved that there was, at the time of examining, no rupture of the tympanum. The inflation produced no improvement in the hearing. A blister was applied close to the ear, and this was repeated after a fortnight; and the facial muscles were daily faradised during the first fifteen days; and, after this, three minims of liquor strychniæ were given thrice daily. There was no immediate improvement; but, when seen five weeks after the accident, there was a decided, though slight, improvement in the facial palsy; attempts at shutting the eye, whistling, and pursing the mouth, being more successful than before. The hearing, however, was not improved. When last seen, nine weeks after the accident, the condition remained the same. Dr. Booth

remarked that the case seemed interesting as pointing to the probable site of the lesion. The impairment of taste pointed to implication of the chorda tympani. From the paralysis of the levator palati and azygos uvulæ, the portio dura was probably injured above the junction of the Vidian nerve. The diminution of the perception of sound was almost certainly due to lesion of the auditory nerve, the impaired bone-conduction on the affected side pointing to this. That the conducting apparatus had little influence on the hearing, was probable from the fact that, after inflation, there was no perceptible change in the hearing. The use of the otoscope, too, and alternate compression of each tube while the tuning-fork was vibrating on the patient's head, giving no perceptible difference in the intensity of the sound on the two sides, indicated that there was no deficiency in the conducting apparatus of the right ear. Besides, in the cases of uncomplicated rupture of the drum-head from concussion which he had seen, the hearing had returned within a few days after the accident. The foreshortening of the manubrium and retraction of the membrane were seemingly due to paralysis of the stapedius (which derived its nerve from the portio dura), whereby its antagonistic muscle (the tensor tympani, supplied by the fifth nerve) pulled in the manubrium, and so produced retraction of the drum-head. There was no discharge of serous fluid, and but a small quantity of blood lost, after the accident; no tinnitus, vertigo, unsteadiness of gait, or any other symptom usually attributed to injury of the labyrinth. There had been no symptoms (apart from the primary concussion) of cerebral or meningeal mischief, which would have occurred had the lesion taken place above the entrance of the seventh and eighth nerves into the internal auditory apparatus. He thought, from the data he had given, that the injury was to be referred to that part of the canal where the seventh and eighth nerves lay together; and that the symptoms probably resulted from pressure on these structures, owing to extravasation following the concussion.

Flat-foot. Dr. ALEXANDER OGSTON read a paper on flat-foot, giving cases, and stating the results of a new operation he had tried for the relief of such deformities.

REVIEWS AND NOTICES.

THE DISEASES OF CHILDREN. By W. H. DAY, M.D. London: J. and A. Churchill. 1881.

"MAN is born unto trouble as the sparks fly upward," said Job, and that the books of one generation are destined to more or less oblivion in the next in an equally regular sequence, must be the thought of many who read and write them. In the case of books, though the fact is apparent, the reason of it is not always satisfactory; for many new works add but little to the information to be derived from old ones. It is evident, indeed, that for quite other reasons than that the science and art of medicine are advancing daily, a book depends for its popularity, always supposing that it is well written, upon two things—upon the renown of the writer in matters pertaining to his profession; and upon the supply of a want at the proper time. The one essential disappears with the writer; and the other, sooner or later, in the competition of men and things in the struggle for existence. Thus books of one decade become antiquated in the next, and few on medical or scientific subjects can be said to be for all time. But some might be in this position, if placed upon their merits and the element of novelty excluded. Who can doubt that Watson on the *Principles and Practice of Medicine*—apart altogether from improved methods of treatment—is not as good a book now as when it was first written? Who can believe that Hilton on *Rest and Pain* will be any less worth reading in years to come than it is now? and on the particular subject we have in hand, what physician in the future is likely to put on paper a more presentable representation of the diseases of children than Dr. West has done? Ideas upon the expediency of the use of calomel, antimony, leeches, etc., may alter; new drugs may come into vogue; new diseases, perhaps, may be discovered, and the pathological processes of old ones be pushed further home; but the great bulk of information contained in any standard work must remain true, if it be the record of extended experience—the record of facts. In one sense, then, the book before us is redundant. Dr. DAY commits himself to a task which has been already done, and so well done that, at first sight, it may appear that he has come into the field unnecessarily. But it is not so, for the reason to which we have already alluded, that there is a want abroad—a want which we have heard frequently expressed of late, for a book upon diseases of children. In the light of the inevitable, we suppose, West on *Diseases of Children* is thought to have had its day—to have become antiquated; and most students would, we believe, consider the amount of material it contains to be so considerable, as at once to make it take rank as a book for a reference library, with very little of the "reference"; so that, after all, anything new comes upon the scene under auspicious circumstances. We fancy that the size of this volume (750 pages) still leaves a desideratum in the annals of the student's library; but inasmuch as the author by no means lays himself out for students in particular—rather the contrary, he appears to us to appeal more to the general practitioner—this is not a matter which calls for criticism. The subject-matter of the volume is arranged in fifty-three chapters, and possesses great merit in several ways. Dr. Day has been most indefatigable in making himself conversant with what has been written on his subject, or the many branches of it, in treatises, in transactions of societies, and in the medical journals. The book abounds with quotations of cases from all sources; and, considering that this is the case, the book is wonderfully readable. Most books which are indebted to any large extent to compilation are tedious in the extreme; but we certainly gather from this one, in many of the chapters which we have selected, so large an amount of information that we cannot but think it will prove of value. In the matter of treatment, also, the rules laid down are, for the most part, judicious; they seem to combine a knowledge of the latest suggestions, with a practical experience which is rightly allowed to assert itself. The formulæ given at the bottoms of the pages, and again in an appendix, are carefully prescribed in accordance with the peculiar requirements of the human economy at the tender ages concerned, and will also add an useful, though not novel, feature to the book.

But our duty, both to the author and to the public, is criticism; and to that we shall devote ourselves, premising, however, that whatever we may say in this way is not to be held at all as disparagement. Dr. Day has, indeed, performed a task of much difficulty, with, for the most part, sound discretion and honesty of purpose.

We may notice, in starting, a fault of style in the want of crispness in writing which prevails. There is a good deal of material which, while it can hardly be called padding, means very little, and tends to obscure very important points. For instance, the section on the diagnosis of Typhoid Fever is good; but it would have been much better had it been shorter; and we could have wished that Dr. Day had boldly stated that in some cases it is quite impossible to distinguish between typhoid fever and tuberculosis, even till the case has terminated. The difficulties of diagnosis are so well stated that we are sure Dr. Day himself would admit this; yet we find him saying, if the physician be called to see the case early, and an exact account of the mode of invasion have been furnished, his judgment will seldom lead him wrong. Now, inasmuch as, in many cases, an exact account of the mode of invasion cannot be furnished, we think a definite, even dogmatic, statement ought to be made for the benefit of practitioners, that in the early stages of either typhoid fever or tubercle, the diagnosis of one from the other is *frequently* impossible. The difficulties may, and often do, clear themselves up as time goes on; but since disease may be present without any of the characteristic symptoms, how is the diagnosis to be arrived at?

The value of the chapters on the exanthemata will be enhanced, in a future edition, if some decided rules are given concerning the isolation of patients during convalescence. For instance, how soon may a boy who has had measles or scarlatina return to school? Many general practitioners would be only too thankful for a decided statement from those who know. With regard to rötheln, a similar statement is quite as imperatively required. We object to the author's assertion, that "albuminuria and dropsy are rare complications" in rötheln. Such a statement may be scientific, but it is not practical. Supposing that such complications arose in a case of reputed rötheln, surely there must be very few who would not at once renounce their diagnosis, and call the disease scarlatina. We may next notice that, in diseases of the intestine, typhlitis and perityphlitis are treated with but scant courtesy. They have apparently been added as an overlooked postscript to the chapter on constipation and colic—a slight which, on so important a subject, is little short of disastrous. And for this reason there is, perhaps, no disease in the whole range of medicine which so much requires dogmatic statement concerning it. We would even venture to call it the *hernia* of medicine, because there are but few diseases where want of recognition or improper treatment are more fraught with danger to the patient. We hold that every text-book, in handling typhlitis and perityphlitis, should make it clear that, for all practical purposes, these terms are to be considered as synonymous with *peritonitis*—localised, no doubt, but still peritonitis, and, as such, requiring the treatment of peritonitis—viz., opium and perfect rest. It is the unfortunate experience of every hospital physician to see many such cases, with all chance of life thrown away by wrong diagnosis and improper treatment. Therefore, we hold it to be misleading to state that the prognosis is generally favour-

able, *unless the disease leads to perforation of the cæcum and peritonitis.* (The italics are our own.) The prognosis is favourable in proportion as the disease is recognised early as peritonitis, and active treatment avoided. We hope, therefore, that in the next edition Dr. Day will give this subject that prominence which it unquestionably deserves.

The chapters on intestinal obstruction and intussusception are good. There appears to be some little want of precision concerning the treatment of the latter; for on page 208, we are told that in infants the disease is almost invariably fatal; and on page 209, that enemata are often successful. Considering that the great majority of cases occur in infants, these two statements come near to a contradiction. We think, too, that the author might have exercised more judicial functions than he has done with regard to the operation of gastrotomy. It is one of the questions of the day how far cases of intussusception should be subjected early to the operation of laparotomy; but we can only gather that some writers consider this procedure one of too much risk, while there are one or two cases on record which have succeeded. But we think that there are facts enough to show that the operation is unquestionably one of so much risk at that tender period of life, that all other means should be preferred, and that operation should still be considered, as it has hitherto been, a last resource.

In the chapters on diseases of the liver, though they are not long, the author gets a little outside the proper scope of his work. Acute yellow atrophy is scarce in childhood, and differs, when it occurs, so little from the disease in adults that, content with mere mention, it might well be left for description to writers on general medicine. We should then not need to be told that the causes of the disease are syphilis and *irregular habits in youth.* We next find chapters on diseases of the spleen; of the kidneys, which are treated very fully; on ascites, and on intestinal worms; all of which are good, and contain plenty of information. Croup and diphtheria are treated in separate chapters, and the author holds to the non-identity of these two diseases. He appeals, and we think rightly, to the fact that diphtheria, at its first appearance in this country, was considered by all physicians as a new disease, nothwithstanding that croup—or laryngo-tracheal diphtheria, as some now call it—had been long known, was well recognised, and by no means uncommon.

The chapters on the various affections of the lungs are well worthy of perusal. They appear to be complete, and well up to date.

Diseases of the heart follow; and these, too, are copiously illustrated by allusions to cases from all the best-known writers on the subject. So, also, are the concluding sections upon the nervous system, and such diseases as rachitis, anæmia, and leucocythæmia.

In conclusion, we need only repeat that the book throughout shows evidence of laborious and careful collation of most of the standard works upon the subject; it is plainly the outcome of extensive personal experience; and provides a safe guide to treatment both for students and practitioners.

NOTES ON BOOKS.

The Fourth Report of the Medical Superintendent of Yaws Hospitals. (London: Waterlow and Sons. 1880.)—Dr. NICHOLLS continues, in this report, his interesting observations on the disease known as yaws, regarding the pathological nature of which there is still so little exact knowledge. In this report, Dr. Nicholls expresses his belief that yaws is a diathetic disease. "That the disease is constitutional, is shown by the febrile symptoms, which are sometimes precursory to the eruption; and that it is contagious, is proved by its inoculability." The author further tells us that the contagium of yaws introduced into the system is followed, after the lapse of a greater or less period, by characteristic dermal excrescences. These excrescences, we gather from the histories of a few cases given in the report, consist of reniform encrusted tubercles, squamæ, crusts, and maculæ.

MATERNAL HEROISM.—Dr. Schlenneer, in the *Centralblatt für Gynækologie,* 1881, No. 6, reports the case of a woman who has six times endured the pangs of maternity, having a pelvis with a conjugate diameter of 9.0 centimètres. Twice she was delivered by the forceps, and three times relieved by the perforator. On this occasion, she voluntarily besought the Cæsarean section, in order to be delivered of a living child. The operation was performed on the 7th of March, 1880, under Listerian precautions; it was carried out on the old method, but with the new sutures of the uterus. The child lived, and the mother also, passing through an attack of peritonitis.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

NEW AND CONVERTIBLE SURGICAL APPARATUS.

By J. WARD COUSINS, M.D.Lond., F.R.C.S.,
Surgeon to the Royal Portsmouth Hospital.

THE apparatus here described can be used with great facility for a great number of medical and surgical purposes, by making slight alterations in the arrangement of the component parts. Its special feature is the application of lever action over the bed without any weight, or contact with the bed itself. By a mechanical contrivance of great simplicity, the lever is sustained immovably in any position, and by this means all the ordinary surgical instruments, including the bed-cradle, the extension-pulley, the bath-hoop, the fracture-swing, the splint-elevator, and bed-rest, are reduced to the form of one efficient, durable, portable, and economical apparatus. The following is a short description of some of the principal applications.

The Bedclothes Elevator is suitable for every case in which part or all of the bedclothes must be raised from the body of the patient. It can be instantly applied and adjusted to any part of the bed, and it will be found, both in hospital and private practice, far more convenient than the old-fashioned bed-frame. The elevator never comes into contact with the patient, and never rests on the bed. It can be fixed to any bedstead, and at the same time it can be applied either at the ends, or the sides, of the bed. It can be adjusted inside or outside the bedclothes, and it can be also regulated so as to raise them any convenient height from the patient. It will support all the bedclothes at once, or it can be fixed to elevate only a part of them in any required position; and thus it becomes a complete substitute for any size of the ordinary bed-cradle.

The elevator serves also many other useful purposes. It will suspend a weight or an ice-bag in any position over the body, or it can be converted into a very convenient stand for a vessel, as in the application of an evaporating lotion.

The annexed engraving shows the instrument in position (Fig. 1). The

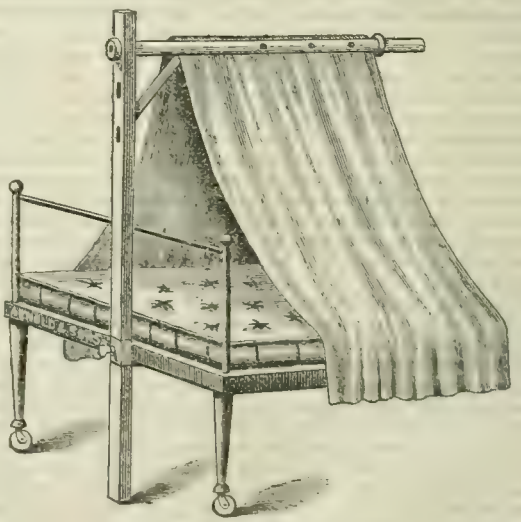


Fig. 1.

upright can be fixed to any part of the lower edge of the sides or ends of the bedstead; a spike holds it to the floor, and a clamp secures it to the angle-iron of the bedstead. The part of the bedclothes to be elevated is then pushed with one of the short rods through the lever, and this is closed firmly with a metal ring. The degree of elevation can then be regulated, and the lever fixed in the upright by the bracket and screw.

Bedclothes Elevator and Extension Apparatus.—Extension by weight is now universally employed in many forms of injury and joint-disease; and this kind of treatment is regarded by all surgeons as extremely

simple and efficient. Up to the present time, however, extemporary and often very imperfect means have been employed for this important purpose; but, with this convenient apparatus, the surgeon is provided with every requisite, so that this method can be very readily and efficiently carried out both in hospital and private practice.

This new apparatus (Fig. 2) consists of a special form of bedclothes

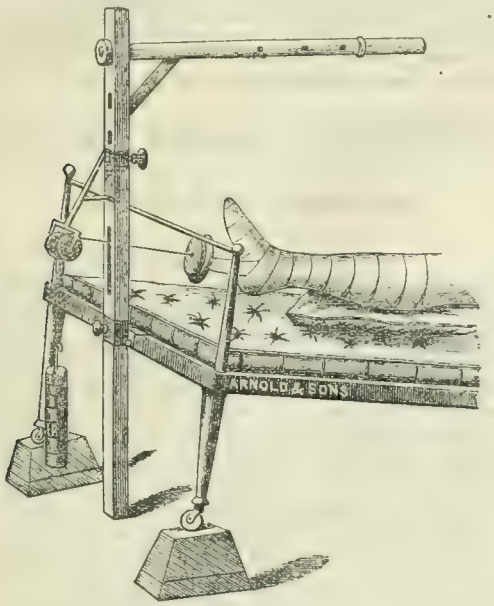


Fig. 2.

elevator fitted with a pulley, which is suspended by means of a sliding bracket from the back of the instrument, and is thus capable of adjustment at any convenient height. A sliding collar with a clamp, working on a hinge, is also supplied, for the purpose of fixing securely the upright to the bedstead, in those cases in which counter-extension is obtained by raising the foot of the bed. The whole contrivance is extremely easy of application, and can be applied to any bedstead, fulfilling at once the double purpose of elevating the bedclothes from the body of the patient, and supplying a ready and convenient method of extension in every case in which such treatment is essential.

The apparatus is very handily fitted with two counter-extension blocks, each giving three elevations, two plaister blocks, movable weights, and in fact everything necessary for the immediate use of surgeons practising in the country, and medical officers going abroad.

Fracture-Swing.—This is another novel and efficient application of this very convertible apparatus, adapted for the treatment of simple and compound fractures, and other diseases of the joints and bones (Fig. 3).

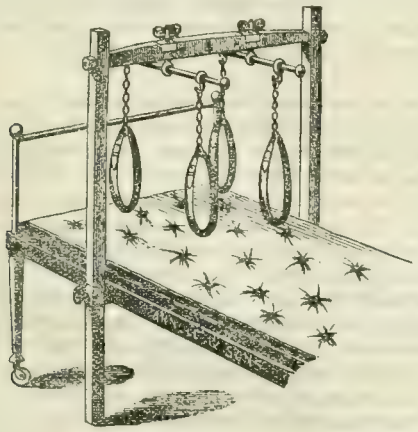


Fig. 3.

It consists of a very simple form of swing in combination with the patent bedclothes elevator, and will be found a very valuable contrivance, both for hospital and private practice. The swing is supported by two uprights, which are secured firmly to the sides of the bedstead, and a cross-bar carrying a beam, to which the slings are attached by sliding hooks. It can be used with any kind of ordinary splint, and it supports the limb at any required height; at the same time, it can be made to swing both legs without any addition to the apparatus. It is a far more handy instrument than the ordinary fracture-cradle; it does not rest on the bed, and does not interfere with the comfort of the patient. Moreover, it occupies no space in the bed, permits a free circulation of air under the bedclothes, and does not require to be removed in dressing the limb. The apparatus is convertible, by a very simple arrangement with wooden rods, into an elevator of the entire bedclothes, which will be found of great service in the application of hot air and vapour baths, and also in the treatment of injuries and diseases of the chest, abdomen, and pelvis (Fig. 4). The cross-bar can also be

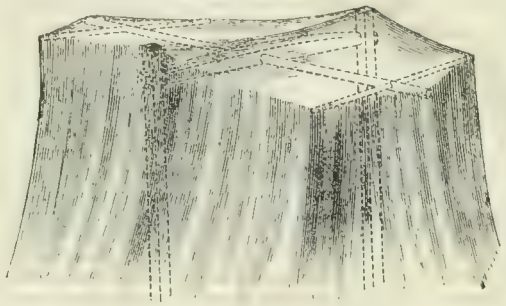


Fig. 4.

placed over the bed for a rest in cases of lung and heart disease, in which the patient is unable to lie down. It will be found a light and efficient support during the attacks of dyspnœa; and a wooden stand can be adjusted to it to hold an inhaler or other vessel.

The Splint-Elevator and Rest.—The elevator can be used as a splint-rest, and it will be found invaluable in those cases in which the limb requires elevation. Special iron-wire splints, fitted with shifting bars and movable hand and foot pieces, are supplied with the apparatus; and, by means of a sliding metal rest, they can be adjusted on the cross-bar at any convenient height (Fig. 5). This application of the apparatus

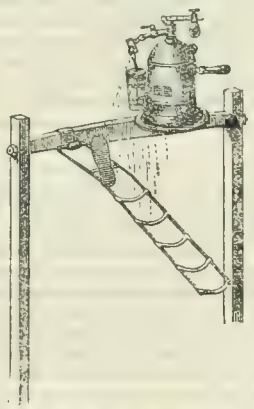


Fig. 5.

will be found very convenient in practice, and is especially adapted for the treatment of injuries and fractures, wounds of the hands and feet, amputation cases, and many other affections in which absolute rest and elevation of the limb are essential. It occupies no space in the bed, permits free circulation of air, cannot get out of position, and, during the dressing of a stump or wound, the steam spray can be conveniently placed on the stand.

The apparatus is manufactured by Messrs. Arnold and Sons, of West Smithfield.*

DISINFECTANT CHARTALINE BLANKETS.

MESSRS. H. and L. SLATER (Manchester), who introduced, some time ago, the now well-known cheap Chartaline blankets, have added a new

* We have had an opportunity of inspecting the apparatus, which appears to us very simple and convenient.

feature to their former invention, by introducing a middle layer of wool, which is treated with carbolic acid, and thus becomes a disinfecting agent. These blankets have the advantage of being warm, light, and so cheap that, after use, they can, when desired, be destroyed without remorse. These blankets are obviously indicated for use where infectious cases are under treatment, and we observe that they are recommended as being much approved of in practical use at the institution for trained nurses at Brighton. Theoretical considerations and practical testimony alike recommend them.

ALBISSIMA.

UNDER this name, a pure, innocuous, and cheap paint has recently been introduced into the market by the Albissima Paint Company (34, Lime Street, E.C.), which has many and strong claims to the favour of sanitarians, as, indeed, of all who have any influence in such matters. Albissima is a Belgian product largely used in that country and in Germany with great success, and officially employed in the Belgian Government buildings. It combines the great sanitary advantage of being non-poisonous, with the practical merits of being very pure in colour, and durable; unaffected as to colour by noxious gases, and possessing great covering power and facility of manipulation, at a cost which enables it to compete successfully with all other paints. It is, of course, used not only as a white paint, but as a basis of all other paints in which white enters, as it does in the composition of most compound colours. As a substitute for the poisonous white lead hitherto so extensively used, it has many advantages. We can testify, from a careful investigation of specimens which have long been in use, as well as from the evidence of chemical experts, such as Professor Church, and of practical decorators and architects, that its colour, and those which it gives in mixing, are pure, that it is remarkably unchangeable by sulphuretted or carburetted gases, and that it is easily and economically worked. If this very satisfactory product comes, as may be hoped, extensively into use, lead-poisoning, both in lead-factories, in the production of white lead, and in the daily work of painters, will cease, and thus a great boon will have been conferred upon mankind.

It is a great advantage in the use of albissima, at public institutions as in private homes, that the noxious smell which accompanies painting with the ordinary lead-colours is absent, and that any part of a house or public building may be painted without annoyance or danger to the resident inmates. House-decorators and painters are, like most artisans, very "conservative", and yet little alive to progress, however likely to benefit their health; while employers of labour are too often singularly insensible to such a consideration. The introduction of albissima paint, however, is not less beneficial in use to them and their workmen than economical and durable, and advantageous to the householder. It is, therefore, worth some pains to ensure their using it, by directing that it be substituted for the stinking and poisonous lead-paints in common use.

ANATOMY FROM THE LIVING SUBJECT.—Dr. W. Keen, in an address on the Clinical Anatomy of the Lower Extremity (*Annals of Anatomy and Surgery*, January 1881), after demonstrating a portion of his subject by means of casts and prepared bones, said: "But turn from the cast of the dissection to our living model. Let him call the muscles of the knee into vigorous action, and then note here the high external vastus; there the lower and stouter internal; here the patella; and there the 'suprapatellar flat', as artists call it, *i.e.*, the tendon chiefly of the rectus; and here the ligamentum patellæ; and then, if never before, you will appreciate not only the facts to which I have asked your attention, but also the value of this method of studying anatomy. A living interest is added which the cadaver cannot give; muscles can be relaxed or contracted, and their reliefs studied in relation to vessels, nerves, or other neighbouring organs of importance; the lungs can be perceived in expansion and contraction; the position of the stomach, the liver, the intestines, the bladder, etc., can be shown; the course of the arteries exhibited; movable bones shown in various positions; the relation of parts in different postures shown clearly, and in their relations to medicine, surgery, obstetrics, etc.; and all demonstrated at the time of most importance, *i.e.*, the very moment when they are being studied. I began this method of studying anatomy with my classes some twelve years ago, and from year to year have been more and more constantly impressed with its value. So true is this, that I venture to affirm that the living model should form as indispensable a part of the means of illustration in the anatomical lecture-room as the cadaver. In not a few respects, indeed, it is even more important. If its inconvenience and expense be urged, I may remind you that one model we always have—ourselves; and it is surprising how much anatomy we may learn from studying our own bodies."

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JUNE 11TH, 1881.

LUNACY LAW REFORM.

IT is something gained for the cause of lunacy law reform that the Government are, at the last moment, compelled, by the opinion of the House of Commons, to reconsider their intention of opposing the second reading of Mr. Dillwyn's Bill. That Bill has been for many years before the country; and although there are many of its provisions which we cannot approve, it still represents in an intelligible way the often repeated demand for better security against the abuse of the lunacy laws. That better security, it has been long admitted, the public are entitled to; but, as our parliamentary system now works, it might be a generation before an admission of this kind takes practical shape in actual legislation. The fusion of law and equity was accepted as a practical question in the days of Lyndhurst and Brougham; but no serious attempt was made to bring this reform about until 1873. Several ministries have come into existence and passed away since Parliament acknowledged the deficiencies of our present patent laws. Year after year, the Government introduce a Bill on the subject, which is only found among the measures withdrawn at the end of the session. Lunacy law reform has not got even to this stage, of having a place in the programme of Government Bills; but the debate of May 25th brings it very near to this position. Mr. Courtney was put up by the Government to discourse upon the Bill, to show that he and his colleagues had not overlooked the subject; to suggest, rather than promise, what the Government would do in the indefinite future; and to plead very earnestly the pressure of time in the present session as a reason for getting rid of the Bill as fast as possible. Sir Richard Cross, with all the authority of an ex-Home Secretary, urged the adoption of Mr. Dillwyn's scheme as an instalment of the larger measure of reform which the Government suggested. Sir William Harcourt consented to the Bill going into committee. There is, therefore, a fair prospect that the session will not conclude without the elaboration of a scheme of lunacy law reform to which the present Government, and probably both parties in the State, may be definitely pledged.

This mischief of our present law arises in two ways: from the opportunity which exists for detaining people not really insane, and from the difficulty of extricating from confinement people who have recovered. The first class of cases are of rare occurrence; but it will readily be felt that it is a public duty to guard against such a danger in every possible way. By the present law, a pauper cannot be detained as a lunatic without a certificate from some public officer, as well as a medical certificate; whilst anyone not a pauper may be detained on an order from a person who is not necessarily any relation of the lunatic, and a certificate from two medical men. Mr. Dillwyn suggests that the medical evidence is often provided by the aid of the proprietor of the asylum, in which it is proposed to shut up the patient. The existence of any such danger to public liberty is sufficient reason for further precautions; and these Mr. Dillwyn would directly supply by the ninth clause, making detainer illegal unless by order of a justice, such order only being granted on the petition of some near relative of the patient, accompanied by certificates from two medical men, one of them being

the medical visitor of the district. As was pointed out in the debate, there is nothing in the proposed clause to make the signing by the magistrate anything but a matter of form, and he is not called on to exercise any judicial function. In this respect, the present Bill seems to us less satisfactory than one proposed by Mr. Dillwyn a year or two ago, by which the magistrate was required to see the patient before signing any order.

A more practical question is that concerning the detention of patients after recovery; and, in these cases, there can be no doubt that the interest of the proprietor of the asylum makes him even unconsciously a somewhat prejudiced witness against any proposal to liberate the patient. By the thirteenth clause, Mr. Dillwyn would empower any stranger to obtain an order for the examination of a patient, with a view to his liberation. There is no indication of the principles on which the magistrate is to proceed in the exercise of his discretion; whether he should look to a personal interest, as that of friendship or family, or to a purely philanthropic interest in the person who may demand a right to have a particular lunatic examined; whether the inclination of the lunatic himself is to go for anything; nor is there any provision as to how often the process of examination may be repeated. There is no security that fussy people may not give a great deal of unnecessary and unreasonable trouble under this clause; trouble not only to the authorities of an asylum, but to the patient himself. Many instances occur where the patient, after an attack of lunacy, is particularly diffident of availing himself of his rights. Being a sober steady man, overtaken at some great crisis of his life by a visitation of this kind, he rather clings for a time to the system which has cured him in his bereavement; and it would be a great mistake to force him to take advantage of his liberty before confidence in his recovered strength gave him courage to use it. There is no part of the Bill which deserves more attentive consideration than this thirteenth clause; and we hope the Committee may develop from it some scheme which will at once secure a ready means of obtaining an inquiry as to the actual state of health of a patient detained as a lunatic, and, at the same time, provide against incessant annoyance from irresponsible people.

However, both the ninth and the thirteenth clauses of the Bill are subsidiary to its main policy embodied in the earlier clauses—that is, the abolition of private asylums. This, it is proposed, shall be brought about by the purchase of the existing private asylums by the justices of counties and boroughs. The details of the scheme by which the transfer of proprietary asylums to local authorities may be consummated will naturally require some attention. It is a question of money, perhaps of some increase to local taxation, as Mr. Courtney urges; and, so far as it is an increase, it will be an additional reason for pressing on for a better adjustment of local taxation; but these stock administrational arguments do not affect the main question, that proprietary asylums should be replaced as soon as possible by institutions subject to public authority. This policy is the kernel of the Bill; and we hope that the Committee, after the recognition which the Bill has received from the Opposition, may present that policy in such a detailed practical shape, that the Government may be compelled to include lunacy law reform in its next budget of administrative measures.

WOOLSORTERS' DISEASE.

We publish in another place interesting reports, by Dr. Bell and Mr. Lodge of Bradford, of three cases of what has been variously termed woolsorters' disease, or anthracæmia, or mycosis. Neither of these names seems free from objection. The first has become obsolete, since it has been shown that woolsorters are not the only persons who suffer from the affection, or affections included under the name. "Mycosis" is objectionable, because there is no mushroom-formation, nor the production of any fungus-shaped organism in the blood, that which does appear showing itself in lines and spores like the mycelium of fungi. "Anthracæmia" is, perhaps, the least open to objection; but its use implies a knowledge of the conditions of the blood in anthrax, a name which, as we have hinted, may occasionally cover more than one form of disease. As it happens, not one of the three cases described occurred in a woolsorter; although the man Oddy, to whose case we shall also have to refer, was engaged in sorting wool when he fell ill of the disease which carried him off. This case and the three reported have points of family likeness; but one of them, that of J. R. Baker, has also points of difference which distinguish it from any other case reported in this country, and serve to make it a most important one. In this case, the facts are shortly the following. J. R. Baker was a healthy temperate man, fifty-eight years of age, who had never had any illness for at least twenty-five years. He was engaged to take the place of the man J. Gill, as minder of the back-washing-machine, after Gill had gone home ill. Baker, on May 16th, grazed his left forearm (middle of the dorsum) on one of the cog-wheels of his machine. He thought nothing of it; and, in fact, the graze was of the slightest description; but, as there was some grease about the wound, he picked up a bit of wet wool from the suds, and wiped the grease off the wound, afterwards putting a piece of plaster on the sore. At the time, "Van-sliver" was passing through the machine, but the wool had been put through the following processes before it reached the back-washing-machine. It had been opened and washed at 130° Fahr., then sorted, then washed again at 130° Fahr.; after that, it had been passed through five preparing machines; then it had been combed; and, lastly, it went to the back-washing-machine, where it was washed at a temperature of 100° Fahr., or rather more. After the application of the wet wool to the arm, it gradually swelled, but so slowly, and with so little disturbance of health, that Baker did not consult a medical man till May 19th. Though the arm was then swollen above the elbow, the patient worked till noon on the 20th, when he went home, and lay down for a couple of hours; then got up, and walked out to do an errand on another side of the town, and came home, and went to bed. The following day, the arm was swollen to the insertion of the deltoid muscle, was very hard and brawny, but showing no redness anywhere; and the wound, which measured 1¾ inches by about ⅞ inch, was covered by a grey membranous formation, and surrounded by a border with ill-formed vesicles, which exuded serum when pricked. The clinical details being given in another place, it is unnecessary here to say more than that the man became at first gradually, and afterwards more quickly, worse; and that he died quite conscious, and with no particular pain or distress, on the morning of May 25th, nearly five days after leaving work, and rather more than four days and a half after being out walking. The soap-suds from which he took the wool to wipe the arm contained many specimens of *Bacillus anthracis*. Examination of the serum from the edges of the wound also resulted in the discovery of *Bacillus anthracis* during life, while some of the specimens taken at the *post mortem* examination showed numerous long filamentous examples of it. At the examination after death, the organs were found, on the whole, healthy. There was no softening of the bronchial glands, no fluid in the pleuræ, no œdema or congestion of the lungs, and no enlargement of the lymphatic glands. The wound was surrounded by cellular infiltration, which exuded serum freely, and there were very many hæmorrhagic points in the cellular tissue, as if from rupture of fine vessels. This hæmorrhagic condition of the cellular tissue was also the main object of notice on microscopic examination. There was no redness about the wound or arm after death, or at any time since the patient came under observation during life; and, so far as could be made out from examination of the part, the disease appeared to have spread along the cellular tissue, and not by the lymphatics. The bladder was empty, and there seemed to have been suppression of urine for twenty-four hours or longer before death. Some further results may be expected from experiments with the fluids in this case; but, up to the present, it may be said that they have been fatal to mice, though not to rabbits. Thus this important case would seem to present the typical symptoms of malignant pustule, and affords strong corroborative evidence of the nature of "woolsorters' disease" as being really internal anthrax. In this view, it is a case of especial interest.

The other cases were of a more ordinary character, though not less interesting. A man named Oddy was a fine healthy fellow, of forty-five years of age, who had been engaged in sorting Van-mohair till February 14th of this year; and, from that date till the occurrence of his fatal illness on March 15th, sorted average mohair. On March 15th, he left work early, and went home to bed, complaining of pain in his head and chest. He had a cup of tea, but no dinner. He passed a restless night, but did not send for the doctor till 8 P.M. of the 16th. He died at 2.30 A.M., March 17th. A *post mortem* examination was made fourteen hours afterwards, and showed discoloration of the exposed parts of the body, large collections of fluid in the pleural cavities, softened broken-down bronchial glands; an encapsuled gelatinous mass in the right lung, evidently recent; pericardial effusion; the spleen and peritoneum natural. The fluids contained many specimens of *Bacillus anthracis*. This case resembles those of Booth and Gill, in the published reports, in the following points. They were all fatal in a very short time. Oddy left work less than forty hours before his death. Booth died forty-one hours after leaving work, and sixteen hours after he had been out walking; while Gill died forty-seven hours after leaving work. The symptoms in all the cases were, that the extremities were cold, the axillary temperature was subnormal, the rectal temperature above normal, respiration frequent, pulse imperceptible, no pain, perhaps a little distress of respiration, the mind clear; and death occurred from collapse. More minute investigation shows that the temperature and pulse are at first unaffected; that they then gradually rise to the acme; after which, the temperature begins to fall (in some cases as low as 93° in the axilla, though the rectal temperature, even in collapse, is generally above the normal), while the pulse gains in frequency, but loses so much in power, as to be described by most observers as imperceptible. An interesting point is that, as a rule, the patients do not feel ill. In almost every case, it has to be stated that the patient yields to the solicitations of his friends before he will see a doctor, and this even when death may not be six hours off, as in Oddy's case. The occurrence of a number of fatal cases often induces the patient to summon a medical man; but, even then, it is fright, and not illness, which leads him to do so. In all the cases referred to, the fluids of the body were fatal to mice, generally in a few hours; and both the original fluids and those of the animals contained more or fewer specimens of *Bacillus anthracis*. As to the mode in which the disease spreads, nothing very definite can be said till the microscope has been more minutely used; but several of the cases we have seen would apparently be well described as cases of cellulitis caused by material containing *Bacillus anthracis*. The disease has seemed to be a cellulitis, rather than a lymphangitis; and the lymphatics have either escaped or have seemed to be affected secondarily. The capillary blood-vessels, on the other hand, appear to be blocked, and often ruptured, as if the disease followed their course. The only glands which seem to suffer are those of the lungs, which are often found soft and broken-down.

This case is, it may be noted, precisely parallel with two others (the cases of Greenwood and Heaton) of which Professor Greenfield gave an account in his last Brown lectures; and it showed microscopically the same changes, indicating that the disease is set up by the inhalation of the poison, and infection by way of the bronchi and bronchial diseases.

It is not known certainly whether an abraded surface is necessary in order that the disease may get hold of a patient. Certainly an abrasion is a dangerous thing for any one who may have to handle Van-mohair; but there are no data to determine whether a woolworker may not be affected without one. The evidence indicates that an abrasion of skin or mucous membrane is not essential, but that infection may take place by breathing infected dust; in which case, the pulmonary form of the disease is most apt to result, while a local cellulitis is most likely to ensue on the exposure of an abraded surface on the skin or mucous membrane to the dust.

As to treatment, we seem to be much in the same position as we were. It is satisfactory to observe that, since the recommendations about washing the wool made by the sanitary authority of the Bradford Corporation were carried out, the deaths have been very much fewer than they were. But these cases show that washing is not sufficient to destroy the poison, which is not rendered harmless by a temperature o 130° Fahr., nor even by the higher temperature at which the wool is dried; and it is probable, therefore, that washing is chiefly useful by clogging the spores and bacilli, and preventing them from flying about in the air. The bacilli in the suds are rendered inert sooner by sulphurous acid, apparently, than by carbolic acid; and it would, therefore, appear likely that benefit might be derived from inhalations of pulverised sulphurous acid, since the focus of infection appears to be in the bronchi; or, at a more advanced stage, the injection into the blood of sulphurous acid or of some compound which, like the hyposulphite of soda, might liberate the gas when brought into contact with the blood. In the local form of the disease, at least, some such local treatment might be thought to promise good results. It is, however, painful to hear of the death of such a workman as Baker, who fell a victim to ignorance which would have seemed *à priori* so incredible, but which a few printed regulations suspended in the works might have easily prevented. In the end, we shall probably do more good by keeping out the dangerous fleeces, than by seeking for a cure for the disease when it is once set up; and there seems no reason whatever why agents abroad might not be instructed that, not only will no price be allowed for such fleeces when found, but that parties in this country will consider the whole bale infected if one such be present, and refuse to pay for it. If self-interest can be enlisted on the side of sanitary precautions, there will be more chance of our getting rid of this terrible disease.

STATIC ELECTRICITY AS A THERAPEUTIC AGENT.

We are sufficiently familiar with the therapeutic uses of the galvanic and faradic currents, and have constant opportunities of verifying their value in the diagnosis and treatment of various diseases of the nervous system; but, for some reason, the form of electricity which is best known to the public, that produced by the ordinary electrical machine, has had little attention paid to its possible uses in medicine. Most authorities, including Duchenne, Remak, Benedikt, and Onimus, have attached very little importance to it; and it is owing mainly to the zeal of M. Vigouroux and the enthusiasm of M. Charcot, that it has been rescued from the oblivion into which it had fallen.

In a recent lecture, M. Charcot has pointed out that the essential differences between the various forms of electricity are differences of quantity and tension; and that, while the ordinary galvanic battery supplies a current, large in amount, but of low tension, the current of the electrical machine is quantitatively small, but of high tension; and the faradic or induced current occupies an intermediate position in both respects. These differences correspond to diverse physical and physiological qualities possessed by these currents; thus, for example, at a given time after the section of its nerve, a muscle no longer responds to faradism, while the galvanic current acts more energetically than in the normal state; and doubtless where there are these physiological differences, there are also special therapeutic capabilities for each.

The machine used at the Salpêtrière is one of Carré's. It is always kept under a bell-jar with some water-absorbing substance, such as chloride of lime, so as to be dry and ready for use in all weathers, and is so arranged that five or six patients can be operated on at once. One pole of the battery is connected with an insulated stool, on which the patient sits, while the other pole is connected with the earth; the patient thus sits, as M. Charcot describes it, in an electrical bath. But the electricity in the patient is by no means quiescent; it escapes especially at every projecting portion of his body or dress, and there result from this various peculiar sensations, such as tingling over the whole body, cobwebs brushed across the face, wind blowing on the extremities; in addition, the cutaneous perspiration is increased, and digestion and appetite are stimulated.

By means of instruments called excitors, the discharge of the current may be localised in any desired part of the body. These excitors are pieces of metal with pointed or bulbous extremities, connected with the earth by a chain, and having insulated handles. When brought about six or eight inches from the skin of a patient, this instrument excites a sensation of blowing, called the "electrical wind". As near as two or three inches, it causes a feeling of prickling, and a pencil of luminous rays passes from the point of the excitor, and broadens out as it nears the skin; this M. Charcot calls the aigrette. Still nearer to the body, it produces a spark, accompanied by the sensation of a puncture; while, if a muscle be subjacent, it is thrown into contraction, and in this manner localised muscular electrisation may be effected; and, in certain cases of spinal paralysis, M. Charcot has succeeded by this means in producing contraction of muscles, which had resisted the action of the faradic current. He has succeeded, by means of the "electrical wind", in curing hysterical hemianæsthesia; he has seen great benefit result in cases of peripheral facial paralysis; he was able, by means of the electrical wind and spark, to stop momentarily the tremor in one case of paralysis agitans, and, in several other cases, to obtain benefit. Moreover, certain cases of spinal irritation, dyspepsia, and dysmenorrhœa, which had resisted other remedies, were ameliorated by the aid of statical electricity.

The *New York Medical Record* has recently contained some interesting papers on static electricity by Dr. W. J. Morton, who has been an eye-witness of the experiments at the Salpêtrière, and, since his return to America, has been making use of it. He gives notes of twelve cases in which this remedy was used, amongst which are a case of locomotor ataxy, a case of pressure paralysis of the arm, a case of Bell's paralysis, and one of severe sciatica, all of which were cured.

Although some reserve is prudent in accepting all the alleged results of static electricity, enough has been shown to revive our interest in it as a therapeutic agent, and to make us hope to see it withdrawn from the undeserved neglect into which it has sunk, in this country.

An epidemic of typhus fever is prevailing in Pesth.

The twenty-fifth anniversary of Dr. Rudolf Virchow's appointment as Professor in the University of Berlin is to be celebrated on October 13th.

The Lord Mayor will hold a meeting on behalf of a proposed Scarlet Fever Convalescent Home at the Mansion House, on Monday, June 27th, at 3 P.M.

We understand that Mr. John Croft has been elected to the Chair of Clinical Surgery which has recently been instituted at St. Thomas's Hospital.

The *conversazione* to commemorate the fiftieth anniversary of the Harveian Society of London will be held on Wednesday, June 29th, at the South Kensington Museum.

A Medal and first-class award have been deservedly obtained by Grant's Morella cherry brandy, at the Melbourne International Exhibition.

A correspondent informs us that no cases of small-pox are at present under treatment in the hospital at Boulogne. One death has occurred during the last nine weeks—that of a child brought from a long distance while suffering from the disease.

In a return issued by the Registrar-General, it is stated that the deaths registered in London in 1880 amounted to 81,128, an average of 22.2 to each 1000 inhabitants. Only on five other occasions in the last forty years has so low a death-rate as this been recorded, namely, in 1850, 1856, 1872, 1876, and 1877.

We are asked to call attention to the official announcement requesting subscribers to the International Medical Congress to send in the promised amounts; and inviting intending members of the Congress to register and pay their guinea fee for membership, which is additional to any subscription to the reception fund.

The St. Marylebone Vestry have given notice that they now possess an ambulance, which may be used for residents in the parish suffering from infectious diseases. It is kept at the stone-yard of the parish. There is also a disinfection-apparatus at the stone-yard, to which infected articles are removed from the house by the vestry's conveyance. No charge will be made for the vestry ambulance or for disinfection in the case of poor persons, but in other cases there is a small fee.

The Medical School of the University of Cambridge acquires an important addition to its teaching staff by the appointment of Mr. McAlister to the office of Medical Lecturer in St. John's College. Mr. McAlister, who is a member of the College, was Senior Wrangler in 1877, and has since pursued his medical studies in Cambridge, at St. Bartholomew's Hospital, and in the laboratory of Professor Ludwig in Leipsic. His appointment will give an additional impulse to medical study in Cambridge and in the College of St. John, in which the medical students will be more particularly under his charge.

An important addition to surgical literature is announced under the title of *The International Encyclopædia of Surgery*, of which Messrs. Macmillan and Co. will be the English publishers. The editor-in-chief is Dr. John Ashhurst, Professor of Clinical Surgery in the University of Pennsylvania, and among his coadjutors are some of the most distinguished surgeons of France, Germany, Austria, America, and England. The work will be complete in six large volumes, the first of which may be expected in October; and it is intended to issue the succeeding volumes at as nearly as possible regular intervals of three months.

It is satisfactory to read that the instruction afforded by the classes formed under the auspices of the St. John's Ambulance Association in giving first aid to the wounded, is yielding good results. The surgeons of the Poplar Hospital have published a document in which they say that, since the formation of these classes at the docks, they find that persons brought to the hospital, suffering from accidents, have been saved from much pain before being admitted, through the preliminary treatment they have received at the hands of those who have been instructed.

LECTURES AT THE ROYAL COLLEGE OF SURGEONS.

Six lectures on the Laws of Inheritance in Relation to Disease will be delivered in the theatre of the College, on Mondays, Wednesdays, and Fridays, at 4 P.M., commencing on Monday, June 13th, by Professor Jonathan Hutchinson. The following is the syllabus. *Lecture* 1. *General Statements and Definitions of Terms.* Introductory remarks on the laws of inheritance; paternal and maternal influence; hybrids; prepotency; inheritance of disease, and inheritance of tendency; conditional and unconditional inheritance; mediate and immediate inheritance; the laws of atavism; on the phenomena of single family prevalence.—*Lecture* 2. *The Inheritance of Malformations and of Congenital Forms of Disease.* Hare-lip; coloboma; club-foot; supernumerary fingers; cataract; deaf-mutism; colour-blindness; myopia and hypermetropia; on the doctrine of the non-transmissibility of acquired defects and its limits; Brown-Séquard's experiments on the artificial production of a transmissible liability to epilepsy. *Lecture* 3. *The Prevalence of Disease in Single Families.* The laws of inheritance in reference to ichthyosis; retinitis pigmentosa and allied affections; hæmophilia—inheritance by one sex only; coloboma iridis, hare-lip, and congenital malposition of the lens; possible influence of consanguineous marriages.—*Lecture* 4. *Certain Diseases which may be both acquired and transmitted.* The laws of inheritance in relation to gout, lithiasis, rheumatism, cancer, scrofula, leprosy, rachitis, and other diatheses; transmutation in transmission; mixed diatheses; irregular and uncertain transmission; intra-uterine acquisition as dis-

tinct from inheritance; atavism and the influence of prepotency in reference to diathetic diseases.—*Lecture* 5. *The Transmission of Diseases resulting from Specific Poisons.* Important difference between the transmission of a morbid tendency and of a specific poison. The fœtus *in utero* affected by variola or any other of the exanthemata; acquired immunity of the parent not transmitted to offspring; modification in severity under these circumstances. Theory of particulate transmission; its suggested application in the case of syphilis. General review of facts as to the inheritance of syphilis.—*Lecture* 6. *The Inheritance of Syphilis.* Influence of each parent severally. Can a father alone transmit? Is there any relation between the stage of the disease in the parent and that appearing in the offspring? Tertiary stage not liable to transmit. Remarkable uncertainty and irregularity in transmission; some facts on this subject. When both parents have suffered, is the disease more severe in the offspring? Latency. Manifestations *in utero*, during infancy, and later on in childhood. Is immunity from acquisition conferred by inheritance? The relation of inherited syphilis to other diseases.

THE BROWN INSTITUTE.

We are glad to learn that Dr. C. S. Roy has been appointed Professor-Superintendent of the Brown Institute, rendered vacant by the appointment of Professor Greenfield to the Chair of Pathology in the University of Edinburgh. Professor Roy is a graduate of the University of Edinburgh. After holding the office of house-physician in the Royal Infirmary of Edinburgh, he proceeded to Paris, where he worked with Ranvier and other distinguished Frenchmen. He then passed some time at the Brown Institute, under Professor Burdon Sanderson, where he made some valuable investigations regarding pleuro-pneumonia. In 1877, he went to Berlin, where, under Professor Kronecker, he devoted his attention to researches on the circulatory system, which he made the subject of his thesis for his M.D. degree, and for which he obtained a gold medal and the Goodsir Fellowship from the University of Edinburgh. The following year he was appointed assistant to the Professor of Physiology in Strasburg, where he remained for a year. Since then he has been engaged at pathological research, under Professor Cohnheim at Leipsic. He is the author of several valuable papers, which have been published from time to time in the *Journal of Physiology*, and elsewhere.

BANQUET TO SIR WILLIAM JENNER AND MR. ERICHSEN.

On the 4th instant, the faculty of medicine and hospital staff of University College entertained at dinner, at St. James's Hall, their colleagues, Sir William Jenner and Mr. Erichsen, to celebrate the simultaneous tenure by those gentlemen of the presidential chairs of the Colleges of Physicians and Surgeons. Mr. John Marshall took the chair, and twenty-eight sat down; including, besides the guests of the evening, the other emeritus professors, Dr. Russell Reynolds and Sir Henry Thompson. Drs. Garrod, Hare, Harley, and Maudsley—former professors of University College—were also present. With one or two unavoidable exceptions, the whole medical staff of University College assembled to do honour to their distinguished colleagues. Regrets were expressed at the absence, through ill-health, of Dr. Walshe and of Mr. Wharton Jones. Mr. Quain did not return to England in time to be present, as he hoped to be able to do. At the conclusion of dinner, which was a thoroughly private and social one, Mr. Marshall, in reverting to the lists of past presidents of the two colleges, showed how rarely such an event as they were met to celebrate had occurred, or, indeed, could occur. He then gracefully expressed the pride felt by himself and his colleagues in the positions taken by two of their body. With much felicity, Mr. Marshall likened the present alliance of the Colleges of Physicians and Surgeons, through the close friendship of their presidents, to a wedding of those august corporations, and he suggested that the present gathering resembled the festive banquet given on such bridal occasions. Sir William Jenner, in returning thanks, alluded in feeling terms to the pleasure which he had derived from his connection with University College; and recalled his student days, when he sat on the same benches with Mr. Erichsen, learning from the same professors. Mr. Erichsen also spoke most warmly of his pleasant connection of forty years with University College, and the gratification which he felt at this mark of affection from his colleagues and old pupils.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

At the election of members of Council of the Royal College of Surgeons on the first Thursday in July, Sir James Paget, Bart., and Mr. Haynes Walton will offer themselves for re-election; and the following are new candidates: Mr. J. Croft, of St. Thomas's Hospital; Mr. Reginald Harrison, of Liverpool; Mr. Christopher Heath, of University College Hospital; Mr. J. W. Hulke, F.R.S., of Middlesex Hospital; and Mr. Sidney Jones, of St. Thomas's Hospital. Summonses have been sent to every Fellow in the United Kingdom whose address is known to the Secretary.

THE INTERNATIONAL MEDICAL AND SANITARY EXHIBITION.

His Royal Highness the Duke of Edinburgh, in response to the request of the committee, has consented to become the Patron of the exhibition. The whole of the floor space will be allotted this week, with the exception of a portion which the committee have decided to set apart for exhibiting the work of journeymen plumbers. Under special regulations this work will be exhibited free of charge, and it will include the specimens of workmanship produced by the competition for the prizes in connection with the National Health Society's series of lectures on plumbing, now being delivered by Mr. Stevens Hellyer, at the Society of Arts rooms. Plumbers wishing to exhibit should make early application for particulars to Mr. Mark Judge, at the Parkes Museum of Hygiene, University College, Gower Street. It should be stated that certificates of merit will be awarded. We hope that provincial as well as metropolitan plumbers will avail themselves of this opportunity.

THE SUFFOLK MEDICAL CLUB.

At the recent annual meeting of the members of this admirable association, it was reported that during the past year 1899 members were added to the club, while 984, from various causes, relinquished their connection with it, thus leaving on December 31st, 1880, a total of 7,153 members, being a net increase of 915 on the year. The payment by members for attendance at midwifery cases has, since 1st July last, been increased from the uniform fee of 10s. to that of 12s. within one mile of the medical man's residence, and of 14s. beyond that distance. The result of that alteration is, that while in the first half of the year the number of confinements attended was 75, and the subsidy to medical men £34 10s., in the second half of the year the number of confinements attended fell to 59, and the subsidy to £16 1s. The subsidy for surgical cases also showed a considerable diminution. The contributions of benefit members, exclusive of payments for confinements, increased from £840 12s. to £971 1s., while those of honorary members decreased from £112 16s. to £103 6s.

MR. LISTER'S DRESSINGS.

The case in our hospital reports this week will serve to illustrate some points in the practical progress of antiseptic surgery. As he announced recently to the Clinical Society, Mr. Lister has lately been making extensive use of eucalyptol in place of carbolic acid. Eucalyptus oil itself, which is the active ingredient in all these new preparations, is a colourless, limpid, watery fluid, the essential oil of the *Eucalyptus globulus*. This is used undiluted, as a dressing in the same class of cases as carbolic oil is commonly used. It is also made into an ointment, of which the following is the formula: Vaseline, $2\frac{2}{3}$ parts; paraffin wax, $1\frac{1}{3}$ parts; eucalyptus oil, 1 part. The formula for the eucalyptus and iodoform emulsion referred to in the report of one of Mr. Lister's cases of ununited fracture of the patella, is as follows: Eucalyptus oil and powdered gum acacia, of each, 96 grains; iodoform,

8 grains; water, to 2 fluid ounces. In operations about the genital organs, or other parts where the presence of numerous hairs and their follicles makes it difficult to render the skin thoroughly antiseptic by the ordinary methods, Mr. Lister has latterly, after shaving and cleansing the parts, applied to them a "salicylic cream", which is thus prepared. Six parts of carbolic acid and glycerine (1 in 20) are rubbed up in a mortar with one part, or one part and a half, of salicylic acid, until the mixture is of the consistency of a thick smooth cream. The mode of preparation of the eucalyptus gauze, Mr. Lister intends, we believe, to make public before long; meanwhile we may say that it may be obtained from Milne, of Eagle House, Ladywell, Kent. As eucalyptol is very volatile, it is well to place in the tin box in which the gauze is kept, an open phial of eucalyptus oil, to prevent the deterioration of the dressing.

DEATH OF DR. RADFORD.

DR. RADFORD, the well-known obstetrician, died in Manchester last week, at the age of eighty-eight. He continued his literary work to a very late period of life, for he published his last book, on *Cæsarean Section*, when he was eighty-six. He had long retired from practice, but took an active part in many public matters; and his loss will be much felt.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN extraordinary meeting of the College was held on Wednesday, the 8th instant. The chief business was the consideration of a communication from the Secretary of the Medical Acts Commission, requesting the co-operation of the College of Physicians in the work of obtaining evidence and information on the subjects referred to the Commission for inquiry.

CUTTING OR SEWING-UP.

IN view of the pending discussion in our columns on Emmet's operation for the sewing-up of the alleged frequent lacerations of the cervix, the following extract from a London letter (which appeared last year in the *Louisville Medical Journal*, and is being once more quoted and taken as a text in various journals) may be read with amusement, possibly with instruction, just now.

When Dr. Sims was first here (in London), he demonstrated, to the satisfaction of a great many people, and, indeed, seemed almost to have established it as a canon in practice, that a great number of women are suffering from complaints which require that the cervix uteri shall be lacerated to the extent of complete division; and we were under the impression that, according to the well established experience of Marion Sims and his school, about twenty to twenty-five per cent. of the gynæcological patients require to have the cervix uteri divided in order to be restored to health. But if now we find that at least as many are suffering from complaints which require that cracks, cuts, and fissures of the cervix shall be shut up, it seems as if the greater part of the energies of that most fearfully numerous, highly intelligent, and active class of practitioners, who, either as specialists or as family doctors, have a claim to the title of gynæcologists, will in future be divided between splitting up the cervices of those women who yet possess them entire, or uniting with horsehair or silver wire those which are by nature or art cracked or fissured. The general moral would then be open to deduction that, in respect to the uterus, whatever is is wrong, and whatever is not, ought to be brought about.

QUEEN'S HOSPITAL, BIRMINGHAM.

AT a meeting of the special election committee, held on Wednesday, June 8th, Mr. Bennett May, M.B. and B.S.Lond., F.R.C.S., was appointed honorary surgeon to the Queen's Hospital, in the vacancy caused by the resignation of Mr. Sampson Gamgee, which we recently announced. Mr. May was keenly opposed by a formidable candidate, Mr. William Thomas, M.B.Lond., F.R.C.S., one of the surgeons to the Children's Hospital, and Professor of Anatomy in Queen's College. For some time Mr. May has held the post of casualty-surgeon to the Queen's Hospital (an office he now vacates on his promotion), and he has won the cordial approval of his colleagues and the committee of the charity by his energetic and punctual discharge of his duties, and his devotion to the welfare of the clinical school. Immediately after Mr. May's appointment on Wednesday, a special meeting of the governors of the hospital was held, at which Mr. Sampson Gamgee, on the proposition of the chairman, supported by Dr. Sawyer, on behalf of the medical staff, was unanimously elected consulting surgeon to the hospital, in recognition of his services as honorary surgeon for a period of twenty-four years.

MILK-POLLUTION.

ABOUT forty cases of scarlet fever having recently occurred near Keswick, Dr. Robertson, the Medical Officer for Cockermouth, states that the disease has been traced to a dairy from which all the persons attacked obtained their milk. There had been a case of fever at a house next to the dairy.

TYPHOID FEVER AT MILLBROOK.

ANOTHER outbreak of typhoid fever is reported at Millbrook, where occurred last autumn the serious epidemic into which Dr. Ballard inquired for the Local Government Board. It would seem, from the reported proceedings of the St. German's rural sanitary authority, who are responsible for the supervision of the place, that, beyond the supply of disinfectants, nothing whatever has been done to remedy the defective conditions of water-supply and excrement-disposal to which Dr. Ballard called attention. Under such circumstances, the renewed outbreak of fever is not surprising.

THE DEWSBURY ANTI-VACCINATORS.

AT the last meeting of the Mirfield Local Board, the health-officer reported an outbreak of small-pox in the district. He said that two of the cases (which were in vaccinated persons) were very mild; but in the same house as one of these was a boy unvaccinated, eight years old, who was covered with large variolous pustules from head to foot. He added that this was as bad a case as he had ever seen; and since the mother would not have the boy vaccinated, he thought she ought to be summoned as an example to others. Unfortunately, however, the sanitary authority have no power to take any steps to enforce vaccination in the town, this being the province of the Dewsbury Guardians, who are notorious for their anti-vaccination proclivities. It is to be hoped that small-pox will not obtain a foothold in the Union; for if it did, the consequences, with so large a proportion of the population unprotected from attack, must needs be serious in the extreme.

THE GOVERNMENT INQUIRY ON DIARRHŒA.

THE warm weather which has been recently experienced will have set health-officers thinking afresh of the mortality from infantile diarrhœa which is sure to follow the advent of summer heat. A great effort is being made this year by the medical department of the Local Government Board to secure the proper investigation and recording of as many as possible of the cases of intestinal flux that occur. To this end, Dr. Ballard, who has the inquiry in charge, has issued large folio sheets on which to enter the cases of diarrhœa occurring at different ages week by week, as well as note-books for recording particulars as to infant alimentation and cases of diarrhœa, dysentery, etc. In the former of these books, spaces are left for the name, sex, age, and residence of the child reported on, and the occupation of its parents; whether it is fed from the breast alone, or from the breast and other food, or other food alone, and how long it has been weaned; the kind of food given, how given, *e.g.*, by bottle or spoon, and if there be any uncleanliness of the feeding apparatus; and whether the mother has any, and what, occupation to interfere with the personal care of the infant. In the note-books as to diarrhœa are spaces for the name, age, residence, occupation, previous health, severity of attack, concurrence of other disease, date of first attendance, the duration of the illness, and its result. In the case of an infant, particulars as to its food, and the method of its keeping, as well as about the cleanliness of the feeding apparatus, are asked for. Any other cases of diarrhœa

(anterior or subsequent) in the same family are also to be given, with the ages of the sufferers. These books, if intelligently and carefully filled up, ought to give a vast fund of information for profitable study by Dr. Ballard; and we trust that this autumn will not have gone by without some real and substantial addition to our knowledge as to the behaviour and circumstances of occurrence of this fatal and widespread disease.

REVACCINATION AT NOTTINGHAM.

In view of the possible introduction of small-pox into Nottingham from London and other places where the disease has obtained a foothold, Dr. Seaton has presented to the Town Council of that place a very useful and timely report, pointing out the need for general revaccination in the borough. He says that, about five years ago, when small-pox was present at Derby, he prepared a placard calling attention to the importance of revaccination; but this warning was apparently unproductive of any result, since none of the public vaccinators had any applicants for the performance of the operation. Dr. Seaton adverts to the large proportion of unprotected people in the union; and urges that all persons who have arrived at the age of puberty should be revaccinated, and that this should be done before an epidemic begins. He points out that, after successful revaccination, small-pox, even of the most slight or modified kind, is rarely met with, instancing the well known proof of the immunity of the revaccinated nurses at the London Small-pox Hospital, and adding important local corroborative evidence from the experience of the Nottingham Small-pox Hospital. During an epidemic, which, in the old borough alone, destroyed 357 lives, and caused an incalculable amount of sickness and misery, every nurse and person connected with this hospital who had not already been revaccinated was revaccinated, with one exception, who was the only person that took small-pox at all. It is satisfactory to find medical officers of health thus interesting themselves in the furtherance of vaccination and revaccination—matters which they have heretofore been far too prone to overlook.

ART IN BEDLAM.

Dr. Rees Philipps, of the Wonford Hospital for the Insane at Exeter, expresses in his annual report his grateful acknowledgments to Mr. James D. Doulton for a large and valuable contribution of specimens of Doulton ware and Lambeth *faïence* for the decoration of the wards. No doubt beauty and harmony of form and colour must have a tranquilising effect even on the "mind diseased"; and, if lunatics can be got to "live up to" Doulton ware, to say nothing of blue china, an important step will have been gained in moral treatment. The invariable experience of the Commissioners in Lunacy has been, that decoration and destruction in lunatic asylums are in the inverse ratio of each other; and that shapely furniture, mirrors, pictures, and ornaments may be introduced safely into refractory wards, which cease to be refractory when they attain a certain stage of artistic finish; such things being respected and left intact, when deal tables and tin cans are ruthlessly knocked about. The Kyrle Society may yet bring lunatic asylums within the scope of its beneficent efforts, and supply an element of moralising refinement that is now often wanting in the well-meant attempts at decoration met with in these establishments.

LITHOTRITY FOR STRICTURE.

The season of annual meetings of the Branches has commenced, and the annual meetings of the Birmingham and Midland Counties Branch and of the South-Eastern Counties Branch have been as usual interesting and successful gatherings. At the dinner of the South-Eastern Counties Branch under the presidency of Mr. B. Hallowes, Mr. Erichsen, President of the Royal College of Surgeons of England, Dr. Yandell, of Louisville, Mr. Arthur Durham, Mr. Ernest Hart, Mr. William Adams, and Dr. Wiltshire were present as guests, and the speaking was unusually good and commendably brief. Mr. Erichsen, speaking for the Royal College of Surgeons, as President of that body, pronounced a warm eulogium on its museum and library, and stated that he was an advocate for the one-portal system and reform in medical education; and, as he has recently given evidence before the Royal Commission, this announcement was received with much satisfaction. Reference was made by Dr. Galton, who proposed the toast with which Mr. Erichsen's name was coupled, to the recent rejections at the College, and to the incidents recorded in our last JOURNAL, of a gentleman who mistook the astragalus and calcaneum for bones of the hand; and who was not only utterly baffled by a hydrocele, but was unable to comprehend the politeness of the examiner in handing him a lighted taper to assist his diagnosis. Mr. Erichsen capped those incidents of the recent examination, by telling a story of a candidate in his own experience, who, being asked how he would treat stricture, said by lithotomy, and being told that he was under a mistake and that the examiner was not speaking of stone in the bladder, but stricture, said "In that case I would employ lithotrity."

WATER-CISTERNS AND HOUSE-FITTINGS.

The following useful directions to be observed in cleaning out water-cisterns, and in examining sanitary house fittings, are issued by the Society for the Sanitary Inspection and Construction of Houses. 1. In cleaning out water-cisterns, great care must be taken not to allow any of the deposit to get into or pass down the service-pipes; these must be plugged, and the residue of water must be taken out with sponge and bucket. If the cisterns are of lead, or lined with lead, they must not be scraped. 2. After the cisterns have been cleaned out, the covers (if any) should be replaced, the efficiency of the ball taps should be tested, and the ball, levers, and cranks oiled. 3. Examine whether there is a stop-cock in the main service; if so, its description and working condition. 4. Examine whether the cisterns are covered; whether they have overflow-pipes, and if such overflows discharge into the open air or into any soil-pipe, closet or drain. 5. Examine the service-pipes and valves of all water-closets to see whether they act properly, and note from what cistern the water comes, *i.e.*, whether there is a separate cistern for drinking water, or whether the same cistern supplies the water for drinking and domestic purposes, as well as for the use of the water-closets. 6. Examine the nature and condition of the safes, traps, soil, and waste-pipes, etc., connected with all water-closets, baths, and sinks, to see if they are in good working order or otherwise. 7. Examine the soil-pipe throughout its course, to see whether it is air-tight or not; any points of leakage should be noted.—Useful hints to householders are, that all houses should be supplied with a stop-cock, so that in case of severe frost, or in the event of repairs, the water can be easily turned off without having to hunt for the regular official, and causing great inconvenience to neighbours by having to turn off at the main. All water cisterns should have a properly fitted cover. It is advisable, when practicable, to provide a separate system for the storage of water for drinking and household purposes, distinct from the cisterns that supply the water-closets. The frictional parts of all sanitary fittings should be kept regularly oiled. The seats of water-closets should be loose or fixed with hinges, so that the apparatus underneath can be examined without disturbing the woodwork. It is of great importance that all pipes and fittings should be easily come-at-able. To prevent the bursting of pipes in severe frost, the water should be turned off at the main, and the supply for immediate daily use should be stored in buckets. Covering cisterns and pipes with thick boiler felt, or casing them in sawdust, will generally prevent the water from freezing. N.B.—The pipes burst from the expansion of the water in the act of freezing, and not after it is frozen. Water will rarely freeze if it is kept slightly running from the tap. In order to secure clean and wholesome water for drinking and cooking purposes, all water cisterns should be cleaned out at least twice a year.

FREE LECTURES ON PRACTICAL PLUMBING.

The free course of lectures on practical plumbing, which, at the request of Mr. Ernest Hart, Chairman of the Council of the National Health Society, 44, Berners Street, W., Mr. Hellyer (author of *The Plumber and Sanitary Houses*) has consented to give, under the auspices of the society,

has been so largely attended that it was found impossible to accommodate the plumbers who crowded to hear the lectures in the great room of the Society of Arts. These practical lectures and demonstrations deal with the art and mystery of joints and pipe-bending, traps and trap-ventilation, house-drainage and ventilation, etc. They are illustrated by diagrams and working models. At the request of the society, Mr. Hellyer has kindly consented to repeat these lectures and demonstrations. On Wednesday next, June 15th, the subject chosen is that of traps and ventilation of traps. Tickets for the course may be obtained free on application at the office of the National Health Society, 44, Berners Street, or at that of the *Sanitary Record*, 15, Waterloo Place.

CRUEL TO BE KIND.

THERE has been formed in France a society whose mission it is to carry on a crusade against tobacco. This body has induced the Académie de Médecine of Paris to present to the Minister of the Interior a report on the latter drug. The report was recently presented to the Academy by M. G. Lagneau, who dealt with the subject in a most temperate manner; his accusations were all directed against the abuse of the drug; he roared, indeed, "as gently as any sucking dove". Not so the octogenarian and pugnacious M. Jules Guérin, who, in the course of a speech in which he fulminated against tobacco in any form, quoted a strange assertion of a M. Montain, physician at Lyons. The penetrating vision of this observant physician has discovered in the bones of those "accustomed to smoke a pipe, an alteration in the coloration of the bones comparable to the well known colour which tobacco produces in a pipe"! This may read like a jest, but it is a literal translation of the report in *L'Union Médicale*. The Anti-tobacco Society would find a fellow-spirit in Johannes, the reigning monarch of Abyssinia, though it would, no doubt, deprecate the severe means which that tyrant takes to break his subjects of their tobacco-consuming habits. "He cuts off", says Colonel Gordon, writing in December 1879, "the noses of those who take snuff, and the lips of those who smoke." Tobacco has apparently little to fear from such attacks; and, in reference to them, its lovers may still exclaim with Charles Lamb:

> "Plant divine, of rarest virtue,
> Blisters on the tongue would hurt you."

THE ART OF GIVING.

THE art of giving requires to be learnt not less than the art of getting. It is not everyone, even amongst those who are so happy as to have acquired the love of giving, and to have cultivated the sympathies which make it a chief pleasure in life, who have learnt how to give, where to give, and what to give. An East-end clergyman, sadly experienced in the wants of the poor, and wisely discriminating in his life-long and devoted study of a ministration to those wants, has often said to us that "foolish money" is sometimes superabundantly offered; but that, for the deeper, less apparent, and less pathetic, wants of the poor, he finds the greatest difficulty in collecting the necessary funds. "Foolish money" may be taken to be the money which rains in upon a given district when a sudden cry of inundation, or of pathetic accident, or sensational distress, is put forth: the money which is thrown into the lap of the loudest petitioner, without investigation of his machinery for giving, or his test of fitness of the recipients; without adequate inquiry as to the funds already contributed, or to the intended means of preventing imposition and dealing with surplus; money which pours in from "strongly worded" hospital appeals, and which is tossed into the hands of the vicarious beggar, without personal interest or inquiry into the way in which it has been used. This is the easy tribute which soft characters readily pay to any tale of physical distress. Sensible money and sensible gifts are those which are given to the less obvious but the deeper wants of the unsensational poor; pension funds, convalescent funds, well regulated loan-committees, and administrators of systems as those which have been set on foot in London by Miss Octavia Hill, Miss Emma Cons, Mrs. Barnett, and others, on the Elberfeldt system, in which inquiry precedes giving, supervision continues throughout the disposal of the gifts, and care is taken that the donation is one really suited to the real requirements of the petitioner, and is not the means of abuse or incitation to continuous pauperising begging. If those who support our charities and special hospitals were more largely of this discriminative and intelligent character; if people were more willing to give themselves as well as their money, smaller funds would do much more good than is now done with the enormous benefactions so largely abused. Even in small things, this want of care is visible. Nothing is in a small, but by no means unimportant way, more acceptable to hospitals than timely gifts of flowers, and books for adults, and toys for children. But a hospital superintendent writes to complain, and justly to complain, that the flowers are often crushed into a hamper, carelessly packed, and reach the hospital faded and useless; the toys are broken and out of gear; and the books are the mere unreadable residue of overloaded bookshelves, or scattered waifs of a careless household. Such gifts are often made with what are superficially called "the best intentions"; intentions cannot, however, be accepted as the best unless they spring from a somewhat deeper source, and are guided by more thoughtful intelligence. The giver needs to remember that, in his gift, his character, his thought, and himself are reflected; and, for the sake of self-discipline, as well as for the sake of those to whom the gift is proffered, it should indicate the intention of something more than the careless and thoughtless tossing away to the poor of a residue unvalued or easily dispensed with by himself.

CESSATION OF THE PLAGUE.

WE are authorised to state that the following official telegram has been received from Mr. Consul-General Plowden, dated Baghdad, 5th instant. "Favourable reports of plague continue. The disease is expected shortly to cease."

CONSEQUENCES OF NEGLECT.

SMALL-POX is reported to be spreading at Gravesend, the source of the infection being traced to a case in which the local magistrates refused, a fortnight ago, to make an order for the removal of the child to the Sanatorium, although it was stated that there had already been a death in the family. The disease has now spread to three other families in the same building, and there are seventeen cases in the hospital, besides several others which are being treated at home.

AMERICAN VERSUS BRITISH BEEF IN WORKHOUSES AND HOSPITALS.

AT a meeting of the Edinburgh Parochial Board last month, there was a discussion as to the propriety of substituting American for home-fed beef; and as this was a question not only as to the relative nutritiousness of each, but also one of economy, a committee was appointed to investigate the subject by experiment. This has been done by personal experience. Two masses of meat, each weighing 70 lb. 12 oz., and representing the two kinds of beef, were boiled. After this process, it was found that the American yielded 53 lb. 4 oz. meat, and 8 lb. 12 oz. bone; while the home-fed yielded 53 lb. meat and 8 lb. 8 oz. bone. This was certainly a very slight difference; but when it is added that the soup made from one was undetectable from that made from the other, and that, in a contract of £1,000, there is a saving of nearly £100 in favour of the American meat, the result obtained cannot but bring important conclusions to those who are interested in workhouse and hospital administration.

EXCISION OF THE KIDNEY.

IT will be within the recollection of our readers that, about three months ago, we announced that Mr. Morrant Baker had excised the kidney for calculous disease, and that the patient had rallied well from the operation. On inquiry recently, we were glad to hear that the child had since made most satisfactory progress, and was in the enjoyment of very fair health. On May 5th, Mr. Barwell, at Charing Cross Hospital, performed the same operation upon a very similar case. As in the earlier case, the kidney had already been opened and drained for

many months, and one of the chief difficulties met with in the operation was due to the dense cicatricial tissue about the old sinus. The presence of a stone had been detected by sounding through this sinus, which also served as a guide to the kidney at the operation. An endeavour to enucleate the stone was followed by so much hæmorrhage, that Mr. Barwell rapidly separated the kidney from the surrounding tissues, and ligatured the pedicle *en masse*. Owing to the close approximation of the ribs to the ilium, it was necessary to remove the organ in two parts. Further ligatures were then securely adjusted; but little blood was lost at the operation, and there was no subsequent hæmorrhage. Although the patient, a boy of fifteen years, was at the time of the operation in a very anæmic condition, he has since made good progress, and is now convalescent. The hectic from which he was suffering before the removal of the kidney has disappeared, and the wound is nearly healed.

NEW ILLUMINATING APPARATUS.

At the Congress of German Surgeons, lately held in Berlin, Dr. Michael of Hamburg exhibited an apparatus he used for the purpose of illumination without the aid of lenses or reflectors. It consists of a glass globe exhausted of air, and containing phosphorescent substances in powder. These substances are made luminous by means of an aluminium electrode, which is brought into contact by means of a hard rubber-handle, with a Ruhmkorff's induction-machine. The light can be regulated according to the strength of the inductor; with a weak apparatus, sufficient light is produced to enable small print to be read, when held near the eye. In its present form the instrument, which Dr. Michael terms the psychrophor (cold light), is regarded by him as suitable for illumination in operations on the abdominal cavity and vagina, when the parts are not accessible to daylight. He hopes also to be able to make it available for cavities with narrow orifices.

M. PASTEUR'S EXPERIMENTS ON CHARBON.

M. Pasteur has now had an opportunity of practically testing the truth of his theory as to the protection of animals from charbon by their inoculation with the artifically cultivated virus of that disease. On the 5th ultimo, the farm of a veterinary surgeon at Pouilly-le-Fort and sixty sheep were placed at M. Pasteur's disposal. Ten of these sheep were left untouched, in order that they might later on serve for comparison. Of the remaining fifty, twenty-five were marked with a hole in their ears, and were inoculated, the first time on the 5th of May, and the second on the 17th. On May 31st, none of the inoculated sheep had lost fat, or spirits, or appetite. On May 31st, the fifty sheep were taken, without distinction, and inoculated with the strongest virus. M. Pasteur predicted that, on the 2nd instant, the twenty-five sheep not inoculated would be dead, and that the inoculated animals would show no symptoms of sickness; and accordingly, on that day, a number of spectators, including the President of the Agricultural Society of Melun, the Prefect of the Department, and the Director of Agricultural Matters at the Ministry of Agriculture and Commerce, assembled to witness the result. The prophecy of M. Pasteur was exactly fulfilled. At two o'clock, twenty-three of the sheep which had not been inoculated were dead. At three o'clock died the twenty-fourth, and the twenty-fifth an hour later. The twenty-five inoculated animals were quite sound, and in perfect health. Only one of them was feverish; and the fever, which was caused by the animal having designedly been inoculated with too strong a dose of the virus, speedily disappeared. The twenty-five carcases have been buried in a fixed spot; and, on the infected grass which will grow over it, experiments are to be made with inoculated and non-inoculated sheep. M. Pasteur's discoveries in this direction are being amply corroborated by English experience; and, if the matter be properly taken up, the agricultural interest will have one less difficulty to contend against, since it ought to be practicable to protect herds against charbon much in the same way that human beings can protect themselves against small-pox by vaccination.

SCOTLAND.

Last week the new wards of the Western Infirmary, Glasgow, which have been erected and furnished from the legacy of the late Mr. Freeland of Urie, were formally opened by the Lord Provost of Glasgow.

The mortality in Edinburgh last week was 20 per 1,000. There were fourteen deaths from zymotic diseases, of which scarlet fever alone caused eight, and whooping-cough four. There was only one death from fever, and the other was from erysipelas. In Glasgow, the mortality was 27 per 1,000, as contrasted with 22 the previous week.

THE LATE PROFESSOR SANDERS.

At a meeting of members of the medical profession held in the hall of the Royal College of Physicians of Edinburgh, on the 23rd May, the following resolutions were proposed and carried unanimously:—1. That this meeting having regard to the affectionate esteem in which the memory of the late Dr. Sanders is held by his numerous friends, is of opinion that expression should be given to it by the erection of a permanent monument; 2, That a committee be appointed to consider in what manner this object may best be carried out, and to raise the necessary funds for doing so,—the committee to consist of Dr. Haldane, *Convener;* Mr. Imlach, and Professor Maclagan. Drs. Batty Tuke and Blair Cunynghame were appointed joint-honorary treasurers and secretaries. The committee is of opinion that the memorial should consist of a monument, to be erected over the grave, and is supported in this opinion by the knowledge that this plan would meet with approval from Professor Sanders' widow and relatives. The committee have recommended that drawings should be obtained of a monument, of which a bust, or medallion in high relief, of Professor Sanders should be a prominent feature. It has been ascertained that such a work would cost not less than £300. The drawings will be submitted to a general meeting of subscribers. Intimation of subscriptions may be made to the honorary treasurers and secretaries; Dr. J. Batty Tuke, 20 Charlotte Square, Edinburgh; and Dr. Blair Cunynghame, 6 Walker Street, Edinburgh; or they may be paid directly into the account of the "Sanders' Memorial Fund," at the Bank of Scotland Branch, 99 George Street, Edinburgh.

MEDICAL OFFICER OF HEALTH FOR ABERDEEN.

The Subcommittee of the Town Council on the appointment of a medical officer of health for this city have reduced the list of candidates to the following three, viz.: Dr. Simpson of Dover, who has acted as deputy medical officer of health for East Kent; Dr. Husband, lecturer on Medical Jurisprudence and Public Health in the Medical School of Edinburgh; and Dr. Frank Ogston, assistant to the Professor of Medical Jurisprudence in Aberdeen.

TYPHUS FEVER AT LEITH.

Fortunately, the fever epidemic at Leith, consisting chiefly of typhus, has begun to moderate in its severity. The number of cases was such, that the local authority granted permission to the directors of Leith Hospital to open the old Cholera Hospital in King Street for the treatment of new cases. There are now twenty cases in hospital. It is believed that the disease first broke out in a house in Giles Street, the majority of its inhabitants having been seized with the fever, and communicated it to other families in the adjoining houses.

FEVER HOSPITAL FOR EDINBURGH INFIRMARY.

It will be remembered that, a few weeks ago, it was stated in the Journal that the municipal authorities of Edinburgh had acquired the greater portion of the old infirmary buildings, for the purpose of converting them into a municipal hospital for the treatment of epidemic diseases, while the managers had retained the eastern portion of the block for their own use as a fever hospital. On Friday last, the

managers, acting under a warrant from the Dean of Guild Court, commenced the alterations necessary for converting this part of the old surgical hospital into a suitable fever hospital. The accommodation will consist of seventy-four beds for the reception and treatment of cases of typhus and typhoid fever, erysipelas, and small-pox; accommodation for the nurses, and a porter's lodge. Of course, sanitary requirements will be carefully attended to; and it is hoped the work will be completed before the beginning of winter. The cost will be £2,500; and the infirmary architects, Messrs. D. and J. Bryce, are in charge of the work.

UNIVERSITY OF EDINBURGH.

THE Earl of Aberdeen, Her Majesty's Lord High Commissioner to the Church of Scotland, has given one hundred guineas to the building fund for the new University buildings. The building is proceeding steadily, and, it is hoped, will be ready to accommodate all the medical classes within the present year. The written examinations of the final medical examination were held on Friday and Saturday last, when one hundred and seventy-five candidates presented themselves; the oral examinations began on Monday; the clinical surgery examinations are all but completed, and those in clinical medicine are drawing to a a close. It is stated that the Marquis of Hartington, the previous Lord Rector of the University, has accepted the presidency of the Rosebery Liberal Club of the University.

ABERDEEN ROYAL INFIRMARY.

THE annual report of this institution for 1880 has just been issued. During the year, 1,732 in-patients were treated, while 1,311 obtained advice and medicines as out-patients. The daily average of patients in the infirmary was 165, while during the early months of the year 200 beds were occupied. The financial position of the infirmary is satisfactory, as the income for 1880 proved sufficient to meet the expenditure. The institution is burdened with a considerable debt, which it is desirable should be paid off.

SEQUELÆ OF THE MILK EPIDEMIC IN ABERDEEN.

ALTHOUGH the acute cases of this most obscure affection have disappeared, several persons are still suffering from the sequelæ thereof. Relapses were one of the marked features; but several patients seem to have suffered very severely from sequelæ. In a few cases, abscesses have formed in the lymphatic glands of the neck; in others, there has been inflammation, especially of the fibrous structures covering the bases, and of those in connection with the joints or covering muscles; while, in others, great prostration and loss of muscular energy and pronounced anæmia have been the chief symptoms. It is hoped that the Commissioners will publish their report at an early date.

CASE OF POISONING WITH CARBOLIC ACID.

FOR some time past, Mr. Cooper of Spynie, near Elgin, had been suffering from hoarseness, to relieve which he had taken a mixture. By mistake, a teaspoonful of carbolic acid was administered to him instead of the cough mixture, and the patient only survived a few minutes after swallowing the poison. Another fatal case is recorded in the *Pharmaceutical Journal*.

THE COST OF THE MAINTENANCE OF PAUPER LUNATICS.

SOME time ago, a discussion took place among the Edinburgh parochial boards as to the cost of maintenance of pauper lunatics, when the authorities of Morningside Asylum intimated that the charge for such should be raised to £30 a year; and various proposals were made to erect an asylum for the parochial boards of the district. The committee of the South Leith Parochial Board had the matter fully before it last week. The chairman stated that an ordinary inmate's keep cost £12 2s. 6d. annually; that in Rosewell Asylum the cost was £25, but this was exclusive of rent; so that the Morningside charge might be quite reasonable. Another member pointed out that pauper lunatics had a very liberal diet, which must necessarily increase the cost much. To this may be added the necessity for so many more attendants in asylums. The board resolved that, while watching the interests of the ratepayers, they would take no action in the meantime.

IRELAND.

KELLCHER, the pauper inmate of the Cork Workhouse, who, on the 11th May, assaulted Dr. Wall, and inflicted several severe wounds with a poker on that gentleman's head, was brought before the Cork magistrates last week. Dr. Wall, having recovered sufficiently to be able to appear and prosecute the defendant, gave evidence of the assault, and Kellcher was returned for trial at the assizes.

CORK MATERNITY.

THE annual meeting of the supporters of this charity was held last week in the Royal Cork Institution, presided over by the mayor. During the past year, some changes have taken place in the medical staff. Dr. Golding and Dr. Macnaughton Jones have resigned; but the last-named gentleman has accepted the post of consulting-surgeon. Drs. Atkins and Corby are the active members of the staff; and it is sincerely to be hoped that the public will supply the necessary funds for maintaining this most deserving charity. During 1880, the cases attended reached the large number of 440, or an increase of 20 as compared with the previous year. Since the opening of the maternity, in December 1872, no fewer than 2,881 women were attended at their own homes; and the total number of maternal deaths directly occurring as a result of childbirth was 17, a mortality much below the average. The arrangement adopted at the maternity is, that a trained nurse attends a woman in her labour; but, should medical assistance be required, the physician on duty attends, and has the advice of his colleagues if necessary. This institution affords the only means available for women in the South of Ireland to be trained as skilled midwives, a want which has always been deeply felt among all classes of the community, and which the Cork Maternity has, to a large extent, provided for. A vote of thanks to the medical officers for their valuable services terminated the proceedings.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE annual meeting of this College to receive the report of its Council was held on Saturday last. There was a large attendance of metropolitan and provincial Fellows. An animated discussion took place with regard to the new scheme of education and examination adopted by the Council (*vide* JOURNAL, May 28th, p. 863). Finally, the scheme was approved of by the College by a small majority; the votes in its favour numbering 31, against 27. At the annual election meeting, held on Monday last, Mr. Samuel Chaplin, surgeon to the Kildare County Infirmary, was elected President, and Mr. John Kellock Barton, surgeon to the Adelaide Hospital, Vice-President, of the College for the ensuing year. Mr. William Colles was at the same time re-elected to the Secretaryship of the College. There was only one change made in the Council. The outgoing members, with the exception of Mr. F. Alcock Nixon—who was replaced by Dr. E. H. Bennett, Professor of Surgery in the University of Dublin—being re-elected. The Council accordingly consists now of the following gentlemen, the names being arranged in order of Fellowship seniority: William Colles, Alfred H. M'Clintock, George H. Porter, George H. Kidd, William A. Elliott, T. Jolliffe Tufnell, Edward Hamilton, Rawdon Macnamara, Robert M'Donnell, Edward D. Mapother, Archibald H. Jacob, Edward Halloran Bennett, Philip Crampton Smyly, John Denman, Anthony H. Corley, William Stokes, Henry R. Swanzy, W. Thornley Stoker, William I. Wheeler. One hundred and six Fellows voted at the election.

THE HUDSON SCHOLARSHIP PRIZES.

THE first distribution of these prizes took place in the Adelaide Hospital last week, in the presence of the Presidents of both the College of Physicians and of Surgeons in Ireland, several leading physicians and

surgeons, the staff of the hospital, and a large number of students. The prizes consist of a scholarship for one year of the value of £30, accompanied by a gold medal; and a prize of £10, accompanied by a silver medal. The foundation consists of a donation of £1,000 by Mr. Henry Hudson of Chester, brother of the late Dr. Hudson, which was given to the latter two years before his death, for the purpose of being applied in any way he thought fit. He handed over the money on a perpetual trust to the Medical Board of Adelaide Hospital, for them to apply it in such manner as they thought would be best calculated to advance the science of medicine; and the board founded the prizes in question. The winner of the scholarship and first medal was Mr. Edward Gordon Hull, whose marks amounted to 594 out of 850. The prize and second medal were taken by Mr. Frederick William Elsner, whose marks numbered 512.

SOCIETY FOR PROVIDING NURSES FOR THE SICK POOR, BELFAST.

THE annual general meeting of the friends and subscribers of this institution was held last week in Belfast, presided over by the Lord Bishop of Down. The Chairman said there was a peculiarity about the Society which, he believed, escaped the knowledge of a great many persons; and that was, that it was not only a society for providing nurses for the sick poor, but it also provided nurses for them in their own homes. The Committee, in rendering their seventh annual report, stated that their work had been continued with undiminished usefulness, and on an increased scale. Six districts of the town were now occupied, each by a nurse, and the income of the Society from contributions continued to increase. The receipts amounted to about £1,000; and, in addition, a sum of £77 8s. 11d. was contributed for special cases of distress, being expended by the ladies who superintend the work of the nurses in charge of the districts; and these contributions have been of great service. Nourishment was also supplied to the patients to a large extent. The nurses attended during the year 685 patients, including 12 cases of cancer, 18 accidents, 12 cases of dropsy, 149 of phthisis, and 160 from other affections of the chest. Of these, 209 recovered, and were at least enabled to resume their work, and 141 died. The average number of sick persons always under the Society's care is 126. The institution is an admirable one, is carried on in an inexpensive manner; and we re-echo the hope of the committee, that the liberality of the friends of the charity may be sufficiently increased to enable them to extend the benefits of their nursing system to every part of Belfast.

ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.

THE thirty-third annual meeting of the Society was held on June 6th, in the Royal College of Surgeons—Dr. McClintock, the retiring President of that College, being in the chair. The Chairman, who, for sixteen years previously to his election to the presidency of his College, filled most admirably the post of Honorary Secretary to the Society, stated that the total amount which the Society had, up to the present time, distributed to applicants amounted to £26,412 7s., a sum which had been nearly altogether contributed by members of the medical profession. The amount to be distributed this year would be about £250 less than the sum distributed last year; but this was not more than might be expected. It was times like this, when there was an unusual diminution and falling off in the amount of subscriptions, that the members must feel thankful that they had a respectable sum funded; and that they were not altogether dependent on the fluctuating income arising from subscriptions. The Society had a sum equal to £17,000 lodged in the Funds. He thought they should fund donations and bequests until their capital reached £20,000; but beyond that he would not go. The amount distributed last year was only £1,129, against £1,445 in the previous year. There were nearly 1,500 medical men in Ireland who did not subscribe to this Society, and a great number of widows received grants whose husbands had subscribed nothing. The Chairman concluded by saying the Society must commend itself to all medical men, for it was eminently Christian and charitable, and wholly unsectarian. The analysis of the applications and awards for the annual distribution showed that 113 applications from medical men, their widows, and orphans (including twenty new applications), were made. Of these, fourteen were refused. The report of the Central Committee, which included abstracts from the reports of Branch Honorary Secretaries, gave several touching instances of the absolute want and great suffering in which some of the applicants were. One sad case was that of a former dispensary medical officer, who is now, in his sixty-fourth year, an inmate of an union workhouse. As contrasted with the deplorable apathy in subscribing to this most charitable Fund on the part of the provincial medical men, a class to whom four-fifths of the grants are awarded, the report noted with gratification the increasing interest exhibited by the students of medicine in the good work of the Society. The Committee especially acknowledged, with particular pleasure, the receipt of a sum of £23, the proceeds of a concert got up by the Carmichael College Musical Society, for the benefit of the Fund. The total amount received from students this year was £34 16s. The following gentlemen were elected the Central Committee for the ensuing year: The Presidents of the King and Queen's College of Physicians and of the Royal College of Surgeons, *ex officio;* L. Atthill, M.D.; J. T. Banks, M.D.; J. Hawtrey Benson, M.D.; D. F. Brady, M.D., J.P.; E. G. Brunker, M.D.; R. G. Butcher, M.D.; F. Churchill, M.D.; M. W. Daly, M.D.; B. G. Darley, M.D.; J. Denham, M.D.; G. F. Duffey, M.D.; J. F. Duncan, M.D.; J. Magee Finny, M.D.; T. Fitzpatrick, M.D.; S. Gordon, M.D.; T. W. Grimshaw, M.D.; C. Hamerton, M.D.; J. R. Harvey, M.D.; G. W. Hatchell, M.D.; T. Hayden, M.D.; J. Stannus Hughes, M.D.; A. H. Jacob, M.D.; E. Kennedy, M.D., J.P.; G. H. Kidd, M.D.; A. H. McClintock, M.D.; J. McDonnell, M.D.; Robert McDonnell, M.D.; G. Morrogh, M.D., J.P.; G. H. Porter, M.D., J.P.; P. C. Smyly, M.D.; W. Stokes, M.D.; R. M. Tagert, M.D.; J. Tufnell, Esq.; J. H. Wharton, M.B. *Honorary Treasurer:* W. Thomson, M.D., Dublin. *Honorary Secretaries:* John W. Moore, M.D., 40, Fitzwilliam Square, Dublin; Arthur H. Benson, M.B., 42, Fitzwilliam Square, W., Dublin. *Acting Secretary:* A. H. Marks, M.D., 26, Hatch Street, Dublin.

HEALTH OF DUBLIN: QUARTERLY REPORT.

THE births registered in the Dublin registration district during the quarter ending April 2nd amounted to 2,641, being equal to an annual ratio of 1 in 31.6, or 31.7 in every 1000 of the population. The number of deaths recorded came to 3,137, affording an annual ratio of 1 in 26.6, or 37.6 per 1000. Omitting the deaths (54) of persons admitted into public institutions from localities outside the district, the rate was 37.0 per 1000. The average number of deaths registered in the corresponding quarter of the ten years 1871-81 was 2,798, equivalent to an annual mortality of 36.6 per 1000 persons. Of these 3,137 deaths, 981, or 31 per cent., took place in public institutions. Zymotic diseases caused 405 deaths, being 110 under the number for the preceding quarter, and 121, or 23 per cent., below the average for the first quarter of the last ten years. The deaths from this class of diseases were equal to an annual rate of 4.9 per 1000 of the population. Small-pox caused 10 deaths, or 4 less than the December quarter of 1880; measles 11, diarrhœa 26, croup 16, scarlatina 56 (against 121 in the previous quarter), diphtheria 15, whooping-cough 51 (against 71), and fever 145. The mortality from the last named disease was 31 in excess of the number for the previous quarter, and 53 over the average for the first quarter of the past ten years, and was principally due to the increased deaths from typhus. There were 257 deaths of children ascribed to convulsions, being 77 over the average for the first quarter of the last ten years. Phthisis caused 336 deaths, apoplexy 48, paralysis 71, diseases of the heart and circulatory organs 187, liver-disease 53, Bright's disease 14, and 16 were due to kidney-disease unspecified. Diseases of the respiratory organs proved fatal in 909 instances, a number 371 in excess of the previous quarter; the deaths including 726 from bronchitis, 113 from pneumonia, and 64 from lung-disease unspecified. The mean weekly temperature for the quarter was 37.4°, and the rainfall measured 6.219 inches.

MEDICAL EDUCATION AND MEDICAL REFORM.

In answer to an invitation conveyed in a circular issued by the South-Eastern Branch of the British Medical Association, a number of the members of the medical profession in the counties of Kent, Surrey, and Sussex assembled at the Royal Pavilion, Brighton, on Tuesday, May 31st, to discuss the Report on Medical Education recently issued by the Committee of Council, and to consider the question of medical reform, and to pass resolutions thereon. Dr. Withers Moore of Brighton, President of the South-Eastern Branch, occupied the chair; and amongst those present were Dr. C. Holman, Reigate; Mr. F. B. Hallowes, Redhill; Mr. F. A. Humphry, Brighton; Mr. G. F. Hodgson, Brighton; Dr. Alfred Hall, Brighton; Dr. Monckton, Maidstone; Mr. C. Macnamara, London; Mr. Albert Napper, late of Cranleigh; Dr. Bransby Roberts, Eastbourne; Mr. James Reid, Canterbury; Dr. Joseph Ewart, Brighton; Mr. E. J. Furner, Brighton; Mr. R. Gravely, Newick; Mr. W. J. Harris, Worthing; Mr. Joseph Dixon, Brighton; Mr. J. C. Uhthoff, Brighton; Mr. W. J. Tyson, Folkestone; Mr. Horace Manders, Yorktown; Dr. W. J. Treutler, Fletching; Dr. J. H. Stowers, London; Mr. W. Harris, Broadwater; Dr. E. Mackey, Brighton; Mr. F. Wood, Brighton; Mr. F. Jenner Verrall, Brighton; Mr. H. Paxton, Chichester; Mr. George Brown, Brighton; Dr. J. Harris Ross, Brighton; Mr. E. G. Whittle, Brighton; Dr. Joseph Stevens, Brighton; Dr. W. A. Hollis, Brighton; Mr. A. H. Collet, Worthing; Mr. Willoughby Furner, Brighton; Mr. Clement Pollard, Brighton; Mr. F. S. Daldy, Horsham; Dr. Kelson Millard, Brighton; Mr. Gordon Macpherson, Brighton; Dr. R. Whittington Lowe, Brighton; Dr. Fisher, Brighton; Mr. Philip Hubbert, Mayor of Arundel; Dr. William Chessall, Horley; Mr. W. Elliott Porter, Lindfield; Dr. Bowles, Folkestone; Mr. Ashby G. Osborn, Dover; Dr. Tuthill Massy, Redhill; Mr. Edward W. Witten, Brighton; Dr. Charles E. Oldman, Bletchingley; Mr. J. P. M. Smith, Brighton; Dr. Fuller, Shoreham; Mr. Henry H. Muggeridge, Seaford; Mr. C. H. Spooner, Brighton; Mr. N. P. Blaker, Brighton; and Dr. Parsons, Dover, Honorary Secretary to the Branch.

The Chairman said the meeting had been summoned to consider the question of medical reform, with especial reference to medical education and examination. He might remark that the profession was made for the public, and not the public for the profession; and their first duty, as medical men, was the safety of the public [*hear, hear*]; the second, to consider the honour and welfare of their noble profession; and the third and last, to study their own individual interests. [*Hear, hear.*] The public required year by year a certain number of capable medical men to be furnished for their use by properly constituted authorities. These aspirants for public favour were taken from the educated middle classes, and were fitted—or rather should be—for the important duties they would be called upon to perform; and, as a guarantee of that fitness, they were duly examined and certified. It was to be considered whether this examination fulfilled the important indications for which it was instituted. There were nineteen examining bodies, through one or more of whose portals each candidate for a place on the *Register* must pass. These portals opened with varied amounts of ease. Some required a large amount of mental endowment and great practical skill to effect admittance; in other cases, a moderate amount was sufficient to command a free entrance; while the third class offered a very feeble resistance. This was a matter for consideration; for young men, having passed through one or more of these doors, found themselves all facing the public on the same legal platform. All were qualified to practise as medical men, without reference to their honorary qualifications. To meet this evil, it had been proposed that a conjoint scheme should be instituted, which alone should give a candidate a place on the *Register*, leaving it to his option to pass any further examination. Another proposition was, that this conjoint system should be formed from the members of the examining bodies of England; and that the licence of the Apothecaries' Company, and the diplomas of the Colleges of Physicians and Surgeons, should be given to a candidate on the payment of a sum of thirty guineas. He scarcely thought this plan would meet with the approbation of their Scotch and Irish friends; in fact, he doubted very much whether either of these measures could run the gauntlet of the nineteen examining bodies. Yet there was much safety to the public in the conjoint system; and, as that safety was their principal concern, they should do all they could to get the measure passed through Parliament. Before a candidate could enter the army, he must, in addition to testimonials of character and age, present two diplomas—one from the medical and the other from the surgical department of one or more of these nineteen bodies. He was then examined; and, if he attained a certain standard, and if there were vacancies enough, he became an army surgeon. He would say a word more about medical education. In his view, medical education should be a harmonious whole, and result in the production of a capable practitioner. The medical student at present was over-lectured, and the practical part of his education was sacrificed to the theoretical. No doubt something would be said about apprenticeship. He thought it would have been well to retain it in a modified form, and he was glad to see it was proposed to resuscitate it at a certain time. Just before the last year of hospital practice, the candidate would be pretty well educated; he would find out the technical flaws in his practical knowledge, and have time and inclination to follow up these subjects when he returned to the hospitals. In commending this subject to their earnest consideration, he hoped they would not be unmindful of their own character and position, of the noble traditions of the profession to which they belonged, the great and vital responsibility laid upon them, and of that account which they must give at the last great assize of the talents and opportunities that had been so freely bestowed upon them. [*Applause.*]

Dr. Holman (Reigate) proposed the following resolution:

"That this meeting approves of the report drawn up by the sub-committee on medical education, approved and signed by the Committee of Council, and of the curriculum of study therein shadowed forth; viewing more especially with favour the proposal that no less than four full years shall be devoted to *bonâ fide* professional study."

The report had been drawn up with great deliberation. Two great questions came before the Committee. First, they learnt that the position of medical men throughout the country had hardly been that which they could wish it to be, and they felt that for many years there had been not sufficient breadth of education to give the practitioner a good social standing. Next, teachers had told them that men went to the hospital to be taught with minds ill prepared; and next, the general practitioner complained that the young men sent from the hospitals had been terribly ignorant of the practice of the profession. They thought, after grave deliberation, that the preliminary education of the public medical man was too narrow—that the professional examination was overloaded. The Committee thought that botany, chemistry, and physics would be well confided to a preliminary examination. Having lightened the professional course of study, they ought to demand a better knowledge of professional subjects; and it was proposed that, at the end of the first year, there should be an examination in anatomy, physiology, and organic chemistry; and that no one should be permitted to go further in his studies until he had passed this. In that way they hoped to incite the idle to work, and, having cleared this away, they proposed that there should be two years of clinical study. The student should not be over-lectured, but should have plenty of time for ward work; and no professor should give a certificate unless he knew, from his own personal knowledge, that the work had been done. The question of compositions fees was greatly debated, and the Committee thought it was far better that these fees should be abolished. If a man compounded to an hospital, he was bound to attend it. Upon some subjects there might be a very lame lecturer, and at another school there might be a first-rate one on the same subject. They thought it a pity that the man should not be able to go outside, without extra expense to his parents, and they wished the compounding fee to be abolished. This had been found to work very well in Edinburgh. There were an academical and an extra-academical school, and the rivalry made very good teachers. As regarded apprenticeship, the Committee issued circulars, and they had an enormous response in favour of the legitimate apprenticeship from the general practitioners. The teachers, however, told them that young men who had had regular habits of education, lost those habits in the busy curriculum of a medical man's house, and they obtained loose habits of thought and application. They urged that the young men had picked up a certain amount of practical knowledge, but had not learnt the scientific basis on which it was put, and became priggish and pragmatical, and difficult to teach. The Committee thought that if, at the end of the course of study at the hospital, the student had six months, or more, of work with a general practitioner, seeing disease at home, seeing the natural history of disease, or if he should be at a dispensary attending the poor, he would be brought face to face with cases which he could not see in the well-ordered wards of a hospital. An argument against this was, that to a minority it would be an infliction. It must be good for the majority, and it was good also for the minority. He had the evidence of the consulting surgeon to one of the largest hospitals, that he never learned so much as behind the counter of a general practitioner in the country. Another

objection was that they would over-educate their men, so that they would not take work amongst the poor. The educated clergy had never been injured in their work among the poor because of their higher education. The more highly a man was educated, the better he worked. As regards the examining difficulty, they saw no other way out of it, except by means of a conjoint board. That seemed to be the only way of providing for a good minimum standard education. A large proportion supported them in this resolution. Any fresh legislation meant interfering with the General Medical Council, and it was of the gravest possible importance of what the Medical Council should be composed. That Council must have, in future, not nugatory, but compulsory powers, so that they could act, and compel unwilling bodies to act. They should represent the profession, and not the bodies which it might be desirable they should coerce. For some time the Medical Council had been very unrepresentative, and it was only lately that they had at last got an obstetrician on the Council. He had a strong opinion that it had been in the minds of the members of the Council that a general practitioner was wished for as a representative man. He himself, at a dinner party in London, heard Sir George Burrow congratulate a general practitioner on being elected to a seat on the Council, indicating that he must have known what the old members of the Council wished and thought. The Medical Council were elected, they met, they talked, and did not do much, and they were paid; and in twenty years they had given the profession a *Medical Register*. The President of the Council, in his last opening address, wailed over the difficulty of doing anything. In consequence of this attitude, they were determined to wait no longer for medical reform. It must not be said that all this stir and agitation had been brought about by disappointed medical men, or editors of newspapers. This was no new question. They had long been at work, and it must not be said that the country practitioners were inclined to be quiet. They were the great mass of the profession, and brought into the nearest contact with the general public; and they were bound, in justice to themselves and the public, to do their best to present the public with the best possible article, to which they might give their trust, for he held strongly that the interests of the public and the profession were one and indivisible. [*Applause.*]

Dr. W. J. TREUTLER (Fletching) seconded the resolution. He said that it ought to be carried with utmost unanimity. It was only by an unanimous, or as nearly as possible unanimous, expression of opinion, that they, as a profession, could make their position and wishes felt and respected. There was very little for him to do but most heartily to second every word Dr. Holman had said. He would, however, be permitted to say a word or two on preliminary education. He felt most strongly that it ought to be, for the medical profession, of a much higher compulsory standard than it had hitherto been. A gentleman who entered on his professional life, in the possession of a sound liberal education, embracing the large range of subjects now taught at our public schools, would hold his position in society with much more force and influence than he could do without. He thought it was very necessary that medical students should, before they were allowed to enter on professional studies, show that they possessed, to a very large extent, the liberal education of modern requirements. He should not only have a knowledge of Greek and Latin, but also that he should be conversant with modern languages, in which a great part of medical literature was written, and that he should also have a knowledge of the subjects the Committee proposed to relegate to the preliminary examination---chemistry, botany, and the like. It was impossible for a student in the present day, with the limited amount of teaching at the command of the medical schools, to obtain their practical knowledge of disease. Look at the teaching of one of the physicians or surgeons in the hospitals. They saw there a vast crowd of students following him from ward to ward, and a few privileged ones within earshot heard his remarks, saw what he did, and saw him perform his operations; but the great crowd outside saw or heard very little, and understood next to nothing. When a student had passed through his course and obtained a theoretical knowledge of the subjects, he was in a position to go out, led by the hand of an elder practitioner, and to be introduced into the ways and by-ways of general practice. He learnt how to address his patient, to win his confidence, to get him to tell him all that he had in his mind and heart. It was this apprenticeship, lasting for six, or, he would say, for twelve months, which was to supplement hospital teaching, which many a student lost through no fault of his own, but through overcrowding. He thought that this apprenticeship should be at, or nearly at, the end of the course of study. The student then knew what he saw, and interpreted that which he witnessed. He had much pleasure in seconding the resolution.

Mr. WILLOUGHBY FURNER (Brighton) said that he thought that the social position of the medical man should be improved, and he thought that one great object they had in view was unanimity. Not many days since a reply was given to a question in the House of Commons, that if they waited till doctors agreed on vaccination, or other matters, they would have to wait a very long time. With regard to apprenticeship, the apprentice was a very necessary part of the medical man's establishment in the country. As to the time of apprenticeship, he thought, that the early period would be the best, because if it were in the middle of professional studies, or at the latter end, the student would have assumed a certain importance to himself, and they would scarcely expect he would dispense medicines. Another point was, that the medical profession had no representation in Parliament. Lawyers had the Attorney-General and the Solicitor-General, besides many lawyers in the House of Commons. The Church was well represented in the House of Lords, but medical men were not represented in Parliament, and until they got a voice there, he had very grave doubts that anything they suggested would be carried out. As to the improvement of education, the education must mainly depend upon the examination. He believed that at the College of Surgeons, the pupil was required to practise an operation on a dead subject. In cases of illness, the student must in the examination prescribe for a patient. He thought it was very proper that they should enforce a certain curriculum of study, such as had been mentioned, but he would care nothing how the pupil got his information, if he passed a practical examination. As to the preliminary examination, he thought that should be enforced irrespectively of the examining bodies. If the universities would enforce a fair and liberal examination, the pupil should then enter himself as about to pursue his medical studies. This subject had been before the profession many years, but nothing had come of it, and he did not think they had a chance of doing any good unless they had a powerful voice in the State.

Dr. PORTER (Lindfield), speaking with regard to apprenticeship, said that in his opinion the studies of the apprentice were simply preliminary and rudimentary. General practitioners who had assistants, had to pay very largely for a commonplace article, and he had suffered a good deal that way. It appeared to him that an altogether wrong view was taken of professional education. Each must begin at the bottom of the ladder. If they put a young man to learn rudimentary knowledge, he would grasp at it at the commencement, but would not turn back to it when he was a qualified practitioner. He thought the first thing would be for the student to pass an examination in the subjects that should be decided by a competent authority, in which should be embraced as essentials, Latin, Greek, and various things belonging to a liberal education; and that, when he had passed those, then would come the time for two years' pupilage with a general practitioner. This would be not too long to glean his rudimentary knowledge, and, at the same time, a considerable amount of professional knowledge. [*Applause.*] Having served that time, the student then passed on to a higher stage. But under the present arrangements he had to learn all these things, when he came to the general practitioner as a qualified man; and then, while paying a large salary, the practitioner had to teach an unwilling pupil who thought he knew everything. All this rudimentary knowledge should come the first thing, and not the last. [*Applause.*]

Dr. J. EWART (Brighton) thought the general resolution commended itself to unanimous approval. He hoped the meeting would, on this occasion, show that they were unanimous in carrying it.

Mr. A. G. OSBORN (Dover) congratulated the meeting that the subject of apprenticeship had been so warmly supported.

The resolution was put, and carried unanimously.

Dr. MONCKTON (Maidstone) said that he would base his observations on some remarks made by Dr. Holman. He called attention, among other things, to the recommendation in the report that the examination in anatomy, chemistry, and physiology, should take place at the end of the first year of medical pupilage. To conceive any knowledge of anatomy, physiology, and chemistry at the end of twelve months seemed to him to be an absurdity; subject to this guarding clause, that it should be an examination with the very laudable view of influencing the activity of the pupils' studies through the first year. With that reservation, he hoped that the suggestion would meet with support. He would suggest that in any renewed form of medical education to which they might succeed in giving an impulse, every course of lectures should be associated with specific examinations. Dr. Holman had called attention to the question of composition fees to London hospitals. There was one point connected with this that must be considered, that it was undesirable to prejudice the affection existing between a student and his *alma mater*. They should not disturb the tie which should bind all the pupils of each and all of the great hospitals into an united body which neither the public nor the assaults of the State should ever be able to break up. They had been urged to consider the

desirablity of requiring chemistry, zoology, botany, and physics at the hands of their medical students, before they were permitted to become such by registration. It was plausible, but there was a great deal to be said against it. If they were to expect that their young men, when they entered their schools, had been made more of gentlemen and more of scholars than had been the practice in the past, if they were to understand that they were to cultivate the humanities—if they were to look at Oxford and Cambridge as their exemplars (in a very limited sense)—if they were to do all this, they must beware how they deprived them of their little time. His impression was that Latin, Greek, and mathematics was enough till the time they presented the students to that which always was the best school of natural science—the colleges attached to the hospitals. He did not think apprenticeship was of much use. It seemed to him not directed to really teach a man his profession, but to teach him *savoir faire* in carrying out all the accessory requirements. Two more points might be set forth. Gentlemen seemed to ignore the fact, that now three months' pharmacy was attended and certified for before any man could be admitted to examination. Then again, the necessity for the apprenticeship was, he thought, toned down a good deal, by reason of the multiplication of small provincial hospitals. Formerly, there was no alternative between the country surgery and the large London hospitals; but now they had institutions in the country at which a man might seek the possession of knowledge. Where the apprenticeship came pleasantly in under a friend's house, let the lad serve; but he thought that if they ever lived to see the time when young men would go into an apprenticeship at the end of their hospital career, they would also live to see the time when, in after-life, they went about and saw their patients with a gold-headed cane, and in a sedan chair. [*Laughter.*] Young men of to-day came to the country fifty times better prepared than they ever were before. The examination for the licence of the Royal College of Surgeons was a splendid examination in medicine and surgery. He did not say it might not be put on a better footing, and associated with better principles—better regulated and better conceived; but they had now high-class examinations, admirably devised and splendidly carried out and young men were sent forth far better able to perform and understand their duty than a generation ago. With the Medical Council constituted as it was now, it appeared to him hopeless to expect any material reform. It was not that the individuals composing the Council had not these things at heart, but that the whole thing was fundamentally wrong. It represented the examining bodies, who ought to be on their defence. The one chance seemed an adequate inquiry by a Royal Commission, before which the examining bodies should be called to explain their view, and declare their *raison d'être*, for at present they were in the position of judges of their own cause. If they wanted a man to take charge of their Bill, Sir John Lubbock, the Member for the University of London, would be the man to do it. He moved:

"That this meeting desires to express its opinion that no legislation can be satisfactory which does not provide for a conjoint and complete examination, at the same cost for each division of the kingdom, as the final qualification for registration and for practice."

Dr. BOWLES (Folkestone) seconded the resolution. If there was one thing which had been unanimously supported, it was the conjoint scheme. It was the doing away with competition, and the traffic in licenses to practice; therefore it was a thing which was the very turning-point of the whole question. A great deal had been said about the Medical Council. They were generally, it seemed to him, entirely misunderstood. It appeared to him that they were not representatives, as had been truly said, of the medical profession, but they were elected to administer the Medical Acts as they at present stood. Their functions were administrative, and he contended they carried out those functions admirably well. As regards a representation of the whole profession, he contended that if they had it, they would not select better men for the Council. He was not there as an apologist for the Council, but the profession must be just to them. Dr. Quain had pointed out that this Association stopped the passing of the conjoint scheme, that threw out the Medical Act of 1870; and they ought not to be ashamed to own it. Dr. Quain raised a spectre which they would find it difficult to lay; and it was said that the Association stopped the passing of the conjoint scheme because it was too late in the Session to consider a new element imported into the question. He wished to state this for their own honour, as well as in justice to the Medical Council. He hoped that the passing of the resolution would be unanimous.

Dr. PARSONS (Dover) rose to correct an erroneous impression which was abroad with regard to the conjoint scheme. It had been stated in some quarters that the establishment of a single state examination by a conjoint board each for the three kingdoms, would destroy that "uniformity" which should be the essential feature in the so-called "one-portal system". If this statement were true, it would mean that three standards only had been substituted for the nineteen widely varying ones now in existence. But it was possible to obtain absolute uniformity of examination for any number of candidates, by the adoption of the same organisation which had proved so eminently successful in the University Local Examinations. He was honorary secretary for the Cambridge University Local Examinations for Dover Centre; and on a certain day in December last, no fewer than 6,770 candidates were examined at the same hour, in different parts of Great Britain and the Colonies. The questions in every subject were identical for all the candidates, and also the number of marks allotted to each question. The analytical report not only indicated the subjects in which each candidate excelled, or failed, or was generally weak, but also the school at which each had been educated. It was impossible to over-estimate the beneficial influence of this system upon the general education and teaching of the country. Why should not a State examination in medicine, for registration purposes, be carried out on similar lines? He failed to see any objection to such a scheme; and he was amazed that the University representatives on the General Medical Council had not pointed out the "uniformity of examination" which the organisation of the University Local Examinations so well illustrated.

The resolution was carried unanimously.

Mr. HARRIS (Worthing) moved:

"That before a student receives his license to practice, he shall produce a certificate of having studied not less than six months with a general practitioner, or in a public institution, where he has personal charge of patients at their own homes."

It was decidedly wise, that before the student received his licence to practice, he should be trained under the eye of the general practitioner, or in some public institution. He would go forth to the public, armed with knowledge that would be of service to him. He should be sorry to see apprenticeship done away with; but a modified form and term would be available to all, and he thought it would be better in the early part of a man's career.

Mr. A. NAPPER (late of Cranleigh) seconded the resolution. He thought the term of six months was scarcely sufficient. He believed there was more useful knowledge learnt in the early part of apprenticeship than in any other time of a student's career. For forty years he had not been without an assistant, but as time wore on he found them becoming less popular with the patients, and less useful, till at last, about eight or nine years since, they were so utterly ignorant of the practise and treatment of patients, that he had had to dismiss two or three in a year, although they were highly educated, technically and theoretically. Apprenticeship should commence when a boy left school. He was then amenable to the control of a superior. Let a young man, after leaving school, undergo an apprenticeship of one year. During that time he would pick up all the knowledge he required in the surgery. He thought two years would be better. Let him then go through two or three years of hospital study, and then a practitioner would be glad to receive him in his house.

Mr. W. J. TYSON (Folkestone) said that it was not possible to raise the medical man in the social scale by placing him behind a counter. If they were to go ahead, the universities must take up the education of the coming medical man. If assistants could not do the work the practitioners wanted, qualified men should. He guaranteed to teach anybody the dispensing of medicine in three months.

Mr. H. MANDERS (Yorktown) said that apprenticeship was not to provide practitioners with assistants; it was for the better education of the rising general medical practitioner. He did think they should have a short apprenticeship. The resolution commended itself very much to their approval; but he thought it was rather vague.

Mr. R. W. LOWE (Brighton) considered the student ought to learn the art of dispensing at a public institution.

Dr. HOLLIS (Brighton) moved, as an amendment, that the words "general practitioner or", should be omitted from the resolution.

Mr. TYSON seconded the amendment.

Dr. PARSONS said that, when the views of the whole profession were taken on this point, many persons entertained the same views as Dr. Hollis; but the great majority held the view that it should be open to the apprentice to study with the general practitioner, instead of at a dispensary, or public hospital.

Dr. BOWLES said the resolution did not prevent men from going to a public institution.

The amendment was ultimately withdrawn, and the original resolution carried.

A petition to Parliament, embodying the above resolutions, was

signed by the Chairman on behalf of the meeting, which then terminated with a vote of thanks to the Chairman for presiding, and a vote of thanks to Dr. Parsons for his services as secretary to the Branch.

APPROACHING ANNUAL MEETING OF THE ASSOCIATION AT RYDE.

THE Association will hold its forty-ninth Annual Meeting at Ryde, on August 9th, 10th, 11th, and 12th, under the presidency of Mr. Benjamin Barrow, a local practitioner of eminence, much respected in the Association, and several times Mayor of Ryde.

The meeting will be opened, as usual, with a short service, at which Bishop McDougall, a member of the Association, will deliver the sermon. The Address in Medicine will be given by Dr. Bristowe; that in Surgery, by Mr. Jonathan Hutchinson, Mr. Husband having been unfortunately compelled by indisposition to relinquish that honourable office. The Address in Obstetric Medicine will be given by Dr. Sinclair Coghill, formerly interim Lecturer on Midwifery in the University of Edinburgh. The Chairmen of Sections will be Dr. E. L. Fox, Mr. Coates, Sir E. B. Sinclair, Dr. A. Ransome, and Dr. Urban Pritchard. In each Section there will be discussions on prearranged subjects; among which, it will be noted (in the detailed programme which we publish on page 942), are discussions on Dilatation of the Stomach; Acute Spinal Paralysis; Jaundice; Removal of the Ovaries; Enteric Fever; Vaccination with Calf-Lymph; Uterine Flexions; etc. The Annual Museum, which is always an exhibition of much interest and importance, will be repeated.

The Isle of Wight offers a delightful *locale* for a summer congress; and probably, after the fatigues of the great polyglot metropolitan congress of the previous week, there will be no small number both of our members and of foreign visitors who will gladly hail a marine meeting, which promises so much of pleasant holiday-making, mixed with professional intercourse. A warm welcome and a variety of entertainments await both members and guests; and the Isle of Wight meeting, under the auspices of the Southern Branch, will, there is every reason to expect, be a pleasant, valuable, and successful anniversary.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council of the College was held on Thursday, the 9th instant. The minutes of the ordinary Council held on the 13th ult. were read and confirmed. Reports were received and adopted from the Court of Examiners on candidates found qualified for the Fellowship, and from the Nomination Committee, who, in pursuance of the resolution of the Council of the 13th ult., have taken into consideration the regulations under which the Committee shall act in nominating candidates for election to College examinerships.

The report from the President and Vice-Presidents in reference to the Erasmus Wilson Trust Fund was received and adopted.

Professor John Marshall was elected representative of the College in the General Medical Council, as successor to Sir James Paget, Bart., resigned.

A letter was read from the Secretary to the Royal Commission on the Medical Acts, and it was referred to the President and Vice-Presidents to determine the evidence to be given before the Commissioners.

THE MUSEUM OF THE INTERNATIONAL MEDICAL CONGRESS.

THE arrangements for a temporary museum of pathology, etc., to be held during the approaching congress, are, we believe, making satisfactory progress. The committee in charge of it has obtained the loan of the Board-room and museum of the Geological Society, in Burlington house, for the purpose, and the exhibition will thus be in close proximity to the meetings of the Sections. All objects of medical and surgical novelty, relating to pathology or the illustration of disease, will, we believe, be acceptable, but we have been requested to direct the attention of the profession definitely to two or three points.

1. Arrangements will be made, in respect to some very rare diseases, or those likely to be of especial interest to medical men from abroad, to show groups of living patients. In this way, it is proposed to illustrate the following rare diseases: Addison's disease; Coincidence of gout and rheumatic arthritis; Charcot's joint-disease; Myxœdema; Syphilitic bone-disease in children; Mollities ossium; Primary muscular atrophy; Rupture of large nerve-trunks; Morphœa; Keloid of Alibert; True leprosy; Lupus erythematosus; Xanthelasma. Dr. Ord has promised to exhibit a series of cases of myxœdema, and Dr. Dyce Duckworth one illustrating the various phenomena of gout. It is needless to enlarge upon the instructive nature of a collection of leprosy cases—say, six or ten—such as no one individual could possibly see together without a journey to Norway or India. It is hoped that, by the assistance of the various metropolitan hospitals, this part of the undertaking will be made very successful. The Committee are anxious that all who have now under their observation cases of the kind asked for will keep their addresses, and make arrangements in good time for their attendance.

2. The Committee wish especially to borrow, both from private individuals and from hospitals, good pictorial illustrations of disease. It is believed that the classified collections of drawings, photographs, etc., will be a main feature of the Museum, and one of those most attractive to visitors.

3. In addition to the special subjects to be illustrated, which have been mentioned in the Museum circular, it is desired to comprise the following. Specimens of vesical calculi of unusual character, or those which have been removed by unusual methods, more especially those for which Bigelow's operation has been performed. Also specimens of biliary calculi of large size which have been passed by the bowel or removed by operation.

Intending contributors are requested to signify their intention of taking part in this Section of the Congress as early as possible. Further information can be obtained from the Secretary, Mr. H. H. Clutton, 16, Palace Road, St. Thomas's Hospital, S.E.

THE INTERNATIONAL MEDICAL CONGRESS.

THE Empress of Germany has addressed to Mr. W. Mac Cormac, the General Secretary of the proposed Congress, a letter the text of which is as follows.

"I had great pleasure in receiving your communication of the 14th March, and have taken a lively interest in its contents as well as in those of the programme of the International Medical Congress, which is to meet in London during August next. I have much pleasure in informing you that, on account of the great importance of your deliberations, I have commissioned Sanitäts-Rath Professor Dr. Küster, Principal Surgeon of the Augusta Hospital in Berlin, which is under my patronage, to attend the Congress. I at the same time express my desire, that during his stay in London you will aid him in all matters which may concern his important mission, or the interests of the above-mentioned Hospital. I conclude with the sincere desire that this international meeting of medical authorities on English soil, the birthplace of so many important discoveries for the alleviation of human suffering, may contribute to scientific progress, and prove an enduring bond of union between nations in the cause of humanity.

Berlin, March 26th, 1881. AUGUSTA."

The King of Italy has also caused a letter to be written by the Minister of the King's Household, recognising the importance which the Congress possesses for the interest of science and humanity, and desiring that Italy may take its place in emulating other nations in the advancement and study of medicine at the Congress.

THE WOUNDED IN THE TRANSVAAL.

A CORRESPONDENT writes from Newcastle, under date May 5th: Major Singleton, whose thigh was amputated as a secondary operation after gun-shot wound of the knee, has died at Mount Prospect. He was the last of the wounded remaining at that camp. Nearly all the cases at the Base Hospital continue to improve, except Lieutenant Hamilton, 92nd Highlanders, who is looking weak still; but he, too, may soon begin to recover, there being no prospective danger in his case.

Typhoid has already commenced to appear. Two cases were reported at Mount Prospect; three at the Base Hospital, including that of Captain of Orderlies Gordon, A.H.C.; and three more in the Field Force Camp, Signal Hill. The last-mentioned men consisted of two of the 97th Regiment, and one Army Hospital Corps.

The camp at Mount Prospect is shifted already, and the field force encampment will be changed to-morrow to fresh ground near the "Drakensburg".

Surgeon-Major Babington passed through here yesterday, *en route* for Maritzburg. He has had his hands full of work all through the past campaign, and he has done well.

Surgeon-General Holloway is reported to have given way in his health, from the arduous nature of his past duties, and the mental strain entailed by his efforts to arrange and improvise for so many wounded men. To him, and him alone, is due the success which has attended the medical aid afforded to the wounded; for it cannot be said that

credit is due to those who have the administration of the department up country, where complaints, which should never have arisen, are rife; and the cause is the old, old story: defective distribution, short-sighted parsimony, faulty estimates, and want of knowledge of field service and its requirements; and, if there be a single *lapsus* at Whitehall Yard, it is that dull seniority is paramount. It is well known, however, that the almost revered Director-General himself is by no means of the conviction that seniority means efficiency.

MEDICAL REFORM.

THE following letter has been issued by the Royal Commission, now sitting:

"Sir,—You are no doubt aware that Her Majesty has appointed a Royal Commission to inquire into the Medical Acts. I am directed to inform you that the Commissioners have commenced their sittings, and by their desire I enclose a list of the subjects into which they are appointed to inquire.

"It will be within your knowledge that much evidence was taken upon the various questions in connection with the Medical Acts, by a Committee of the House of Commons, in the years 1879 and 1880; and I am now to ascertain, on behalf of the Commission, whether there is any practical matter bearing upon any of the subjects contained in the enclosed list specially within the knowledge or province of ———— to which attention has not, in the opinion of that body, been sufficiently called.

"Should there be any such matter, I am to request the ———— to be so good as to specify the points in connection therewith, on which they consider that further evidence is required, and the manner in which they would propose to provide information thereupon for the Commission.—I am, etc., "JOHN WHITE, *Secretary*.

"The subject matters referred to the Commission for enquiry are as follows:—1. The grant of medical degrees, membership, fellowships, licences, and other diplomas, by universities, colleges, and bodies in the United Kingdom. 2. Courses of education. 3. Courses of examination. 4. Payments and other conditions required as a preliminary to such grant. 5. Skill and knowledge which such licences and diplomas represent. 6. Condition and manner under or in which medical practitioners are entered on the *Medical Register*. 7. Conditions and manner under or in which medical practitioners are struck off the *Medical Register*. 8. Privileges of registered practitioners. 9. Disabilities of unregistered practitioners. 10. Position of medical practitioners so registered in Her Majesty's possessions out of the United Kingdom. 11. Position in the United Kingdom of medical practitioners educated in Her Majesty's possessions out of the United Kingdom, or in a foreign State. 12. Constitution of Medical Council. 13. Functions of Medical Council. 14. Powers of Medical Council. 15. Procedure of Medical Council. 16. Relations of the Medical Council to the universities, colleges, and bodies, and to the medical profession. 17. The results of the Medical Act, 1858, and its amending Acts, and into all matters dealt with by those Acts."

As is known, Sir James Paget, Dr. Acland, and Mr. Erichsen have been examined; the first two had already given well-known evidence before the Select Committee. The wording of the letter is rather unfortunate; but of this we may say more at a future time.

THE IRISH MEDICAL ASSOCIATION.

THE annual meeting of this Association was held, in accordance with usual custom, on Monday, June 6th, that being the day on which the annual election at the Royal College of Surgeons in Ireland, and also the meeting of the Royal Medical Benevolent Fund Society of Ireland, take place. Dr. McClintock, President of the College of Surgeons, entertained about one hundred members of the Association and a few private friends at breakfast, at the Shelbourne Hotel, at 9 o'clock.

The President of the Association, Dr. Chapman, took the chair at the meeting shortly after noon, and the report of the Council was then read. This was an ably prepared document, and gave a detailed account of the subjects which had come under the notice of the executive of the Association, and the action that body had taken thereon, during the year. Amongst others, these subjects comprised the Registration of Births and Deaths Amendment (Ireland) Act; the Medical Charities Amendment Bill; the Medical Reform Bills; the superannuation of Poor-law medical officers; the notification of infectious diseases; the Lunacy Law Assimilation Bill; a Bill to establish a fund for making provision for the widows and orphans of medical officers of unions in Ireland; and the Coroners' (Ireland) Bill. An important judgment, establishing the legality of claiming fees for revaccination performed by a dispensary medical officer within his district, was obtained by the Association; and the watchfulness of its Committee of Council in behalf of the interests of every member of the profession is apparent in every other subject dwelt upon in the report. An unpleasant subject of a personal nature having been brought forward as an amendment to the adoption of the report, and much time lost in discussing the matter, the amendment was, with permission of the meeting, withdrawn. A second amendment, objecting to the proposal in the report to strike off from the list of members a number of defaulters whose subscriptions for two or more years, in spite of repeated application, were unpaid, was lost. A third amendment, proposing to omit from the report certain paragraphs in it relating to the subject of the notification of infectious diseases, was then proposed, in the temporary unavoidable absence of the President of the Royal College of Surgeons, by Dr. Robert McDonnell, and seconded by Dr. J. W. Moore. The object of this amendment was to express the dissent of certain members of the Association from the course adopted by its executive in blocking legislation on the subject. By so doing, it was argued, the Association had prevented Mr. Gray's Bill from being either amended or considered in any way whatsoever. They had thereby also incurred the responsibility of delaying the introduction of a measure calculated to save life and check the spread of epidemic disease, the advantages of which the Association had officially recognised and affirmed. An animated debate, lasting nearly two hours, ensued. The usual arguments, *pro* and *con*, were adduced. It was stated that professional opinion, by its representatives and numerically, was against direct notification by the medical attendant to the sanitary authority, as proposed in Mr. Gray's Bill; and that, as he would accept no modification to such method of notification, the Association was justified, in the interests of the profession, in opposing the Bill altogether. On a division, the amendment was lost by a majority of twelve; the voting being eleven for and twenty-three against it. Owing to the late hour at which the division was taken, several members had to leave before voting. The report was then adopted in its entirety, as were also several resolutions bearing on the different subjects referred to in it. Finally, a resolution was most cordially passed, tendering the best thanks of the Association to the retiring President, Dr. John H. Chapman, not only for his dignified conduct as President, but for the great interest he has invariably taken in the welfare of the Association, and the constant and invaluable services which he has for many years given to the objects to which the Association is devoted.

The following officers were elected for the year ending May 31st, 1882. *President:* Dr. Banks, Dublin. *Vice-Presidents:* Leinster—Dr. Bellew Kelly, Drogheda; Ulster—Sir William Miller, Derry; Munster—Dr. Parsons Berry, Mallow; Connaught—Dr. H. O'Farrell, Boyle. *Council:* Drs. Boyce, Stillorgan; R. Browne, Rathmines; J. H. Chapman, Dublin; H. G. Croly, Dublin; Darby, Bray; Drapes, Enniscorthy; Filson, Portaferry; R. Gray, Armagh; J. R. Harvey, Dublin; Hayes, Naas; A. H. Jacob, Dublin; David Jacob, Maryborough; Kidd, Dublin; Kinkead, Galway; James Martin, Portlaw; R. M'Donnell, Dublin; F. V. M'Dowell, Baltinglass; Molony, Tulla; G. Morough, Dublin; Nolan, Gort; C Norman, Monaghan; Perceval, Stradbally; Pollock, Blackrock; George H. Porter, Dublin; T. Purcell, Dublin; J. Ridley, Tullamore; Sharkey, Ballinasloe; H. J. Smith, Donaghmore; Spencer, Dungloe; Tagert, Monkstown; W. Thomson, Dublin; Walshe, Kilmacthomas. *Auditors:* Dr. Albert Croly, Rathfarnham; and Dr. H. Colpoys Tweedy, Dublin.

In the evening the annual dinner of the Association was held in the Albert Hall of the College of Surgeons. Dr. Banks presided, and among those present were—the Right Hon. the Lord Mayor, Sir George Owens, M.D., the High Sheriff of Dublin, the Right Hon. Edward Gibson, M.P., Mr. Brooks, M.P. for the city; Mr. Meldon, M.P., the President of the College of Surgeons; Dr. Croker King, Local Government Board; Mr. Porter, Surgeon to the Queen in Ireland; the President, Dr. Hayden, and the Honorary Secretary, Dr. Duffey, of the Dublin Branch British Medical Association; Dr. Chapman, Dr. Jacob, etc.

WORTLEY RURAL (NO. 1) DISTRICT.—There was an improvement in the death-rate of this division of the Wortley Union during 1880, and very little disease of an infectious kind was noticed. There were "a few outbreaks of scarlatina, measles, and whooping-cough, but none of serious import". The persons amongst whom the greatest diminution of deaths occurred were children between the ages of one and five years, the deaths among this class being only half what they were in 1879. Some of the townships have been furnished with a proper water-supply; but there are others still unsupplied, and Dr. Drew draws attention to the "extreme desirability of providing good and plentiful water" for these. He also very properly urges that urban powers should be obtained for the more populous places in the district.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION:

FORTY-NINTH ANNUAL MEETING.

THE Forty-Ninth Annual Meeting of the British Medical Association will be held at Ryde, Isle of Wight, on Tuesday, Wednesday, Thursday, and Friday, August 9th, 10th, 11th, and 12th, 1881.

President.—G. M. HUMPHRY, M.D., F.R.S., Professor of Anatomy in the University of Cambridge; Senior Surgeon to Addenbrooke's Hospital.

President-elect.—BENJAMIN BARROW, F.R.C.S., Consulting-Surgeon to the Royal Isle of Wight Infirmary.

An Address in Medicine will be delivered by JOHN SYER BRISTOWE, M.D., F.R.S., F.R.C.P., Senior Physician to St. Thomas's Hospital.

An Address in Surgery will be delivered by JONATHAN HUTCHINSON, F.R.C.S., Senior Surgeon to the London Hospital.

An Address in Obstetric Medicine will be delivered by JOHN G. SINCLAIR COGHILL, M.D., F.R.C.P.Edin., Visiting Physician to the National Hospital for Consumption, Ventnor.

The business of the Association will be transacted in Four Sections and one Subsection, viz.:—

SECTION A. MEDICINE.—*President:* Edward Long Fox, M.D., Clifton, Bristol. *Vice-Presidents:* W. Withers Moore, M.D., Brighton; Bushell Anningson, M.A., M.D., Cambridge. *Secretaries:* William Hoffmeister, M.D., Townsend House, Cowes, Isle of Wight; Robert Saundby, M.D., 71, Newhall Street, Birmingham.

SECTION B. SURGERY.—*President:* W. Martin Coates, M.R.C.S., Salisbury. *Vice-Presidents:* Charles Macnamara, F.R.C.S., London; Alexander G. Davey, M.D., Ryde. *Secretaries:* Ed. Allan Waterworth, M.D., 40, Quay Street, Newport, Isle of Wight; Herbert W. Page, M.A., M.B., 146, Harley Street, London.

SECTION C. OBSTETRIC MEDICINE.—*President:* Sir E. B. Sinclair, M.D., Dublin. *Vice-Presidents:* John Livesay Whitehead, M.D., Ventnor; Edward Malins, M.D., Birmingham. *Secretaries:* Robert Cory, M.D., 14 Palace Road, Albert Embankment, S.E.; James Mann Williamson, M.D., South Cliff Cottage, Ventnor, Isle of Wight.

SECTION D. PUBLIC MEDICINE.—*President:* Arthur Ransome, M.D., Bowden, Cheshire. *Vice-Presidents:* George Wilson, M.D., Leamington; William Armistead, M.B., Cambridge. *Secretaries:* James Neal, M.D., Barcelona House, Sandown, Isle of Wight; H. Aubrey Husband, M.B., 13, Northumberland Street, Edinburgh.

SUBSECTION: OTOLOGY.—*Chairman:* Urban Pritchard, M.D., London; *Secretaries:* E. Cresswell Baber, M.B., 4, Preston Street, Brighton; W. Douglas Hemming, F.R.C.S., Glenalmond, Bournemouth.

Honorary Local Secretaries.—J. M. Pletts, M.D., Kent House, Melville Street, Ryde, Isle of Wight; W. E. Green, Esq., Belgrave House, Sandown, Isle of Wight; Joseph Groves, B.A., M.B., Glen Cottage, Carisbrooke, Isle of Wight.

TUESDAY, AUGUST 9TH, 1880.

2 P.M.—Meeting of Committee of Council.
2.30 P.M.—Meeting of the Council of 1880-81.
4 P.M.—Short service, with sermon by Bishop McDougall.
8 P.M.—General Meeting in the Town Hall. President's Address; Annual Report of Council and other business.

WEDNESDAY, AUGUST 10TH.

9.30 A.M.—Meeting of Council of 1881-2.
11 A.M.—Second General Meeting in the Town Hall. Address in Medicine.
2 to 5 P.M.—Sectional Meetings.
9 P.M.—Soirée in the Town Hall by the Mayor and the inhabitants of Ryde and neighbourhood.

THURSDAY, AUGUST 11TH.

9 A.M.—Meeting of the Committee of Council.
10 A.M.—Third General Meeting in the Town Hall. Reports of Committees.
11 A.M.—Address in Surgery.
2 to 5 P.M.—Sectional Meetings.
6.30 P.M. Public Dinner in the Town Hall.

FRIDAY, AUGUST 12TH.

10 A.M.—Address in Obstetric Medicine in the Town Hall.
11 A.M.—Sectional Meetings.
1.30 P.M.—Concluding General Meeting in the Town Hall. Reports of Committees and other business.
4 P.M.—Garden party in the grounds of the Isle of Wight College, by the President-elect and Mrs. Barrow.

The following subjects have been arranged for discussion in the various Sections.

SECTION A.—MEDICINE.

1. Dr. Wade will open a discussion on Dilatation of the Stomach. 2. Dr. Gowers on Acute Spinal Paralysis. 3. Dr. Lauder Brunton, F.R.S., on Jaundice.

SECTION C.—OBSTETRIC MEDICINE.

1. A discussion will be opened by Dr. Malins on the Removal of the Ovaries: *a*, for Dysmenorrhœa; *b*, for Fibroid Tumours.

2. Dr. Sinclair Coghill will open a discussion on the Mechanical Treatment of Uterine Flexions and Displacements.

SECTION D.—PUBLIC MEDICINE.

1. Mr. Ernest Hart will open a discussion on Vaccination with Calf-lymph, in which it is expected that Dr. Warlomont of Brussels and Dr. Martin of Boston will take part.

2. Dr. William Strange will open a discussion on the Origin and Diffusion of Enteric Fever and Diphtheria.

3. Infectious Diseases, and how to deal with them under the Public Health Act in the best interests of the patients and of the public.

4. Considerations with regard to Infectious Hospitals: what changes are required in their character, size, site, management, etc.

5. Cremation.

SUBSECTION—OTOLOGY.

1. The Relation of Diseases of the Nasal Passages and Naso-pharynx to Aural Affections.

2. The Treatment of Acute Suppurative Inflammation of the Middle Ear, with especial reference to Perforation of the Mastoid.

ANNUAL MUSEUM.

THE forty-ninth annual museum of the British Medical Association will be held at the School of Art on August 9th, 10th, 11th, and 12th, and will be open daily from 10 A.M. until 6 P.M., for the exhibition of the following objects:

1. Latest Inventions in Medical and Surgical Instruments and Appliances of all kinds, including No. 4.

2. New Chemicals and Apparatus; New Drugs and their Preparations; and New Articles of Diet for Invalids.

3. Drawings, Diagrams, or Models illustrating the Ventilation of Hospitals and Private Dwellings.

4. Microscopes, Thermometers, and other Instruments of Investigation.

5. Pathological Specimens.

6. New Medical Books.

The following is a list of the Museum Committee: Dr. Davey (Chairman), Ryde, Isle of Wight; Dr. Whitehead, Ventnor, Isle of Wight: Dr. Neal, Sandown, Isle of Wight; Mr. Modlin, Shanklin, Isle of Wight; Mr. Evelyn Rich (Honorary Secretary), Temple House, Ryde, Isle of Wight.

NOTICE OF MOTION.

Notice is hereby given that, at the Annual Meeting to be held in the Town Hall, Ryde, on Tuesday, the 9th day of August next, at 8 o'clock in the afternoon, Mr. Arthur Jackson will move, and Dr. Grigg will second, an alteration of the By-laws, of which the following is a copy:

Election of Members.—1. In fifth line, and after "Committee of Council", "if he do not reside in the district of any Branch, in which case his name must be brought before, and be approved by, the Council of that Branch".

BRANCH MEETINGS TO BE HELD.

MIDLAND BRANCH.—The annual meeting of this Branch will be held at the Infirmary, Leicester, on Thursday, July 14th, at 2 o'clock. Members wishing to read papers are requested to communicate with Mr. FRANK H. HODGES, Honorary Secretary for Leicestershire; or with C. HARRISON, M.D., Lincoln, Honorary Secretary Midland Branch.

SOUTH-WESTERN BRANCH.—(*Amended Notice.*)—The annual meeting will be held in Druid's Hall, Redruth, on Wednesday, June 29th, at 11.15 A.M. R. Hogarth Clay, M.D., President, will resign the chair to R. Hudson, M.D., President-elect. An address will be delivered by Mr. William MacCormac, Surgeon to St. Thomas's Hospital, London. After the meeting, luncheon will be provided at 1s., Trewirgie Road. Excursions will be arranged for the afternoon. Dinner at Tabb's Hotel at 6 P.M. Members intending to make communications, or to be present at the dinner, are requested to send notice to S. REES PHILIPPS, M.D., Honorary Secretary, Wonford House, Exeter.

LANCASHIRE AND CHESHIRE BRANCH.—(*Amended Announcement.*) The annual meeting of this Branch will be held at the Town Hall, Preston, on Wednesday, June 29th, at 2 P.M. The Council will meet at 1 P.M. The President-elect, Dr. R. C. Brown, very kindly provides a light lunch for the members at the place of meeting. Dr. Ransome will call attention to the scheme for combined investigation proposed by the Committee of Council. The following papers will be read: Dr. Grossman: On Ophthalmia Neonatorum. Dr. Dixon Mann: On Electro-Diagnosis. Dr. Haddon: On Idiopathic Ulcerative Endocarditis. Mr. W. Whitehead: Case of Excision of Thyroid Gland; and on a New Method of Amputating the Leg. Dr. A. Waters: Analysis of a Series of Cases of Pneumonia. Dr. Lloyd Roberts: Piliferous Cyst of Ovary. Mr. Rushton Parker: Plastic Operations for Extrophy of the Bladder with Epispadias. Mr. Farrar: Case of Simulated Tumour. Dr. Thorburn: A New Obstetric Forceps. Dr. Walter: An Electric Battery for Obstetric Use. Dinner at 5.30 P.M., at the Bull Hotel. Tickets 7s. 6d., exclusive of wine.—A. DAVIDSON, Honorary Secretary, 2, Gambier Terrace, Liverpool.—June 6th, 1881.

SOUTHERN BRANCH.—The eighth annual meeting will be held at the George Hotel, Portsmouth, on Wednesday, June 15th, 1881. The President-elect has kindly undertaken to provide refreshments at the Hotel. The general meeting will commence at 12 o'clock. Members desirous of reading papers or other communications at this meeting are requested to forward the titles to the Honorary Secretary before the 10th of June. No communication must exceed seven minutes in length, and no subsequent speech must exceed five minutes. The address will be delivered by the President-elect at 2 P.M. During the afternoon an excursion will be made on the water (weather permitting) in a steam vessel, kindly placed at the service of the members by Admiral Ryder, Commander-in-Chief. The dinner will take place at the Royal Southsea Beach Mansions Hotel at 5.30 P.M. Tickets 12s. 6d. each, including light wine. The committee request that those gentlemen who intend to be present at the dinner will send in their names on or before Monday, the 13th instant.—J. WARD COUSINS, M.D., Honorary Secretary and Treasurer.

EAST ANGLIAN BRANCH.—*President:* F. S. Worthington, Esq. *President-elect:* Charles Palmer, Esq., Senior Surgeon Great Yarmouth Hospital. The annual meeting of this Branch will be held at the Guildhall, Great Yarmouth, on Thursday, the 16th inst., at 2.30 P.M. Gentlemen who are desirous to read papers, or to bring any subject before the meeting, are requested to give early notice to one of the Honorary Secretaries. Dinner at 6 P.M.; tickets, exclusive of wines, for dinner and dessert, 7s. 6d. —M. BEVERLEY, M.D., Norwich; W. A. ELLISTON, M.D., Ipswich, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT. The third annual meeting of this District will be held at the Royal Forest Hotel, Chingford, on Thursday, June 16th, 1881, at 5 P.M.: Dr. Stephen Mackenzie in the chair. Business: 1. Election of Honorary Secretary. 2. Dr. Tidy will read a paper entitled "Some Points of Medico-legal interest relating to Burns." The members and their friends will dine together at half-past six o'clock. Tickets (eight shillings each inclusive of attendance, and exclusive of wine) may be had on application to the Honorary Secretary. To prevent inconvenience, members are urgently requested to apply for tickets not later than the 13th instant. The Royal Forest Hotel adjoins Queen Elizabeth's Hunting Lodge, and is about three minutes' walk from Chingford railway station. FREDERICK WALLACE, District Secretary.—7, Cazenove Road, Upper Clapton, June 7th.

EDINBURGH BRANCH.—The annual general meeting of this Branch will be held at 5, St. Andrew Square, on Tuesday, the 28th instant, at four o'clock. CHARLES E. UNDERHILL, Honorary Secretary.

CAMBRIDGESHIRE AND HUNTINGDONSHIRE BRANCH.—The annual meeting of this Branch will be held at Huntingdon, on Friday, June 24th; HERBERT LUCAS, Esq., President-elect. Members intending to make any communications should forward the titles as soon as possible.—BUSHELL ANNINGSON, M.D., Honorary Secretary.—Cambridge, May 7th, 1881.

BATH AND BRISTOL BRANCH.

THE sixth ordinary meeting of the session was held at the Grand Pump Room Hotel, Bath, on Thursday evening, May 19th; ALEXANDER WAUGH, Esq., President, in the chair. There were also present thirty members and one visitor.

New Members.—Messrs. C. H. Orfeur of Westtown, A. N. G. Gibbs of Bristol, and Reginald Pratt of Bath, were elected members of the Association and of the Branch.

The Late Dr. Falconer.—Mr. Mason proposed, Dr. Goodridge seconded, and Mr. Fowler supported the following resolution:

"That this Branch records its deep sense of the distinguished services rendered to the Association by the late Dr. Falconer, and of his constant devotion for many years to its interests, and of the irreparable loss sustained by his sudden death; and that a letter expressing these sentiments and of condolence be at once forwarded to the family."

Communications.—Mr. R. J. Scott exhibited a patient from whom the almost entire lower jaw had exfoliated, but was being replaced by bony substance.

Dr. Shingleton Smith made remarks on a case in which gall-stones were suspected, and a large dose of olive-oil was administered, resulting in the ejection from the bowel of some hundreds of small bodies resembling gall-stones, but evidently, on examination, simple pieces of saponaceous matter.

Dr. Shingleton Smith also read a paper on a case of Lymphadenoma, which led to an interesting discussion, in which Mr. Bartrum, Dr. Cole, Dr. E. L. Fox, and Dr. Goodridge took part.

NORTH OF ENGLAND BRANCH: SPRING MEETING.

THE spring meeting was held at the Grand Hotel, Tynemouth, on Thursday, April 28th; Mr. G. B. MORGAN, President, in the chair.

New Members.—Dr. J. W. Beattie of North Shields, Dr. R. D. Brunskill of Coxhoe, Dr. J. Campbell of Ebchester, Mr. R. Davis, jun., of Low Fell, Mr. A. Doyle of Murton, Dr. C. M. Goyder of Newcastle, Dr. J. Mackenzie of Bearpark, and Mr. J. R. Sutherland of West Rainton, were elected members of the Association and Branch; and Dr. E. M. Swanwick of West Hartlepool, being already a member of the Association, was elected a member of the Branch.

Papers.—The following papers were read:

1. Dr. Eastwood gave an interesting account of the working of the Habitual Drunkards' Act, 1879; and the President, Dr. Philipson, and Dr. Auburn Wilkinson, spoke on the subject, and commended the objects of the Act.

2. Dr. Philipson read an able paper on Hæmorrhagic Infarction of the Lungs.

3. Dr. Adamson related a very interesting case of Trephining for Epilepsy. He also showed the Kidneys removed from a patient suffering from Cystic Degeneration of those organs.

4. Dr. W. H. Dixon read notes of a case of Disseminated Sclerosis of the Spinal Cord, and showed the patient. Dr. Byrom Bramwell made some remarks on the case.

5. Mr. C. S. Jeaffreson showed an Electro-galvanic Apparatus for Extracting Metallic Foreign Bodies from the Interior of the Eyeball, and showed a piece of steel which he had extracted with it from the posterior chamber of the eye of a patient (who was present), the eyesight having been saved.

Dinner.—The members and their friends, to the number of twenty-six, afterwards dined together at the Grand Hotel; the President, G. B. Morgan, Esq., in the chair, and the Honorary Secretary in the vice-chair.

SPECIAL CORRESPONDENCE.

PARIS.

Death of M. Littré.—Sir J. R. Cormack.—The New Clinique d'Accouchement.—Additional Chairs in the Faculty of Medicine.—Municipal Laboratory.

You will have heard of the death of M. Littré, the great philosopher and lexicographer, which took place at his residence in Paris, after a long illness, in the 81st year of his age. M. Littré began his studies in medicine, and was even an *interne* in the hospitals, but his tastes having turned towards the study of languages, he gave up medicine and devoted himself entirely to science. Though strictly speaking not a medical man, yet he has written some of the most remarkable works in medicine and physiology. He founded, in conjunction with Andral and others the *Journal Hebdomadaire de Médecine*, of which he was the principal editor, till 1830, when the revolution broke out, in which he took an active part. Thenceforward he took to politics; but this did not prevent his turning his active mind to other subjects in literature and general science. He was one of the first and most ardent disciples of Auguste Comte, the famous positivist, but he surpassed his master and friend, and professed a positivism even more positive than that taught by Comte, his theories being more rational and founded on the nature of man. Among his principal works may be mentioned, his translation of the writings of Hippocrates, which was begun in 1839 and was only completed in 1861. Another monumental work of his, the *Dictionnaire Français* which he began in 1844 and finished in 1877, is now the standard dictionary of the French language. His *Dictionnaire de Médecine, de Chirurgie, et de Pharmacie*, which he published in collaboration with M. Robin, the eminent professor of histology, is one of the best works of its kind, and he published several works on positive philosophy in its relations with politics. He was a member of the Academy of Sciences; and in 1875 he was elected permanent member of the French Senate. Though reputed to be a free thinker and atheist, he was very liberal-minded, and always respected the religious and political opinions of others, and as one of the proofs of his liberal-mindedness may be mentioned his protest of the crusade against the church, and of the famous "Article 7", the object of which was to "laicise" the country, which he condemned as impolitic, illiberal, and inconsistent with the true principles of republicanism. His funeral took place yesterday in the midst of a large concourse of friends and admirers, but a scandalous scene took place between the positivists and spiritualists over the remains of the illustrious defunct savant which, of course, interfered with the solemnity of the occasion, and did not reflect much to the credit of the free-thinkers.

Sir John Rose Cormack, who had been ailing and confined to his room for some weeks, has, I am happy to say, quite recovered, and resumed his professional work with the zeal and earnestness characteristic of this well known physician. It is to be hoped that his life may long be spared to his family, and to his numerous friends and patients.

M. Antoine Dubois, the celebrated accoucheur was, after a severe competition, appointed in 1834 Clinical Professor of Obstetrics in Paris. It was the first appointment of the kind, and to him the Paris school is indebted for the introduction of obstetrical medicine as a regular branch of the curriculum of medical studies. He had for several years taught obstetrics at the old "Clinique d'Accouchement", now

pulled down, where his lectures used to be well attended, and he turned out obstetricians, who in their turn also became celebrated. Among these were Professsrs Depaul and Pajot, and the late Dr. Campbell. Professor Depaul succeeded to his master's chair, and to him has devolved the honour of opening the new "Clinique d'Accouchement", which had just been completed in the neighbourhood of the Luxembourg Gardens, in doing which, in the presence of the Dean of the Faculty and a large number of medical students and practitioners, he paid a just tribute to the memory of his revered master, and referred with pride, to the world-wide reputation the Paris school had acquired for its obstetrical teaching and practice. The new hospital is composed of 18 wards for lying-in women and their new-born babes, each containing 8 beds and cradles, and each patient having a cubic space of 70 metres or about 230 cubic feet. There is also a ward of 13 beds for gynæcological patients. The amphitheatre contains only 120 places, which is far from sufficient for the number of students and practitioners who frequent this Clinic. Professor Depaul pointed out the inadequacy of one such clinic to meet the requirements of such a large school as that of Paris, where there are about 600 aspirants annually for the doctorship, without counting those destined for "Officers de Santé" and Sages-femmes, and impressed upon the authorities the necessity for having at least another "Clinique d'Accouchement." He also took the opportunity of recommending the resumption of the "concours" or competitive examinations for the different professorships, which had in former times produced such remarkable teachers at the Faculty of Paris.

Professor Depaul's recommendation for a second chair of clinical obstetrics has been taken into favourable consideration, and unanimously voted by the Council of the Faculty of Paris, and another chair for nervous diseases proposed to be instituted at the Salpêtrière Hospital has also been voted by the council. Four other chairs, viz.: Dermatology, Public Sanitation, International Hygiene, and Medical Toxicology were also proposed, but rejected by the Faculty as being superfluous.

The Municipal Laboratory just opened in Paris has already done good, and given proof of its great utility. It is open to the public, and for a small fee anybody can have analysed, samples of food, drinks, or anything connected with public hygiene. Among the articles in which adulteration was chiefly detected were wine, butter, and milk. The adulteration of wine consists principally of its being coloured with fuschine, and in many cases it does not contain a particle of the juice of the grape. Milk is deprived of its cream and abundantly watered, and butter is frequently composed of anything but the ingredients of milk. Several samples of butter were found to be made with oil or suet, which were easily separated and shown to the visitors who accompanied the Prefect of Police to witness the experiments that were being performed in the laboratory. In a sample that was exhibited as cream, which appeared as natural as possible, and of excellent flavour, was declared to have been manufactured with the residue of some red dye mixed up with oil and sulphuric acid in certain proportions. Some children's toys were examined, and those painted with red and blue were almost always found to contain poisonous substances, consisting principally of lead and copper. Even articles of perfumery were examined which brought to light the most extraordinary examples of the skill brought into requisition for the accomplishment of fraudulent practices, for in several samples of scents of the most exquisite perfume they were found to be manufactured with other material than the essential oils of the flowers which they were intended to represent. But the most important discovery made was the presence in the nipple of some feeding bottles of a mass of vegetation of cryptogamic nature, which according to Dr. Faurel bears a great analogy to the aphthous condition of the mouth frequently found in infancy, and he has induced the Academy of Medicine to investigate the matter, as he believes the condition referred to, to be the origin of the intestinal affections, and particularly that form called "athrepsia", to which infants brought up by the bottle are subject. The entertainment, or rather the *conversazione*, wound up with refreshments, and M. Wurtz, the eminent professor of chemistry made some very interesting observations on the great utility of the laboratory, and made a strong recommendation to M. Jules Ferry, the Minister of Public Instruction, who was also present, in favour of the establishment of similar laboratories in the principal cities throughout France.

SOCIETY FOR THE RELIEF OF THE DESTITUTE SICK IN EDINBURGH.—From the half-yearly report of this excellent Society, it is seen that, during the last six months, £1,356 14s. 2d. have been spent in alleviating the distress entailed by disease on the deserving poor. This relief was given in the form of money, meal, coals, and clothing.

MANCHESTER.

Provident Dispensaries.—Private Dispensaries.

PROVIDENT dispensaries are just now attracting a good deal of attention in Manchester, and an animated discussion on them took place at a recent meeting of the Medico-Ethical Society. They are widely spread and well organised, and since their establishment the number of out-patients at the leading hospitals has shown a decided diminution, but so has the income of many practitioners. At the meeting, much dissatisfaction was expressed at the present income scale of admission. Formerly none were allowed to become members of provident dispensaries who earned more than thirty shillings a week; of late the limit has been raised to forty shillings. Then too, an objectionable system of touting for members has been carried on by the agents and collectors connected with the dispensaries. It is certain, that a large majority of the medical practitioners in Manchester, are decidedly opposed to the provident dispensaries as at present conducted.

There has been a large development recently of the so-called private dispensaries in Manchester. They are for the most part miserable cloaks for degrading practice. The public are informed at these so-called dispensaries, that for sixpence they shall receive both attendance and medicine. Practically such notifications are simply advertisements by practitioners, legally qualified, that they value their advice to patients at less than sixpence, for they include the medicine. Is there a lower depth to which medical men can descend? Provident dispensaries have a good purpose to serve. Private dispensaries are usually miserable subterfuges for scraping together a little pelf.

BIRMINGHAM.

[FROM OUR CORRESPONDENT.]

Conversazione at the Medical Institute.

ON the evening of June 3rd, the Medical Institute was, for the first time, thrown open to receive the members of the profession at a social gathering. The occasion was a *conversazione* given by Dr. Foster, chairman of the Pathological Section of the local Branch of the British Medical Association. There were about 300 guests present. The Library Hall was used for a reception room, the hall and staircase leading to it being decorated with foliage and other plants. Among the many objects of interest, the micro-photographs of Dr. Norris, illustrating the development of the blood, attracted great attention. Mr. Priestley Smith showed a very ingenious instrument for determining the volume of the lens, on the principle of fluid displacement. Dr. MacMunn demonstrated the spectroscopic characters of the biliary and other pigments. Mr. Parkes showed some beautiful medical microscopes; and I had the opportunity, for the first time, of examining Kellner's eye-piece—a great improvement on the old pattern, which it promises to supersede. Messrs. Salt and Son, Messrs. Southall Brothers, Messrs. P. Harris and Co., Messrs. Burroughs, Wellcome, and Co., Mr. Lancaster, Mr. Best, and Mr. Potts kindly exhibited a number of interesting and useful articles, among which the ladies' sanitary towels of Messrs. Southall, the naso-oval respirators for medicated inhalations of Mr. Best, the McKesson and Robbins ovoid pills, Hazeline and Burrough's ammonia inhaler, for generalising the vapour of chloride of ammonium of Messrs. Burroughs, Wellcome, and Co., attracted a very large share of attention.

ABERDEEN

[FROM OUR CORRESPONDENT.]

Practical Work at Aberdeen University.

THE rapid and steady growth of the Aberdeen Medical School has caused very considerable alterations and improvements to be made within the granite walls of Marischal College. To meet the growing desire for practical instruction in almost all the branches of scientific and medical education, class rooms have been converted into laboratories, and new museums and laboratories have been added. The Professor of Botany, in addition to his systematic class, has a large class for the study of microscopic botany. The weekly excursions in search of plants have commenced, and are largely attended. The Professor of Natural History has unprecedentedly large classes, both systematic and practical. The practical class is so large that one section of it meets in the large museum. Nearly one hundred men are engaged in dissecting a series of selected types. Each man has a pigeon, frog, skate, lobster, or other creature, which he must dissect. Many improvements have been effected in the physiological laboratory, more especially

for the study of histology, normal and morbid. The class is large, and as the rooms, microscopes, and other apparatus are at the disposal of the students, except during the class hours, considerable advantage accrues to the students, who have the opportunity of studying their specimens at their leisure. In the classes of practical zoology and physiology, the students are required to make drawings of the dissections or preparations which they make.

In the anatomical department, important changes have been made whereby a large new dissecting room, replete with every modern improvement, is about to be added. Next winter session a large, spacious, well-lighted, and efficiently-ventilated dissecting room will be opened, and this department will be surpassed by few, if any, of the anatomical departments in the kingdom. At present the number of students is so large that the anatomical museum has to be used temporarily as a dissecting room. The other classes—practical chemistry, pharmacy, pathology, dentistry, toxicology, and ophthalmology—are well attended.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

Small-pox in Glasgow.—The University Classes and Examinations.—Extension of the Western Infirmary.—Excision of the Larynx.—Combe Physiology Lectures.

THE Board of Supervision has issued a circular, dated May 26th, in which the attention of the sanitary authorities is drawn to the great danger, at present existing, of small-pox becoming widely spread, or epidemic in Scotland, in consequence of its prevalence in London, and from the large numbers of foreign emigrants (mostly unvaccinated) passing through Scotland on their way to America. This last source of danger has only recently come to the front, and we are indebted in great measure to Dr. Russell, the medical officer of health in Glargow, for the prompt action which has been taken to meet it. He was led to move in the matter by the discovery of some cases of small-pox among a batch of foreign emigrants, who had been landed at Leith from Hungary, and were then conveyed to Glasgow for transmission to the United States. Thanks to the very excellent arrangements introduced by Dr. Russell for the notification of infectious diseases, within twenty hours these cases of small-pox were transferred to the Belvidere Hospital, and in this way their chance of spreading further mischief was minimised. Dr. Russell lost no time in bringing the matter before the proper authorities, and as a result of what has been done it seems probable that in the future the risk of an outbreak from such a source will be much lessened, as it is proposed to have an emigration depôt in Glasgow, for the medical inspection of emigrants who enter the city, and negotiations have been entered into with the shipping agents and boarding-house keepers to report at once any cases of illness occurring among the emigrants with whom they have to deal. Meanwhile, among the public themselves in Glasgow there is prevalent a very general desire to be re-vaccinated, among those who have not been done since infancy. It is worthy of remark that, while in the early days of vaccination the popular fear was that some of the diseases to which animals are subject might be transmitted by the lymph of cow-pox to the human being the popular notion now is more in concert with medical opinion, and in favour of the calf-lymph, lest from the human lymph any harm should accrue. It is a subject of congratulation to see the common sense of the community aiding the sanitary authority by a sound public opinion.

At the University all the summer classes in the Faculty of Medicine are in full working order and are very numerously attended. The class of Botany, under Professor Isaac Balfour, numbers about 200, and Professor McKendrick's Practical Physiology Class is as popular as ever. In connection with it it may be noted that Dr. J. Macgregor Robertson has succeeded Dr. Barlow as Muirhead Demonstrator of Physiology. Dr. Robertson has worked during the past winter in Du Bois Reymond's Laboratory at Berlin. The final professional examination for the University Medical Degrees commence on June 14th. At the professional examinations held in April last, it appears that of the 87 candidates for the first examination only 38 passed, while of the 84 candidates for the second examination and of the 51 for the third, only 56 and 33 respectively were successful. Thanks to Mrs. Randolph's liberality in providing during her life-time the sum of £20,000, building operations are in rapid progress in connection with the Randolph as well as the Bute Hall. It is hoped that they may both be ready for use by the winter session of 1882, and an effort will be made to get the newly appointed Rector—Mr. John Bright—to deliver his address at the opening of these new buildings.

On the afternoon of Wednesday, June 1st, the new wing of the Western Infirmary, which has been added through the munificence of the late Mr. John Freeland, was opened. This wing, which has been finished at a cost of £40,000, is on the east side of the main building, and contains about 200 beds, which just doubles the accommodation of the infirmary. The new wards are bright and cheerful, and well arranged. There was a very large attendance of the general public, and also of the medical profession, and all were unanimous in their expressions of satisfaction. In the course of the speeches, statistics were produced a show that contrasting Glasgow with other large towns the amount of hospital accommodation was deficient, for while Dublin possessed one bed for every 200 of the population, and Edinburgh one for every 400, Glasgow had only one for every 700.

The case of Excision of the Larynx by Dr. Foulis, which was noted in the JOURNAL for May 7th, has, up to the present, proved successful. The operation was performed on April 30th at the Glasgow Training Home for Nurses, and the patient has so far recovered as to be able to leave that institution. The case differs from the previous successful case of Dr. Foulis, in that in the present instance the operation was performed for malignant disease, and the patient was a man somewhat advanced in years.

The course of Combe Lectures on Physiology, which have been recently delivered by Dr. Andrew Wilson, in Glasgow, were brought to a close on June 6th. These lectures—fifteen in number—have been most successful, and have been very largely attended by the general public and also by many of the Glasgow teachers. This last fact is a sincere matter of congratulation, as the teaching profession are a powerful means for disseminating a better knowledge of the laws of health. If they take up in earnest the study of Physiology and obtain a thorough acquaintance with it, they can reach the masses of the young, and can impart to them instruction and information which will bear good fruit in after years. The average attendance at each lecture has been 350.

MELBOURNE.

THE inhabitants of Melbourne are supplied with drinking-water by a stream called the Plenty River, running into the Yan Yean Reservoir. The supply is brought into Melbourne from a great distance, and is laid on to all houses for all domestic purposes. For a long time past, complaints have been made in Parliament and in the public press of the dangerous character and loathsome peculiarities of the water. Recently these complaints have revived, but in a more forcible tone. An inquiry into the present condition of the water, and an examination of the same, have exposed an alarming state of things. The samples collected were unsightly and of a turbid opalescence, combined with a mawkish taste, an unpleasant and repulsive odour. Its character seems to suggest that of putrefactive decomposition of matter of animal origin. The medical officer of health considers the water wholly non-palatable. The large quantities of ammonia, of nitrates and nitrites, show that the water has been extensively impregnated by organic matter, and that it has reached a point of contamination which makes it dangerous. Dr. Girdlestone asserts that, taken internally, it lowers and depresses the vital powers, is very liable to cause gastric derangements, diarrhœa, dysentery, and typhoid fever. The causes of the present state, among other things, are attributed to the pollution of the water by animal and human excreta, which, from the fact of the land traversed by the water-channel includes a town common, on which cattle are permitted to graze and stand about in the watercourses. Filtering the water, a method adopted by most householders, helps to clear, but cannot remove, germs of disease. Lime and alum, a few grains to the gallon of water, are also frequently adopted for the purpose of throwing down organical impurities. Typhoid fever is at the present moment very prevalent, but we are not able to see from statistics whether it is on the increase. The Government have this matter under their consideration; and the Victorian Branch, at a former meeting, had this matter under discussion, and intend very shortly to reopen the discussion in the interests of the public.

The awards at the Melbourne International Exhibition for surgical instruments have been made. The first orders of merit have been awarded to Messrs. Evans and Wormull of Blackfriars, and Arnold and Sons of Smithfield.

The disturbances and discord existing amongst the committee of the Melbourne Hospital, and the occasional clashing of the staff, the committee, and the public, seem to point to the one solution of the difficulty by the election of a superior resident medical officer to have the responsible medical charge of that institution.

In a small book entitled *Australian Aborigines*, by James Dawson, the following interesting fact is mentioned, viz., "that there is no doubt that the aborigines had a knowledge of the circulation of the blood from the heart through the arteries, and of its return through the

veins". To these blood-vessels they give distinctive names; an artery is called "gnullman", a vein is called "karkuran kuureek", or running blood. Very careful inquiries have been made into the subject from the most intelligent of the aborigines, and it is evident that they recognise the connection between the heart and the pulse. They assert that they had this information before the white man came. Mr. Dawson continues, that nothing offensive is to be seen near their habitations or in the neighbourhood of their camps.

A case of very high temperature, 110° Fahr., has been related in a patient suffering from pneumonia. The practitioner who reports the case winds up his remarks by saying that, on further investigation, he found that he had stuck the bulb of the thermometer into a hot poultice, which had been applied but a few minutes before his arrival.

CORRESPONDENCE.

THE ROYAL MEDICAL BENEVOLENT COLLEGE.

SIR,—With your permission, I should like to offer a few remarks on the recent election of pensioners and scholars to the Royal Medical Benevolent College. The election of the 26th ult. was the second since the new rule came into operation, namely:—"That a committee of examination be appointed by the council, whose duty it shall be in the month of March of each year; (*a*) To carefully investigate the relative claims of those who have been admitted by the council as candidates, severally, for pensioners and foundation scholarships; (*b*) To select of each class a number of names exactly equal to the number of vacancies in each class, the names selected being those of the respective candidates, who, in the opinion of the committee, best deserve election; (*c*) To send to the council the names of the candidates so selected." I believe those governors and subscribers of the college, who were in some degree instrumental in bringing about this alteration in the mode of election, may be fairly congratulated upon its successful working. Its complete success in so short a time was hardly to be expected, for the reason chiefly, that when it came into operation there was a long list of chronic canvassers to block the way, and most of whom had already polled several thousand votes. It was to be expected that the friends of these candidates would use their best efforts to secure election whether included or not in the list of the committee of selection. Then there is another element to contend with, the minority who stand upon their rights, and look upon any recommendation from anybody as an attempt to deprive them of a right bought and paid for. These will, of course, resent the action of the committee, at least, for some time to come. Therefore, on the whole, it will be admitted that the election of seventy-five per cent. of those candidates whose names are found on the list of the committee of recommendation is a very decided success, and a proof that the majority of the subscribers are perfectly satisfied with the change.

The marked falling off in the canvassing cards must be hailed with satisfaction both by the subscribers, and the friends of candidates, who will no longer be called upon to expend large sums of money in printing and postages.

Attention has been called during this election to the unusual and anomalous fact, that so very large a proportion of the candidates for pensionerships, and the friends of candidates for scholarships, should never have been subscribers to the college. This circumstance called forth an indignant letter of protest from more than one governor only a week or two before the time of election, and which I believe, greatly improved the chance of election of one of the candidates, not on the council list, but, who, nevertheless, came in a successful fourth. The boy's father had "for many years subscribed to the college". On looking down the list, it will be seen that four of the fourteen applicants for pensionerships and five only of the friends of the forty candidates for scholarships ever subscribed to the college. The doors of the Benevolent College it appears are thrown widely open to all comers, quite irrespective of whether or not a man has in his prosperity assisted in the great work of charity. I am inclined to think that the charity should be restricted to subscribers. This would have the effect of reducing the terrible long list of candidates, and also improve the chance of an urgent case, on the day of election.

Looking through the selected list, and comparing the relative merits of the several candidates, I certainly think the committee acted with every care and justice in first recommending those candidates who have been longest on the list; for the sixth, fifth, fourth, and third time; and secondly, those, who would become ineligible on account of age. It is disappointing to find the list was on this occasion, not *entirely* carried, as it deserved to be; since one of the later class of candidates, the boy Albury (No. 9 on the list) was thrown out by a boy put up for the first time, and whose friends will now see that they have done him an unintentional act of injustice, and which can in no-wise be repaired. It is a subject of congratulation to find that the college funds have in no-wise apparently suffered by the change. For one subscriber who may have withdrawn, in consequence of the change, another has been found to take his place, and I heartily trust that every member of the profession will feel it a duty, as it is a pleasure, to aid in every way a charity of which we all ought to feel proud.—I remain sir, your obedient and faithful servant,

1, Bedford Square, June 7th, 1881. JABEZ HOGG.

UNQUALIFIED MEDICAL PRACTITIONERS IN THE MIDLANDS.

SIR,—As in the JOURNAL of May 14th, you did me the honour to review a pamphlet of mine on unqualified medical practitioners in the Midlands, I beg you will have the goodness to allow me space to say a word in relation thereto. I am aware that I, or any of my qualified brethren can take steps to prosecute such men, but the class to which I referred, are those who, although they openly seek medical appointments, and to all intents practise independently, are sheltered by duly qualified practitioners, this is the real evil I complain of, the difficulty of securing sufficient evidence to insure a conviction in such cases, and having perhaps as it might be to bear solely a not inconsiderable amount of legal expenses, is sufficient to deter the most enthusiastic from taking a step, that they might otherwise be inclined to do.

Now that the Royal Commission on the Medical Acts is sitting, some effort (if not too late, and as you very properly suggest) should be made to bring under its notice the increasing evil of this unqualified practice; and if there be many practitioners who have witnessed or taken special notice of this question, as I have done during the past nine years or more, conclusive evidence would very soon be forthcoming to prove that some protective measures, more stringent than those now in force, should be enacted, not only in regard to the unqualified practitioners, but also to their qualified abettors, who are in reality the "fons et origo malorum" and thus remedy a condition of affairs, that is certainly not creditable to the profession that tolerates it, and an injustice to the public at large.—I am, Sir, yours truly, DAVID EDGAR FLINN.

Medical Officer of Health, Brownhills Urban Sanitary Authority, District Medical Officer Lichfield Union, etc.

ALLEGED LAXITY OF A LICENSING BODY.

SIR,—An action has recently been tried in the Supreme Court of this province between two registered medical practitioners. The plaintiff sought damages for slanderous expressions reflecting on his qualifications, and the way he obtained them.

With the merits of the case we have here no business, nor should we draw attention to it, were it not that the plaintiff, in his evidence, disclosed a state of affairs as to the manner in which he obtained his diploma which, if such evidence be correct, would appear to show laxity on the part of the Apothecaries' Hall of Ireland, and would tend to bring British qualifications, and medical men in general, into disrepute.

The medical profession of this colony has, by this mail, forwarded to the General Medical Council of Education and Registration, a memorial, accompanied by the judge's notes, of the plaintiff's evidence, drawing attention to what, if such evidence be correct, seems to involve a breach of its own regulations on the part of one of the licensing bodies of the United Kingdom; but, as those documents are too long to be published by you *in extenso*, we submit the following particulars, taken from the evidence of the plaintiff himself.

1. The plaintiff did not study the profession for more than two years prior to 1858, the date of his coming to this colony.

2. He has only been absent from the colony since for a period of eighteen months, viz., from May 1876 to November 1877.

3. He passed no preliminary examination prior to 1876, nor was he ever apprenticed, and, consequently, his studies prior to 1876 should not have counted as part of his curriculum.

4. There is no medical school in this colony, nor any hospital recognised by examining boards, except the Adelaide Hospital, which the plaintiff did not attend.

Consequently, his curriculum resolves itself into: *a*. Two years' study stated to have taken place with a Dr. Payne, of Hyde, near Manchester (1855-58); certificates for which were not presented in Dublin; *b*. A preliminary examination stated to have been passed in Edinburgh in 1876; *c*. Five months' attendance on various courses of lectures in Edinburgh from November 1876 to March 1877, the certificates for

which he did not produce in Dublin; *d*. Five months' attendance on various courses at the Carmichael School in Dublin, March 1877 to August 1877. The plaintiff was the only student in anatomy, by special privilege, such course usually being held in winter; *e*. A final examination at the Apothecaries' Hall, Ireland, August 1877.

The plaintiff stated that he did not comply with the present regulations of the Hall, and it will be found that he did not do so with regard to any previous regulations under which he could have entered.

He could not have in any way complied with the required "eighteen months'" attendance on the practice of a hospital, seeing that he was only eighteen months absent from the colony, at least three of which eighteen months must have been occupied in travelling.

With the plaintiff personally we have no concern, further than to state that, immediately upon the conclusion of the trial, in which he was nonsuited on his own evidence, he sailed for Europe, and there is plainly a possibility of his obtaining the diploma of some other body (by a "modified examination"), upon the strength of a qualification already registered.

We, situated as we are, almost beyond the cognisance of British licensing bodies, and liable to the influx of persons holding bogus diplomas, or no diplomas at all, require to be specially watchful to preserve the honour and dignity of the profession, and the safety of the public. We, therefore, respectfully but earnestly warn all boards to inquire carefully into the pretensions of anyone who may, holding the Licence of the Apothecaries' Hall in Ireland, present himself for additional qualifications.—We are, sir, your obedient servants,

J. DAVIES THOMAS, M.D.Lond., F.R.C.S.Eng.
W. PEEL NESBITT, M.B.Edin., M.R.C.P.E., J.P.
WM. GARDNER, M.D., Ch.M.Glasgow.
On behalf of the medical profession in South Australia.

Adelaide, South Australia, March 31st, 1881.

HOSPITAL AND DISPENSARY MANAGEMENT.

DIFFICULTIES AT LEEK.

IT might we think be well if the attention of our Staffordshire Branch were directed to the difficulties which have arisen in the development of the provident system at Leek. It appears that the provident dispensary, which had been in existence for many years, was recently re-organised. The changes which were then introduced did not give satisfaction to all parties concerned. A second institution was started, called the Friendly Provident Dispensary. This second institution engaged Mr. H. Ryley as its medical officer; and, both before his arrival in the town, and since he has entered upon his duties, his name has been advertised in a manner open to objection. The advertisement put forth by the Friendly Provident Dispensary states that :—

"The dispensary is open to tradesmen, clubs, and all classes irrespectively, upon payment of 4s. per annum, a boon never before conferred by the 'medical profession' of the town, and one which the committee trust will be availed of by all."

Now it is obvious that a dispensary which offers its advantages to "all classes irrespectively, upon payment of 4s. per annum," is calculated to mislead the public, and to inflict a serious injury upon the medical profession. We trust, therefore, that some solution of these difficulties will soon be found—either by Mr. Ryley relieving himself from the false position in which he is placed, or by the Friendly Provident Dispensary adopting such rules and limitations as are usual in these institutions. Is it too late to hope that by a thorough reconsideration of the whole matter, some satisfactory arrangements may be made, so that the two dispensaries may be brought into harmony? Possibly the Staffordshire Branch may be able to assist in bringing about this desirable object.

TWICKENHAM PROVIDENT DISPENSARY.

THE fourth annual report of the Twickenham Provident Dispensary shows that it holds its ground and is doing good work. The number of members is six hundred and eighty, being a slight increase upon the previous year. "The arrangement for the supply of medicines to the members of the dispensary by the medical officers, in the same way as their private patients are supplied, has now been in operation for eighteen months, and the committee are able to state that it has been carried out most satisfactorily and successfully." The value of provident dispensaries as a means of checking infectious diseases is pointed out by Dr. Ward in his report. He says: "The cases have, as a rule, not been severe; chest-affections and rheumatism predominating, together with several mild cases of scarlet fever, all of which, having been seen early, did well, and, proper precautions having been taken, did not spread beyond those first attacked—showing again the great benefit this provident dispensary confers on the poor, of enabling them, at the first onset of disease, to obtain medical assistance without any extra expense, instead of waiting till dangerous symptoms arise and other members of the family and household have become infected." We observe that a very large proportion of families were removed from the books during the year. Might not many of these have been kept in association with the dispensary by the employment of a collector, as is done at Battersea? We are glad to observe that the finances are in a satisfactory condition, more especially as regards members' payments, which show a steady increase year by year. The sum of £162 13s. 6d. was divided between the two medical officers.

KENSINGTON DISPENSARY.

"THE work of the Kensington Dispensary, in all its branches," says its forty-first annual report, "has now increased to such an extent as to place the institution among the foremost of its class." This may be quite true; but the class to which it belongs can hardly be said to meet the requirements of the day. Though situated in one of the most prosperous districts of London, where there must be a large number of artisans and of small traders, it makes no provision whereby these persons can in a systematic way assist themselves. It contains no element of self-help, but relies entirely on the support of the wealthier classes. Last year, over four thousand patients were attended to, either at the dispensary or at their own homes, at a cost of about £800. With such a subscription-list as this dispensary possesses, a system of medical self-help might be devised, which would add materially to the benefits which it now confers upon the poor of Kensington.

ESSEX AND COLCHESTER HOSPITAL.

THE affairs of this institution having arrived at a very unsatisfactory condition, a special committee of investigation was appointed at the last general meeting of governors. This committee has been sitting at Colchester, under the chairmanship of Admiral Luard, C.B., and with Mr. Lawson Tait as assessor. The result is that the constitution of the hospital will be very materially altered, especially in the out-patient department. Many reforms were urgently demanded, particularly in the domestic management, but it is satisfactory to learn that the assessor reports the medical working of the hospital to have been quite efficient.

LORD DERBY ON HOSPITALS.

A FESTIVAL dinner was held lately in aid of the funds of the Middlesex Hospital. The chair was taken by the Earl of Derby. There had not been a public dinner on behalf of this institution for eleven years, and the noble chairman explained the circumstances which made it necessary to have recourse to this mode of supplementing its funds. The expenses attendant upon the enlargement of the hospital, had induced "the complaint which Theodore Hook described as 'something wrong about the chest'". That was the explanation of their having had lately to live upon their capital, several thousands having been sold out during the last year; but that was an amusement which could not last very long, or they would be in the position of the Irish heiress who had £10,000 a year, but it was only for one year. In regard to the general question of the merits of hospitals, some people asked whether it was not a mistake to bring together a great number of sick people and treat them collectively? His answer to that was, What else could you do? They could not be treated in their own houses, for many of their homes were not fitted for sick people, and if they were treated in smaller scattered establishments the expense would be doubled, and existing funds would only go half as far. Some people said: "Let us have provident dispensaries, and then we can do without the great hospitals". In half that proposition he agreed. He should be glad to see provident dispensaries, which would be very useful. But they had first to be got, and sick people could not be left till they were created all over London; and when they were got, it would be found that they would not supersede, but only supplement, the great hospitals, by relieving the, at present, overcrowded out-patients' department. Whenever grave or dangerous cases had to be treated, the great hospitals would be found as useful as they had ever been. It was not to be forgotten that hospitals, besides being places for the benefit of the poor, were schools of medical science, by which all classes profited—the rich quite as much as the working man. In rural districts, there was an easy and frequent interchange of kindly offices between the rich and the poor. If a labourer fell sick, the squire, if he was one of the right sort, did what he could to help; but in London, people did not know their nearest neighbours, and there could not be the same

intercourse of class and class that existed in rural communities. But some interchange of kindly offices there must be, or one class would become selfish, egotistical, and morally ruined, while the other would be revolutionary and hostile. Now, of all help which could be given to the poorer classes in cities, there was none so absolutely free from the danger of abuse as opening to them the advantages which hospitals gave. A man, even of shady character, was not to be allowed to die of disease while his antecedents were being looked into. They were, further, absolutely secure from risk of imposture; for no one, unless he were half a maniac, would simulate disease to get into a hospital, where he would be immediately found out. He, therefore, who gave money to a great hospital might be tolerably sure that he was not only benevolent but beneficent, not only intending, but actually doing, a public good. In response to the noble earl's able and humorous appeal, more than £3,000 were subscribed on the occasion.

MILITARY AND NAVAL MEDICAL SERVICES.

ARMY MEDICAL OFFICERS' BENEVOLENT SOCIETY.

THE annual meeting of this society was held, (by the kind permission of Sir William M. Muir, K.C.B.) at 6, Whitehall Yard, on Saturday May 21st; Inspector-General Lawson in the chair. The amount of £770 was voted, in various sums, to 31 orphan families of medical officers, with the object of assisting in their education. This society was founded in 1820 by Sir James McGrigor, Bart., as sister society to the widow's fund, and under his fostering care it soon became a permanent institution. During Sir James McGrigor's reign, as head of the department, every officer joining had to subscribe to the widows' and orphans' funds, but since 1851, this wholesome understanding has been held in abeyance, and consequently the usefulness of both societies has been much narrowed.

DEATHS IN THE AFGHAN WAR.

THE following return is published in the *Indian Medical Gazette*, and indicates the death-rates, per 1,000 of average strength, from the principal causes, of the troops engaged in the Afghan war.

Troops.	Cholera.	Fevers.	Respiratory Diseases.	Killed in battle.	Total from all causes.	Total, excluding killed in battle, etc.
European.....	38.4	14.6	8.9	12.3	88.1	75.7
Bengal Regular (native).	13.4	14.3	28.3	4.9	84.9	80.0
Punjab Frontier Force..	11.6	8.8	39.4	34.2	109.9	75.7

In the regular army, 74 men died of violence sustained in battle, 203 of cholera, 426 of pneumonia and pleurisy, and 216 of fevers. The death-rate of cholera reckoned on admissions was 63.44 per 1,000. The effects of exposure and insufficient protection from the inclemencies of the campaign are indicated by the very high death-rates from respiratory diseases of native, as compared with European troops. Several outbreaks of scurvy occurred in consequence of the difficulty of procuring fresh vegetables. Seventy-six deaths from this cause occurred in the native army, of which 62 happened on field service.

THE REORGANISATION OF THE ARMY MEDICAL SERVICE.

SIR,—That the members of the Army Medical Service are in a totally false position I think no one will deny; and I know that the opinions I now advance are not new, but have been maturely considered and weighed by those best able to judge. That the concessions advocated must eventually be granted, I have no doubt; but it is this very word "eventually" that induces me to bring the matter before the profession now, as I believe the circumstances are not well understood out of our own ranks; and I should like to enlist on our side the sympathy and power of the Association. There are three requisites necessary to our becoming a happy and united corps. 1. Complete unification; 2. The abolition of the title "non-combatant" in so far as a sense of inferiority is attached to it; 3. The want of proper titles to distinguish our rank and position in the army.

1. We are at present a disunited body of perhaps nine hundred officers, and two thousand non-commissioned officers and men. The latter wear a different uniform from the former, and are not even called by the same name: the officers belonging to the "Army Medical Department", the men to the "Army Hospital Corps". We ought all to be in one corps, wearing one uniform, and having one title. And as regards the latter, have we not well earned the designation of "Royal"? It would be received as a very gracious boon by the service, and highly appreciated, and would do more to raise our status than any number of inches of gold lace added to our uniforms. Wherever the soldier is, in danger or privation, there is his doctor with him, sharing his dangers and endeavouring to alleviate his sufferings; and I think we may positively assert that never in the annals of the service has there been a single case of shirking from duty, however disagreeable. On the contrary, we read of numberless cases of devotion and heroism that would reflect a lustre on any branch of the army. Is the title of "Royal Surgeons" or "Royal Medical Staff Corps" too much to ask for?

2. The designation of "non-combatant" gives great offence. To military ears, it has only one meaning—that of inferiority. It is the great standard and gauge by which rewards are meted out for good services done. We are overlooked in numberless instances, merely because we are "non-combatants". And this, in many cases, I would fain believe to be done in ignorance, or at best forgetfulness, and not wilfully; for it is almost impossible to persuade the fighting man that his doctor runs equal risks with himself. I have often had the remark made to me, "At any rate, you will never be in any danger"—even by friends of my own in the army, not men trying to disparage my profession. The facts of the case are these: that the average mortality of army officers, exclusive of medical officers, is 15 per 1000; of army medical officers from 1839 to 1854, 34 per 1000; during the Crimean War, 67 per 1000; since the Crimean War, 20 per 1000; average death-rate of army medical officers during the last thirty years, 30 per 1000 (see *Edinburgh Medical Journal* for November 1874). Does the extract from the *Natal Witness*, reproduced in the JOURNAL of May 7th, tell a different tale? I think not; and therefore boldly assert that it is an injustice to stamp us as "non-combatants", as though we were unworthy to share the honours, not having undergone the dangers. In thus sharing with the soldier his every risk and danger, we differ from every other department in the army, and ought not to be treated as if we shared their immunity: and it is through our being placed low down among the purely civil departments, that we have so long been misunderstood and unfairly treated by officers purely "combatant".

3. We require adequate military titles to enable us to assume our proper position in the army. At present, the youngest, equally with the oldest, is simply dubbed "doctor", no matter whether he be a physician or a surgeon. There ought surely to be some means of stamping our position upon us, as our present unprotected state often leaves us open to rudeness from the unfeeling or unthinking, who, I am sorry to say, frequently seem to look on the "doctor", however high in the service, as merely a servant, rarely as an equal; and this would be best done by giving us honorary rank. This has been done in the American, Swiss, and Italian armies, and found to work well. We are not (as some would say that we are) ashamed of our profession; but we wish to raise the doctor to his proper position, the equal of the soldier. Are the Royal Engineers ashamed of their profession? It is not so very long since they were emancipated. The real truth of the matter is that the army surgeons are not half enough soldiers, and a very great improvement is already visible from the short military training the younger ones get at the depôt. At the present moment, we are fulfilling all the duties of the corps, as if we were really designated by military titles, and belonged to any other branch of the army. But this is not understood or believed. Men have opened their eyes in amazement when they heard that I had the power of awarding punishments in my little detachment, like any other commanding officer. They could not believe that the "doctor" had the power to award a man cells, or so many days' confinement to barracks. The fact is that military titles are the only ones understood by military men; and, until the army surgeons obtain them, they will be always looked upon as an inferior class to other officers.

I am well assured that, if justice were meted out to us, the stamp of men in the Army Medical Department would keep improving more and more, and we should at last see a happy and united corps; and, to further this desirable end, I solicit your powerful aid, and, through you, the aid of the British Medical Association.—I am, etc.,

A SURGEON-MAJOR.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

SANITARY MATTERS AT CAMBRIDGE.

AT the last meeting of the Improvement Commissioners of Cambridge, it was decided (certainly not before it was time) to provide a hospital for infectious diseases, on a site granted by the local guardians. The erection of such a hospital has been repeatedly urged by the health-officer for at least four years; and it is to be hoped that no unnecessary delay will be allowed to take place in preparing it for immediate use as soon as occasion arises. At the same meeting, the long-vexed question of the diversion of sewage from the Cam also came under consideration, and it was decided to ask the opinion of the Local Government Board on the merits of the Coventry system, which Dr. Anningson explained to the Commissioners in a very clear and interesting report.

PAUPER SURGERY AND THE USE OF ANÆSTHETICS.

WE have before us the copy of a correspondence which has passed between Mr. S. Burrows, District Medical Officer of the South Molton Union (North Devon), the Local Government Board, and the Board of Guardians, which merits something beyond a passing notice. It would appear that, on the 23rd March last, Mr. Burrows wrote to the Local Government Board for their opinion on the subjoined.

1. Should midwifery cases, which the nurse or midwife in attendance declare to be beyond their skill, be considered as of sudden or urgent necessity, and such as an overseer may legally give an order for—the relieving officers living from six to twelve miles away? 2. Should fractures and dislocations come under the same head as the above, viz., of sudden and urgent necessity? 3. In cases of strangulated hernia, etc., where an operation is imperative, and removal to a hospital or dispensary would, through delay, be probably fatal, is it right that the medical officer should obtain skilled professional aid, for the purpose of administering an anæsthetic; or, would he be justified in operating

without it? He was induced to ask this latter question, as, in April 1880, he received an overseer's order for attendance in such a case; and, on sending in his claim to the South Molton Board of Guardians, was refused payment. To this letter, Mr. Barrows received answer: "That it was contrary to the practice of the board to answer inquiries so general in their character; but that, if the circumstances, names, dates, and other particulars of any particular case, were submitted, the board would give the subject their consideration." Thereupon, Mr. Burrows wrote that he could conceive no questions, more illustrative of sudden and urgent necessity, could be framed than those contained in questions 1 and 2. Question 3 referred to a case that had recently occurred; and where, at his own expense, he had twice obtained an opinion from a neighbouring town—the first opinion suggesting delay, the second advising an operation, which was done under chloroform; "that, on applying to the board of guardians for payment of the services of the administrator and consultant, it was refused".

The Local Government Board thereupon forwarded a copy of this letter to the guardians, who, in reply, stated that they had duly considered the application for payment for administering chloroform, etc.; and that they were of opinion that the £5 paid to Mr. Burrows, under Article 177, General Consolidated Orders, should cover any extra services Mr. Burrows may have required in the performance thereof; and that they still adhered to such opinion.

This answer from the guardians was sent to Mr. Barrows, with an intimation "that they (the Local Government Board) could not interfere further in the matter".

It is now forty years ago, we believe, that, through the exertions of the Poor-law Convention, the President and Council of the College of Surgeons memorialised the Poor-law Commissioners, urging that a scale of fees should be laid down by the Commission, by which payment to Poor-law medical officers, in cases of capital operations (certain fractures and dislocations), should be made. This was done; and, since that time, medical officers can legally demand (save in the instances where, with their own assent, such fees have been commuted in the salary paid) payment on this scale. At that date, we possessed no knowledge of the value of anæsthetics, in the annihilation or mitigation of human suffering, during painful surgical operations, or as adjuvants in the reduction of dislocations.

That a provincial board of guardians should be wholly ignorant of the value of these agents; or, if acquainted with them, that they should be indifferent whether they were used or not; or, if used, that they should meanly leave to their ill-paid medical officers the onus of providing them, is what might be expected; but, that the Central Department, with its staff of medical advisers, should be equally careless, is certainly not a little strange—seeing that the *raison de être* of its existence is the intelligent supervision and control of local boards,

The question having been raised, cannot be permitted to remain where it has been left; and, pending also action of other bodies, we propose shortly to again refer to the subject. In the meanwhile, we consider that the humane public are indebted to Mr. Burrows for so ably ventilating the subject. In conclusion, it will be remarked that the Department has distinctly evaded answering questions 1 and 2.

STIMULANTS IN WORKHOUSES.

SIR,—I am medical officer to the Chepstow Union. I order porter for a pauper. Have the guardians the power to countermand such order? I am, yours truly,

Chepstow, May 30th, 1881. E. V. KING.

*** A board of guardians has not the power either to order stimulants or to countermand the order of the medical officer, who alone is authorised to direct that they should be supplied. If our correspondent thinks it worth his while, let him write to the Local Government Board on the subject, who will, if the case is a fair one, direct the master of the workhouse to obey the medical officer's request.

SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

SIR,—A few words, with your permission, in addition to your report of the deputation of the Poor-law Medical Officers' Association, received most courteously by the Right Hon. Mr. Dodson, President of the Local Government Board, on Tuesday, the 17th instant.

I see more clearly than I have done hitherto the objection of the Local Government Board to grant a right to a superannuation allowance, on the ground that they cannot legally interfere with the power of the guardians to tax the ratepayers except according to law; and (superannuation not being in the Poor-law Amendment Act) to this objection I see no answer. But, on the other hand, why should the board insist on the inability of the officer to discharge his duties as a *sine quâ non*, not of his resignation (for inability and resignation of necessity go together), but of his being in a position "to ask", as Sir John Lambert once said? Surely the board might be content with the power refusing of its sanction to a decision of the guardians to give one. If this condition were rescinded, the words addressed by the President to the deputation, to this effect: "There was one way, even short of legislation, by which some fruits to their effort might be secured." "By stating the case as temperately and as forcibly in the country as had been done to-day, he thought they could not fail to exercise a considerable influence upon the minds of the boards of guardians throughout the country, and to dispose them to look favourably on the granting of superannuation in particular cases, which might appear to be deserving of it." At the interview, I said I thought superannuation would be economical, as, if it became frequent, it would attract to the office of medical officer the higher educated in the profession. I also said, as a body, we are thankful that the system of tender has been long abolished; that our appointments are permanent; that, in many towns, the righteousness of the guardians supplying medicines and the dispenser has been in practice—Reading, to wit. Thanks to the judgment of Mr. Henley, and a former chairman of the guardians here—Mr. J. O. Taylor I went one step further, and expressed a wish that the board would undo one other thing it had done, viz., cancel its prohibition of a medical officer asking permission to make a *post mortem* examination.—Your obedient servant,

T. L. WALFORD,
Medical Officer for the Workhouse of the Reading Union.

THE SEWAGE QUESTION AT HELENSBURGH.

SIR,—An article in the JOURNAL of May 14th, entitled "The Sewage Question at Helensburgh", seems to require an explanation from me. The result arrived at by the joint-committee of the local authorities on this subject, is to the effect that the water and shores in this locality "possess great freedom from such organic matter as may be held to indicate sewage-pollution", and "contrast most favourably", in this respect, "with any of the other places chosen". This conclusion is ostensibly based on chemical analyses.

Now, it is manifest that the value of a chemical analysis of samples, taken from a shore as evidence of what is or what is not deposited upon it, depends upon the method of collection, place, and other conditions. The whole question in the present case turns upon these considerations. What is the best method of collection? As it is the material deposited on the shore from the impure water that is complained of, the best method, it seems to me, to collect this material, is to place flat vessels upon the shore at ebb-tide, and examine what they contain when uncovered at the following ebb. If the sea be quite calm at the time of the experiment, nothing can be caught in these vessels except what falls from the water above. Of course, very numerous experiments by vessels placed at various distances between high and low water-mark, and at different parts of the shore, and in different sorts of weather, would be necessary before a complete estimate could be made of the average quantity of deposit which falls daily upon the adjacent shores. Yet the all-important question in a sanitary sense is, What is the amount of the deposit which is exposed to the air when the water recedes? From this point of view, the very extensive stretch of shore exposed at low water in this locality comes to be an important element.

As regards the quality of the mud when separated from the sand and stones in the various samples examined, this is not a matter of dispute. Nobody doubts the accuracy of the chemical analyses. The vital point is, Is there enough of mud to be unsanitary? I have in my possession several analyses of samples collected from the neighbouring shores. I showed to the joint-committee of the local authorities the qualitative analyses of the mud, after separation from the sand, of three of these samples, which were all I had from the Helensburgh shore proper; and I also showed them a specimen of the quantity of deposit which had fallen upon a flat vessel of certain dimensions in a certain time. I sent a similar sample to Dr. Wallace of Glasgow, to ascertain from him its total weight—the proportion of mud to sand, and the quality of the mud. This sample was deposited in shallow vessels covering an area of one and one-third square yards. The vessels were placed about ordinary low-water mark, and were about 240 yards from the nearest shore-drain. They were under water for from eighteen to twenty hours. Dr. Wallace's report was as follows. "The deposit, washed free from saline matter and dried at 212° Fahr., weighed 132 grains. The deposit, when separated by mechanical treatment, was found to consist in 100 parts—of sand 11, mud 89." Then follows the qualitative analysis of the deposit and of the mud separately. Dr. Wallace adds his opinion: "The deposit is not such as I would expect to find upon a shore free from all sources of contamination; and I have no doubt that, under certain conditions, it would decompose and yield offensive emanations. The quantities of the ingredients which indicate sewage-matter (phosphoric acid and ammonia) are about one-third of those of the pure mud (apart from sand) dredged up from the bed of the river Clyde at Glasgow."

I may add that, as regards the quality of the mud in this sample, it was considerably weaker in ammonia than that of any of the other samples I have collected from the neighbouring shores. I have, therefore, reason to believe that the sample reported on by Dr. Wallace was qualitatively an average sample.

The report of the joint-committee of the local authorities represents that I would give no assistance in their investigations. I think I am entitled to show that this is unfair. Before the samples were collected, I received a letter from the chairman of the local authority for the burgh, asking if I would accompany the analyst when taking samples, or if I had anything to suggest as to the method of taking the samples. I replied, by letter, that I would be glad to accompany the analyst; and I also described shortly my plan of collecting the deposit, as above explained. I received no answer to my letter, but afterwards learned informally that my offer had been declined by the joint-committee, and that they had also dispensed with the services of the analyst in the work of collecting the samples. The Committee collected the samples themselves, and sent them to the chemists to be analysed. By following this plan, it will be generally admitted that the investigation had been largely deprived of its scientific value. Results have been thus obtained which, if they are used as proofs of the relative purity and health-giving qualities of different shores, are certainly misleading, and opposed to well known facts. Thus we read in the Report of the Joint-Committee, page 8, "the specimen which was taken as a fair sample of Lamlosh shore is four times more impure" (as regards ammonia) "than the shore at Helensburgh as shown by the analysis..... From Dunoon, two samples were taken, and the one is nearly twice as strong in ammonia, and the other eight times stronger than Helensburgh samples." Does anyone acquainted with the locality believe that the inference which the reader is invited to draw from such statements is correct?

The joint-committee of the local authorities further complain that I would give them no assistance in their investigations regarding the alleged "endemic influenza". This is also unfair, seeing that it was by me that an authoritative statement was laid before them, subscribed to by four out of the five doctors at present practising in the burgh, to the effect that a peculiar form of illness has prevailed for a number of years which presents endemic characters, and that "we know of no local condition peculiar to the district at all adequate to cause the illness, except the undoubted emanations which arise from the adjoining shores".

The joint-committee, no doubt, invited me to supply a test-case of the alleged disease, which I declined to do, on the ground that "the proposed method of

investigation cannot lead to any conclusion", that "the medical practitioners residing in a locality are the best witnesses regarding the existence or non existence of a local form of illness"; and I referred the joint-committee to the published statement of medical opinion above quoted.—I am, etc.,

FRANCIS HENDERSON, M.D.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, June 2nd, 1881.

Cooney, John Edwin, Calcutta.
Sykes, Matthew Carrington, Barnsley.

The following gentlemen also on the same day passed the Primary Professional Examination.

Brewitt, James Bunney, St. Bartholomew's Hospital.
Samut, Richard Philip, Guy's Hospital.

MEDICAL VACANCIES.

THE following vacancies are announced :—

ALDERBURY UNION—Medical Officer. Salary, £60 per annum. Applications by June 23rd.

BELFORD HOSPITAL—Surgeon. Salary, £150 per annum. Applications to N. B. McKenzie, Secretary, British Linen Bank, Fort William, by June 20th.

CITY PROVIDENT DISPENSARY AND SURGICAL APPLIANCE ASSOCIATION, 164, Aldersgate Street, E.C.—Assistant-Surgeon. Salary, £120 per annum. Applications by 15th June, to J. P. Cæsar, Secretary.

COOTEHILL UNION—Medical Officer for Tullyvin Dispensary District. Salary, £100 per annum, with £20 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 15th instant.

EXETER LYING-IN CHARITY—Honorary Surgeon. Applications by June 15th.

GLASGOW ROYAL INFIRMARY—Physician. Applications, by July 30th, to Henry Lamond, Secretary, 93, West Regent Street, Glasgow.

GLASGOW ROYAL INFIRMARY—House-Surgeon. Applications, by July 30th, to Henry Lamond, Secretary, 93, West Regent Street, Glasgow.

GLASGOW ROYAL INFIRMARY MEDICAL SCHOOL—Teacher of Chemistry, Anatomy, Physiology, Medicine, Materia Medica, Midwifery, Pathology, and Mental Diseases. Applications, by July 30th, to Henry Lamond, Secretary, 93, West Regent Street, Glasgow.

INVERNESS DISTRICT ASYLUM—Matron. Salary, £50 per annum. Applications by June 11th.

KILKEE DISPENSARY DISTRICT—Medical Officer. £80 per annum. Applications by 17th instant.

LAMBETH INFIRMARY, Pleasant Place, S.E.—Assistant Medical Officer and Dispenser. Applications by 31st June.

LEEDS UNION—Assistant Medical Officer. Salary, £100 per annum. Applications by 13th instant.

LIVERPOOL NORTHERN HOSPITAL—Assistant House-Surgeon. Salary, £70. Applications by 24th instant.

MARYLEBONE WESTERN GENERAL DISPENSARY—Honorary Physician. Applications by June 13th.

MID AND SOUTH YELL AND FETLAR AND NORTH YELL—Medical Officer. Salary, £70 per annum. Applications to the Inspector of Poor, Mid Yell, Shetland.

MIDDLESEX HOSPITAL—Assistant Dental Surgeon. Applications by June 25th.

MULLINGAR DISTRICT LUNATIC ASYLUM—Visiting and Consulting Physician. Candidates should lodge their testimonials with the resident medical superintendent. Election on the 12th proximo.

OWENS COLLEGE, Manchester—Demonstrator in the Physical Laboratory. Applications by 14th June.

ROCHESTER AND DISTRICT FRIENDLY SOCIETIES' MEDICAL ASSOCIATION—Resident Medical Officer. Salary, £200 per annum. Applications, etc., to H. S. Kylvett, 48, High Street, Strood, Kent, by June 13th.

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, etc., 54, Berners Street, W.—Second Assistant Surgeon. Applications by July 1st.

STANLEY HOSPITAL, Liverpool—Junior House-Surgeon. Salary, £60. Applications by the 23rd instant.

STIRLING DISTRICT ASYLUM, Larbert, N.B.—Assistant-Physician. Salary, £80 per annum. Applications, etc., to Dr. Maclaren, Medical Superintendent, by 11th instant.

SUSSEX LUNATIC ASYLUM, Hayward's Heath—Junior Assistant Medical Officer. Salary, £100 per annum. Applications to the Medical Superintendent by June 15th.

THE DISTRICT INFIRMARY, Ashton-under-Lyne.—House-Surgeon. Salary, £80. Applications by June 25th.

TOWCESTER UNION—Medical Officer for the Blakesley District. Salary, £60 per annum. Applications by 13th June.

WEST RIDING ASYLUM, Wakefield—Resident Clinical Assistant. Applications, etc., to Dr. Herbert Major, Medical Superintendent.

WESTERN GENERAL DISPENSARY, Marylebone Road.—Honorary Physician. Applications by June 13th.

YORK COUNTY HOSPITAL—House Surgeon. Salary, £100. Applications by June 21st.

MEDICAL APPOINTMENTS.

FORRESTER, R. P., M.B., C.M., appointed Assistant House-Surgeon to the Cumberland Infirmary, *vice* A. Veitch, M.B., C.M., resigned.

OLIVER, James, M.B., C.M., appointed House-Surgeon to the Durham County Hospital, *vice* Henry Mason, L.R.C.P.

SPENDER, J. K., M.D., elected Physician to the Bath Mineral Water Hospital, *vice* R. W. Falconer, M.D., deceased.

WILLS, J. P., M.B., appointed Medical Officer to the New Home of the Metropolitan Convalescent Institution at Bexhill.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

MARRIAGES.

REEVE—TODD.—On June 1st, at Hollington Church, near Hastings, by the Rev. — Adams, Henry Reeve, son of the late Henry Reeve of Victoria Park, to Barbara, youngest daughter of John Waterloo Todd, of 301, Mile End Road.

WILKINS—MANNING.—On the 8th instant, at St. Mary's Church, Carisbrooke, Isle of Wight, by the Vicar, the Rev. E. B. James, Robert Bird, second son of Dr. Wilkins, of Newport, Isle of Wight, to Rosalie, only child of J. L. Manning, Esq., of Alvington Manor, Carisbrooke, Isle of Wight. No cards.

DEATH.

HARRISON.—On May 31st, at his residence, 76, Coutts Road, Mile End, Robert Hooper Harrison, Surgeon, in his fifty-fourth year.

THE sanitary inspectors of Holborn and Clerkenwell have, with a view to preventing the spread of small-pox, taken every step possible to prevent the sale of infected second-hand clothes.

Dr. Octavius Sturges, of the Westminster Hospital, has been appointed by the University of Durham, as an examiner for Medical Degrees for the present year.

HEALTH OF FOREIGN CITIES.—A table in the Registrar-General's last weekly return supplies the following statistics, which furnish indications of the recent health and sanitary condition of various foreign and colonial cities. In the three largest Indian cities, the annual death-rate averaged 38.0 per 1,000, and was equal to 31.9 in Calcutta, 34.6 in Bombay, and 49.8 in Madras. Small-pox caused 107 deaths in Madras, cholera 68 in Calcutta, and fevers 127 in Bombay. The rate in Alexandria was equal to 33.0, and 3 of the 134 deaths were fatal cases of small-pox. According to the most recent weekly returns, the average annual death-rate in twenty-one European cities was equal to 30.9 per 1,000 of their aggregate population; this showed the usual marked excess upon the average rate in twenty of the largest English towns, which during last week did not exceed 20.3. The rate in St. Petersburg was so high as 61.4, and was but slightly below the still higher rate in the preceding week. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate did not average more than 22.6, the highest rate being 23.5 in Copenhagen, where whooping-cough showed fatal prevalence. The Paris death-rate was equal to 32.1, and exceeded that which prevailed in recent weeks; typhoid fever caused 38, and small-pox 21 deaths during last week. The deaths in Brussels were equal to a rate of 22.5 per 1,000; while in Geneva the rate did not exceed 14.4 per 1,000. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the death-rates ranged from 22.2 in Rotterdam to 29.7 in Amsterdam; the deaths in the latter city included 3 futal cases of typhus or typhoid fever. The Registrar-General's table includes seven German and Austrian cities, in which the death-rate averaged 28.8, and ranged from 20.5 in Dresden and 22.0 in Berlin, to 35.7 and 40.6 respectively in Breslau and Buda-Pesth; small-pox caused 24 deaths in Vienna and 8 in Buda-Pesth, while 11 deaths were referred to typhus in Buda-Pesth and 6 in Hamburg. The death-rate averaged 24.0 in three of the largest Italian cities, and ranged from 23.4 in Turin to 24.6 in Rome; measles showed fatal prevalence in Turin, and enteric fever in Rome. In four of the principal American cities, the death-rate, calculated upon the enumerated population in 1880, averaged 29.3; it was equal to 22.8 in Philadelphia, 26.0 in Brooklyn, 28.9 in Baltimore, and 35.5 in New York. Small-pox caused 35 more deaths in Philadelphia, and 19 in New York; while scarlet fever and diphtheria were more or less prevalent in each of the four American cities.

CADAVERIC ALKALOIDS.—THE study of "ptomaines" has for some time been the subject of important researches, in consequence of the interest which attaches to the discovery in the dead body of toxic substances with which they may easily be confounded. Professor Brouardel has just discovered a reagent which enables them to be distinguished from the vegetable alkaloids. It is the cyano-ferride of potassium, which, by the action of salts of iron, yields Prussian blue. The vegetable alkaloids do not produce this reaction; with the exception, however, of veratria and morphia. The following is the most practical method of obtaining it: after having reduced the suspected base to the condition of sulphate, to mix it in a watch-glass with cyano-ferride of potassium. By the addition of some drops of perchloride of iron, it will be seen whether the blue colour appears or not.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th.; 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 2; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Odontological Society of Great Britain, 8 P.M. Mr. David Hepburn: Suppuration connected with the Teeth. Casual communications by Messrs. Sewill, Lyons, Harding, and Cory, etc.

TUESDAY.—Royal Medical and Chirurgical Society, 8 P.M., Ballot. 8.30 P.M., Mr. Morrant Baker: On a Case of Urticaria Tuberosa. Mr. John Croft: On Immediate Treatment of Fractures of the Leg by Plaster-of-Paris Splints. Mr. C. T. Dent: On the Pathology of Acute Periostitis. Mr. Clement Lucas will show a Case of Aneurism by Anastomosis of the Face and Orbit, and a successful Case of Nephrectomy.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

THE FALLACY OF AMBIGUITY IN THE TERM "HOMŒOPATHY".

SIR,—There is no denying the fact that eminent laymen everywhere regard with contempt the squabbles of the rival schools of doctors. We are all not seldom made conscious of this. The fallacy underlying the use of the word homœopathy seems to me to blame for this sentiment of derision. Every man who has taken a glass of wine and has found that his sleepy brain is enlivened and kept awake, and who has at another time taken several glasses of wine and has then found his brain deadened and sent to sleep (or who has witnessed these experiments performed by anybody else), naturally thinks there is "something in" homœopathy; and he perhaps says this to his doctor, who not caring to enter into details, or to inquire further into the meaning of an expression so vague, states concisely in reply that homœopathy is all nonsense. But of what "homœopathy" is the doctor thinking? He is now-a-days very likely to be a man who orders small doses of aconite in febrile disorders with rapid heart; ipecacuanha or tartar-emetic or arsenic in catarrhal affections of the stomach with vomiting; and he is almost certain to order digitalis for irregularly beating heart. And, though he will decline to adopt the well-known but infelicitous phrases (either Latin or English) about "similars"; he will probably not refuse assent to a rational and not-too-widely-generalising expansion of those rather algebraic expressions. No; when he pours contempt upon homœopathy, it is the infinitesimal dilutions (the quarter-grain of alkaloid in the Mediterranean; dose, one drop) that occur to his mind. So that in fact the interlocutors, though they use the same word, have in their minds quite different things. In my conversations with laymen upon the subject, I have actually found this to be the case; and I have never yet met with any layman who asserted or defended, or who had at all in his mind, the idea of infinitesimal dosage; whereas I have found the mind of almost every doctor with whom I have spoken at once recur to it. While, therefore, we thus continue to look at opposite sides of the shield, what hope of unanimity can there be?

Let us make it perfectly clear that it is the infinitesimal dosage only which causes it to be impossible for us to countenance or to consult as to treatment with homœopathic professors; and my belief is, that almost every layman will go with us; whereas now, even our own friends are too much disposed to give a verdict of bigotry against us.—I am, sir, your obedient servant, T. CHURTON, M.D.

Leeds, May 21st, 1881.

HOMŒOPATHS.

SIR,—In favour of legally qualified homœopaths being consulted with by medical men in regular practice, two leading facts present themselves: 1. These men are recognised by the law of the country, by the Medical Council, and by the examining body to which they are affiliated as qualified practitioners; 2. Some of them are said to be, and no doubt are, good pathologists. I, therefore, can see no sufficient reason why a homœopathist should not be consulted with in the essential of diagnosis; here, however, the association must terminate in medical cases; but, as there is no homœopathy in a fractured limb, in an amputation, or in a malpresentation, it is not very clear how a regular practitioner can justify refusal to assist, in a surgical or obstetric emergency, a qualified surgeon practising homœopathic medicine. We may think, as I do strongly, that, in what he calls his homœopathic treatment, he is knowingly acting so as to take a profitable advantage of a temporary public whim; but, as the legal medical authorities are equally aware of this, and they refuse—and properly refuse—to search into motives, how can individuals be justified in opposing even a limited concurrence in what the law clearly sanctions, and what humanity demands, in such cases as are here contemplated?—Your obedient servant, GEORGE CORDWENT.

Milverton, May 18th, 1881.

SURGEON-MAJOR will find in the Army Medical column some information on the subject. What further details would he wish?

DR. EDWARD HAUGHTON should forward as precise indications as possible to Dr. Buchanan, Principal Medical Officer of the Local Government Board, of the localities at Elgin where true vaccinia is alleged to exist.

"PHYSIOLOGY FOR FOOLS."

SIR,—In the BRITISH MEDICAL JOURNAL for April 2nd, 1881, is a paragraph which does me serious injustice. The passage was corrected by the *Temperance Record*, the organ of the National Temperance League, in its issue of April 21st, a copy of which I send to you. As the BRITISH MEDICAL JOURNAL is mentioned by name in the correction, I had thought it unnecessary for me to take any further notice of the matter. But I see that several journals, not friendly to the Temperance cause, have eagerly reproduced your paragraph. I must, therefore, beg you to assure your readers that my views as to the influence of alcohol on the nerves and blood are identical with those of Dr. Richardson in his Cantor Lectures. All my public and private presentations of these views in England, Scotland, and Ireland have been in harmony with his positions. Several humorous phrases used in describing one of the effects of alcohol on the white of an egg have been grossly misunderstood. The opinions you charge me with holding I repudiate. The errors you attribute to me are those of careless reporters.—Yours truly,

27, Paternoster Row, London, E.C., May 30th, 1881. JOSEPH COOK.

*** Our correspondent has been singularly unfortunate, as, in many places where he has lectured, the "careless reporters" have reported him as teaching that alcohol hardened the brain during life, and, further, as having *illustrated the hardening process* by experiments with *alcohol and white of egg*. We are glad to find that, since we have called attention to it, the reverend gentleman repudiates this; but we would have had a higher opinion of his strength of character, had he candidly confessed that he had fallen into an error from having had no practical experience or accurate knowledge of the subject. The covering of his retreat by laying the blame on "careless reporters", and by fathering his physiological eccentricities on the author of the Cantor Lectures on Alcohol, is not, we feel sure, a procedure which he would recommend to clerical physiologists, who are apt to lose their depth in the unfamiliar sea of science.

JUSTITIA.—We think the practice thoroughly objectionable, and not acceptable even under the modifying conditions pointed out by our correspondent. He has evidently not thought out all the encouragements which it would offer to the worst kind of book-making and the least reliable form of pretentious self-advancement.

TUKAN OBAT.—There is nothing unprofessional in holding an appointment at a Friendly Societies' Medical Institute, provided it is conducted according to the ordinary rules of practice. These institutes are a legitimate development of the sick-club system. A valuable report upon them from the working men's point of view was drawn up, a short time ago, by Mr. Allen for the Charity Organisation Society, and they were largely represented at the meetings held last year at the Cannon Street Hotel to promote the formation of the Metropolitan Provident Dispensaries Association.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager at the Journal Office, 161A, Strand, London, and not to the Editor.

THE DURHAM UNIVERSITY SURGICAL DEGREE: IS IT M.S. OR C.M.?

SIR,—Will you kindly insert the following correspondence, which will speak for itself? The facts that the Durham University authorities give an extra paper in surgery to, and require of candidates for their "Mastership in Surgery" the performance of operations on the dead subject in the presence of the examiners, and consider it an honours degree, seemed to demand that the matter at issue should be settled by authority.—I am, sir, very faithfully yours,

W. BARRETT ROUÉ, M.B., M.S.Durh., Physician Bristol Hospital for Sick Children.

(Copy.) "16s, White Ladies Road, Bristol, March 2nd, 1881.

"Dear Dr. Philipson,—When I forwarded my qualifications to Messrs. Churchill for their *Medical Directory*, 1881, I entered M.B., M.S. On consulting the publication, I was surprised to find the letters M.S. had been exchanged for C.M. Again, when I sent notice of a recent appointment to the *Lancet*, I used the letters M.B., M.S., and found that the authorities of that paper had also altered the letters M.S. to C.M.

"May I ask you, therefore, to send me an official statement, in your capacity as Professor of Medicine in the University of Durham, as to what letters surgical graduates of the university are entitled to use. With your permission, I intend publishing this letter and your reply in the medical journals.—I am, dear Dr. Philipson, very faithfully yours, W. BARRETT ROUÉ.—G. H. Philipson, Esq., M.D., F.R.C.P., Professor of Medicine, Durham University."

(Copy.) "7, Eldon Square, Newcastle-upon-Tyne, May 24th, 1881.

"Dear Dr. Roué.—I have much pleasure in informing you that the Senate of the University of Durham, at their meeting this day, agreed, 'that Masters in Surgery should be permitted to use the letters M.S. as the abbreviation of the degree'.—With very kind regards and every good wish, I remain, yours faithfully, (Signed) G. H. PHILIPSON.—W. B. Roué, Esq., M.B., M.S., 165, White Ladies Road, Bristol."

*** The difference between "M.S." and "C.M.", it appears to us, is really one of language, not of meaning. "M.S." denotes "Master in Surgery"; "C.M." signifies "Chirurgiæ Magister". One is English, the other is Latin.

REVACCINATION.

THE following is from *Punch*, of May 28th.

To vaccinate or not, that is the question;
Whether 'tis better for a man to suffer
The painful pangs, and lasting scars of small-pox,
Or to bare arms before the surgeon's lancet,
And, by being vaccinated, end them. Yes!
To feel the tiny point, and say we end
The chance of many a thousand awful scars
That flesh is heir to. 'Tis a consummation
Devoutly to be wished.—Ah! soft you now,
The vaccinator! Sir, upon thy rounds
Be my poor arm remembered!

F. M. has apparently overlooked the recent correspondence setting forth the advantageous influence of vaccination on eczema observed in certain cases.

WINE-BOTTLE IMPACTED IN THE RECTUM.

SIR,—Permit me the suggestion which I think must have occurred to many other readers of Mr. Spanton's case—that, by drilling a hole in the apex of the bottom or "kick" of the bottle, and passing through it the end of a cord armed with a transverse bar of some strong wood, a hold would have been obtained by which it might have been extracted. A cylinder of sheet zinc or tin, about eight inches long, with rounded edges, and of a diameter only just larger than that of the bottle, might probably have been passed over it, and would have greatly facilitated its release from the cavity of the sacrum, and its subsequent extraction. The swollen state of the anal orifice may have made it difficult to pass such a cylinder; but the difficulty might have been overcome by means which I need not lengthen this letter to specify.—Your obedient servant,

S. H. STEEL, M.B.Lond., etc.

Abergavenny, May 30th.

SIR,—On reading the case that occurred under Mr. Spanton's care, and reported in the JOURNAL, page 748, in which death followed the extraction of a wine-bottle from the rectum, by abdominal section, it struck me that a hole, carefully made into the protruding bottom of the bottle, would have allowed the insertion of one or more fingers, and thus have given a sufficient purchase to extract by traction; if not, a hook of wire might have been passed up the interior to the mouth of the bottle, a strong and efficient purchase being thus obtained, and, through the hole at the bottom, an inflatable ball, or bladder, similar to that employed in lithotomy operations, could have been passed, which, forcibly inflated, would have filled the bottle, and thus have given sufficient purchase to allow of easy extraction.—I am, sir, obediently yours,

RICHARD NEVILL, M.D.Lond.

60, Boundary Road, South Hampstead, N.W., May 31st, 1881.

DEFICIENCY OF URINE.

SIR, An old gentleman about eighty years of age, a patient of mine, has been for some time unable to pass but a very small quantity of urine, amounting to but a very few ounces in a day. He has undergone the round of the usual diuretics, such as acetate of potash, digitalis, etc., with scarcely any effect. Its seems by its gradual diminution, now to be from an impossibility. It contains neither albumen nor sugar. The specific gravity is 1,010. If any of your correspondents could suggest any mode of treatment that would be likely to increase the secretion, I should feel greatly obliged. He sleeps very badly; has pulse in fairly good, but tender; has a tolerable appetite; has bowels rather constive; there is no pain in his back. He has just recovered from a severe attack of bronchitis, which has left some dyspnœa; otherwise, he seems in tolerable health, with the exception of debility.—I am, etc.,

ANNUS.

RESULTS OF ADVERTISING.

SIR, Will you allow me to ask any of your readers who may have had experience in advertising for resident patients, boarders, etc., in the medical daily papers, what the results have been? especially with regard to the expenses incurred, and the success in meeting with suitable cases.—Yours faithfully,

CAUTION.

FLUORIC ACID.

SIR,—In answer to the query forwarded to you by "Colonial Practitioner", I beg to inform him that the "acidum fluoricum dilutum" for therapeutic purposes is made by redistilling the commercial acid, and is given, largely diluted in water, for goître, in doses gradually increasing from 15 minims to 120 daily. It can be obtained from Mr. Bullock, 3, Hanover Street, Hanover Square, London.—Yours truly,

W. ARNOLD THOMPSON.

Ampthill.

THE CHLORIDES OF IRON.

SIR,—In reply to the first sentence in Mr. Donovan's letter, I would ask him to give any two examples of inorganic compounds of identical composition differing in therapeutic action according to their mode of preparation. And, in spite of the respectable authority he quotes, I must still doubt if a salt (Fe_2Cl_6) which can be prepared in six or more several ways, and yet has always the same formula, the same atomic weight, assumes the same crystalline forms, yields precisely the same reactions, and has the same taste and colour—can have any difference of action as a result of its mode of preparation.

Then, as to that action, I have had sole charge of more than two thousand wounded, and amongst them, from overcrowding and bad hygienic arrangements, many cases of traumatic erysipelas; and I have had, also, to treat many cases of the idiopathic form—some badly sloughing—in civil life, and I have used no other special remedy than Mr. Donovan's alleged "specifically useless" liquor ferri perchloridi, with the careful exclusion of alcohol in every form, and have obtained very satisfactory results indeed.

And, in answer to his last question, I should say that the chlorides of iron are not identical in action; for the protochloride—which is not used in medicine—acts and reacts very differently from the perchloride, but the latter cannot act differently from the sesquichloride or muriate, for it is only the same compound under a synonym.—I am, very obediently yours,

G. F. MASTERMAN, L.K.Q.C.P.

Stourport.

M.R.C.S.—What sort of a drug is spirolene?

CALF-LYMPH.

SIR,—My experience of calf-lymph is the reverse of that of most of your correspondents. I have performed sixteen vaccinations, four being primary, with complete success in fourteen. The remaining two were revaccinations, which, although not satisfactory, could not be classed as altogether failures. The lymph was obtained from Dr. Renner's establishment, and used either the same or following day. The drawback to it is its expense. One tube is said to be sufficient for two persons; but, in vaccinating a family of seven, I used five tubes; and where one has only one individual to do, a whole tube is nothing too much. I am here speaking, not of the ordinary tube, but of that supplied by Dr. Renner.—Yours truly,

116, Netherwood Road, West Kensington Park, W. A. TEEVAN.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. C. P. Mitchell, New Brighton; Dr. Ligertwood, London; Dr. C. Holman, Reigate; Dr. C. Wray, Skeyness; Mr. Berkeley Hill, London; General Practitioner; Mr. C. Rothwell, Bolton; Dr. A. Morrison, London; Dr. F. Davison, Gibraltar; A Member of the South-Eastern Branch; Caution; Mr. D. Biddle, Kingston-on-Thames; Dr. J. Finlayson, Glasgow; Dr. Hayward, Liverpool; Our Aberdeen Correspondent; Dr. Spencer Smith, Forest Hill; Dr. G. F. Masterman, Stourport; Mr. William Hall, Lancaster; Mr. R. H. Lloyd, London; Dr. G. Cordwent, Taunton; Mr. A. Teevan, London; Dr. C. F. Loughran, Paris; Mr. T. G. Vawdrey, Birmingham; Dr. R. Saundby, Birmingham; Mr. R. Fowler, Bath; Mr. H. A. Reeves, London; Dr. Thin, London; Dr. E. H. Greenhow, London; Dr. Chater, Boulogne; Mr. G. P. Hardey, Hull; Mr. W. Mac Cormac, London; Dr. Sawyer, Birmingham; Dr. Parsons, Dover; Mr. Spencer Wells, London; Dr. Hirschberg, Berlin; Mr. T. G. White, Tredegar; Dr. W. A. Thomson, Ampthill; Our Paris Correspondent; Dr. A. G. Sandburg, London; Dr. Edward Malins, Birmingham; Our Glasgow Correspondent; Our Dublin Correspondent; Our Edinburgh Correspondent; Mr. Arthur Kempe, Exeter; M.R.C.S.; Mr. J. O. Wills, Hastings; Mr. Hugh Thomas, Birmingham; Dr. J. Batty Tuke, Edinburgh; Justitia; Mr. Wigg, Derby; Mr. S. F. Murphy, London; Dr. R. Bowles, Folkestone; Mr. C. Hayden White, Nottingham; Dr. Sutherland, London; Dr. Fairlie Clarke, Southborough; Mr. James Kelsall, Ashton-under-Lyne; F. M.; A Constant Subscriber; Dr. Mackeson, Rugeley; Mr. J. S. Wood, London; Mr. G. P. Field, London; Mr. Lawson Tait, Birmingham; Dr. Handfield Jones, London; Mr. F. Wallace, London; Mr. R. G. Salmond, London; Mr. D. C. Lloyd Owen, Birmingham; Dr. H. Gervis, London; Mr. Joseph Answorth, Liverpool; Mr. James Startin, London; Mr. Illingworth, Clayton-le-Moors; Dr. C. H. Penny, Oakham; etc.

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CLINICAL LECTURE
ON
SYPHILITIC AND CANCEROUS ULCERATION OF THE TONGUE.

Delivered in University College Hospital on May 16th, 1881.

By CHRISTOPHER HEATH, F.R.C.S.,
Holme Professor of Clinical Surgery.

ULCERATION of the tongue may be simple, syphilitic, or cancerous. The *simple ulcer* is often caused by the irritation of a sharp tooth, or may be due to dyspepsia. It is small and superficial, and, unless due to local irritation, is generally multiple, and often found beneath the tongue. It is painful, and interferes with the movements of the tongue, but yields readily to treatment. The removal of the sharp corner of a decayed tooth with a file, and the subsequent application of a stick of nitrate of silver to the ulcer, are generally sufficient to effect a cure when the cause is local. When it is constitutional, a brisk purge, with the local use of the glycerine of tannin or any astringent gargle, will be sufficient treatment.

Syphilitic ulceration may appear during the secondary stage of the disorder along the edges of the tongue, and will almost always be found to have a corresponding white patch on the mucous membrane of the cheek. These ulcers have no induration at their bases, but, when healed, leave an irregular fissured border, which is very characteristic. A later form of ulceration is found in fissures of the dorsum, which leave irregular furrows in healing.

The deep syphilitic ulcer is due to the breaking down of a gumma, and it is this kind which is apt to be confounded with cancerous ulcerations. The ulcer is irregular, with everted edges, and presents a yellowish slough at its base, in which a varying amount of induration can be detected. It is often in the central portion of the tongue, whereas epithelioma is more commonly at the sides; and careful investigation will show that a lump has been noticed in the organ before the ulceration commenced, and that the induration diminishes as the ulcer grows; whereas in cancer the induration follows the ulcer, and steadily increases in extent. Still, it must be admitted that cases occur, in which it is impossible to give an accurate diagnosis without having recourse to the tentative administration of iodide of potassium, and that, even then, it is not always possible to be sure that epithelioma has not begun in an old tertiary sore.

In the treatment of syphilitic ulceration of the tongue, regard must be had to the stage of syphilis in which it occurs, and the previous treatment undergone. In the superficial ulceration, mercury in the form of bichloride or iodide is much more effectual than the iodides alone, and should be had recourse to, unless the patient's health has been shaken by previous courses of the drug. In the tertiary form of ulcerated gumma, iodide of potassium will certainly effect a rapid cure if the ulceration be recent, provided it be given in sufficient doses, beginning with not less than ten grains thrice daily, and being increased to thirty-grain doses, if smaller ones be not effectual. In all forms of syphilitic ulceration, the local application of mercury is useful; but it must be applied, not in the form of gargles, which are used and spat out at once, but as a lotion, to be held in the mouth for five minutes, so as to "pickle" the tongue. A lotion containing a quarter of a grain of bichloride of mercury to an ounce of water, with a little glycerine or honey, is a very good form, and the strength may be increased after a time with advantage. Care must, of course, be taken than none of he fluid is swallowed.

Cancerous ulceration is of the epitheliomatous type, unless it should supervene in the later stage of scirrhus, which is of rare occurrence in the tongue. Attacking the side of the tongue, in patients over forty years of age, the onset of the disease is so insidious as to attract little attention, the ulcer being often attributed (and perhaps correctly as to origin) to the irritation of a tooth. When well developed, the ulce is usually oval in shape, with sharply cut edges, and a marked indura tion beneath it when the parts are grasped by the finger and thumb The pain of cancerous ulceration is a well-marked and early symptom being lancinating and acute, and shooting up into the ear. The irrita tion causes a great flow of saliva, and the tongue is moved with difficulty, at first because of the pain produced, and later on because it is bound down by the infiltration of all the structures. The submaxillary lymphatic glands become involved early in the disease, being at first swollen and tender, and later on being apt to suppurate and break down, causing large openings beneath the jaw.

Should the disease spread towards the base of the tongue, death is occasionally due to hæmorrhage from one of the lingual arteries; but, in cases where the anterior part of the tongue is involved, it not unfrequently becomes adherent to the incisor portion of the lower jaw, and ultimately infiltrates that bone. In these cases, the patient has generally a longer life of great misery, and dies at length, exhausted by pain and discharges from numerous open sores about the chin and angles of the jaw.

In the treatment of epithelioma of the tongue, all surgeons of experience are agreed as to the inutility of medication, whether topical or general, and the advisability of early and complete removal of the disease. A recent discussion at the Société de Chirurgie of Paris (*Medical Times and Gazette*, January 8th, 1881), has shown that all the leading surgeons of that city are agreed with those of other countries, that the administration of iodide of potassium in true epithelioma is useless, and that the constant application of nitrate of silver is harmful. The difficulty in practice is to induce a patient to take a sufficiently grave view of his case at an early stage, when an operation may be undertaken with advantage and with a fair prospect of relief, prolonged if not permanent. In the later stages, when the lymphatic glands are involved, it becomes a question whether any interference is advisable, and many surgeons would refuse an operation; but it appears to me that, in many even of the worst cases, temporary relief may often be given by operating, provided the patient is prepared to run the immediate risk of the proceeding, which is undoubtedly great; and Mr. Stokes of Dublin has recently brought before the Clinical Society of London cases in which he removed enlarged and infiltrated lymphatic glands with good results. Still, life prolonged in misery is worse than death following close upon the operation, and I have been thanked more than once by dying patients for having given relief during the few days for which they survived the operation. Anæsthetics have robbed operations of so much of their horror, that patients may now-a-days be induced to submit to extensive mutilations, which would have been impossible, or at least unadvisable, without chloroform. Chloroform is necessarily the anæsthetic to be employed in operations upon the tongue, for ether is inadmissible; first, because of the difficulty of keeping the patient under its influence when atmospheric air necessarily gains free admission; and secondly, because if, as often happens, a cautery is required in the course of the operation, a dangerous explosion and conflagration in the patient's mouth may be caused by the inflammable vapour of the ether.

Ligature of the lingual artery has been advocated both by Demarquay and Moore (*Medico-Chirurgical Transactions*, vol. 45), in order to check the growth of cancer of the tongue, as well as for the arrest of hæmorrhage, but has not yielded the results anticipated. I have on two occasions tied the lingual artery, once for hæmorrhage occurring in the course of a case of cancer, and once with the view of checking the growth, which was rapidly extending; but in neither case did the ligature appear to have any influence in staying the course of the disease.

Division of the lingual nerve is another palliative operation recommended by Hilton and Moore; and this certainly is efficacious, for a time at least, in relieving the pain of a cancer involving the side and tip of the tongue. The operation is not a difficult one, and has the negative advantage of doing no harm, if it effects little good. The operator feels for the mylo-hyoid ridge of the lower jaw, immediately below the last molar tooth; and a sharp-pointed curved bistoury, pushed through the mucous membrane at this point, will readily divide the nerve against the lower edge of the ridge, with little or no bleeding. The side of the tongue will be thoroughly numbed for some days, and then sensation slowly returns from union of the divided nerve, when the operation may be repeated.

Removal of portions of the tongue with the knife is an operation which has fallen into disuse, owing to the hæmorrhage ordinarily accompanying it. Sir William Fergusson, who advocated the practice, and who thus removed more than one-half of the tongue in the case of the late Dr. John Reid, maintained that the fear of hæmorrhage in these cases was exaggerated; and, in his account of that particular operation (*Practical Surgery*, p. 517), says: "The bleeding for a minute or two looked formidable; several vessels were speedily secured, and there was no further trouble in this respect." It must be noted, however, that the operation was performed without an anæsthetic, the patient being a man of great moral courage and physical endurance, and that only one lingual artery was divided. With an unconscious patient, in whom both arteries have been divided far back, I have seen the very greatest difficulty arise in securing the vessels, which play

across one another, and obscure the operator's view in the dark cavity of the throat.

In such cases, and in cases of secondary hæmorrhage after removal of large portions of the tongue, I have found that it is practicable to arrest all hæmorrhage in the following way. The forefinger, passed well down to the epiglottis, is made to hook forward the hyoid bone, and drag it up as far as practicable towards the symphysis menti. The effect of this is to stretch the lingual arteries so as to completely control for the time the flow of blood through them; and in this way portions of the anterior part of the tongue may be cut off almost bloodlessly.

The ligature formerly used for strangulating portions of the tongue has fallen into disuse, because of the practical difficulty of keeping it sufficiently tight to ensure continuous strangulation of the part to be removed, and also because of the suffering caused by a sloughing mass of tissue in the mouth. It is, unnecessary, therefore, to consider the various modes devised for applying the ligature in former years.

The écraseur has been extensively employed for removal of portions or the whole of the tongue with very satisfactory results. The wire écraseur answers the purpose better than the chain instrument at first employed, in which portions of the tongue were apt to be twisted up. In order to effectually remove a diseased portion of tongue with the écraseur, it is necessary to isolate the growth by pushing well beyond it curved needles set in handles, around which the wire of the écraseur may be passed, and thus be kept in its proper position. Without this precaution, the wire as it is tightened is certain to encroach upon the disease, and lead to an incomplete operation, and no forceps is sufficient alone to obviate the occurrence.

The galvanic écraseur, used in the same way, has the advantage of cutting more readily through the tissues, which it sears at the same time, thus preventing all hæmorrhage at the moment. It has, however, the drawback, that the separation of the slough necessarily formed by the cautery is very apt to lead to secondary hæmorrhage some days after the operation, and hence its use has been abandoned by many surgeons who formerly employed the galvanic écraseur.

Paquelin's thermo-cautery is a very convenient instrument for removing small portions of the tongue, since it is not necessary in using it to pass pins beyond the growth. It is liable, however, to the same drawback as the galvanic cautery, of secondary hæmorrhage.

Removal of one-half of the tongue is an operation yielding satisfactory results, and comparatively easy of performance. It was recommended by Dr. Buchanan of Glasgow, who, however, divided the symphysis menti, a complication which is unnecessary in the majority of cases, as shown by Mr. Morrant Baker (*Lancet*, 1880, vol. i). A thread being passed through each side of the tip of the tongue, and the mouth gagged, the operator divides the frænum linguæ and subjacent muscles with curved scissors, which he runs along the floor of the mouth on the diseased side so as to divide the mucous membrane near the jaw, as far back as the disease reaches. Taking one thread in his left hand, and the other being held by an assistant, the operator then, with a blunt-pointed straight bistoury, divides the tongue strictly in the median plane, being particularly careful to divide the tough corium of the dorsal aspect well beyond the disease. Any bleeding vessel on the surface of the section is easily seen and secured, and with the forefinger the operator then tears through any remaining muscular tissue of the tongue or sublingual tissues, so as to isolate the half of the tongue to be removed. The wire loop of the écraseur can then be easily slipped over the apex of the tongue to the base, through which, if necessary, needles may be inserted, and the diseased half of the organ can be removed as far back as may be necessary.

Should the disease be so extensive as to require removal down to the hyoid bone, it may be necessary to resort to the plan suggested by the late Mr. Collis of Dublin, viz., to lay open the cheek by a horizontal incision carried from the angle of the mouth. This would, of course, bring the parts more thoroughly into view, but with the drawback of increased hæmorrhage and permanent deformity. By employing an écraseur with the end slightly curved, I have, however, been able, in several cases in which I have removed half the tongue, to dispense with any external incision.

Removal of the whole breadth of the tongue may be readily performed with the écraseur, when the disease involves only the anterior portion of the organ; but, when it extends further back, free division of the sublingual tissues, as recommended by Sir James Paget, will be necessary, in order to allow the satisfactory application of the wire loop to the base of the organ. Mr. Baker has recommended that, in cases of entire removal, the tongue should be split, and the two halves be removed by écraseurs simultaneously; and the two methods are, for all practical purposes, identical.

Nunneley's method of applying the écraseur for removal of the entire tongue is as follows. An incision is made in the median line between the chin and the hyoid bone, and is carried up between the genio-hyoglossi muscles into the mouth; and the chain of an écraseur is carried through this. The base of the tongue being thus transfixed from above downwards by three pins, the chain is passed behind them, and the écraseur is worked from beneath the chin. The objection to this method is, that the tongue is necessarily cut obliquely, notwithstanding the use of the pins. Its advantage is, that a useful drain for discharges is maintained from the floor of the mouth.

Mr. Barwell (*Lancet*, April 19th, 1879) has modified Nunneley's method by making a small suprahyoid wound, and carrying a thread into the mouth, by means of a handled needle, much farther back than in the older method. The needle is made to enter the mouth close to the last molar tooth on each side, and the wire of the écraseur is drawn by the thread through the suprahyoid wound and round the base of the tongue. A handled needle is then passed from before backwards through the tongue at the point where the section is to be made, and the wire slipped behind it. When the tongue has been divided vertically, a second écraseur is applied horizontally in the mouth, to divide the sublingual tissues which have been left. Mr. Barwell claims for this method that it leaves a painless stump, because the lingual-gustatory nerves are divided close to the lower jaw; but this result is not peculiar to this particular operation, which does not appear to possess any special advantages over that of division of the sublingual tissues before the section of the tongue; whilst, if hæmorrhage should occur on completion of the section of the tongue, the organ itself would be very much in the way of the application of a ligature.

Mr. Barwell has introduced into practice a form of wire for the écraseur, which promises to be very serviceable. It consists of a strand of Newall's patent wire-rope, made of untempered steel, with a thread in its centre, and is more flexible than any steel wire.

Regnoli, in 1838, devised a submental operation, by dividing the floor of the mouth close to the lower jaw from one facial artery to the other, so as to allow the tongue to be drawn down and fully exposed. It may then be removed with the knife or écraseur; but, if the knife be employed, care should be taken to divide only one lingual artery at a time. I have assisted in the performance of this operation more than once; and I think that for slight cases it is an unnecessarily severe proceeding, and has no advantage over the intrabuccal method; while for the more serious cases, in which it is necessary to go close to the hyoid bone, it has the drawback that the surgeon is working in a hole, where it is very difficult to see and secure a bleeding artery.

Sédillot and Syme were the first to divide the lower jaw in order more thoroughly to extirpate the tongue. The operation is a very severe one, but affords the only satisfactory method of dealing with cases of extensive disease of the tongue, in which the floor of the mouth is involved.

An incision in the median line of the lower lip, prolonged to the hyoid bone, will allow of the dissection of the lip from the lower jaw for about a quarter of an inch on each side. With a drill, the bone can then be perforated on each side of the median line, and about midway in the depth of the jaw, so as to admit of the two halves being subsequently drawn together with wire. The jaw is then to be divided exactly in the median line with a fine saw, which may advantageously have its handle raised above the level of the blade, so as to be out of the way of the patient's chest. The advantage of dividing the bone in the median line is, that the teeth are not interfered with; whereas, in Sédillot's method of dividing the jaw by a > cut, it is necessary to sacrifice all the incisor teeth. In addition to the wire employed to bind the halves of the jaw together, the action of the muscles tends to maintain the parts in relation, and to press the halves of the jaw together, rendering the notching of the bone an unnecessary complication. If the vertical section be completed with the bone-forceps when about half the thickness of the bone has been divided with the saw, the slight irregularity thus produced assists also in maintaining the parts in apposition. The halves of the jaw being held asunder with hooks, the operator cuts the genio-hyo-glossi muscles from the jaw with a pair of scissors, leaving the attachments of the genio-hyoid muscles. With the forefinger and scissors, the tongue can then be dissected up from the floor of the mouth with the sublingual glands and mucous membrane until the hyoid bone is reached; firm traction being made with a stout string passed through the tip. The tongue being then drawn down, the palato-glossi muscles forming the anterior pillars of the fauces will be put on the stretch, and must be divided with scissors, after which a handled needle should be passed through the tongue close to the hyoid bone, around which the wire of the écraseur should be passed.

The surgeon should be prepared with a handled needle and stout thread to transfix and hold the small remnant of tissue left attached

to the hyoid bone, should the breathing be embarrassed by the epiglottis and base of the tongue falling back. In my experience, this is much more likely to happen when a considerable portion of the tongue is left, than when the section is made far back; and the difficulty seems to arise from the weight of the piece left forcing back the epiglottis when the sublingual muscles have been divided.

All hæmorrhage having been checked, the two halves of the jaw are to be brought together with a piece of stout silver wire. This may be passed from before backwards readily enough through the hole in one side of the jaw; but it is not easy to pass it back again on the opposite side, unless a loop of thin wire be passed from before backwards through the hole already made, into which the end of the wire can be bent, and thus drawn forward. The two halves of the jaw should be brought into close and correct apposition, and the ends of the wire twisted and brought up beneath the lip. The lip is then to be brought together with hare-lip pins and a fine silk stitch in the mucous membrane; but care should be taken to leave the lower part of the incision open, so that there may be a free drain for the saliva and discharges from the mouth. In removing the wire from the jaw at the end of three weeks or more, it will be found convenient to cut the wire close to the jaw on each side, and then with a blunt hook to pull out the loop from behind.

When the disease involves the anterior part of the tongue, it is by no means uncommon to find the organ adherent to the incisive portion of the jaw, and the bone more or less infiltrated, as shown by the loosening of the teeth and softening of the bone. Under these circumstances, it is necessary, after clearing the bone, to apply the saw on each side of the diseased portion as far from the median line as may be necessary to reach healthy bone. After removal of the portion of bone with the diseased tongue, it is quite useless to attempt to wire the remaining portions of jaw together, since it is impracticable to draw them into apposition at the time. And yet it will be found in a few weeks that, as the wound heals, the two sides of the jaw are gradually approximated by the action of the muscles, and will eventually, in many cases, unite firmly. (For cases, see *Lancet*, 1876, vol. I.)

In all operations for removal of the tongue, it is well to be prepared for unexpected hæmorrhage, which may be very urgent. Blood collecting in the pharynx may embarrass the breathing very much, and, by the congestion produced, may keep up venous bleeding. Under these circumstances, it is well to perform laryngotomy at once; and, if blood have entered the lungs, as is very apt to happen when the tongue is dragged forward, to suck out the blood through the tube. I have twice seen patients rescued from imminent danger of suffocation in this way, ultimately making good recoveries.

With the view of obviating all risk of suffocation during the operation, and also to facilitate the administration of the anæsthetic, recourse may be had, before commencing the operation of removal of the tongue, to laryngotomy or tracheotomy and the use of Trendelenburg's tampon. This consists of an India-rubber tube covering the tracheal cannula, which can be inflated so as to plug the trachea and prevent the admission of blood; but an equally satisfactory method is to plug the pharynx with a sponge, to which a string should be attached. A flexible tube attached to the ordinary tracheal cannula allows the ready administration of chloroform-vapour. I have employed the method on one occasion, and have seen it employed on others; but it appears in most cases to be an unnecessary complication.

The after-treatment of cases of removal of the half or entire tongue consists in maintaining the strength of the patient by judicious feeding, and in keeping the mouth sweet. Feeding is best accomplished with the ordinary earthenware feeder, having a spout to which an India-rubber tube may be fitted, if it be necessary to carry the food very far back. In this way, sufficient milk, beef-tea, and brandy may be administered until the patient prefers to take nourishment from a cup, which he does often earlier than might be expected. Should the feeding by the mouth be insufficient, recourse should be had to nutrient enemata.

With regard to cleanliness and prevention of fœtor, it is very desirable that, at the time of the operation, all divided tissues should be thoroughly mopped with a forty-grain solution of chloride of zinc, which not only obviates fœtor, but tends powerfully to prevent the absorption of septic matter.

The frequent washing out of the mouth with a lotion of permanganate of potash or lime (the latter by preference) is most readily accomplished with a syphon-douche fitted with a soft India-rubber nipple, which the patient can direct himself, without risk of hurting the mouth. After each washing, the mouth should be brushed out with the glycerine of carbolic acid or "terebene", either of which answers admirably in preventing fœtor.

It has been suggested that the lobular pneumonia which occasionally proves fatal in some cases of removal of the tongue, is due to septic influence consequent upon the state of the mouth. The cases which die occur, however, among elderly patients, who have become greatly reduced by the disease, and who would be likely, under any circumstances, to suffer from lung-complications of a low type. With the view of obviating this supposed septic influence, my colleague Mr. Arthur Barker (*Lancet*, August 1879) has in a few cases allowed the patient to wear a tracheotomy-tube for some days, and to breathe only through it; the mouth and nostrils being carefully covered with cotton-wool, and a drain for saliva established through the floor of the mouth.

In cases of recurrence, after removal of the tongue for epithelioma, the disease shows itself in the stump, or the submaxillary lymphatic glands; or more frequently, I think, in both. The infiltration of the glands occasionally spreads to those beneath the sterno-mastoid, should the patient survive sufficiently long; but death usually supervenes, after a few months, from general asthenia and exhaustion, the sufferer being worn out with pain, and by the constant discharge, should the submaxillary lymphatic glands suppurate and discharge externally, as they frequently do. In cases where recovery is permanent, and the patient remains well for years, one is almost tempted to suspect a mistaken diagnosis; and it must be acknowledged that mistakes have been made by good surgeons in removing tongues, the subject of gumma, for examples of epithelioma. I am able, however, to record survival for over twelve years, in a patient from whom I removed what was believed to be a tongue affected by medullary cancer. The patient was sixty years of age, and the disease had existed six months. On looking into the mouth, there was, between the tongue and the lower jaw, on the left side, a ragged ulcerated surface occupying the floor of the mouth. This was prolonged to the side of the tongue, and, with the finger, a large mass could be felt in the substance of the organ, extending beyond the median line and to about two inches from the tip. The patient complained of constant pain in the tongue, but was otherwise in good health. There was a slight enlargement of one of the submaxillary lymphatic glands. After section of the lower jaw in the median line, I removed, with the écraseur, the anterior half of the tongue in September 1868. The patient made a good but slow recovery, and called on me in 1880, nearly twelve years after the operation, perfectly well. The part removed was exhibited to the Pathological Society of London, and was submitted to the Committee on Morbid Growths. To the naked eye, the tumour presented the appearance of medullary cancer, and was reported by the Committee to consist of cells and nuclei. The conclusion drawn was as follows. "The opinion we formed is, that the tumour was essentially a cell-growth invading and displacing the normal tissues, the cell-growth forming equally the more obvious cell-structure of the tumour and its fibrous portion. We may add, that it seemed to us most probable that the larger forms of cells were developed out of the smaller forms, and that therefore the spongy portion of the tumour, in which the larger cells were most abundant, represented a later phase of development than the homologous portion" (*Pathological Society's Transactions*, vol. xx). In this case, I noticed particularly a point which is not often seen, viz., the extent to which the portion of tongue left behind grows or becomes stretched. notwithstanding the extensive removal, the man, some years afterwards, appeared to have a normally sized tongue, but rather more sessile in the mouth than usual.

When recurrence of cancer takes place, the case is generally beyond surgical aid, the disease infiltrating the tissues of the mouth and of the neck to an extent which usually forbids any interference. It seems to me, however, that occasionally an attempt should be made to rescue the sufferer from an early and miserable death, as in the following instance.

A man, aged 62, was sent to me, in 1875, with very extensive cancerous disease of the tongue and sublingual tissues. In January 1874, he noticed a swelling of one of the submaxillary glands, and soon after a sore beneath the tongue. The sore healed, and the gland subsided under treatment. In September 1874, the gland began again to swell, and at last broke. At the same time, he found that he had difficulty in articulating, as the tongue was fixed to the floor of the mouth, and, eventually, the tip of the tongue became fixed to the jaw. This last was temporarily relieved by an operation at another hospital. On admission to University College Hospital, the patient was unable to protrude his tongue or move it in his mouth; the saliva constantly trickled away, and articulation was very imperfect. He complained of great pain in the occipital region, but of none in the tongue. The gums of the incisor region were swollen and ulcerated, and the teeth loose. The tongue was fixed to the back of the incisive portion of the jaw, which was softened. All the tissues beneath the tongue were indurated, but the skin was not involved.

On September 29th, I removed the tongue, the centre of the jaw, and all

the sublingual tissues, by dividing the skin in the middle line, then sawing the jaw through on each side, and, having isolated the tongue somewhat on each side, by enclosing the whole of the disease with the wire of the galvanic écraseur. The parts removed consisted of the middle three inches of the lower jaw, nearly the whole of the tongue, and the sublingual muscles and glands *en masse*. At the posterior end, the mass measured two and a half inches in depth, and slightly more from side to side. The tongue appeared to be healthy, except at the anterior part; and on the left side, just behind the tip, was a nodule of the size of a pea. Beneath the tongue was a mass of a yellowish white firm tissue, with a granular surface, which was continued quite up to the cut margin. This tissue, on microscopical examination, proved to be epithelioma.

The patient made a good recovery, and was alive and well two years after the operation. He recovered a surprising amount of power of deglutition and speech, due principally to the growth of the stump of the tongue already noticed. The occipital pain complained of by the patient is difficult of explanation, but was entirely relieved by the operation. I have noticed it in other cases of cancer of the tongue (*Lancet*, 1876, vol. ii.

My friend and former pupil, Mr. Rushton Parker, of Liverpool, has recorded (*Medical Times and Gazette*, December 1st, 1877) two cases in which he performed almost as extensive operations as in the foregoing case. In one patient, aged 58, he removed, in 1876, half the tongue, parts of the upper and lower jaws, the submaxillary glands, and a portion of the pharynx, for extensive epithelioma, the patient recovering, and being perfectly well in 1880. In the other patient, aged 54, he removed one-half of the tongue, half the soft palate, the side of the pharynx, the submaxillary glands, and part of the lower jaw for epithelioma; but, unfortunately, a recurrence of the disease took place in the neck.

CLINICAL LECTURE

ON A CASE OF CÆSAREAN HYSTERO-OÖPHORECTOMY, OR PORRO'S OPERATION; WITH REMARKS.

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[Concluded from page 904.]

OBJECT OF THE OPERATION.—Porro was led up to his bold proposal by a consideration of the conditions under which the Cæsarean section had been so frequently fatal. In his own city, for example, no woman who had ever been subjected to the operation had survived. It seemed to him that the chief source of danger lay in the wounded uterus. This was sometimes the source of a fatal hæmorrhage. In whatever way the lips of the incision might be brought together at the moment of operation, they were liable, in the changing moods of the puerperal uterus, to become separated. There might take place an escape of blood, not immediately dangerous in amount, but dangerous from its liability to escape into the peritoneal cavity, where it sometimes set up fatal peritonitis. The usual puerperal secretions from the inner surface of the uterus were liable to escape into the abdomen. The tendency to peritonitis was further increased by the chance of septic matters passing up along the genital canal and through the gap in the uterine walls. All these risks were likely to be lessened, if not entirely removed, by the removal of the injured organ. The wound-surface of the stump would not be so great as that of the necessary incision through the uterine parietes; and the stump would be amenable to the means of controlling hæmorrhage that have given good results in the removal of ovarian and uterine tumours through an opening made in the walls of the abdomen. Fortified by such considerations, and by the results of experiments on the lower animals, which showed that more recoveries took place when the wounded gravid uterus was removed than when it was left after the fœtuses had been extracted by Cæsarean section, Porro carried out his idea successfully in the woman who was thus the first in Pavia to survive a Cæsarean labour.

The removal of the ovaries is a necessary complement to the removal of the uterus. The loop that encircles the neck of the uterus has the ovaries within its embrace; and they are cut off with the uterus, instead of being left adherent to the stump. If they were left, and retained their vitality, the return of their functional activity might easily give rise to periodical troubles in a patient to whom they were no longer of any physiological value.

It is no drawback, but rather an advantage attaching to this procedure, that it annuls the further reproductive powers of such patients as are fitting subjects for its employment. For the most part, they are delicate, deformed, diseased, without the power to rear and care for more than a single child. The cases are few, where a woman who has to be delivered by a Cæsarean operation will be anxious to multiply her children.

As experience has grown in connection with Cæsarean hystero-oöphorectomy, further advantages have been found to attend it. In cases of malacosteon, for example, which furnish a notable contingent of the women operated on, the patients who survive have been seen in one or two instances to recover distinctly from their disease. After any other kind of delivery, cases of malacosteon usually become worse; and the successful result of these Porro's operations has raised the question whether double oophorectomy should not be had recourse to as a curative measure in other cases also.

Again, we are not obliged to wait the onset of labour, or to use means to start it, as in the ordinary Cæsarean operation we are compelled to do. The chances for the child are thus greatly improved; and, as it sets us free to choose our time for operating, we put the mother also in a more favourable position for success.

Such being the nature of the Porro procedure, it is easy to see what are the

INDICATIONS FOR THE OPERATION.—It will be applicable to all the cases where Cæsarean section is called for. British obstetricians have always been very shy of this grave operation. Indeed, but for the faithful advocacy of Hull* and Radford,† it ran some risk of being ranked among the condemned operations. Little wonder, when we see, from Dr. Radford's table of 132 cases, that only 23 women, or 17.42 per cent., survived the process. Less wonder, if in Scotland the operation was rarer still; for, of the 18 women tabulated by Dr. Radford as having been subjected to the Cæsarean section, not a solitary individual survived. Sir James Simpson used to refer in his lectures to one successful case as having occurred in Scotland; which had, however, not been registered in any scientific table. It was performed under unpromising circumstances, by a rude operator, and with a rude instrument; for the operator was a cow in the Queen's Park, and the instrument her horn. But the high mortality in Britain may be read the other way; and G. A. Michaelis‡ and other continental writers have read for us the lesson, which a recent discussion in the Dublin Obstetrical Society on an interesting paper by Dr. Kinkead§ leads me to think we shall soon effectually learn for ourselves, that the high mortality is largely due to our very timidity; for often the performance of the operation was delayed until various other means of delivery had been attempted, and was only had recourse to as a *dernier ressort* when the woman's chances of recovery had already been thrown away. The table of the Porro's operations which I have given above shows a mortality to the mothers of 58.3 per cent., whilst the lives of 79 per cent. of the children were saved. If the mortality still seems high, it should be remembered that, whereas many fatal cases of the classical Cæsarean operation never saw the light, all the Porro's operations have been tabulated, whether favourable or unfavourable; and in a considerable proportion of them the child was already dead, and the mother in a hopeless condition before she was subjected to the operation. But, if the statistics improve, as they are likely to do when the conditions of success come to be more clearly understood, then I do not doubt that the supplementing of the Cæsarean operation with the utero-ovarian amputation will help markedly to widen the field of its application. We need not always be tied down only to operate where the pelvis measures less than two inches in the conjugate diameter of the brim; but in the case of women with a pelvis somewhat roomier, yet still so narrow as to call for the sacrifice of child after child, we shall be warranted in giving them the satisfaction of seeing a living infant by an operation which they have a distinct chance of surviving. The indications for the operative interference have not in all cases been recorded; but the following table shows the conditions which have called for the operation

* *Defence of the Cæsarean Operation*. Manchester: 1750.

† *Observations on the Cæsarean Section, Craniotomy, and on other Obstetric Operations*. Second Edition. London: Churchill, 1880.

‡ *Abhandlungen aus der Geburtshülfe*, p. 131. Kiel: 1833.

§ *Dublin Medical Journal*. Vol. LXX, p. 445. 1880.

in sixty-two of the cases already carried out, with the relative mortality to the mothers and children.

Indication for Operation.	No.	Mothers.		Children.	
		Saved.	Lost.	Saved.	Lost.
Rickets	46	24	22	39	7
Malacosteon	8	4	4	6	2
Dwarf pelvis	1	1	—	1	—
Osteo-sarcoma	1	·	1	—	1
Stenosis vaginæ	1	—	1	1	—
Uterine fibroids	4	—	4	1	3
Partial rupture of uterus	1	—	1	—	1

Before discussing the various steps of the operation, it will be well to try to determine

The Best Time for Operating.—In certain cases, the operator has no choice. He comes to a patient already in labour, and he sees that the woman has no chance of delivery but by *sectio Cæsarea*. The sooner he can carry out the operation, in such a case, the better. For the law laid down by Sir James Simpson,* that the mortality of parturition, both to mother and child, increase with the increase in duration of the labour, has been abundantly illustrated in the statistics of Cæsarean labours drawn up by Kayser† and others. It is one of the great advantages of the operation supplemented by Porro's procedure, that the operator can choose his date, and regulate the circumstances with due precision. I believe that the best time for the operation is at the full term of pregnancy, on the first day on which the patient is likely to fall in labour. It will be well even to be prepared to anticipate it, should any symptoms of labour set in at an earlier date than the expected day, as in the case recorded by Professor Veit‡ of Bonn. The propriety of having recourse to the Cæsarean section, before the onset of labour, has been advocated and discussed by Drs. Braxton Hicks,§ Barnes,‖ and others. But, where it was deemed desirable to operate before gestation had run its course, it was seen to be a necessity in the operation, as hitherto practised, to have the uterus in action before the operation was begun, lest, after its evacuation, hæmorrhage might occur from the unexcited, inert, inactive organ. The Porro's complement relieves us from this fear, and leaves us free to open an uterus which has not yet entered on its parturient function. The advantages of operating before the uterus has begun its work are, at least, these three. 1. We are not so liable to meet with trouble on the part of the bladder. A glance at Braune's plates of the frozen sections of a woman in advanced pregnancy (see Fig. 2), and in full labour, respectively, lets us see that, in the non-parturient gravida, the bladder is a pelvic organ; whilst, during the process of parturition, it is lifted above the symphysis pubis, and becomes abdominal (see Fig. 3). 2. We are

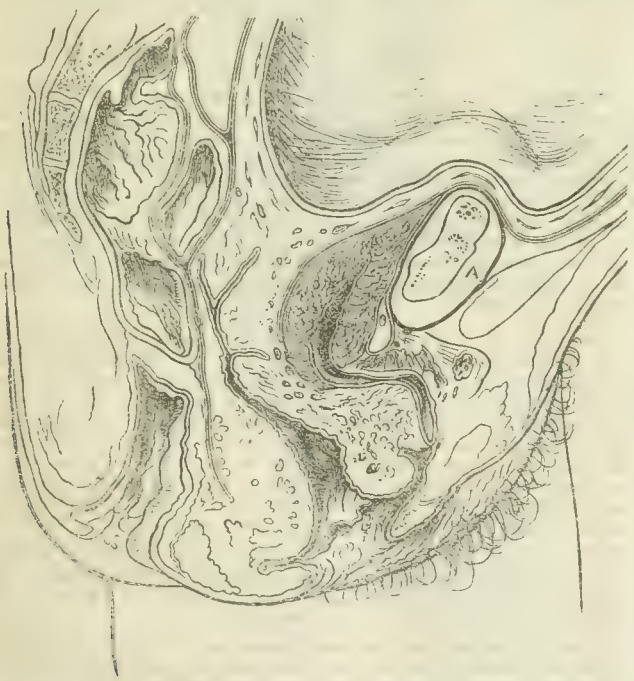


Fig. 2.—Relations of the Bladder before the commencement of Labour. A. The Symphysis Pubis, with the Bladder behind and below. (From Braune's *Atlas*.)

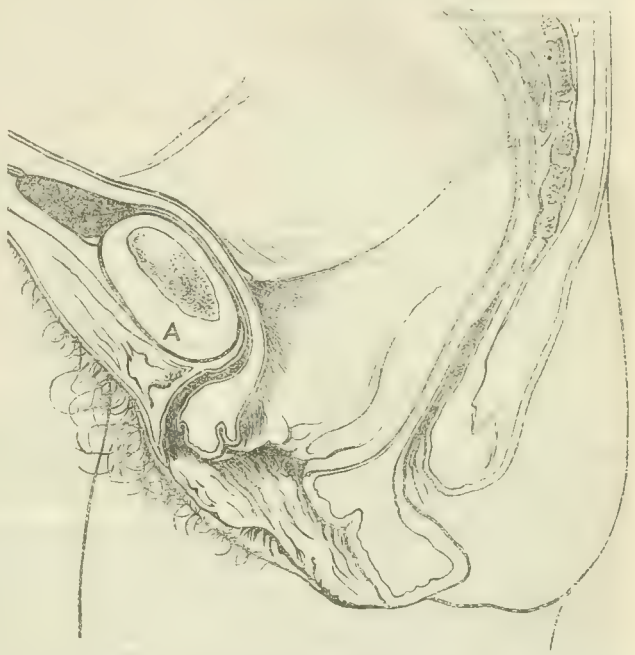


Fig. 3.—Relation of the Bladder during labour. A. The Symphysis Pubis, with the Bladder lifted above it in relation with the Abdominal Wall. (From Braune's *Atlas*.)

saved the difficulty that several operators have experienced, during the removal of the child, from contraction of the uterus round its neck. 3. The uterus will not have taken on the hyperæmia of an organ in full functional activity, and the hæmorrhage will be all the less. These considerations affect more the maternal chances, as dependent on the local conditions, and without regard to her general state and vigour. We should remember, besides, that the child, in whose interests we are exposing her to the Cæsarean risks, may begin to have its chances of survival influenced by the conditions of labour, especially if early rupture of membranes take place.

Technic of the Operation.—In carrying out the operation itself, we begin with

1. *Incision through the Abdominal Wall.*—The only question, in regard to this incision, is that concerning its length. All operators now make the opening in the linea alba, but of lengths varying from 5 1/8 inches (13 centimètres) to upwards of 7 inches (18 centimètres). The shorter incision is certainly to be preferred, and it should run from below the umbilicus to within 3 centimètres of the pubes. When it becomes necessary to elongate it, it should be extended upwards to the left of the umbilicus. Operators who have made the long incision, have done so in carrying out a modification first suggested and carried out by Professor Müller* of Berne. The modification consists of enlarging the abdominal wound sufficiently to allow the protrusion through it of the unwounded uterus, which is to be surrounded with a cord, or with the noose of a *serre-nœud*—so that the circulation is arrested before the incision is made through its walls. The object of this modification is to lessen the risk of escape of blood and uterine contents into the abdominal cavity.

This preliminary extrusion and constriction of the uterus, however, introduces special elements of danger. To the mother, there is the

* *Selected Obstetrical and Gynæcological Works.* Edited by Dr. Watt Black, page 412.
† *De Eventu Sectionis Cæsareæ.* 1841.
‡ *Zeitschrift für Geburtshülfe und Gynäkologie*, v, 259. 1880.
§ *Transactions of the Obstetrical Society of London*, vol. x, p. 45. 1869.
‖ *Obstetric Operations.* Third Edition, p. 427.

* *Centralblatt für Gynäkologie*, 1878, No. 5.

additional risk attendant on a larger wound; the increased exposure of the peritoneal cavity; and the liability to protrusion and injury of the intestinal coils. To lessen these, the upper part of the wound had sometimes to be stitched up before the opening was made into the uterus. Even when the wound was of considerable length, difficulty was experienced in getting the uterus to protrude, and its size had to be diminished by evacuation of the liquor amnii. So for the child, fresh risks are incurred, especially from the interference with the placental circulation, leading to temporary asphyxia, and probably to attempts at intra-uterine respiration. Hence, for example, in Dr. Elliott Richardson's, the only successful case that has yet been reported from across the Atlantic, he says:* "At birth, the child was in a condition of suspended animation—so that considerable effort had to be made at resuscitation." To such risks, I think, we are hardly warranted in subjecting the child.† The only condition in which it might be advisable to continue Müller's procedure would be where the waters had been evacuated, the child being dead, and the uterus possibly the seat of noxious material. In all other circumstances, contenting ourselves with a short abdominal incision, we proceed with

2. *Incision through the Uterine Wall.*—It is during the opening of the uterus that there arises the greatest risk of hæmorrhage. The risk is, of course, increased, if the line of incision fall through the placental area. This risk may be quite inevitable. If our palpation have led us to suspect that the placenta is attached to the anterior wall, if the blueish appearance of the uterus as it appears through the abdominal opening confirm the impression, and if Halbertsma's‡ suggested application of Middeldorpf's akidopeirastic make us sure, we still do best to cut through the centre of the anterior wall. To make the incision closer to the margins of the uterus, simply introduces the risk of wounding the large branches of the uterine arteries. The hæmorrhage, as I have stated, in my own case was trifling. I had the advantage of having to do with a quiescent uterus, and an anterior wall free of placental attachment. The opening, made with a sharp bistoury, in the upper part of the surface, was carried right through the membranes of the ovum, and of size sufficient to allow of the introduction of the finger, which guided a probe-pointed bistoury in extending the incision downwards. It must be of length sufficient to allow

3. *Extraction of the Child.*—This requires to be accomplished with all possible rapidity. Perhaps, in most instances, it does not greatly matter how the child is laid hold of. I notice that, in a large proportion, it has been seized by the lower limbs, and so extracted. But, as the interference first with the uterine walls, and then with the child itself, is apt to excite it to respiratory efforts, if the uterine wall close around the neck, as has sometimes happened, these respiratory efforts endanger the vitality of the child as long as the head is within the uterus. Hence, it is theoretically better to lift out the head first; and, in the case I have related, it was practically easy of accomplishment.

4. *Management of the Placenta.*—As the Cæsarean operation used to be carried out, the next step consisted in the detachment and removal of the placenta and membranes. The uterus had to be emptied, and security taken for a free escape of its contents through the cervical canal. That Porro and others, before proceeding to extirpate the uterus, should have continued to remove the placenta, seems to me only a survival of the old method of operating. There is no good to be gained by it; for the uterus collapses sufficiently to allow its easy extrusion through the abdominal orifice, though the placenta be left adherent to one of its walls. The separation and extraction cost some valuable seconds, and must occasion and allow an increase of the hæmorrhage.

5. *Securing of the Stump.*—In carrying out the utero-ovarian extirpation, two different methods have been followed, corresponding to the two methods employed in the removal of these organs when they are the seats of morbid growths. The pedicle has sometimes been secured according to the extraperitoneal method; sometimes according to the intraperitoneal.

a. Extraperitoneal Treatment of the Pedicle.—In carrying out this method, operators have encircled the uterus and broad ligaments about the level of the isthmus with the noose of a wire écraseur, such as the serre-noeud of Cintrat (which was the instrument used by Porro in his first case), or with a similar instrument furnished with a thin strip of metal instead of wire for constriction, or with such a chain as is found in the ordinary écraseur. When the wire or metallic loop or chain has been tightened so as to compress the structures firmly without producing any laceration of them, the uterus, Fallopian tubes, and ovaries are cut off with knife or scissors, and the stump in the grasp of the constrictor is secured in the lower angle of the abdominal wound. The portion in the bite of the écraseur sloughs and separates, at a period varying from fourteen to fifteen days.

This method has, *first*, the advantage of being capable of rapid execution, so that there is a correspondingly brief exposure of the peritoneal contents. It allows, *secondly*, perfect control of the wound, which is brought to the surface. *Thirdly*, it lessens the risk of any exudation taking place after the operation into the peritoneal sac.

b. Intraperitoneal Treatment of the Pedicle.—When the pedicle is to be treated so as to be dropped and left to heal within the peritoneum, the uterus must first be provisionally constricted with an écraseur or an Esmarch's band, or an ordinary piece of fish-line or whipcord. At some distance above this constriction, the uterus is clipped or cut off. A needle in a fixed handle will then carry a strong double silk ligature through the centre of the stump, just below the constricting band. The ligature is divided, and the needle withdrawn. The same needle then carries through the lower part of the left broad ligament a single thread, which will serve to secure the utero-ovarian vessels of that side. The needle, before being withdrawn, is to be threaded with one end of the double ligature, which had been carried through the middle of the stump. This will be used to secure the large uterine artery and vessels in the left half of the isthmus uteri. The needle will, in the same way, be passed with a single thread through the right broad ligament, and, as it is withdrawn, will bring back the other end of the double ligature that had first been introduced. I have stated in my report how I thought to simplify this procedure by using three ligatures instead of four, but was obliged eventually to introduce the four. Veit brought the edges of the peritoneum together over the cut surface, according to the plan recommended by Schroeder.

The favourable results obtained from this intraperitoneal method of treating the stump of ovarian tumours—results much more satisfactorily than those obtained by the use of the clamp—lead one to believe that, in Cæsarean hystero-oöphorectomy, it will betimes also give better success; but as yet the results have been disappointing.

6. *Cleansing of the Peritoneum.*—In most cases, more or less blood has passed into the peritoneal cavity. This may occur even where the uterus has been brought through the abdominal wound, and ligatured before being opened. The peritoneum requires, therefore, to be carefully cleaned out; and some operators have proceeded, further, to establish a drain through the pouch of Douglas and the vaginal canal, so as to prevent the accumulation of blood and serum in the cavity. For the most part, such drainage is unnecessary.

7. *Closure of the Wound.*—The abdominal wound is closed, as after an ovariotomy. Where the pedicle is secured in the lower part of the wound, it must be cauterised freely, so as to wither the surface; and it must be dressed with antiseptic cotton, which will absorb the discharge which sometimes occurs very freely from it.

The patients who have survived have usually had a period of convalescence of one or two months, protracted in some instances by umbilical herniæ or cervical fistulæ. Among the fatal cases, death resulted in twenty from peritonitis, in three from hæmorrhage, in two from shock, in two from tetanus, in one from thrombosis, and in one from pulmonary œdema.

General Result.—If we look at the general result of all the cases we have brought together, we see that 30 mothers were saved, and 42 lost; and 57 children were saved, and 14 lost; whilst the condition of the children in one of the cases is unknown. This gives a total of 87 lives spared, and 56 lost. If the patients had been delivered by some of the head-crushing procedures, then all the 72 infant lives would have been sacrificed; and, with the usual loss of about 1 in 5 mothers, there would have been at least 14 maternal deaths: that is to say, at least 88 of the 144 lives would have been lost, and only 58 saved. The proportions would nearly have been reversed.

Mr. William Cadge of Norwich, a member of the Council of the College of Surgeons, will take the chair at the annual festival of the Fellows on the evening of the election.

Prophylaxis.—The *Cincinnati Lancet and Clinic* says that the physicians of Nashville have petitioned the Common Council to prohibit the tolling of bells at funerals, as the tolling has a very depressing effect on the rest of their patients.

Bequests, etc.—Mr. John McCance has bequeathed £100 to the Belfast Royal Hospital. Mr. E. Pike has given a donation of £50 to the Hospital for Women and Children, Cork. Mr. Forster Green has given £50 to the Society for Providing Nurses for the Sick Poor, Belfast; and a similar amount has been bequeathed to this charity by Mrs. Bushell.

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* *American Journal of the Medical Sciences*, January 1881.

† Dr. Harris's case is the only one in which Müller's modification was adopted, and in it the mother was saved.

‡ *Centralblatt für Gynäkologie*, No. 5, 1881.

A LECTURE
ON
RECENT PROGRESS IN THE PATHOLOGY AND TREATMENT OF CEREBRAL PARALYSIS.

Delivered at the Hospital for Epilepsy and Paralysis, Regent's Park.

By JULIUS ALTHAUS, M.D., M.R.C.P.,
Senior Physician to the Hospital.

[*Concluded from page 576.*]

I NOW proceed to consider the palsy which arises from lesion of the parts constituting the corpus striatum. This peculiar form of paralysis is of the greatest practical importance, for I have calculated that on the average about 25,000 persons die of it annually in England and Wales, while at least twice as many people living in this country suffer from the effects of it. I have already stated that this form of paralysis is always owing to disease of the blood-vessels supplying the corpus striatum, and I must therefore now say a few words on the peculiarities of these latter.

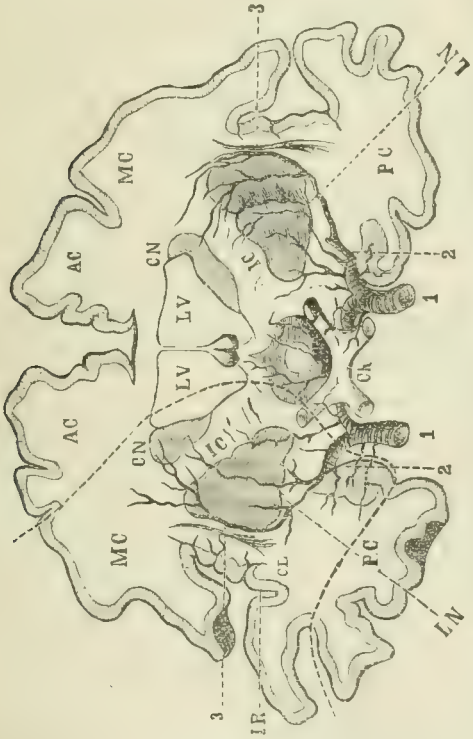


Fig. 3.—A C, Sphere of the anterior cerebral artery. M C, Sphere of the middle cerebral artery. P C, Sphere of the posterior cerebral artery. C N, Caudate nucleus. L V, Lateral ventricles. I C, Internal capsule. L N, Lenticular nucleus. Cl, Claustrum. I R, Island of Reil. Ch, Chiasma of the optic nerves. 1, Internal carotid artery. 2, Middle cerebral (Sylvian) artery. 3, Lenticulo-striated artery.

The arteries which nourish the central ganglia arise from the circle of Willis, the middle cerebral or Sylvian artery being the most important of them. This vessel supplies the lenticular nucleus, the internal capsule, and the larger portion of the caudate nucleus; indeed, only the head of the latter receives blood from the anterior cerebral artery.

Cohnheim has drawn attention to the circumstance that most of the smaller cerebral arteries are what he calls "Endarterien", or terminal vessels; *i.e.*, they do not anastomose with others, but turn straight into capillaries. This is the reason why we meet, in the central ganglia as well as in the cerebral cortex, with extremely localised softening, one vessel being quite independent of the other. Indeed, they can all be separately injected, but the whole of the corpus striatum cannot be injected from any one of them. Softening of the entire caudate kernel has, for the same reason, never been observed.

That hæmorrhage should occur so frequently in the central ganglia is explained by the fact that their arterioles are under the direct influence of the pressure of the left ventricle, the road from the heart to the corpus striatum being short and straight. Moreover, as these vessels do not anastomose, but are terminal, an excess of pressure in them cannot be well relieved, but must expend its force on the coats of the vessels, thus causing, in the end, aneurysmal dilatation, with eventual rupture and escape of blood into the brain-matter. Embolism occurs also, for anatomical reasons, with preference in the middle cerebral artery on the left side. An excrescence, detached from the valves of the heart, is driven from the aorta straight into the left carotid, proceeds unchecked through the circle of Willis, but becomes impacted in the middle cerebral, as the calibre of that vessel is not large enough to allow it to pass further on.

The peculiar distribution of the blood-vessels in the corpora striata explains likewise why hæmorrhage *within* their structure is rare, and why it takes place so frequently just *outside* them. The artery which is chiefly in fault here is one of the lenticulo-striated arteries, coursing between the lenticular kernel and the external capsule, and is so frequently affected with aneurysmal dilatation, leading eventually to apoplexy, that Charcot has called it the cerebral-hæmorrhage-artery. When it is ruptured, the blood which escapes from it is found to perform a kind of natural dissection of brain-matter in the direction of the least resistance. The external portion of this region, which consists of the island of Reil, the claustrum, and the external capsule, is spared by reason of its greater cohesion; while, on the inner side, the grey nuclei are pushed back towards the lateral ventricles, into which the blood will make its irruption whenever the hæmorrhage is very profuse. In such cases, we find generally, in addition to the ordinary symptoms of apoplexy, early rigidity of the paralysed muscles, epileptiform convulsions, and vomiting—which have the worst prognostic significance. Such patients often die within a day or two, without recovering consciousness.

A second class consists of those in which there is localised softening in the grey kernels, or where the hæmorrhage is so limited in extent that, although it displaces and pushes them against the ventricles, it does not tear up the internal capsule. In some cases, indeed, the pathological lesion is so slight, that there are hardly any, or no symptoms at all, during life. Thus the head of the caudate nucleus has been found softened after death, without there having been loss of motor power. But where the lesion is somewhat extensive, crossed incomplete hemiplegia is the result. In some cases, only the lower branches of the portio dura have been found paralysed, while the arm and leg escaped; in others, there have been paralysis of the arm and paresis of the leg. In all cases, however, it is found that the paralysis is transitory, and that after a few weeks or months the patient recovers the power over the affected side to a great extent. We are at present unable to distinguish, during life, lesions of one grey nucleus from those occurring in the other; but where hemiplegia remains more or less permanent, and is after a time followed by late rigidity of the paralysed muscles, it is certain that the anatomical changes have not been limited to either of the grey kernels of the corpus striatum, but have also invaded that portion of the internal capsule which contains the pyramidal strands, thus severing the connection between the Rolandic convolutions and the extremities.

It seems at first sight singular that disease of the grey centres should cause less severe symptoms than destruction of white matter, which does not generate, but only conducts power. This fact, however, becomes easily intelligible, if we consider that there are several grey centres, while there is only one conducting strand. The principle of compensation or substitution applies to the several grey kernels. If the influence of the lenticular nucleus be removed, the patient may fall back on the caudate nucleus and the hemispheres. No doubt there is a loss, which is more or less seriously felt at first; but, as time goes on, and the will of the patient is more directed towards the remaining sources of motor force, these latter undertake to supply the missing influence, and the patient is ultimately found not to be much worse off than he was before the attack. As soon, however, as the internal capsule is destroyed, a chasm is made between all the grey centres generating motor influence on the one hand, and the portio dura and the extremities on the other hand, which cannot be bridged over. Similarly, in a galvanic battery, a few pairs of plates may become rusty and unserviceable, yet the instrument may continue to be of service if there are other plates which continue in a proper electro-motive condition. But let the conducting wires of the battery be destroyed at any one point, and no more influence can be transmitted to the electrodes, however perfect may be the condition of the generator of force itself. Destruction of the internal capsule by hæmorrhage or softening is unfortunately a very frequent occurrence; and only regeneration of nerve-fibres in the capsule could, by re-establishing the conduction between the centre and the periphery, lead to the cure of the paralysis in such instances.

A description of the attack of paralysis or apoplexy does not enter into my present purpose. I therefore take up the patient at the time

when he has recovered from the more immediate and threatening symptoms, and where it appears plain that his life is not in any immediate danger, but that he is disabled by paralysis of the arm and leg, to which is added loss of power in the inferior branches of the portio dura. To these initial symptoms, however, others are gradually added, which impart a peculiar and characteristic aspect of the case.

A feeling of stiffness, which differs from the powerless feeling of the first few weeks, becomes noticeable in the paralysed muscles a month or two after the stroke. This is particularly experienced in the flexors of the forearm; and these muscles gradually assume a rigid condition. The fingers then appear flexed into the palm of the hand; and sometimes this contraction is so extreme, that the nails cut into the flesh. The thumb is flexed, and at the same time so strongly adducted, that it almost or quite disappears under the other fingers. When this rigidity is once fully established, it is difficult to overcome it by force, as the fingers offer the greatest resistance to any attempt at opening the hand of the patient. The forearm is generally pronated; the elbow is in a state of semiflexion, by rigidity of the biceps and brachialis internus; the arm is adducted to the side by contraction of the coraco-brachialis and the pectoralis major. The shoulder is sometimes raised by contraction of the trapezius, or depressed when there is paralysis without rigidity in that muscle. A certain degree of contraction, however, is mostly present in all the muscles. For instance, when the elbow is in a state of semiflexion through rigidity of the biceps, the triceps is, for that reason, not relaxed; for, on attempting to produce complete flexion of the forearm, so as to place the fingers in the acromion of the same side, resistance to this movement is experienced, showing that the triceps is likewise rigid. It is therefore simply a question of degree between the flexors and extensors; and this accounts for the circumstance, that it is sometimes difficult to make any considerable change in the position of the limb.

The contraction is generally less in the lower than in the upper extremity. It may appear in the hamstring muscles of the thigh, and the flexors of the leg; and where this reaches an extreme degree, it renders walking quite impossible, the leg being flexed on the thigh, and the thigh on the pelvis; so that the heels touch the buttocks. More frequently the rigidity invades the extensors and adductors of the the leg, and causes the appearance of pes equinus. The patient then walks on tiptoe, and, in order to diminish the dragging of the foot on the ground, instinctively swings the leg from without inwards, which constitutes a peculiarly characteristic kind of gait.

In the face there is also a certain amount of rigidity, which is more particularly noticed when the patient is talking, laughing, or crying. While at first, when there is simple palsy, the commissure of the lips is depressed, it becomes later on raised on the paralysed side. The naso-labial sulcus appears more marked; the nostril dilated; and the eye looks smaller, from rigidity of the orbicularis.

Muscular stiffness is greater when the limbs are cold than when they are warm. For this reason, the hand appears more open when the patient is in bed, and the arm is kept under the bedclothes, than when he is up. It is also greater in the waking state than during sleep; and this I believe to be due to the circumstance that emotions have a tendency to increase it, so that their absence during sleep renders the contraction less marked. The rigidity is also exaggerated by efforts to use the paralysed muscles; by injuries such as a blow or a fall; by faradisation of the skin; by the old-fashioned method of using electro-magnetism, which consisted of making the patient take hold of two metallic handles with both hands, and thus sending a powerful current right through the body. Duchenne has related the case of a student who treated himself in this fashion, and in whom the exciting effect was so great as to cause a fresh paralytic attack. The administration of strychnia, which was formerly much in vogue for the treatment of this form of paralysis, likewise tends to increase the rigidity; and, if it be pushed so far as to cause convulsive movements in the muscles, these are more violent in the paralysed than in the healthy side. Anything and everything, therefore, which has in a general way the tendency to exaggerate the reflex excitability of the cord will increase the rigidity of the paralysed muscles.

What is the cause of this peculiar symptom? It was formerly believed to be owing to inflammation of the brain at the seat of the lesion, which was thought to follow habitually upon an attack of apoplexy; but the changes which really follow an effusion of blood are not of an inflammatory character. Nor is it due to the shrinking of the cerebral cicatrix, as Dr. Todd believed; nor to peripheral neuritis, which has been assumed to occur by other observers. Neither can we explain it by an increase of reflex excitability, owing to the removal of the inhibitory influence of the brain; for the influence of the brain upon the paralysed limbs is removed immediately after the attack, while rigidity comes on a month or two afterwards. Pathological anatomy has, however, clearly shown that destructive lesions of the motor centres, and more particularly softening and hæmorrhage affecting the conducting paths of motor power in the white internal capsule, give rise to a peculiar form of chronic myelitis leading to sclerosis of the pyramidal strand corresponding to the affected side, in which, after death, wasting of nerve-tubes and increase of interstitial connective tissue are discovered.

The degree and extent of this sclerosis varies. In some cases, the whole texture of the strand has been found utterly destroyed, there being no nerve-tubes left, but only amyloid corpuscles and proliferated connective tissue; in such, the muscular rigidity is extreme, and affects all the muscles of the paralysed side indiscriminately. In other cases, the degenerative process appears to be more limited, there being white patches interspersed in the grey mass, which contain healthy nerve-tubes; in these, the contraction is not so marked, and the limbs are proportionately more useful to their owners.

The sclerosed appearance of the pyramidal strands is, on the *post mortem* table, seen to commence immediately behind the lesion, and then follows the anatomical distribution of the strand as I have sketched it above. It appears particularly striking in the crus cerebri, which is altogether smaller than the one on the healthy side, the alteration being chiefly marked in the middle portion of the crus. In the pons Varolii it is not so obvious, except at its lower surface where it joins the medulla oblongata, but becomes clearly apparent again in the anterior pyramid, where it crosses over to the opposite side of the cord, and runs down in the lateral column until it reaches the lumbar enlargement. This sclerosis, which is really a chronic inflammatory process, leads to irritation in the large motor cells of the anterior horns of the spinal cord, and thus causes that contracted condition of the muscles, which is in reality an exaggeration of their normal tonicity, this latter being under the direct influence of those ganglionic masses. Irritation of the horns, however, is a very different thing from actual disease or destruction of them; and it is only in exceptional cases of cerebral paralysis that these horns become really diseased in the further course of the affection.

In the vast majority of cases there is no muscular wasting, except what may be accounted for by disuse. It is indeed singular to see patients who have been deprived of the power over one side of the body more or less completely for five or ten years, and more, and in whom, nevertheless, the muscular tissue is fairly nourished, and where faradisation causes at once a ready response by inducing electro-muscular contractions. Compare with such cases those of infantile paralysis, where the muscles waste away, and lose their faradic excitability, within a few weeks; and an enormous difference is at once seen, which is, however, satisfactorily explained by the anatomical data which I have just given.

In some cases, however, the sclerosing myelitis spreads from the lateral column to the anterior horns; and we then notice a corresponding change in the symptoms. As the centre of tonicity is gradually being destroyed, the rigidity of the muscles diminishes *pari passu*, and ultimately vanishes altogether. When the muscles become more relaxed, the patient is apt to think that he is getting better; but such hopes are delusive, for the limbs become, on the contrary, more feeble as time goes on, and the muscles are found to lose their faradic excitability. This process goes on much in the same order as we see it in progressive muscular atrophy, affecting first the muscles of the shoulder and the hand, and afterwards other groups of muscles in succession. This is generally protracted over two or three years; and shooting pains are often felt in the muscles when the wasting commences. All grey cells being connected, the process may spread from the anterior to the posterior horns, or to the anterior horns of the opposite side by means of the anterior commissure; and we have then no longer hemiplegia, but paraplegia with muscular atrophy. In *post mortem* examinations of such cases, the anterior horns have appeared shrunk in size; some of the large cells were gone altogether, while those which remained looked sickly, yellow, and granular, and had no proper nuclei or Deiters's elongations. The gelatinous matter surrounding them likewise appeared disintegrated, granular, soft, and unresisting. The so-called intermedio-lateral cells, which are believed to be centres of vaso-motor action, have likewise occasionally been found destroyed.

I must now ask your attention for a short time to a set of symptoms which are produced by experimenting upon the patient in a certain fashion; and which, although they are often thought to have only a theoretical and scientific interest, are also, as I hope to be able to show, of importance in a diagnostic and therapeutical point of view. This inquiry takes us into the region of the so-called tendon-reflexes, which have of late years absorbed a considerable amount of professional attention, and on which I will now only touch in so far as they concern the particular condition which is now under consideration.

By examining the paralysed side of the patient in a peculiar manner, we may discover the first onset of sclerosing myelitis before actual

muscular rigidity has commenced. This is done in the lower extremity by quickly lifting the fore part of the foot with one hand, while the flabby leg is supported with the other hand under the knee-joint of the patient. We thereby produce what is called ankle-clonus, or foot-phenomenon, or induced trepidation, or spinal epilepsy; that is to say, a series of rhythmic muscular movements of the paralysed leg, which go on for a time varying from half a minute to five minutes and more. Such movements cannot be induced in a healthy subject, and in the hemiplegic only about a month or two after the attack. They may be increased by the administration of strychnia, and anything else that causes an exaltation of reflex excitability; while they are diminished by bromide of potassium, and anything which has a tendency to subdue that faculty. We also find that, in the knee, the patellar tendon-reflex is increased; and in the upper extremity, percussion of the tendon of the biceps causes flexion of the forearm; of the triceps, extension; and of the tendon of the extensor communis digitorum at the wrist, extension of the latter.

That these phenomena are owing, not to mechanical stimulation of the muscles, but really to a reflex action which takes place in the cord, has been so firmly established that I do not think it necessary to dwell on this point. I will only say that the time which is required for the stimulation to travel from the tendon to the cord, and from the cord back again to the muscle, amounts in the healthy man, on the average, to 50-1000ths of a second; while whenever there is irritation in the cord it is a good deal less—something like 34-1000ths. Researches on this point have been made by Tschirjew, Gowers, and Brissaud, the results of which do not quite agree; and the subject is worthy of further investigation. An interesting fact is that in hemiplegia with late rigidity, the time required for the reflex to become visible appears also to be less in the healthy limb, so that the healthy side does not appear to be entirely healthy.

Another point of interest connected with this subject is, that apart from the reflectory movement itself, certain other effects are apt to occur, from percussions of tendons in hemiplegic patients; viz., pain in the lumbar, dorsal or cervical region, a feeling of constriction in the throat and chest, tremor, and a general sensation of *malaise*. Brissaud, who has written an able monograph on late rigidity, has even seen it lead to fainting, aura epileptica, and true epileptiform convulsions. In hysterical women who are in a constant state of exalted reflex excitability, the same proceeding may, if frequently repeated, lead to permanent muscular contraction; and it is, therefore, incumbent upon the practitioner to exercise great prudence in using this test as a means of diagnosis, for fear of doing harm to his patients. Some time ago, when I had to examine a patient suffering from spinal disease, he begged me to take it for granted that the patellar reflex was increased, as the repeated knocks he had had on the patellæ, generally made him quite ill for the whole day.

Are there any cases of permanent hemiplegia without rigidity? This may well be doubted. Of course I do not speak here of lesions of the grey kernels simply, where the internal capsule remains unaffected; for in these cases the paralysis mends so much soon after it has been established, that we can hardly call them hemiplegic two or three months after the attack, when there remains simply a degree of awkwardness in using the fingers, but no actual paralysis. The patient then uses his Rolandic convolutions where formerly he used the lenticular and caudate nuclei; and more conscious attention and trouble is therefore required than before the stroke. Where, however, the internal capsule has been injured, and the affection is, therefore, more severe, there is probably always at least some degree of contraction, which is sometimes, indeed, barely appreciable when the limb is quiet, but which becomes at once obvious when the patient is requested to make an effort, however slight. Thus, for instance, he may be able to move his arm and hand in all directions; but when told to pick up a pin, or to unbutton his coat, the fingers and hand are seen to contract, rendering such manipulations difficult or impossible. On examining the state of reflex excitability, that of the tendons is found to be increased, and there is no difficulty in inducing spinal epilepsy. The time of menstruation in women is particularly favourable for the production of these phenomena—no doubt owing to the excitability of the cord being still further exaggerated during that period.

Time warns me that I must not tarry on this subject any longer; nor shall I be able to speak to-day of disease of the Rolandic convolutions, and the cortical paralysis which is owing to it, but will at once proceed to consider the prognosis and treatment of paralysis from corpus striatum hæmorrhage.

The *prognosis* of this form of paralysis is only favourable when the affection is limited to the grey kernels of the corpus striatum, while total destruction of the internal capsule generally leaves the patient permanently disabled. The amount of damage done, either by softening or hæmorrhage, is of course of the greatest consequence, as lesions of slight extent may be more easily repaired than those occupying a large area. Age and constitution of the patient have that influence which must be accorded to them in all diseases; and, finally, much depends upon the treatment which is adopted at an early stage of the malady, and chiefly before sclerosis has been fully established. With regard to this point, the occurrence of ankle-clonus after an apoplectic or paralytic seizure should be carefully watched for, as it is a diagnostic sign of the utmost value, leading us to predict the probable speedy appearance of late rigidity in the paralysed muscles; and, as soon as that symptom has made its appearance, no time should be lost in resorting to special therapeutical measures.

The *treatment* of cerebral paralysis would, *primâ facie*, appear to have but slight chances, as in one class of cases there is a natural tendency to recovery of function by compensation of allied structures, while in another the destructiveness of the original lesion and its consequences would seem to render all therapeutical effects futile. The question of treatment has, therefore, been disregarded by many of those who have been most forward to investigate the pathology of these conditions. Nevertheless this must, for all time to come, be the chief point of interest for the practitioner. No doubt some cases are incurable; yet I think I shall be borne out by those most conversant with this subject when I say that few cases are met with in practice which may not be improved by judicious treatment.

Are there any means at our disposal to repair the lesion in the internal capsule, which we have seen to be the chief obstacle to recovery? That repair of destroyed nerve-fibres is not actually impossible has been shown not only by experiments on animals, but also by cases of neurectomy for facial neuralgia, in which at first anæsthesia was caused by the operation, from loss of nerve-substance, amounting in some cases to as much as three-quarters of an inch; and where this was eventually recovered from, and the paroxysmal pain, which had disappeared after the operation, returned in the same sphere after a time. This points in the most unmistakable manner to repair of nerve-fibres. Can part of the capsule be repaired in a similar manner, and thus the influence of the volitional centre of motor power in the hemispheres again be brought to bear upon the paralysed extremities? This question cannot be at present answered, as there is not yet sufficient clinical and pathological evidence for that; yet I have had a very considerable number of cases under my care in which such an occurrence appeared to have taken place to some extent.

The remedies I have used for this special purpose have been: first, phosphorus, sometimes simply dissolved in a sufficiency of oil, and administered in a capsule or perle twice a day, in doses of one-thirtieth of a grain, and sometimes in cod-liver oil, where the general state of the patient seemed to render the latter medicine advisable; and, second, the constant galvanic current, sent transversely through the brain by one electrode being placed to the right and the other to the left mastoid process, and also longitudinally by one being placed to the forehead and the other to the occiput. The cathode, which is the more stimulating of the two poles, should be nearest to the seat of lesion; so that, for instance, in right hemiplegia, the cathode is placed to the left and the anode to the right mastoid process. Such applications are made daily, the current being allowed to pass for from five to ten minutes at a time. Later on, local applications of the current to the paralysed parts are combined with this. These latter are not so much intended to act on the motor nerves and muscles as on the sentient nerves, by which the stimulation is reflected to the suffering centre. Faradisation is also sometimes useful, and should be employed to the antagonists of the contracted muscles.

Our second object should be to counteract the sclerosing myelitis which is apt to follow the attack. For this we have several remedies, which, if used at a sufficiently early stage, have appeared to me useful. These are principally the salts of gold and silver, and ergot of rye. Gold is given either as chloride of gold, or better still as chloride of gold and potassium, in doses of from one-eighth to one-half a grain, in pills. Silver is given as the oxide, nitrate, or phosphide, in doses similar to those of gold. Ergot of rye I generally give in the form of the liquid extract, in doses of from half a drachm to a drachm three times a day. A good plan is to give a gold-salt for a month, a silver-salt for a month, and ergot for a month. That remedy under which most improvement appears to take place may afterwards be continued, according to the special features of the case.

Iodide of potassium does no good in embolic softening, but appears useful in promoting the absorption of the clot after hæmorrhage. This pathological process is generally finished in about six weeks after the attack, and it is rare to see much good resulting from that remedy at a later stage of the disease. Bromide of potassium, on the other hand, is useful when reflex excitability appears much increased.

A word must be said about the employment of strychnia in these cases. This is a remedy for paralysis hallowed by tradition; yet nothing could well be more unphilosophical, or indeed hurtful, to our patients than to sanction or to continue such a practice. Sclerosing myelitis being the natural sequence of paralytic attacks strychnia is certain to increase the exalted state of excitability in the spinal cord, and thus to render the muscular rigidity more intense. It is therefore a medicine which should never, on any account, be given in such cases.

The general health has, of course, carefully to be attended to at the same time. We must remember that some of them—viz., the subjects of embolism—suffer from heart-disease; while others, in whom the attack has been owing to hæmorrhage, are probably affected with small aneurysms in different portions of the brain, which may burst subsequently, and give rise to fresh attacks. Straining at stool is dangerous for such persons, and the action of the bowels should therefore receive great attention. The *morale* of the patient is often improved by change of air and scene, as soon as he is sufficiently well to bear a journey. We cannot expect much from mineral water cures in the further progress of these cases. Wildbad, Gastein, Buxton, and other spas have had a reputation in the treatment of cerebral paralysis, which has, however, not stood the test of time and strict criticism; and it is, on the whole, better to send such patients to places which are easily accessible, where all comforts can be procured, and which possesses well known climatic advantages. A moderately dry bracing air is found to be particularly suitable for these patients; but high elevations must be avoided.

Shall we, then, ever succeed in removing the shadow of that dire disease—

> "Paralysis—grim foe to men of mind—
> That lies in ambush for them treacherously,
> And lays them prostrate down as with a mace?"

Such, no doubt, would be too much to expect; yet, even now, when a treatment really in accordance with pathological conditions has only just been sketched out, it is found that, with scarcely any exceptions, our patients are very much the better for it; and that great further progress will be made in time to come in our management of these cases, is a hope which will surely not be disappointed.

ABSTRACT OF LECTURES
ON THE
ANATOMY, PHYSIOLOGY, AND ZOOLOGY OF THE CETACEA.

Delivered at the Royal College of Surgeons of England.

By W. H. FLOWER, F.R.S., LL.D.,
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Lecture VIII.—The Anatomy of the Porpoise (*continued*)—Dolphins, etc.

The larynx and trachea are somewhat similar to those of the whalebone-whales, but the superior extremity of the arytenoid cartilages are flattened out into a club-shaped end, and there is no air-pouch in front of the trachea, such as is found in the *Balænoptera rostrata*, with which the larynx communicates; or, if present, it is quite rudimentary. It is believed by many naturalists that the opening of the larynx remains grasped by the posterior nares behind the velum palati, not only during the act of respiration, but also during deglutition; and that the food is passed backwards into the pharynx on each side of the larynx. If such is the case, it is difficult to understand how the grampus, which has a larynx very similar to that of the porpoise, is able to swallow large animals—such as seals, etc.—entire, or nearly so, as it frequently does. The olfactory nerve is absent in the porpoise, and there is no cribriform plate, both of which structures are very fairly developed in the whalebone-whales, especially in the Greenland right whale. The vascular system is arranged in exactly the same manner in the porpoise as in the *Mystacoti*. There are large arterial plexuses situated in the neck, in the expanded foramen for the entrance into the mandible of the inferior dental branch of the fifth nerve, below and on each side of the dorsal vertebræ, especially in connection with the intercostal arteries, and in the caudal region in the arches formed by the chevron bones. The kidneys are extremely lobulated, resembling bunches of grapes. The lobulated form of the kidney is a character found in many mammals, as the bear and seal, but is more exaggerated in the cetacea than in other members of the class Mammalia. The organs of generation differ in no respect from those of the *Mystacoti*. The penis is very much curved, and is held in that position by a well-developed retractor muscle. The prostate gland is large; the vesiculæ seminales and Cowper's gland are absent. The mammary nipples in the male are situated in a cavity, which opens externally as a small median slit, situated between the anus and the opening through which the penis is protruded externally. In the female, the nipples are larger, and are situated in two small cavities, which open externally on each side of the vulva. The mammary glands have large ducts, which act as reservoirs to contain milk; by this arrangement, the difficulty of lactation in the water is overcome, the animal being able to inject a large quantity of milk previously collected in the ducts rapidly into the mouth of its young. The placenta is diffuse and non-deciduate, as in the pig and horse, with some slight modifications.

The family of toothed whales most nearly allied to *Phocæna* is the *Delphinidæ*, or dolphins. The common dolphin (*Delphinus delphis*), which is much more rarely caught on our coasts than the porpoise, closely resembles the latter, and is frequently mistaken by fishermen for it. It differs from the porpoise in having a longer head; the rostrum is much more elongated, and projects suddenly in front of the lump of fat on the top and anterior part of the head. It has a number of very sharp conical teeth, which are exactly alike at all parts of both upper and lower jaws. The anterior limbs are longer than those of the porpoise, and the dorsal fin is high and sickle-like. The largest member of the family is the *Delphinus tursio*, an animal which was known to Hunter, and of which there is an articulated skeleton and several skulls in the museum. The geographical distribution of the *Delphinidæ* is very wide, they being found in all seas, and even in some rivers. The chief subdivisions into which they may be separated are *Steno*, *Tursiops*, *Prodelphinus* or *Clymene*, and *Delphinus*.

The *Globicephalus* is another member of the group of toothed whales which has very distinct characters. It is very common in the northern seas, where it is usually found in shoals. It occurs on the shores of the Orkney and Shetland Islands occasionally, but is frequently found around the Faröe Islands, where large numbers are killed almost every year by the inhabitants. When a shoal approaches the coasts, it is at once pursued by the fishermen, who frighten the animals, naturally shy timid creatures, till they drive them aground, and then kill them with lances. The name *Globicephalus* was given to the animal from the external appearance of the head, which is of a very round shape, from the contour of the lump of fat on the anterior part of the upper surface of the skull; the skull itself is flat, however, and broad. The dorsal fin is high; the anterior extremities appear to be very long and narrow, from the great length of the manus, the central digit of which has as many as thirteen or fourteen phalanges. There are five bones in the carpus and five digits. The teeth are very small in proportion to the size of the animal, and confined to the anterior half of the upper and lower jaws. They are very loosely set in their sockets, and, when the skull is macerated, are frequently lost. Strong teeth are not required, as the animal lives mostly on squids and cuttle-fish. The cervical vertebræ are ankylosed together; the sternum is well formed, and has several sternal ribs articulated to each of its sides. The *Globicephalus* is found in all seas, from Australia and New Zealand to the north of Europe; and all forms seem to be very much alike.

The *Grampus* is a toothed whale resembling the *Globicephalus*. Its anterior extremity is not so long, and is less modified; the lump of fat on the top of the head is not so large as in the *Globicephalus*. It is peculiar in having no teeth in the upper jaw, and only a few confined to the anterior half in the lower jaw, and in being of a peculiar colour, with a number of whitish lines on the under surface of its body unsymmetrically arranged.

The largest and fiercest form of toothed whale is *Orca*. Hunter dissected a specimen of this animal, which was taken in the mouth of the Thames, and is now mounted in the Museum. It is occasionally caught on the British coasts. The dorsal fin is sword-shaped. The manus is very broad, all the individual bones being broader than they are long. The animal is white-coloured below and dark above. The skull, which is very similar to that of the *Globicephalus* and *Grampus* in its general characters, is usually slightly unsymmetrical, and the premaxilla of the right side is usually somewhat higher than that of the left. The teeth are large and well developed. The animal lives on seals and large fish; it even eats other animals of its own order. The stomach is very large, and has been found to contain several seals and porpoises at the same time.

Nearly allied to the *Orca* is the *Pseudorca crassidens*, which was first described as an extinct animal by Owen from a semifossil skull found in Lincolnshire, which has unfortunately been lost. Some years after Owen described his specimen, Professor Reinhardt obtained the skull of an animal caught in the Baltic, which he found to be identical with the one described by Professor Owen. Nothing further of this species was seen till a few years ago, when Dr. Crowther sent home two skulls,

which differed slightly from those described by Owen and Reinhardt, and which Professor Flower named *Pseudorca meridionalis;* but, since more skulls of the same species have been obtained, it is evident that they all belong to the one species, *Pseudorca crassidens*. A smaller, but closely allied form, is the *Orcella*, found in some of the rivers of India and the Bay of Bengal.

The *Beluga*, or white whale, is a purely arctic species, distinguished by being of a whitish tallow colour, and having no dorsal fin. The cervical vertebræ are not ankylosed together; the head is narrow; and the rostrum is small. The teeth are few, and of small size. A specimen of this whale was caught about two years ago, close to Dunrobin Castle, in Sutherlandshire, and presented by the Duke of Sutherland to the museum. It has a curious dislocation of the cervical vertebræ, which has probably been the result of an accident. The atlas has been dislocated laterally from the condyles of the skull, leaving only a small passage for the spinal cord. The animal lived for some time after the accident, as the vertebra has become ankylosed into its new position.

THE DIRECT METHOD OF ARTIFICIAL RESPIRATION FOR THE TREATMENT OF THE DROWNED, STILL-BIRTH, ETC.

BY BENJAMIN HOWARD, A.M., M.D., F.R.C.S.ED.

I.

THE first sentence in the four-page Shortest Instructions of the Royal Humane Society for the treatment of the drowned is, "Send immediately for medical assistance".

The history of all the Society's receiving houses in London, however, even with their unparalleled facilities in this respect, furnishes not a solitary instance in which such assistance has been obtained in time to be of use. This, added to a nearly similar experience in the Island City of New York, and, so far as I have been able to ascertain, of other capitals also, painfully, but most emphatically, proves that only so far as non-medical men shall be made competent for the task, can the resuscitation of even a small proportion of the rescued be hoped for.

This conclusion led me, some years ago, to add to every set of rescue-apparatus within many miles of New York City, the printed instructions of the Royal Humane Society, and the National Lifeboat Institution, and to have them specially explained by familiar lectures to the harbour police. Another conclusion, much more disheartening, and which, to my astonishment, was forced upon me by various examinations of these men, many months afterwards, was that, whatever the value of the methods in question in medical hands, to these men, and to others like them, they were simply confusing and practically worthless. A third conclusion, the responsibility of which I could not evade, was personally to make a thorough investigation of the whole question. The outcome of this, arrived at step by step, year by year, was what is now known as the Direct Method of Artificial Respiration, embodied in a small half-page of simple instructions, reading as follows.

HOW TO RESTORE THE DROWNED.



Fig. 1.—Pressing and Draining Water from Lungs and Stomach.

"1. *Instantly* turn patient downwards, with a large firm roll of clothing under stomach and chest. Place one of his arms under his forehead, so as to keep his mouth off the ground. Press with all your weight two or three times, for four or five seconds each time, upon patient's back, so that the water is pressed out of lungs and stomach, and drains freely out of mouth. Then:



Fig. 2.—The Bellows-Blowing Movement for pressing Foul Air out, and drawing pure Air into the Lungs.

"2. *Quickly* turn patient, face upwards, with roll of clothing under back, just below shoulder blades, and make the head hang back as low as possible. Place patient's hands above his head. Kneel with patient's hips between your knees, and fix your elbows firmly against your hips. Now—grasping lower part of patient's naked chest—squeeze his two sides together, pressing *gradually* forward with all your weight, for about three seconds, until your mouth is nearly over mouth of patient; then, with a push, *suddenly* jerk yourself back. Rest about three seconds;—then, begin again, repeating these bellows-blowing movements with perfect regularity so that foul air may be pressed out, and pure air be drawn into lungs, about eight or ten times a minute, for, at least, one hour or until patient breathes naturally.

"*Note.*—The above directions must be used on the spot, the first instant the patient is taken from the water. A moment's delay—and success may be hopeless. Prevent crowding around patient; plenty of fresh air is important. Be careful not to interrupt the first short natural breaths. If they be long apart, carefully continue between them the bellows-blowing movements as before. After breathing is regular, let patient be rubbed dry:—wrapt in warm blankets—take hot spirits and water in small occasional doses, and then be left to rest and sleep."

While in England, as in America, the average layman usually at a glance seizes the principle, and on a careful reading at once becomes competent sufficiently well to practise the direct method, professional experts, on a closer examination, will find in it some important facts unknown before, assuring in the treatment of the drowned, and of apnœa from any cause, an effectiveness otherwise impossible.

As I proceed, I think it will appear, though perhaps not in the order I may now indicate, how in contrast to the instructions of the Royal Humane Society, and also of the National Lifeboat Institution—

1. The direct method alone provides for a thorough preliminary ejectment of fluids from the stomach and thorax.

2. This method alone makes the drainage of the pharynx constant, precluding failure from lodgments there, or suction thence into the trachea.

3. In this method, the usually impracticable task of opening the mouth and pulling forward the tongue is more than superseded by simple position.

4. This same position also secures, and in the only way possible, the instant elevation of the epiglottis.

5. The compression by this method is the most complete, and capable of the most delicate adaptations.

6. It is the only method which can be practised by one person, and which by the same person can easily be continued as long as it may be of use.

Having myself corroborated, both by experiments and in practice, the conclusions of the first Resuscitation Committee of the Royal Medical and Chirurgical Society respecting the swallowing and inspiration of water, either the one or the other, or both, according to certain conditions of the submersion, the direct method, in contrast to the method curiously enough recommended by that same committee, begins by emptying the water-logged thorax, relieving the distended stomach, releasing the otherwise immovable diaphragm, and thus making an inspiration possible.

Having further corroborated the results of the experiments by the same committee respecting the "enormous force", as they state it, with which fluids, and even solid bodies, may, by the suction of an inspiration, be drawn into the trachea, in contrast to the position most favourable to these accidents, so strangely recommended by this same committee, the direct method maintains drainage of the entire pharynx from the beginning to the end of the operation.

* Being a report, with additions, of a lecture delivered before the Annual Meeting of the British Medical Association in Manchester.

In the position for first ejectment the roll of clothing, by its size, makes the thorax and stomach the highest points, the nostrils and mouth the lowest; the latter being kept free of the ground by a wrist or forearm of the patient beneath his forehead. The displaced fluids rushing forward and downward cleanse the upper air-passages, which by position are then completely drained.

On the release of this first compression for ejectment, the rebound may, at the very outset, secure an inspiration—the one aim of the whole process.

The facts in this method, to which, without reserve, I referred as new and important, and which relate to the head-down position of the supine patient, may be found in detail in No. 6, vol. viii, of the *Proceedings of the Royal Medical and Chirurgical Society*. They are briefly as follows.

In the position of utmost extension of the head and neck, as I call it, and which simply by the elevation of the thorax, as directed in the supine position, is made moderately possible, the line of gravitation of the tongue has its terminal point shifted from the posterior wall of the pharynx to the hard palate, at or about its junction with the soft palate. The entire posterior wall of the pharynx is shifted backward; its anterior wall is shifted forward; thus, its antero-posterior diameter, as much as is possible, is throughout increased; while, by the shifting upward and backward of the nares, their entrance is brought more directly over and in a line with the course of the pharynx. The larnyx being pulled downward and forward by the sterno-thyroidei muscles, and fixed there, the extensive motion upward and backward of the lower jaw puts upon the stretch the genio-hyoidei, mylo-hyoidei, and anterior bellies of the digastric muscles, causing the hyoid bone, and, by means of the hyo-epiglottic ligament, the epiglottis, to share together the motion of the jaw. Thus, the epiglottis is instantly made vertical. The thyroid insertion of the palato-pharyngei muscles being brought downward and forward by the sterno-thyroidei and fixed, the palato-pharyngei muscles are put upon the stretch their whole length by the extensive movement upward and backward of the head; and thus the posterior pillars of the fauces, the arches of the palate, and the velum palati, into which latter membrane these muscles are inserted, are all pulled downward and forward; they are thus made tense and kept so. The velum being thus stretched some distance in front of the back of the pharynx, a postoral air-way is secured, from the nares to the glottis, from which the tongue is doubly excluded.

Hitherto the propositions for obtaining an air-way, without the existence of which nothing except failure can be assured, have, even in the best selected circumstances, been practicable only in part. In No. 21, vol. i, of the *Lancet*, I have stated the fact, and shown the reasons why it can be no otherwise, that for the elevation of the epiglottis, the universal practice of pulling forward the tongue, however skilfully it be done, avails nothing, in spite of the fact that, even with the aid of jaw-prisers and gags, and tongue-forceps and assistants, and all the appliances of the operating theatre, the opening of the clenched jaws and the seizing of the tongue, which is deemed but a preliminary to the raising of the epiglottis, is oftentimes, as any practised chloroformist will admit, one of the most difficult tasks he is called to perform.

In the face of this experience of experts, the following instructions to the accidental bystander by the Royal Humane Society, if the matter were a less serious one, would be simply comical.

In these instructions, after directions to send for medical assistance, the solitary and unlearned comrade of the drowned man at the water's edge is told to "open the mouth, draw forward the patient's tongue and keep it forward", the only suggestion as to how, in either case, he is to do it being, "apply an elastic band over the tongue and under the chin".

It may be superfluous to say that, after much inquiry, I have been unable to find anybody who had ever even heard of a drowning case in which by a layman these instructions had been carried out—and for the best of reasons.

With the jaws inseparably clenched, the slippery tongue receded into the pharynx, the epiglottis fallen back—only as either one or more of these conditions may be accidentally incomplete, can exchange of air, or recovery by any mere thoracic procedure whatever, be possible. Just here appears conspicuously one of the merits of the direct method. The bystander has simply to place the patient in the position as directed, and instantly the free postoral air-way is substituted for an impassable oral way in the manner described, and respiration is at once possible.

When, as sometimes occurs, syncope is a principal or incidental feature in the case, this position is, of course, for that also, the best and quickest remedy. Mucus, too, and other accumulations which otherwise might flow or be sucked into the trachea, are thus during respiration, as I have before remarked, constantly drained away.

Having now an open and widened air-way, we come to the movements for respiration, in which manual compression of the thorax and displacement alternate with inevitable rebound, corresponding inrush of air, and replacement.

The precise manner in compression which I prefer is to place the thumbs along the anterior free borders of the costal cartilages, so that the fingers naturally fall into the lower intercostal spaces. The force then applied to the ribs, is, through the medium of the thoracic parietes, so distributed, as, without shock or violence, to bend the ribs upon themselves in the line of their own axes, the operator feeling his way as to how little or much he is doing, or may do, and regulating his course accordingly. More particularly, he is thus able on the first return of short and imperfect gasps to observe, aid, and deepen these, and, in various ways impossible by the Humane Society's or other methods, to adapt his movements to the varying need of the moment.

The direct method is as easy to do as it is to understand. The kneeling position, even if not habitual with the operator, is not a tiring one. The part to be pressed is raised to his hands, and his weight is the chief force employed, while there are frequent intervals of complete rest. The rate of the respirations, which, it will be noticed, is one-third to one-half slower than in previous methods, gives, even then, nearly three times more respirations a minute than will, as can be easily proved, suffice without discomfort for an ordinary healthy man in repose. The eight-or-ten rate, while it supplies more oxygen than the asphyxiated or partially recovered patient can for some time assimilate, allows of better diffusion, minimises superfluous disturbance, and promotes ease in its continuance. On such an inconvenient spot as a boat, as also on a feather bed, etc., where the other methods are impracticable, I have myself, as have others, effectively continued this method entirely unaided for more than an hour.

In all these particulars also, this method is in complete contrast to the other methods. The illustrations of the Marshall Hall method include three or four operators; for the Sylvester method two at least are necessary.

For the semi-rotation of a perhaps heavy and virtually dead body, at the rate of seventy-five times every five minutes, according to the instructions for the Marshall Hall method, no one man would be strong enough; and no four accidental bystanders would be trained enough to do it in unison. Without discussing the otherwise possible merits or demerits of this method, it is, for the treatment of the drowned, simply as nearly as possible impracticable.

In performance, the Sylvester method is both difficult and very fatiguing. The holder of the tongue is directly in the way of the operator. The compression desired is attempted upon a part almost beyond the reach of the operator; is made transversely to the ribs and downwards, instead of in the line of their axes, and inwards and upwards; while between the hands of the operator and the part to be pressed are interposed the arms of the patient. The maximum of labour thus so ingeniously adapted to a minimum of effect, is such that a few minutes' faithful performance of it quite exhausts the strength of even a skilful and duly assisted operator. The first and fatal check which, as I said, I myself received in the use of this method in connection with the Metropolitan Police of New York, however, and arising, I think, in part from the obscurity of relation between the motions as directed, and what non-medical persons know about the process of breathing, was owing, I afterwards found, to no local causes. Extending my personal investigations to almost every receiving house in Europe, I found that, with the exception of those on the Serpentine in London, even the *employé* experts, followed the instructions "draw the arms *gently* and steadily upwards", and "then turn down the patient's arms and press them *gently* for two seconds against the side of the chest"* in such a *very gentle* way, that uniformly the whole process was simply a moving of the arms up and down *gently* in their sockets. This so completely missed the principle and the objective points of the method, that even the author of it would admit such performance to be a parody, which could promise no certain benefit.

In the amphitheatre, with operating surgeons, the whole question is a different one, the performance in that case usually being much better than the "instructions". Even here, however, the superior advantages of the direct method are scarcely less apparent.

With the head as low as is convenient from the beginning, should the anæsthetised patient give the slightest suspicion of apnœa, the instant head-down position, united with firm extension by pressing the chin upward and the forehead backward, corrects the condition in the simplest, quickest, and most intelligible way, superseding the present instrumental violence, and without disturbing the surgical operation in

* The italics are my own.

progress. As a rule, all threatening symptoms will thus be caused to cease. Should artificial respiration be required, just as we are always content to do with animals in the laboratory, let thoracic compression be made in the manner I have described, and we have artificial respiration in its simplest form. If, however, the operator prefers the supposed and, perhaps, positive advantage obtainable from arm-extension, the adaptability of the direct method is such, that this can be secured also. The extension may be made thoroughly, and direct compression also, thoroughly in rhythmical alternation. Even tracheotomy, electricity, friction, etc., might be added if desired, and the direct method proceed without interference.

The instructions of the Royal Humane Society were, I am aware, recommended by a committee of men the most competent and distinguished, perhaps, in the profession; but not one of whom, I believe, had the advantage of an actual experience in the treatment of drowned men. Their recommendations were based upon the results of experiments made with the aid of practised experts upon the selected and drained cadaver.

In every case, before the experiments were begun, tracheotomy was performed, and a tube was carefully attached to the trachea.

Thus all the more perplexing and, I may say, till now unsurmounted obstacles connected with the upper air-passages were jumped before starting, and the experiments were proceeded with under conditions as different as they could be made to be, from those encountered by physicians; while they entirely miss the first facts in the problem of the actual treatment of the drowned—the best instructions for the treatment of the drowned for the use of the largest number of uneducated laymen.

In trying to be brief I fear I have been obscure, especially respecting the facts which, at the beginning, I promised should be found to be novel and important, connected with the upper air-passages. I may, therefore, be allowed to say that each of these facts above mentioned has been repeatedly demonstrated by me to the acknowledged satisfaction, as well as surprise, of such distinguished authorities at St. Thomas's and Guy's Hospitals, and at the Royal College of Surgeons, as I think you would yourselves be most likely to select.

Unlike, I believe, any previous authors or their co-labourers on this subject, all that I have said or done in connection with it has been the offspring of arduous, practical, and extensive experience—an experience, I may add, which has involved no little sacrifice.

If I have been clear, I think you have now been able to understand the reasons for the distinctive positions and movements of the direct method, and to see the several advantages these secure in connection with ejection and drainage—the postoral air-way and the more delicately regulated and sufficient respiration, which, at the beginning, I said I hoped to be able to show.

That which I claim as the most distinguishing feature of the direct method, however, is, that its effectiveness is united with such simplicity as quickly to enable the *average layman* to be competent for the best treatment of the drowned, and that it thus supplies the only condition by which, according to our past experience, a larger saving of human life may in these cases be hoped for.

We will next consider the direct method in the treatment of still-birth.

THE HEALTH-OFFICERS OF THE ISLE OF WIGHT.—Dr. Ballard has made to the Local Government Board a very elaborate and lengthy report, on the sanitary condition and administration of the Isle of Wight. He records much inconvenience as arising from the multiplicity of local authorities in the island, and from the unsatisfactory conditions under which many of the health-officers hold their appointments. He finds much matter for criticism in the way in which the sanitary authorities do their work, especially as regards keeping pace with the growing necessities of villages, which are rapidly becoming towns. He regards, as very disadvantageous, the arrangements by which in the rural district, the nine district medical officers have been appointed *ex officio*, medical officers of health, and in the urban districts private medical practitioners have been separately appointed to the post. He thinks it of great importance that the services of a skilled medical officer of health, not occupied in private practice, should be available for each district; and in order to provide an adequate salary, he recommends that a combination of all the sanitary authorities in the island, should be made for the appointment of a single officer. The area and population are certainly large, but not larger than those of many existing combined districts where the appointment of a single medical officer of health has been attended with excellent results; and there seems no reason to doubt that an officer living in a central position, and devoting his whole time to sanitary work, would be able to exercise proper supervision over the whole island. If this desirable combination could be accomplished, it would be a great and obvious improvement on the present arrangements, which are admittedly imperfect and unsatisfactory.

THERAPEUTIC MEMORANDA.

EUCALYPTOL *versus* PHENOL.

DURING the prevalence of the last epidemic of small-pox in London, I called attention, in the BRITISH MEDICAL JOURNAL (February and May, 1871), and in the *Lancet* (April, 1872), to the dangers attending the use of phenol and its preparations as disinfectants, and as surgical dressings; and I advocated the substitution of heat and sulphurous acid for disinfecting purposes. I have had the satisfaction of seeing these latter processes previously known, but little employed—firmly established in public favour; and I now have the further satisfaction of seeing another of my *protégés* proposed by Mr. Lister as a safe and efficient substitute for carbolic acid in surgical practice. I have long been convinced of the beneficial action of the aromatic emanations (not the absorbent powers) of the eucalyptus tree; and have endeavoured to introduce some of the hardier varieties into this country, by distributing a large quantity of seeds in the most suitable districts. The French have studied the chemical nature, and the therapeutical action, of the eucalyptus globulus more thoroughly than we have done, probably because it is an important product of their country. The substance which we call the oil of eucalyptus is, or was very recently, called eucalyptol by the French chemists. The term is a more convenient one than ours; and, as it corresponds with our other antiseptics—phenol, thymol, etc.—we may accept it, without inquiring too curiously as to its chemical accuracy. The substance, indeed, is only the lighter and more volatile portion of the oil of eucalyptus, which distils over at a temperature below 175° C. (347° Fahr.); a second substance passes over at a temperature of 188° to 190° C. (360° to 374° Fahr.); while a third remains in the retort. On account of the slight solubility in water and its great volatility, Mr. Lister recommends that the eucalyptol should be mixed with damar gum; but it will probably be found that eucalyptus gum—or rather resin—from which the tree derives its popular name in Australia, will be found more suitable. The French have long been employing a combination of the kind, under the name of the *Alcoolature d'Eucalyptus*, a common tincture of the fresh leaves, containing a large amount of the essential oil and resin, some tannin, and probably a little chlorophyll, as it is of a dark olive colour. I have myself used the preparation as a surgical dressing, and in some forms of skin-diseases, without ill constitutional effects. I have found, however, that doses of twenty to thirty drops, taken internally, produce irregular action of the heart, and a feeling of prostration similar to that produced by an overdose of tobacco; so that eucalyptol may not be quite so safe as Mr. Lister has found it to be in his practice so far. The French chemists also prepare an *Eau distillée d'Eucalyptus*, which may be suitable for antiseptic surgery as "*l'huile essentiel s'en sépare difficilement*", and it can be concentrated by redistillation.

C. ROBERTS, Bolton Row, Mayfair.

INTERNAL USE OF IODOFORM.

I SEE in the JOURNAL of May 28th a communication from Dr. Crocker on the use of iodoform in the treatment of skin-diseases. I gather from it that he alludes to its use as an external application. It may, therefore, be of interest to mention that I have lately administered iodoform internally with complete success in an obstinate case of molluscum, where a prolonged course of arsenic and a variety of other remedies failed. It was given in one-grain doses three times a day. I found that the most agreeable way of giving the medicine was in the form of sugar-coated oval pills, procured from Messrs. Burroughs of Snow Hill. W. J. EAMES, M.K.Q.C.P., Fleet-Surgeon R.N.,

H.M.S. *Royal Adelaide*, Devonport.

HAMAMELIS VIRGINICA AS A LOCAL APPLICATION.

HAVING during the past few months given a somewhat extended trial to the new extract of *Hamamelis Virginica*, called "hazeline", I beg to place the following memoranda at the disposal of the readers of the JOURNAL.

As a local application in irritable and inflamed piles situated at the margin of the anus, where the remedy can be readily applied, I have never met with its equal. In most of the cases submitted to the treatment, the relief was immediate and permanent. My plan has been to have the part bathed in the solution three or four times a day, and a piece of lint dipped in it kept applied to the anus during the intervals. All urgent symptoms have passed away, as a rule, in from twelve to twenty-four hours.

In chronic and intractable ulcers of the varicose or eczematous de-

scription, I have met with excellent results by using the hazeline after the fashion of a water-dressing. I may add that about two hundred cases of ulcerated legs pass through my wards annually.

WILLIAM HENRY NETHERCLIFT,
Medical Superintendent of the Chelsea Infirmary.

CLINICAL MEMORANDA.

REVACCINATION WITH CALF-LYMPH.

HAVING recently had an extensive experience in the use of calf-lymph preserved in tubes, I have thought the results obtained might prove interesting. In all, I revaccinated 480 patients, varying in age from three to fifty-eight years, the majority being between six and fourteen; and of these 184 showed results as follows: 59 presented three, 48 two, and 77 one vesicle. Five patients were vaccinated with the contents of one tube. The proportion of cases where vesicles followed would, no doubt, have been greater, but that I revaccinated 132 of these patients five years ago. Nevertheless, three children, who showed good marks of primary and revaccination, presented three good vesicles after revaccination now. Sixty-one members of the staff were also revaccinated, and the arms of 38 of them "took" in the following manner: 17 presented three, 14 two, and 7 one vesicle. More lymph was used for these, one tube sufficing for only three, and sometimes two, cases. The vesicles were almost always well formed, and in many cases similar to those produced by primary vaccination. In three patients, no result followed for from ten to fifteen days, when reddish hard protrusions, similar to a raspberry in form and colour, and about the size of a pea, made their appearance, running their course in the usual abortive manner.

The lymph was generally used within forty-eight hours of the time of its being drawn from the calf; and in no case did any bad result follow. My own opinion respecting it is, that it is more certain and powerful in its action than human lymph preserved in tubes. The calf-lymph which I made use of was obtained from Dr. Renner's establishment.

FLETCHER BEACH, M.B., M.R.C.P.,
Medical Superintendent of the Darenth Asylum.

MUMPS AND ORCHITIS.

IT is well known that mumps is sometimes followed by orchitis, and rarely by meningitis; but, as I find no account of both occurring consecutively, the following case may be worth recording. A boy, aged 16, never had any previous illness, but not of strong constitution, had an ordinary attack of mumps. On the fifth day of the disease, I was sent for, and found the glandular swellings disappeared, and the boy suffering with symptoms of serious brain-mischief—viz.: temperature 104°, tongue dry and brown, constant vomiting, and delirium, etc. I ordered him the necessary remedies. On the eighth day, the brain-symptoms began to subside, and acute orchitis set in, which was relieved in a few days, from which time recovery rapidly ensued.

WILLIAM HALL, Jun., L.R.C.P., L.R.C.S.,
Stone Well, Lancaster.

SURGICAL MEMORANDA.

PROLAPSUS OF THE FEMALE URETHRA.

I WAS sent for, in consultation with Dr. Sealy of this town, to see a patient who had been suffering for about three or four days with incontinence of urine. She was a married woman, aged about 30. Her only child was eleven years old, since the birth of which her menstruation had been very irregular. On examination, we found a round sloughy-looking tumour, with an opening in the centre, presenting at the vaginal orifice. It looked exactly like a prolapsed os uteri, and such at first we took it to be; but, on passing the finger up behind the tumour, we found the os uteri in its proper place; and, on passing a catheter in at the central opening of the tumour, we drew off some clear urine. There was, therefore, no doubt as to its nature. It was, in fact, the mucous lining of the urethra prolapsed and swollen with œdema. We reduced it with some little difficulty, kept the patient in bed, and drew off her urine at regular intervals. The mucous membrane sloughed, and came away bit by bit. Cicatrization must have followed; for the prolapsus never returned, nor is the patient now troubled with incontinence. One feature in this case was the large size of the urethra (prior to reduction); the finger could be introduced through it into the bladder with the greatest ease.

JAMES HUDSON, M.B., Nelson, New Zealand.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

ST. PANCRAS SANATORIUM, NEW SOUTHGATE.

SMALL-POX.

THIS field-hospital has been established—in great part, we believe, through the exertions of Mr. Shirley Murphy, Medical Officer of Health for St. Pancras—to meet the pressure caused by the present epidemic of small-pox. The sanatorium up to the present time has been under the charge of Dr. G. Courtenay Henderson, Assistant-Physician to the London Fever Hospital. He informs us that the cases under treatment have not been, as a rule, of a severe type. There have been a few severe confluent cases, in which the temperature has been high enough to call for some antipyretic treatment; and in these cases cold baths have been resorted to. Many of the cases have been so slight as to lend support to Hebra's opinion that variola and varicella are one and the same disease. "The only difference", says Dr. Henderson, "was in the *crops* of spots: variola one (crop) only; varicella many." With regard to the prevention of pitting by the use of local remedies, nothing, of course, has been found of any avail where the primary inflammation has been intense enough to cause sloughing of the bed of the pock; but much of the eventual deformity is produced by the ulceration and erosion of the skin which goes on under the scabs. The constant application of antiseptic oils will check the formation of pus beneath the crusts, and in this way prevent the ulceration and subsequent pitting. A mask of lint kept constantly on the skin, and moistened six or eight times daily with heavy mineral oil (purified), in which has been dissolved, in the proportion of about 1 in 20, either eucalyptus oil, or terebene, or turpentine, or sanitas oil, has given the best results so far. It is put on when the rash is maturing, or (if abortive) beginning to dry up; and in many cases, after five or six days, the scabs have peeled off, leaving a slightly red, rough, eczematous-looking surface, with little or no loss of substance. Up to the present time, no cases have been sent away with deep pits; and the majority are no worse than after a slight attack of impetigo or of varicella.

CITY OF GLASGOW FEVER HOSPITAL, BELVIDERE.

CASE OF ENTERIC FEVER TREATED WITH SALICIN.

(Under the care of JAMES W. ALLAN, M.B., Superintendent and Physician.)

ALEXANDER G., aged 27, was admitted on January 9th, 1878. The illness had commenced eleven days earlier with shivering. He had also had headache, "pain in the inside", vomiting, and purging.

On January 10th, the twelfth day of the disease, spots, which were regarded as enteric spots, were seen; they seemed to have come out thickly in the region where poultices had been applied; he had had a slight loose yellow motion during the night, and had not slept very well. The temperature, on the evening of January 9th, was 104.2°; on the following morning, it was 103.4°, and the pulse was 96. He was taking wine, milk, and an acid mixture. In the evening, the temperature was 105.6°; he slept a little during the night, but had two loose motions.

On the morning of January 11th, the thirteenth day of the disease, the temperature was 103.4°. It was then determined to give salicin in doses of 20 grains three times daily, for twelve doses. The milk and wine were continued, but the acid mixture was stopped.

January 12th (fourteenth day). He had slept a good deal; but had had four loose motions. He had taken two of the powders on the previous, and one on this, morning. The temperature on the previous night was 105.2°; on this morning it was 104.2°. The patient said he had no pain.

On January 13th (fifteenth day) it was reported that he had slept at intervals during the night. He had had two loose yellow motions. The temperature in the evening had been 105.2; in the morning it was 104°. He had four loose yellow motions during the day. The temperature on the evening of this day was 104.4°.

On the morning of January 14th, the temperature was 103.8°, and the thermometer stood at the same point in the evening.

On January 15th (the seventeenth day of the illness), Mr. Allan

notes; "The spots are abundant; but I believe the rash is that of enteric fever. He slept well during the night, and had only one loose motion. The temperature this morning is 103.4°. He is getting brandy instead of wine now." On January 11th, he had forty grains of salicin; on the three succeeding days, he had sixty grains.

On January 15th, he was ordered to take a powder every four hours, *i.e.*, eighty grains of salicin *per diem*. The temperature in the evening was 102.8°.

On January 16th (eighteenth day of disease), he was reported to have had a good night. He had a slight shivering fit at about 2 A.M., and during the night passed two loose motions. The morning temperature was 102.6°. He got four powders yesterday, but none during the night, owing to some misunderstanding.

"The rash in this case is noteworthy. On the anterior surface of the body the spots are numerous; they are specially bright and pronounced and thickly clustered across the upper part of the abdomen, where the poultice was said to have been applied as mentioned in a previous note. On the posterior surface the spots are numerous and well marked. I do not think that I ever saw so thick and copious an enteric rash. The spots are seen on the arms. The patient has nothing to complain of except the stuff that gathers on his tongue, and the 'awful taste'." He was ordered to take the powders regularly every four hours.

January 17th (nineteenth day of illness). He slept, but sweated heavily during the night, and was delirious, talking through his sleep. He had no motion. The temperature on the previous night was 102.2°; on this morning 102.6°.

January 18th (twentieth day of illness). He had a pretty good night. One loose yellow motion passed. The temperature on the previous night was 103°; on this morning, 102.6°. During the day, he had one loose motion.

On January 19th (twenty-first day of illness). He was reported to have had a good night, during which no motion was passed. The temperature on the previous night was 103.2; on the morning, 101.4. The salicin did not seem to have worked wonders in this case, as a glance at the temperatures showed. Since a decrease in the temperature might now be expected, as the patient had reached the twenty-first day of his illness, the salicin powders were left off.

January 20th (twenty-second day of disease). He had had a very good night. The chest was poulticed. The temperature on the previous night was 103.6°; on this morning, 101.2°. He got the last of the powders yesterday morning at 9 o'clock. At this time, he was getting only milk and brandy.

January 21st (twenty-third day of disease). He had passed a good night. A loose yellow motion had been passed on the previous day; and on that evening the temperature was 101.2; on this morning it was 99°.

January 22nd (twenty-fourth day). He had slept well. A motion passed was partly formed. He was taking nothing but brandy and milk. The temperature on the previous night was 99.6°; on this morning 97.4; and on this evening it was 100.

On the morning of January 23rd (twenty-fifth day of disease) it was 97.4. From the 23rd to the 31st January, the temperature ranged from 96° to 99 4°. On the 31st, he got up frequently to stool, but passed scarcely anything; he felt cold about the back all day, and the nurse noticed his face flushed in the afternoon. His temperature was taken, and found to be above normal. In the evening it was 103°. There was nothing known which could account for this rise in temperature, except perhaps the tendency to constipation.

On February 4th, he complained of aching pain in the left ear; and during that night the ear was sore. The temperature in the evening was 98.4°. This pain ceased at 6 A.M. on February 5th, and the temperature was 98.8° on that day.

On February 10th, there was a discharge from the ear. The temperature was normal on this and the previous night. To get up to-morrow for an hour. He was dismissed well on March 6th, 1878.

REMARKS.—The use of salicin and of the salicylates in typhoid fever is viewed with little favour by the great majority of physicians, and we record this case because it is one in which the drug ought to have done good, if it ever does so. Patients suffering from typhoid fever may die in the early weeks, owing to the persistence of an unusually high temperature, but this is a comparatively rare event; as a rule, death is caused at a later period by asthenia and slow blood-poisoning, due to defective alimentation and elimination, quite as much as to the specific poison itself. Now, salicin and its congeners are apt to disturb the stomach and diminish appetite; and Sir William Jenner has, or had, we know, a strong objection to their use on this ground; they also, all, with the doubtful exception of salicin itself, tend to depress the heart, and thus in these two modes to increase the asthenia. Further, very serious kidney-disturbances, even amounting to nephritis, may be set up by their use, as has been abundantly shown from time to time in our columns. Lastly, that they may themselves produce delirium (whether by a direct toxic influence as believed by M. Sée, or as an uræmic phenomenon secondary to the kidney-derangement, as taught by Dr. Murchison, does not greatly concern the argument) must be a very serious objection to their use in a disease, one of the most constant symptoms of which is a tendency to nocturnal wandering, even in the mildest cases. Against so many objections, there is to be arrayed the solitary gain of a possible lowering of the temperature; this case is an additional evidence, if such were wanted, of the powerlessness of salicin to make for us even this advantage. Dr. Tomkins, speaking from the experience of forty-six severe cases treated with salicylate of soda, says that, when the full effect is not attained in twelve hours, the prognosis is unfavourable; in this case, this fall of temperature did not occur, although the drug was given in large doses, and although the case was never a very severe one.

REPORTS OF SOCIETIES.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, MAY 20TH, 1881.

J. S. BRISTOWE, M.D., President, in the Chair.

A Study of the Period of Incubation of the Communicable Diseases.

Dr. B. W. RICHARDSON read a paper on this subject. The author brought forward the five following points. 1. What is the precise application of the term "incubation", and to what diseases should it be applied? 2. What is the state of absolute knowledge of the periods of incubation of the more common communicable diseases? 3. In respect of differences of opinion on this subject, do they depend on fault of observation, or the circumstance that there are in the same diseases varying periods of incubation, the variations being under no, as yet, defined law? 4. If it be found that there are differences of periods in the same diseases, upon what may such differences depend? 5. What are the practical lessons which arise from the facts we at present possess, and to what extent may our knowledge be rendered available in the prevention and treatment of disease? On the first of these points, Dr. Richardson said that the question was by no means simple. We reduced the difficulty by limiting the term to those instances of disease in which, after a certain specific poisonous particle had been taken into the living body, certain indications of the action of that specific poisonous matter had been manifested—*i. e.*, the period between the introduction of the poison and the manifestation of its action was the period of incubation. There was not, however, unanimity as to the accepted first sign of such manifestation. After citing several illustrations of this diversity of view, Dr. Richardson threw out local symptoms as insufficient proofs, together with pain and fever; but accepted, as the safest phenomenon, indicating incubation, that sudden vibration between cold and heat which showed the break of continuous action between the nervous and the vascular systems, to which the name of chill or rigor was given. The author next added the list of diseases (twenty-five in number) which presented a stage of incubation. Under the second head, the range of period of incubation in the different diseases, the diseases were classified into five groups, according to the time of incubation in each case. The classification ran as follows: *a.* Shortest incubations—period, one to four days—malignant cholera, malignant pustule, plague, dissection wound disease, catarrh (if communicable); *b.* Short incubations—period, two to six days—scarlet fever, rosalia idiopathica, diphtheria, croup, influenza, pertussis, erysipelas, glanders, yellow fever, grease, farcy, pyæmia, puerperal fever, dengue; *c.* Medium incubations—period, five to eight days—relapsing fever, vaccinia, variola by inoculation, gonorrhœa; *d.* Long incubations—period, ten to fifteen days—small-pox, varicella, measles, rötheln, mumps, typhus, typhoid or enteric fever, malarial fever; *e.* Longest incubations—period, forty days or longer—syphilis, hydrophobia (in which the range might be from seven days to months, or even years). From these general rules, Dr. Richardson proceeded to state the exceptions to them in detail, the variations being most marked in class *b*, where the periods of incubation were short. Under the third head, the author held that differences of opinion as to the periods of incubation were traceable to four sets of causes. First: we had not been, up to this time, agreed as to the full symptoms that indicated the stage when incubation was complete. Secondly: until lately, we had not tried to classify diseases according to the test of incubation. Thirdly: too much importance had been attributed to the exceptional phenomena of incubation. Fourthly: there has been too much proneness to connect diseases in some respects similar, but which, in regard to incubation, were

most dissimilar. After paying a warm tribute of respect to Dr. Squire, for his important labours in this field of research, the author considered the circumstances which might lead to differences in periods of incubation in the same affections. He suggested, that, as it was not known that inoculation of a poisonous particle shortened the period of incubation, so it was possible that, in some cases where the poison was absorbed, an accidental inoculation might account for variation of time of incubation. Again: the poison might be absorbed in one case in a form of diffusion, readier for absorption in some cases than in others. But the great cause of difference was traceable to individual susceptibility, together with physiological peculiarities dependent on season and the meteorological conditions, which modify the action of the organic poisonous material. The paper was closed by a review of the practical lessons which sprang from the study of incubation. If we could arrive at definite evidence on which we could all rest, that the incubation of a disease was proved by the occurrence of a certain symptom, or definite class of symptoms, we could account for much that was mysterious. For example: In vaccinia, could it be that, trusting entirely to the local phenomena, we sometimes made an apparently good vaccination, which never had inoculated at all? If that were so, there was a reason why a person, who seemed to have been thoroughly vaccinated, should still remain susceptible to small-pox. The division of diseases of the communicable type into different classes or groups, according to the stage of incubation which was presented, was a practical requirement of the most important value, both in curative and in preventive science. Dr. Squire had not overestimated this part of modern knowledge. To know when to retain at home a sick person, labouring under communicable disease, and when to send him from home—when to separate him from the actually or presumably unaffected—is a direction of practical skill creditable to the profession of medicine, and useful to the public. To remove the healthy from the affected was good practice in the case of all the diseases of the first and second groups, of the quick and short incubation series. To remove, in the third series, might be sound practice. To remove cases of the fourth, or long incubation class, was less important, and might be prejudicial. Lastly: from the study of the incubation period, we learned how to assign the best means of disposing of the affected during convalescence. It seemed that the diseases of short incubation had a prolonged convalescence, and remained long sources of communication; while the diseases which showed a long incubation gave a quicker convalescence, and a more rapid freedom from danger as a centre of communication of disease.—In the discussion which followed, the President, Dr. Squire, Dr. Tripe, Mr. Shirley Murphy, Dr. Bate, Dr. Dixon, Dr. Heron, and Dr. Dudfield, took part.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

TUESDAY, MAY 10TH, 1881.

HECTOR CAMERON, M.D., President, in the Chair.

Melano-sarcoma of Eyeball.—Dr. THOMAS REID showed the contents of the orbit of a patient who had suffered from this disease for seven years. All the parts were disorganised, and scarcely a trace of the eyeball could be seen on cross section of the tumour.

Ague.—Dr. T. B. HENDERSON showed the viscera of a soldier aged 24, who had died of ague soon after his return from Afghanistan. The brain was much congested; the left lung was hepatised, and its pleura inflamed; the heart, kidneys, spleen, and liver were much enlarged; and there were characteristic deposits of pigment in the walls of the blood-vessels of the brain, liver, and spleen.

Fungus-Foot of India.—Dr. NEWMAN showed a specimen just received from Dr. Mackellar of Bombay. It resembled in appearance extensive scrofulous caries. There was a small dark-coloured mass about a quarter of an inch below the surface of the skin, but no sinus leading to it.

Bilateral Paralysis of Vocal Cords.—Dr. MCCALL ANDERSON detailed the symptoms of a patient aged 48, who had suffered from loss of voice for some months, due to paralysis of both the adductor and abductor muscles of his larynx. The vocal cords were perfectly motionless, and in the cadaveric position. No direct physical signs of tumour in the chest could be made out. The heart was, however, displaced downwards and to the left; there was feeble breathing over the whole left lung; the veins of the left side of the neck were slightly dilated; and the left pulse was very feeble. From these pressure-symptoms, Dr. Anderson diagnosed the presence of an aneurysm of the transverse part of the aorta, implicating at least the left recurrent laryngeal nerve. The patient died a few weeks later; and Dr. Lindsay Steven (who showed the specimens) found a large aneurysm springing from the posterior wall of the transverse part of the arch. The aneurysm involved the left recurrent nerve, and slightly pressed on the right; but the large vessels were comparatively free.—Dr. GAIRDNER referred to the great rarity of double laryngeal paralysis, and mentioned a case in which he had been led to form a correct diagnosis of aneurysm from the existence of very marked double myosis.

Osteo-porosis of Bones of Leg.—Dr. MACPHAIL showed the macerated bones of the leg and lower end of the femur from a boy aged 13, who had suffered from strumous disease of the knee-joint for about four years. The bones were much enlarged, but were so thin as to be almost transparent. All the cancellated tissue was removed; and in the lower end of the femur was a series of four very thin concentric lamellæ of new bone, evidently successive periosteal formations. The epiphysial cartilages were intact; but the epiphyses themselves were mere shells of bone. In the fresh state, the medulla was soft and pulpy, pale in colour, and chiefly composed of oil-globules.

Cystinuria with Cystic Calculi.—Dr. MACPHAIL also showed two cystine calculi removed from the same patient, with an interval of fifteen years between the operations, by Dr. Macleod. The first calculus, removed by lithotomy, was oval, about an inch and a quarter long, and weighing 216 grains. The outer surface was rough, and composed of pure cystin; but the interior of the stone was phosphatic, with a mulberry nucleus. The second calculus consisted of a number of fragments, weighing 40 grains, removed by lithotrity, very soft and friable, pale yellow in colour, becoming darker on exposure, and entirely composed of cystine. Before operation, the urine was of a honey-yellow colour, fragrant acid odour, specific gravity 1020, giving the reaction of indican, and containing numerous hexagonal crystals of cystin. Since the operation, the cystin had gradually disappeared.—Dr. FINLAYSON also showed microscopic specimens from a case of cystinuria without calculus, in a child whose brother was similarly affected.—Dr. NEWMAN read an exhaustive report on the chemical analysis of the urine from both cases of cystinuria. He found that the pale colour of the urine was due to the small amount of urobilin present, but that the change from yellow to green on exposure, described by Dr. Golding Bird as due to the cystin, was more probably due to the indican. He also found that the amount of cystin present was generally proportional to the amount of urobilin and free acid in the urine.

Gall-Stones.—Dr. J. A. ADAMS showed specimens illustrating the chief forms of gall-stones. Besides the common multiple variety, three examples of solitary forms were shown; these were egg-shaped, about an inch long by half an inch broad, and composed of nearly pure cholestearine.

Fibrinous Casts of Larynx and Trachea.—Dr. GEMMELL showed specimens from a boy aged 8, in whom the symptoms began with sudden and severe dyspnœa, laryngeal cough, slight rise of pulse and temperature. After a slight remission, an exacerbation occurred a few days later, and the cast of the larynx was coughed up. On the eighth day of the disease, tracheotomy was required, and thereafter the cast of the trachea and bronchus was coughed up through the tube. The urine became albuminous; great prostration ensued; and three days later the patient died. The temperature was never higher than 101° Fahr.; and no exudation was seen in the pharynx till near the end, when it spread rapidly upwards into the nares, and even over the edges of the tracheotomy-wound.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

NEW FEEDING BOTTLE.

MR. E. O. DAY has designed a new form of feeding bottle for infants, which presents some distinct improvements. In Mr. Day's feeding bottle, the tube and cork are made in one, without any joints; it therefore only requires soaking in water to become cleansed. The draught, in ordinary feeding bottles, depends on the accidental admission of air into the bottle, as there is no vent-hole. Children are thus fatigued by sucking at a vacuum. Mr. Day has made a small vent-hole, which always secures a due amount of atmospheric pressure on the milk in the bottle. The tubing is non-collapsable, and does not kink and impede suction. It is a great improvement on the ordinary feeding bottles in use, and appears almost as simple as anything of the kind can be made.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JUNE 18TH, 1881.

RECENT STUDIES IN THERAPEUTICS.

XI.—JABORANDI AND PILOCARPINE—*continued*.

AT a time when the value of jaborandi as a remedial agent is attracting considerable attention, and exciting a certain amount of discussion, it may be well to supplement our former article on its origin and physiological action (BRITISH MEDICAL JOURNAL, December 4th, 1880) by some account of its practical use in the treatment of disease. It is no easy matter to give a review of the therapeutics of jaborandi: not because little is known about it, but because it has of late been so extensively employed, that the literature of the subject is well-nigh endless. Curiously enough, although jaborandi has been introduced into practice only about six years, it has been as thoroughly and exhaustively investigated as if it had been in use for centuries. In England, France, Germany, Italy, and America, physiologists and physicians have vied with one another in their endeavours to elucidate its action, and formulate rules for its administration in different diseases.

We have at present no officinal preparation of jaborandi, but there are several forms in which it may be conveniently administered. An infusion may be made by breaking up small from a drachm to a drachm and a half of the dried leaves, pouring over them a cupful of hot water, and allowing it to stand till it becomes cool, when dregs and all should be taken. Although not an elegant preparation, it is convenient and efficacious. There are several tinctures in use, but the 1 in 2 is most commonly employed; and it has the great advantage over those of weaker strength, that it is not necessary to give so much alcohol with each dose. The liquor jaborandi (1 in 1) prepared by Mr. Martindale is a reliable preparation, although, in some respects, inferior to the tincture. The American fluid extract is not unfrequently prescribed, the dose being from twenty minims to a drachm. There are two salts of pilocarpine, the nitrate and the hydrochlorate, and both are in common use. They dissolve readily in water, a convenient strength of either for hypodermic use being 1 in 20, the dose being from five to ten minims. The injection never gives rise to any local irritation. It may be taken for granted that, if any preparation of jaborandi, in a dose equivalent to a drachm or a drachm and a half of the powdered leaves, fail to cause profuse perspiration or salivation, or both, in from ten minutes to a quarter of an hour, it is unreliable; and the same may be said of the nitrate or hydrochlorate of pilocarpine, should a half-grain dose of either not produce these effects. When jaborandi was first introduced, many spurious samples were imported, and remnants of these are still occasionally met with. When the matter is not urgent, it is better for the patient to have his dose at bedtime. He should have only a light supper, and should go to bed between the blankets, with plenty of clothes heaped over him. Warming the bed, and hot-water bottles to the feet and legs, are useful adjuncts. When salivation is profuse, the patient should spit out the saliva, or it may cause nausea and vomiting. The patient, if left alone, soon falls asleep, and, if tucked up, need not be disturbed till the morning.

Jaborandi is given with advantage in many fevers. Thus Rokitansky and Griswold have recorded excellent results obtained with pilocarpine in intermittent fever. The former narrates a case in which a paroxysm was cut short almost at once by an injection of a third of a grain of the nitrate, although previous attacks had resisted active treatment during many months. These statements have, in the main, been confirmed by Dr. Picot of Bordeaux; but Ringer, in a series of carefully conducted experiments, found that a dose of pilocarpine, given just before the onset of an ague-fit, in no way reduced the temperature, and did not modify the duration or severity of the attack. Dr. Simmons of New York has recently recorded a number of cases of cholera treated with jaborandi with good results. He found that, in the stage of complete or partial suppression of the urine, it always excited the activity of the skin and salivary glands, and that its administration was usually followed by a copious secretion of urine with amelioration of all the symptoms.

The late Professor Gubler, in a lecture in his course on therapeutics in the Faculty of Medicine at Paris, spoke highly of jaborandi in the exanthemata when the rash failed to appear in due course.* It is in cases of malignant scarlet fever that it is used with such signal benefit. In the dropsy following scarlet fever, it may be given with hesitation. In a paper read before the Medico-Chirurgical Society of Edinburgh on November 10th, 1875, Dr. Craig said that he had given jaborandi in postscarlatinal nephritis, and also in a case of postscarlatinal dropsy, with anasarca and ascites and albumen in the urine. Digitalis, purgation, and local applications, failed to afford relief, and oedema of the lungs came on, followed by frequent convulsions. Jaborandi, first in ten-grain, and afterwards in thirty-grain, doses, for fourteen days, gradually overcame the anasarca, and the boy completely recovered. Equally good results have been obtained by Ciaramelli and by Cortezo. Demme of Berne, who has had considerable experience with this drug in children's diseases, finds that unfavourable symptoms rarely or never occur. Dr. Bruen of Philadelphia speaks highly of jaborandi in the dropsy of Bright's disease; and states that he has never met with such favourable results from any other drug or mode of treatment. Ringer, however, speaks less enthusiastically. He has used it in many cases, not only without benefit, but with positive ill effects. It has, in his hands, so generally caused nausea and vomiting, with depression, that he has been glad to discontinue the treatment. In uræmia, pilocarpine proves an efficient substitute for the hot-air bath, acting more quickly and surely. As it increases markedly the excretion of urea, it is probably more effective than the baths in relieving uræmic phenomena. The case is recorded of a young woman, who was admitted into the Bellevue Hospital suffering from convulsions and delirium. There was no œdema, but her urine was nearly solid with albumen, and contained blood and small casts. She was given a full dose of pilocarpine hypodermically, and, in fifteen minutes, was sweating profusely, and the convulsions had ceased. She was restless, and wandered in her mind for the next twenty-four hours, but had no other bad symptom. A drachm of jaborandi was subsequently given on alternate days, and, in a week, the albumen had nearly disappeared, and she felt quite well. M. Boegehold has recently published four cases of undoubted uræmia, in which pilocarpine was given hypodermically. In the first case, the patient was a child five years old. Acute uræmia supervened during convalescence from scarlatina. About an eighth of a grain was injected, and the convulsions ceased. At the expiration of an hour, the patient had regained consciousness. Another attack supervened a few days later, and the symptoms were arrested by two similar injections. The injections were then given regularly for twenty days, and the attacks were not renewed. Ten days later, the albumen had disappeared, and the cure was complete. In the other cases the results were equally satisfactory.

Pilocarpine has been used with success in puerperal convulsions by Dr. Braun, who records a series of cases in which the most striking results were obtained. This mode of treatment has been ably advo-

* Dr. Leblanc, the editor of Gubler's *Thérapeutique*, says, in a note: "Le jaborandi a depuis cette leçon (a-juin, 1874) définitivement conquis sa place dans la thérapeutique. C'est maintenant un agent journellement prescrit, et dont les éminents services ne sont plus à discuter."

cated by Fancourt Barnes and others, although Fordyce Barker considers its propriety is open to question.

Mr. Macnamara, in his recent work on *Diseases of the Bones and Joints*, recommends pilocarpine in septicæmia, and records two very striking cases.

Jaborandi has been employed with success in many chest-complaints. For an ordinary cold or slight attack of bronchial catarrh, it is almost a specific. The patient is given a two-drachm dose of the strong tincture, or half a grain of pilocarpine, at bedtime; profuse perspiration is induced, and, in the morning, he is well. We have employed this mode of treatment in very many cases, and with the happiest results. Dr. Berkart and Dr. Mackesy have recently advocated its use in asthma, both peptic and bronchitic. The loss of fluid resulting from the administration of full doses has been found of service in pleuritic effusion. Three cases treated by Dr. Hunt, of the Wolverhampton and Staffordshire Hospital, were reported in the BRITISH MEDICAL JOURNAL of May 1st, 1880. Dr. Newland speaks highly of hypodermic injections of pilocarpine in pleuropneumonia. After an injection of five-eighths of a grain, the patient felt greatly relieved, and was able to lie down, his breathing became easier, he had no pain, and slept for four hours. The dose was repeated twice a day for three successive days, when the patient had so far recovered that further treatment was unnecessary.

Dr. Murrell has recently called attention to the use of jaborandi and pilocarpine in the night-sweating of phthisis. He gives details of thirty-three cases in which it was administered with benefit. As a rule, the nitrate of pilocarpine was employed, and it was given by mouth, and not hypodermically. The dose, with a few exceptions, was one-twentieth of a grain, either in solution in water, or made into pills with sugar of milk. It was given only at bedtime, unless the sweating was very profuse, when it was repeated during the night. As a rule, but little improvement was noticed on the first night; but, on the second and third nights, the sweating was less, and, by the end of the week, had completely ceased. The perspirations, when once checked, did not, as a rule, return for many weeks. It was frequently noticed that the jaborandi or pilocarpine eased the cough and facilitated expectoration. Dr. Murrell recommends jaborandi in ordinary winter cough, giving a full dose one or two nights at bedtime, and then smaller doses three or four times a day for a week or more. In chronic bronchitis, inhalations of jaborandi by a Siegle's spray-apparatus are decidedly beneficial.

Jaborandi has been recommended in diabetes insipidus; and, in two cases under the care of the late Professor Laycock of Edinburgh, the patient was decidedly benefited by the treatment. In another case reported by Dr. Ringer, the jaborandi, although given for forty-four days, in no way influenced the amount of urine secreted, whilst the liquid extract of ergot quickly reduced it to the normal. Good results have also been obtained in diabetes mellitus by hypodermic injections of pilocarpine, frequently repeated. In one instance, after each dose, there was a striking diminution in the amount both of sugar and of water excreted, and this diminution lasted several days.

An attempt has been made to introduce jaborandi as an ecbolic; but, for this purpose, it has found but little favour with obstetricians. Mr. Clay published a case of contracted pelvis, in which induction of premature labour was attempted by giving hypodermic injections of pilocarpine, but the result was unsatisfactory; and, finally, Barnes's bags had to be introduced, and the forceps applied. It has been shown by Fancourt Barnes and others that, in ordinary labour, pilocarpine cannot be used in place of ergot. Pilocarpine is sometimes employed to stimulate the secretion of milk in women who are suckling. The whole subject has been discussed in the pages of the BRITISH MEDICAL JOURNAL.

Professor Pick of St. Petersburg has published the results of two and a half years' experience of the use of pilocarpine in skin-diseases. He usually gives one-sixth of a grain in solution twice a day, so as to induce slight perspiration, the treatment being continued for several weeks without intermission. The skin becomes softer and more pliable, scaliness diminishes, and the hair is less brittle. In two cases of pruritus senilis, and one of urticaria, a cure was effected; but in eczema, psoriasis, and alopecia areata, the results were unsatisfactory. These results have been abundantly confirmed by Chadzynski and others. We have it, on the authority of Dr. Schmitz of Cologne, that pilocarpine possesses the peculiar property of stimulating the growth of the hair. It has been given with decided benefit in advanced syphilis. Mr. Lockwood of the Lock Hospital recently reported a series of cases treated by this method; and Professor Lewin, as the result of a number of observations made on thirty-two prostitutes, confirms his results.

Dr. Ortille of Lille records a most obstinate case of hiccough, in which pilocarpine gave relief after the failure of morphia, electricity, and numerous other remedies. In belladonna-poisoning, jaborandi promises to be of use, provided only that sufficient of the antidote be given. In one case, it was found necessary to give hypodermic injections of pilocarpine, amounting in all to six and a half grains.

SMALL-POX AND VACCINATION.

IN a very able memorandum presented to the President of the Local Government Board, and just published as a Parliamentary paper, Dr. Buchanan, the Medical Officer of the Board, gives some very striking figures which add a very strong additional proof—if this were needed—to the wealth of evidence that has accumulated as to the different degrees in which the vaccinated and unvaccinated suffer from small-pox. Dr. Buchanan's figures are for the fifty-two weeks which have elapsed since the Registrar-General began, in his weekly returns, systematically to record what he could learn about vaccination in the case of deaths registered in London from small-pox.

The facts about vaccination are stated in the case of not quite two-thirds of the deaths registered; they are not stated in the case of rather more than a third of the registered deaths. It is to be regretted that the latter proportion is so large. The great bulk of such cases had certainly been attended by medical practitioners; through whose omission to record the facts about vaccination, room is left for dispute whether the proportion between the cases certified as vaccinated and not vaccinated, would be altogether the same, if the "not stated" cases were taken into account. Dr. Buchanan proceeds on the assumption that the deaths among persons whose vaccination is not recorded (the "not stated" deaths) occurred among vaccinated and not vaccinated in the same proportion as the deaths of persons where the fact of vaccination was recorded; and he therefore sets aside the "not stated" deaths altogether; being satisfied, as any candid mind must be, that a fair approximation to the truth, about the comparative rates of small-pox deaths in vaccinated and unvaccinated, may be got from an examination of the deaths that are "certified" to have taken place in the one and in the other class respectively. The absolute death-rate of the year in the two classes respectively could not, of course, be measured unless the "not stated" class were included in the calculations.

Of people living in London at all ages, there died of small-pox during the fifty-two weeks included in Dr. Buchanan's tables, 1,532; and of these, 325 are certified to have been vaccinated, and 637 not to have been vaccinated; while the facts about vaccination are not stated in the case of 570 of the deaths. Estimating the vaccinated as nineteen times more numerous than the unvaccinated, the present 3,810,000 inhabitants of London divide into a vaccinated class numbering 3,620,000, and an unvaccinated class numbering 190,000. Applying the mortality from small-pox at all ages during the last fifty-two weeks to these populations, the rate of small-pox mortality for the twelvemonth among the vaccinated class may be reckoned as 90 per million, and among the unvaccinated class 3,350 per million. During the same period, 874 persons under 20 died of small-pox. Of these, 94 are known to have been vaccinated, 475 are known not to have been vaccinated; and the facts about vaccination are "not stated" in respect of the remaining 305. Dividing the estimated number of persons

under the age of 20 now living in London, 1,535,000 appears as the number of the vaccinated class, and 105,000 as that of the unvaccinated. Thus the rate of small-pox mortality amongst these populations was, during the past twelvemonth, 61 per million amongst the vaccinated class, and 4,520 per million amongst the unvaccinated. Again, in the fifty-two weeks under review, there were in the London community 19 deaths among children under five certified to have been vaccinated, 244 deaths among children of that age certified not to have been vaccinated, and 138 deaths among such children whose vaccination is "not stated".

Dr. Buchanan estimates the vaccinated population of London under five years of age as 469,000 children, and 41,000 as probably not vaccinated; the latter number including children insusceptible, unaccounted-for, and the like, along with the children who are under the customary age for vaccination, and the unvaccinated children of people who have come up to London from the provinces. The rates of death from small-pox among these vaccinated and unvaccinated children last year appear, therefore, as 40½ per million among the vaccinated class, and 5,950 among the not vaccinated class. These figures appear much more striking when given in a tabular form, which we accordingly subjoin.

Comparative Small-pox Death-rates among Londoners Vaccinated and Unvaccinated respectively, for the 52 weeks ended May 29th, 1881.

	Death-rate per Million of the Vaccinated Class.	Death-rate per Million of the Unvaccinated Class.
All ages	90	3,350
Under 20 years	61	4,520
Under 5 years	40½	5,950

From such figures, Dr. Buchanan draws the following inferences. 1. As no one suggests that the vaccinated and unvaccinated classes live under conditions differing from each other in their influence on small-pox, unless it be this one condition of vaccination, the vaccinated are much less liable to die of small-pox than the unvaccinated. 2. Vaccination is not an absolute protection against small-pox; though he argues from the experience published by the Royal College of Surgeons in 1806, that no falling off in this respect has occurred since the early days of vaccination. 3. The degree of protection, both actual and relative, afforded by vaccination, is greatest to people under five years of age; less when ages from birth to twenty years are examined; and still less when people of all ages are taken into the account. Thus Londoners can, by availing themselves of one average vaccination, diminish the chances of their children dying of small-pox in the proportion of 146 to 1 for the first five years of their life; and the same vaccination serves to lessen, in the proportion of 74 to 1, the chance of their being killed by the disease before they reach the age of twenty. After that age, the vaccination in infancy is further reduced in its protective influence, for the difference in mortality from small-pox between the unvaccinated and the vaccinated class through the whole period of life is as 1 to 37; a protection incomplete indeed, but obviously important for everybody to possess.

Dr. Buchanan points out that the evidence as to the diminished potency of vaccination to prevent persons of later age dying of small-pox, shows strongly the need for repeating the operation as age advances; and he insists also upon the importance of the operation being thoroughly performed. Of course, everything passing under the name of "vaccination" is not of the same avail as a protection against small-pox; and, even when vaccinated persons have contracted small-pox, it is known that those who are thoroughly well vaccinated have twenty-fold the advantage over those who have been very badly vaccinated, in respect of their chances of recovery. The Registrar-General's returns have been content to place everything that could be spoken of as "vaccination", perfect and imperfect together, in the same category; but Dr. Buchanan reports that he is now engaged, with Dr. Stevens's assistance, in some inquiries into the relative protective influence of one and another sort of vaccination during the present small-pox epidemic in London, the results of which he proposes to report subsequently.

The publication of these statistics must be regarded as extremely opportune at the present moment, and the skill with which Dr. Buchanan has brought out their true meaning is deserving of the highest admiration. As he truly observes, however, these lessons are "nowise new, but they are taught afresh by to-day's experience among our own selves in London; and they would appear, therefore, to be worth bringing to the notice of people who are trusting to chance for the escape of their children and themselves from the distressing, disfiguring, and fatal disease of small-pox".

THE NAVAL MEDICAL WARRANT.

We did not reprint the Order in Council for regulation of the Naval Medical Department when it appeared, waiting for its promulgation as the official form of a warrant by authority of the Admiralty, in which it is now presented. The period between these two events has been availed of to make details more clear, of which the necessity was from the first evident; and now we may venture to say of it as a whole, that the service is greatly improved by it, and that, although it can scarcely be said to equalise in several things with the army, yet it does credit to its designers; and we feel that the medical officers have much for which to thank their present Director-general.

It will require some faithful study to assure every one of the intentions of the Government on some points which are intricate, and seemingly confused and indirect, requiring reference to be made to other clauses. In fact, much in it will remain uncertain, until examples offer themselves in illustration of their true intent. Of one thing the department may be certain; and that is, that their head will lose no opportunity of converting obscurities to the benefit of those under his direction, and we trust they will work with him cordially to make things run smoothly.

The staff has been reduced by one in nine, which indicates that its future standard is to be that to which it has fallen by gradual decay; and, while this gives a new starting-point, which relieves of all difficulty beyond that of maintaining it as it is at present, it will also bring it nearer to the desirable state of a "continuous full-pay service", like that of the army.

This we regard as the inherent distinction between the sister services, of which, let be done what may, the differences between the elder and the younger are, we fear, ineffaceable. Although they must rise from the same source—the profession without—and end in the same bourn—that of retirement—they must of necessity take different channels in their way to that finality. This feeling is impressed on us deeply after examining what we esteem to be an honest effort to make the navy equally attractive with the army for young medical men. We see that it will be injudicious to offer any opinion as to the future, before that future has evolved some of its outlines; and we most sincerely trust, and that not without hopefulness, that the present Director-general may have the good fortune to see the service under him raised to prosperity. But this can have a true basis in contentment only, of which there has been but little of late.

STORAGE OF ELECTRICITY.

The paper by Professor George Buchanan of Glasgow, which appeared in our last number, seems to indicate that there is a great future for electricity in the practice of medicine and surgery, inasmuch as a means has been found for storing it up in a portable form. A few weeks ago, a "box of electricity", that is, a case containing four jars charged with the electric energy, was sent by M. Faure, the inventor, to Sir William Thomson, Professor of Natural Philosophy in the University of Glasgow. For three weeks he submitted these jars to the most rigid experimental tests in his physical laboratory, the results of which he has embodied in a letter to the *Times* of June 9th.

By M. Faure's practical improvement of Plante's admirable discovery of the lead and peroxide of lead faradic battery, which had already been applied to surgical purposes by M. Trouvé of Paris, a great step has been made in solving the problem of communicating

electric energy into a preservable and storeable form for convenient use when wanted. Sir William Thomson observes:

"The largest useful application waiting just now for the Faure battery—and it is to be hoped that the very minimum of time will be allowed to pass till the battery is supplied for this application—is to do for the electric light, what a water cistern in a house does for an inconstant water supply. A little battery of seven of the boxes described by your correspondent suffices to give the incandescence in Swan or Edison lights to the extent of one hundred candles for six hours, without any perceptible diminution of brilliancy. Thus, instead of needing a gas-engine or steam-engine to be kept at work as long as the light is wanted, with the liability of the light failing at any moment through the slipping of a belt—an accident of too frequent occurrence—or any other breakdown or stoppage of the machinery, and instead of the wasteful inactivity during the hours of day or night when the light is not required, the engine may be kept going all day and stopped at night, or it may be kept going day or night, which will undoubtedly be the most economical plan, when the electric light comes into general enough use. The Faure accumulator, always kept charged from the engine by the house supply wire, with a proper automatic stop, to check the supply, when the accumulator is full, will be always ready at any hour of the day or night to give whatever light is required. Precisely the same advantages in respect of force will be gained by the accumulator, when the electric town supply is, as it surely will be before many years pass, regularly used for turning-lathes and other machinery in workshops and sewing-machines in private house. Another very important application of the accumulator is for the electric lighting of steamships. A dynamo-electric machine of very moderate magnitude and expense, driven by a belt from a drum on the main shaft, working through the twenty-four hours, will keep a Faure accumulator full, and thus, notwithstanding irregularities of the speed of the engine at sea, or occasional stoppages, the supply of electricity will always be ready to feed Swan or Edison lamps in the engine-room and cabins, or arc lights for mast-head and red and green side-lamps, with more certainty and regularity than have yet been achieved in the gas supply for any house on *terra firma*."

THE Earl of Dunraven will preside at the distribution of prizes to the students of St. Thomas's Hospital on Tuesday, 21st June, at 3 P.M.

WE are requested to state that Mr. Sydney Jones is not, this year, a candidate for the Council of the College of Surgeons.

WE are sorry to hear of the death of Mr. Watson, the well-known and much liked sub-librarian of the Obstetrical Society of London.

THE Right Hon. W. H. Smith will distribute the prizes at the medical school, Charing-Cross Hospital, on Thursday, 23rd June, at 3 P.M.

IT is announced that the new wing of the National Hospital for the Paralysed and Epileptic, Queen Square, Bloomsbury, will be opened on Wednesday, the 22nd instant, by the Princess Christian.

THE numerous friends of Dr. Marion Sims will be glad to hear that he has recovered from the attack of pneumonia by which he was prostrated during the winter, and is now in London.

DR. D. W. YANDELL of Louisville, always a great favourite in medical circles here, has revisited London, and is receiving a warm welcome among his many friends in the profession, who appreciate his genial wit and wisdom.

MR. JAMES STANSFELD has deferred moving the second reading of the Bill for the repeal of the Contagious Diseases Acts, his reason being that the Committee of the House of Commons sitting on the subject has not as yet presented any report.

DR. FRANKLAND reports that the Thames water delivered to the metropolis during May, by the five companies drawing their supply from that source, exhibited a further improvement upon that supplied in recent months; it was unusually free from organic impurity, and was uniformly well filtered previous to delivery.

A BILL has been drawn up by the New York Sanitary Reform Society, and ordered to a third reading, requiring all the plumbers of New York and Brooklyn to have their names registered, and also giving the boards of health of the two cities supervision over all new plumbing.

FROM the Registrar-General's return of deaths from small-pox in the metropolitan registration district, from the 1st of January to the 30th of April, there appears to have been, in the seventeen weeks, a total of 920 deaths; of these, 330 were in private dwelling-houses; 537 in Metropolitan Asylums Board Hospitals, 41 in Highgate Small-pox Hospital, and 12 in other hospitals or public institutions.

THE fiftieth anniversary of Professor Pirogoff's commencement of official life was celebrated in Moscow on the 5th instant. Addresses of congratulation were received from all parts of Russia, and from foreign countries; and deputations, said to be one hundred and thirty in number, from all the Russian universities and scientific societies, either waited personally on him, or sent addresses.

ON Tuesday last, at Willis's Rooms, a festival dinner took place, in connection with the Royal Hospital for Women and Children, in the Waterloo Road—the Prince of Wales in the chair. An appeal by his Royal Highness results in a subscription list of about £2,000, this sum including 100 guineas from the Prince, £200 from Mr. E. Lawrence, £200 from Mr. Eastwood, £200 from Mr. Torkington, Mr. Crompton Roberts £100, and Messrs. Lucas Brothers £105.

WE referred lately to the ambulance inspection of a stretcher-bearer company of the 1st Hants Engineer Volunteers, which had been trained by Surgeon Cæsar, and of whose efficiency Surgeon-General Longmore spoke very highly. The Director-General has now forwarded an official letter expressing his high satisfaction at the marked efficiency of the company, and complimenting Surgeon R. T. Cæsar on the excellent results obtained by much sacrifice of time, and hearty zeal and intelligence.

IN consequence of the resignation of Mr. Wharton Jones, Mr. J. F. Streatfeild becomes the senior ophthalmic surgeon at University College Hospital. Mr. Streatfeild, whose time is already much occupied both at University College Hospital and at the Moorfield Ophthalmic Hospital, was not a candidate for the chair of Ophthalmic Medicine and Surgery in University College; and this appointment has been conferred on Mr. John Tweedy, F.R.C.S. An assistant ophthalmic surgeon to the hospital will be appointed, and Mr. Tweedy is, we believe, a candidate for this post.

A CROWDED meeting has recently been held at Bologna in favour of cremation. The question has been warmly taken up by the medical profession in that town, and the meeting was largely attended by doctors. The chief speaker was Dr. G. Pini, who advocated the introduction of cremation in the place of burial, as a means of avoiding the unsanitary neighbourhood of burial grounds to large towns, and added that lawyers were, as a rule, of opinion that such a change would not be prejudicial to legal investigation in cases of suspicious death. It is expected that Bologna will soon, following the example of Lodi and Milan, be supplied with a public crematory.

A HOSPITAL FOR NORTH LONDON.

AT a meeting of the North London District of the Metropolitan Counties Branch of the Association, it has been resolved, by an almost unanimous vote, to support the proposal to establish a general hospital in the northern district. While the central and western parts of the metropolis are well supplied with hospital accommodation, some of the large outlying suburbs, which have become so important of late years, are almost entirely without such advantages. At the West End, there are no fewer than eight large hospitals, containing an aggregate of

over two thousand beds; but in the north of London, with its vast population, there is only one general hospital, the Great Northern; and that contains but thirty beds. A committee has now been formed to promote the establishment of an institution which shall in some measure meet the requirements of the northern district. On this committee the North London District is fully represented; and it is proposed to introduce some new features into the "North Metropolitan Hospital", so as to adapt it to the circumstances of the present day. Thus an attempt will be made to combine the paying with the eleemosynary principle. The hospital will freely bestow its benefits upon the really necessitous poor; but it will demand payment from all others, endeavouring in each case to adapt its charges to the means of the applicant. The experiment will also be made of setting apart one or more wards for those paying patients who may desire to be treated in hospital by their ordinary medical advisers. And, further, care will be taken that the physicians and surgeons shall be duly represented in the governing body, so that all matters relating to the treatment and nursing of the patients may be under their direct control. Such are some of the novel features which are to be introduced into the proposed hospital. They are features which have been forced upon the attention of hospital administrators by the present condition of the working classes, and by the obvious defects in many of the older institutions. The committee which has been formed for promoting the "North Metropolitan Hospital" has acted wisely in striking out fresh lines, adapted to the special requirements of modern times; and we wish it all success in its undertaking. The honorary secretary of the committee is Dr. G. W. Potter, 12, Grosvenor Road, N.

DEATH OF PROFESSOR SKODA.

ONE of the most illustrious ornaments of the Vienna school of medicine has just passed away. Dr. Joseph Skoda, formerly Professor of Medicine in the University of that city, died on Monday, the 13th instant, at the age of 75, after a lingering illness. He was born at Pilsen, in Bohemia, on December 10th, 1805; and, after receiving his preliminary education at the Gymnasium of his native town, studied medicine in Vienna, and received the degree of Doctor of Medicine in 1831. After this, he was engaged in the treatment of cases of cholera during the epidemic of that disease in Bohemia, and in 1832 returned to Vienna, where he was appointed an assistant-physician in the General Hospital. Here he perseveringly carried on for two years, in conjunction with Draut, Kolletschka, and Rokitansky, a series of pathological researches, which he applied to the investigation of the morbid changes occurring during life in the thoracic organs. The first result of his labours in this field was the publication, in 1838, of his well-known work on *Percussion and Auscultation*. Before this, he had given private courses of lectures on diseases of the chest, which were largely attended. In 1839, a special department for diseases of the chest was allotted to him in the General Hospital. Here, his opportunities for teaching being extended, his fame as a teacher increased, and attracted large numbers of pupils from all parts. Subsequently to this, he was appointed one of the principal physicians to the hospital; and in 1846 succeeded Lippich as Professor of Clinical Medicine. This office he held until 1871, when he resigned it in consequence of painful attacks of gout, which recurred every year. During his career as a teacher, Skoda appears to have been subjected to much opposition and annoyance from the adherents of the old school of medicine. All remembrance of difficulties of this kind, however, is superseded by the fact of his having been one of the most prominent among those who have raised the Vienna school of medicine to its present high position. Not only was he an eminent teacher, but he is gratefully remembered for his great and unostentatious liberality. He contributed in all 14,000 florins to institutions for the relief of distressed medical men, and their widows and orphans. By a large circle of friends, he was beloved for his amiable and cheerful disposition, his earnest love of truth both in ordinary life and in science, and his noble and generous character.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

PROVINCIAL Fellows will, if, as we presume is the case, they intend to secure the election of Mr. Reginald Harrison into the Council of the College of Surgeons, need to make a very resolute and unanimous effort. Canvassing is threatened in town on rather an unusual scale, and the seats at disposal are not numerous. Sir James Paget will, of course, be re-elected; and the friends of Mr. Christopher Heath, and of Mr. Hulke, are each of them professedly confident of returning their candidates, both of whom have very strong claims indeed to confidence, not to speak of other candidates for election and re-election for whom an effort will certainly be made. Mr. Walton's friends are also active in supporting his candidature. Mr. Wheelhouse, of Leeds, having, with great regret to the Council generally, resigned his post, it seems right that the number of provincial representatives at the Council should not be lessened; and everyone admits that Mr. Reginald Harrison possesses all the qualifications which are most essential for a seat on the Council of the College: his past working life has been spent in a great hospital and school devoted to the teaching of anatomy and surgery, and in practice as a hospital surgeon; he is thoroughly well acquainted with methods of teaching, not only in this country, but abroad, where he has travelled much, and with a good observing mind. His energy and administrative capacity have been tested in many important positions in connection with the British Medical Association and local societies, in all of which he has served most important offices successfully, and has not only achieved an excellent reputation for vigour, tact, and good sense, but has become universally popular. Mr. Harrison was last year invited to come forward by a large number of Fellows, who sent a requisition for the purpose; he at first assented, but subsequently withdrew—Mr. Cadge being also a candidate, and he being desirous to secure the election of that excellent representative of provincial surgeons. The vacancy caused by Mr. Wheelhouse's resignation should, therefore, naturally be filled by Mr. Harrison; but all these reasons will not suffice to secure his re-election unless his friends, both in London and in the provinces, and others who admit the principle that provincial schools and hospitals should have an adequate representation in the Council, support that principle, on this occasion, by making a general resolve that Mr. Reginald Harrison's name shall be found as the representative of the extra-metropolitan profession in the list of the elected councillors of 1881.

HOSPITAL SUNDAY.

ON Sunday next, being Hospital Sunday, the Lord Mayor and Sheriffs will attend in state at the morning service in Westminster Abbey, and at the afternoon service at St. Paul's Cathedral, when Her Majesty's Judges will also be present, and the sermon will be preached by Bishop Claughton.

ZYMOTIC DISEASES IN LONDON.

THE mortality from small-pox, as is usual at this season of the year, begins to show a decline. The fatal cases, which had been 103, 92, and 82 in the three preceding weeks, further declined last week to 59, and were fewer than in any week since the end of March last, although they exceeded the corrected average number in the corresponding week of the last ten years by 15; 29 were recorded in the Metropolitan Asylums Hospitals at Fulham, Homerton, Stockwell, and Deptford, 3 in the Highgate Small-pox Hospital, and 27 in private dwelling-houses. Of the 59 persons whose deaths from small-pox were recorded last week within registration London, 22 had resided in the South, 18 in the East, 8 in the North, 6 in the Central, and 5 in the West groups of registration districts. The number of small-pox patients in the Metropolitan Asylums Hospitals, which had increased in the five preceding weeks from 942 to 1,644, were 1,633 on Saturday last, of whom 621 were inmates of the Convalescent Camp Hospital at Darenth; the new cases admitted to these hospitals, which had been 402 and 359 in the two previous weeks, declined to 293 last week. The Highgate Small-pox Hospital contained 83 patients on Saturday last. The fatal cases of measles, which had been 86 and 85 in the two preceding weeks, declined to 64 last week, but exceeded the average by 24. The

25 deaths from scarlet fever showed a further decline from the numbers in recent weeks, and were 12 below the average; they included 11 in South London. The 27 fatal cases of whooping-cough were fewer than in any recent week, and were no fewer than 35 below the average. The 22 deaths from diarrhœa included 20 of children under five years of age, and were 2 below the average.

THE BOYLSTON PRIZE.

We learn with pleasure that the Boylston prize of 300 dollars, offered for the best dissertation on Injuries of the Back without apparent Mechanical Lesion in their surgical and medico-legal aspects, has been awarded to Mr. Herbert Page of St. Mary's Hospital. This prize was last year won by Mr. Cheyne, on the first occasion on which it had been awarded, we believe, to an English writer. The attention thus directed to foreign essay prizes, which are much more numerous abroad than they are in England, may serve to excite increased emulation among our young professional brethren. As surgeon to the London and North-Western Railway, Mr. Page has had considerable experience in the subject-matter of the essay, and has collected materials which were available for the subject announced. The subject of the second prize was the effects of drugs dufing their application on either nurses or nursing. From a communication we have received from Mr. Dolan of Halifax, it appears that he had forwarded a dissertation, of course under motto in the proper manner, for this prize, and has received in reply a communication from the secretary, informing him that the prize would have been awarded to his essay, as being the best dissertation on the subject of which it treats; it was, however, debarred from competition by its having been published, prior to their decision, in the *Practitioner* of February 1881 and subsequent numbers, otherwise it would have received the prize. Mr. Dolan made this public in ignorance of the rule, which is, however, a very customary and usual one in the case of all prize-essays.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The time for sending in nominations for seats in the Council of the College expired on Monday last, the 13th instant. The Fellows will, therefore, be called upon to select three gentlemen from the following list at the annual meeting on the first Thursday in the ensuing month. Sir James Paget and Mr. Walton offer themselves for re-election. Mr. Wheelhouse declines the honour. The other candidates, taking them in seniority, are: Mr. John Whitaker Hulke, F.R.S., Surgeon to the Middlesex Hospital, diploma of membership dated July 16th, 1852, fellowship May 23rd, 1857; Mr. John Croft, Surgeon to St. Thomas's Hospital, October 6th, 1854, and November 24th, 1859; Mr. Christopher Heath, Surgeon to University College Hospital, March 14th, 1856, and May 31st, 1860; and Mr. Reginald Harrison, Surgeon to the Royal Infirmary, Liverpool, April 15th, 1859, and December 13th, 1866. The President, Mr. Erichsen, will take the chair at 2 o'clock precisely, on the 7th proximo. The candidates are all Fellows of the College by examination.

AMATEUR AND PROFESSIONAL NURSES.

There has been much discussion recently concerning the stated objection of certain sisterhood nursing associations to send nurses to small-pox cases. Mr. Lewis Wingfield has written strongly to the papers on the subject; and the *Gentleman's Magazine*, in commenting on his published letters, observes that "not the least serious question opened out by Mr. Wingfield's letter is that of the value of our nursing sisterhoods. One and all of these, to whom Mr. Wingfield applied, declined to send a nurse to serve in a house in which there was small-pox. I do not deny that a woman may well hesitate to face the risk of so serious and loathsome a disease. For those, however, who, in the profession of religion, have formed a sisterhood, to decline such a call, is like a soldier refusing to join a forlorn hope. They may be volunteers. That, however, does nothing to free them from responsibility. Fancy our volunteer soldiers refusing, on account of the danger, to front an enemy when he had once landed! I hope this refusal to face danger will open men's eyes to the real value of not a few of the institutions in which women play at being nurses. In our hospitals, the presence of lady nurses is not an unmixed blessing. I have spoken to patients who have felt the weariness and suffering of life in hospital augmented by the fact that they dared not ask ladies of gentle birth for the menial service they required. Though less brutal in language, moreover, than the nurse of former times, the lady nurse knows how to make the patient wince when he has the misfortune to get into her black books. We are in a curious transition stage in many matters. When we have settled down to the new order of things, we shall find that in nursing, as in other matters, professional service is better than amateur; and shall learn that the sufferer is as often pained as cheered by ministrations that not seldom owe their origin to forms of mysticism, fanaticism, or hysteria."

THE OLD ENGLISH FAIR.

The Old English Fair at the Albert Hall, of which we spoke last week, has not only proved, as might have been expected, a great social success, but has been the fashionable event of the season, and has realised a sum of not less than £5,000 for the institution which it was intended to benefit—the Chelsea Hospital for Women. Mr. J. S. Wood has transferred the Old English Fair, which has been so eminently successful in raising funds for the Chelsea Hospital for Women, to the grounds of the Bolingbroke House Pay Hospital, Wandsworth, where an imitation of a street in an old English town three hundred years ago has been arranged, and a fancy fair is being held this week. Bolingbroke House, it will be remembered, is an interesting experiment based on the principle that there are a considerable number of persons who, while habitually claiming and acquiring hospital treatment, ought not to claim it on the terms on which it is given to the very poor, and which receives artisans, clerks and others as in-patients on terms of moderate payment. Among the committee of management is Sir Trevor Lawrence, M.P., and the leading spirit throughout has been Canon Erskine Clarke, Vicar of Battersea, and brother of Dr. Fairlie Clarke of Southborough, who has given great attention to the subject, and whose writings on it are well known and much appreciated in the profession.

INSANITY AND MALARIA.

Dr. John M. Ward, the chief medical officer of the New Jersey State Lunatic Asylum, comments on the curious fact that, notwithstanding the great prevalence of malarial and intermittent fevers in the section of country in which the asylum is placed, not a single case of malarial disease has occurred among the patients in the institution, who numbered last year 672. Several attendants and labourers employed by the asylum suffered from malaria, but not one lunatic. The explanation of this is, not as might be rashly supposed, that insanity is protective against malaria, but simply that the lunatics are never allowed to be out of doors after nightfall.

SANITARY INSPECTION OF HOTELS.

We read with great satisfaction in the Italian *Times*, that most of the better class of hotels in Rome have now signified their willingness to be inspected by a sanitary commission of physicians of mixed nationality; and it is hoped that a list of hotels will shortly be published, when the inquiry has ended, which will include most of the hotels in Rome, which persons desirous of preserving their health will be willing to visit. So many, and such well founded, complaints have been made of the danger to health attending residence in many of the hotels in Rome, Florence, and Naples, that this initiative cannot be too highly praised, and it may be hoped that it will extend to other continental cities. We could mention hotels in German, as well as in Italian and French watering-places, which are well known by medical men to be the foci of zymotic disease. In one well-known hotel in a German watering-place, season after season visitors were decimated with typhoid fever, until at last we hear that it has been closed from its notorious mortality; and this is a watering-place which is visited by invalids exclusively for the pur-

pose of gaining health. Roman hotels have long had a reputation of being, many of them, very ill-cared for in respect to their sanitary arrangements. We trust this Commission will rigidly examine, not only all the conditions of drainage and ventilation, and the means of ingress of sewer gas, but also the water supply, and the means of preserving it from pollution when it has, in the first instance, been taken from a trustworthy source. Such lists as the Commission may be able to publish will be of great service to travellers, and will no doubt in course come to be eagerly looked for.

GRATEFUL PATIENTS.

THE gratitude of patients to their doctors is, says the *Globe*, sometimes really touching. Not often, however, do we meet with such an illustration as that offered by Thomas Hobson, 78 years of age, who hanged himself in the Prestwich workhouse, of which he was an inmate, after having made a will bequeathing his body to his medical attendant, "in gratitude for his kindness and urbanity." The doctor will not accept the bequest; and a like reluctance is shown by the School of Anatomy at Owens College, which had been named by the testator as second legatee.

SHORT-SIGHTEDNESS IN SCHOOLS.

MUCH attention has been called in Paris to the numerous cases of myopia in the public schools, which had developed themselves in consequence of the faulty construction of the desks and forms, and the bad distribution of the light. The municipal architects of Paris have taken note of these circumstances in the construction and furnishing of new school-buildings, but it is considered important to lay down practical rules based on sound principles. The Minister of Public Instruction has, therefore, nominated a commission on the hygiene of sight in schools, charged to study the influence of the material conditions of school-buildings and furniture on the progress of myopia, and to discover methods of prevention. The President of this Commission, which is of a comprehensive character, including school inspectors, publishers, and printers, is M. Gavarret; and it counts amongst its members Drs. Javal, Panas, and Gariel.

AMBULANCE DRILL FOR CAVALRY SOLDIERS.

THE instruction given to men of the Army Hospital Corps, and to stretcher-bearers, in the various armies of Europe, as regards the methods of raising, carrying, or otherwise transporting badly wounded men in time of war, has hitherto been chiefly confined to the needs of infantry soldiers. It has only been in regiments of infantry that a certain proportion of men per company have been drilled for acting as bearers of wounded in battle from the place where the fighting is in progress to the dressing stations. In Germany, this instruction has now been extended to mounted troops. Practical exercises of the kind mentioned have been successfully carried on in the cavalry regiments of the Guards at Berlin, and is gradually being brought into use in all cavalry regiments of the German army. The instruction includes not only the method of affording first assistance to the wounded, according to the nature of their injuries, but also the best methods of lifting wounded men from horseback, of removing them on horseback when no other means of conveyance are available, as in cavalry skirmishes and the occasional rapid movements of detached parties of mounted soldiers, and the proceedings to be adopted under various other special conditions peculiar to this arm of the service. The surgeons attached to the cavalry regiments concerned are charged with the duty of instructing these regimental bearers.

SALIVA AND GUTTER-MUD AS VEHICLES OF SEPTIC DISEASE.

DR. GEO. M. STERNBERG, surgeon United States army, details in the *National Board of Health Bulletin*, April 30th, a series of observations and experiments with the following conclusions. It seems very probable that puerperal fever, hospital gangrene, and the various forms of septicæmia, result from the development of pathogenic varieties of harmless and widely distributed species of micrococci as the result of especially favourable surroundings, such as found in the lochial discharges of a puerperal woman, or in the secretions from the surface of wounds in a crowded and ill-ventilated hospital ward. Just as differences in resisting power to experimental septicæmia are exhibited by different species of animals, so doubtless individual differences exist in man, especially as the result of lowered vitality; and this want of resisting power, from whatever cause resulting, must be counted as one of the conditions, favourable to the development and propagation of a pathogenic bacterium. Thus we find that, in experimental septicæmia, the micrococcus does not invade the blood until the vital powers are at a low ebb, and death is near at hand. By virtue of some property or mechanism at present unknown, blood, which, external to the body, is a favourable medium for the development of many species of bacteria, resists their entrance or gets rid of them when they effect an entrance, *e.g.*, by injection, so long as it is circulating in the vessels of a healthy individual. In the dog, the vital resistence is competent to withstand the assaults of a micrococcus—injected subcutaneously—having the potency of those found in human saliva, and the result of such an injection is simply a circumscribed abscess. But the increased power (which is perhaps simply a more vigorous and rapid development) gained by cultivation in the body of the rabbit, enables these organisms to overcome the resistance of the dog, and a diffuse cellulitis of fatal character results. The fact which Dr. Sternberg has observed, that during the summer months the mud in the gutters of New Orleans possesses an extraordinary degree of virulence, shows that pathogenic varieties of bacteria are not alone bred in the bodies of living animals. The more he studies this subject, the more probable it seems to him that in this direction lies the explanation of many problems which have puzzled epidemiologists, and that the sanitarians are right in fighting against filth as a prime factor in the production of epidemics—a factor of which the *rôle* is easily understood, if this view is correct. The presence of septic organisms, possessing different degrees of virulence depending upon the abundance and kind of pabulum furnished them, and upon meteorological conditions more or less favourable, constitutes in his opinion, the epidemic constitution of the atmosphere, which wise men were wont to speak of, not many years ago, as a cloak for ignorance. It must be remembered that the gutter-mud of to-day, with its deadly septic organisms, is the dust of to-morrow, which in respiration is deposited upon the mucous membrane of the respiratory passages of those who breathe the air loaded with it. Whether the peculiar poison of each specific disease is of the same nature or not—a question which can only be settled by extended experimental investigations in the future—it is altogether probable that this factor often gives a malignant character to epidemics of diseases which, uncomplicated, are of a comparatively trivial nature.

THE DANCE OF DEATH.

A GRIM subject for a modern Albert Durer, or nineteenth century Holbein, might be found in the subjoined extract from the monthly report of Dr. S. Gourley, medical officer of health for Hartlepool.

Whitby Street: One death from scarlet fever, house used as dwelling-house and pawn-office, chiefly for wearing apparel and bedding, parcels of which are closely packed in every room, even to the room where another child is now lying, which is suffering from scarlet fever. The whole place is dirty, and apparently has not been lime-washed for years. It is difficult to imagine any more effectual means for spreading scarlet fever than the arrangements here. This place should be closed, as every parcel in the place may be the means of conveying the disease to the houses of the unfortunate owners, unless thoroughly disinfected by being submitted to a dry heat of 200 degrees Fahr. and the premises fumigated and lime-washed. Unless these precautions are taken it is impossible to say to how many houses of the poor this disease may not be conveyed. I think this place should not be occupied at all as a dwelling-house, as every part of it is used for the storage of pledged goods. These cases very forcibly illustrate the urgent necessity for compulsory notification of infectious disease.

We commend this case to the consideration of the present promoters of the agitation to shuffle off the duty of notification of infectious disease on to the shoulders of the persons most interested in concealing it.

SCOTLAND.

THE annual excursion of the members of the Aberdeen Philosophical Society took place on Saturday, June 11th. Under the presidency of Professor Struthers, the company visited Banchory, Birse, Finzean, and Ballogie.

SMALL-POX IN SCOTLAND.

IN view of the danger at present existing of the small-pox being widely disseminated in Scotland by importation from London and elsewhere, the Board of Supervision have issued an official memorandum regarding small-pox, in which they impress the value of Mr. Husband's suggestions. They add: "1. In the first place, that everyone should make sure that he is not mistaken in supposing himself to have been well vaccinated in infancy. 2. That the unvaccinated should be searched for, especially among the unsettled and migratory portion of the population, among whom chiefly the disease is likely to appear in the first instance. 3. That those who desire absolute security should get themselves revaccinated. 4. That infants should be vaccinated a few weeks, or even months, earlier than usual." The points of primary importance, requiring the attention of local authorities in their endeavours to check or stamp out the disease when it makes its appearance, are: 1. The general vaccination and revaccination of the population, by which means the number of persons liable to be attacked will be diminished; 2. The removal of all apparent or probable sources of insalubrity in the district, by which means the general health of the population will be promoted; 3 and 4. The early discovery of the first and each subsequent attack in the district, and the immediate isolation of the first and subsequent cases, by which means the local authority may hope to prevent the disease being communicated to others, and becoming epidemic in the district. These measures, however, will be of little avail, if they are only resorted to when the disease has actually appeared. If the local authority are not prepared beforehand, they will then have to encounter panic, confusion, and the impossibility of effecting immediate isolation. The only true hope of safety lies in their being fully prepared, and in being able so to act, when the first case of the disease occurs, that it may not be disseminated throughout the population.

SEVERE OUTBREAK OF SCARLET FEVER IN THORNTON.

THE village of Thornton, in Fifeshire, is at present suffering from a severe outbreak of scarlet fever. It is a small-sized village; but the disease has already entered over twenty families; and on Monday, of 234 names on the school-roll, 119 were absent. Only one fatal case had then been recorded.

EDINBURGH UNIVERSITY: VANS DUNLOP SCHOLARSHIPS, ETC.

IN the JOURNAL some months ago, there was a full notice of the important bequest that had been made to the Medical Faculty in the University of Edinburgh, or rather, we should say, to the students of medicine there, by the late Dr. A. Vans Dunlop. The first competition having been held, the awards were announced last week. A scholarship of the annual value of £100, tenable for three years, has been gained by Mr. Eustace G. Pilgrim, who obtained the highest marks at the preliminary examination in arts in October 1880 and March 1881; this scholarship is awarded on condition that the holder of it pursues his studies in medicine in Edinburgh University during his tenure of it. Another Vans Dunlop Scholarship, of the annual value of £100, and also tenable for three years, was gained by Mr. Frederick Ashwell, third year's student of medicine, who obtained the highest marks in a special competitive examination in anatomy, physiology, pathology, and materia medica. The condition attached to this scholarship is, that the holder of it shall continue his studies in Edinburgh University for at least the first year of his tenure of it, and during the remaining period shall prosecute research in some branch of study comprised in the medical curriculum. This last provision is a wise one, and may bear good fruit. In the medical faculty, at the same time, a Thomson bursary, of the annual value of £25, tenable for four years, was awarded to Mr. Gerard A. Scott, who passed the next best preliminary examination in March.—The late Dr. Thomas Hunter, of the 4th (Queen's Own) Hussars, who died in October, bequeathed £200 to the new university building scheme, and the committee have received that sum.—Mr. Thomas Smith, L.R.C.S.E., Edinburgh, has intimated his intention of giving £150 to the university, for the purpose of founding a prize for the encouragement of the study of botany; the prize to consist of a gold medal, which is to be awarded every two years. The subject of competition will, of course, be botanical; and eighteen months' notice of it will always be given.

OVERCROWDING OF EMIGRANTS IN GLASGOW.

AT this season, there is a considerable stream of German and other continental emigrants *en route* for America, who, arriving at Leith, are sent by rail to Glasgow, and there remain until their steamer sails. On Thursday, Sheriff Balfour punished a lodging-house keeper, for overcrowding his lodging-house premises to the extent of one hundred per cent. in excess of their capabilities, by inflicting a penalty of £4. Such action as this is very necessary, considering the facility with which small-pox might be spread.

IMPORTANT DECISION AS TO PAUPER LUNATICS.

THERE has just been decided in the higher courts an important question affecting the maintenance of lunatic paupers. An inspector of one of the Glasgow parishes sued the inspector of another parish for the maintenance of a lunatic who was at present on the rates, but whose father was shown to be earning an income of £150 *per annum*. The defender refused payment on the grounds that the alleged pauper was not a proper object of parochial relief, and that the plaintiff had no right to interfere with him, as he was not dangerous. The court gave judgment in favour of the defender, pointing out that it was an extremely anomalous thing that a man earning his bread by the sweat of his brow should be compelled to pay taxes for the support of the lunatic son of a man with the income above mentioned.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending June 4th, it appears that the death-rate in the eight principal towns was 20.6 per 1,000 of estimated population. This rate is 2.2 under that for the corresponding week of last year, but 2.2 above that for the previous week of the present year. The lowest mortality was recorded in Paisley—viz., 10.6 per 1,000: and the highest in Perth—viz., 27.3 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 2.4 per 1,000, or 0.4 below the rate for last week. The deaths from scarlet fever were most numerous in Edinburgh. Acute diseases of the chest caused 106 deaths, or 17 more than the number recorded last week. The mean temperature was 60.1°, being 5.2° above that of the week immediately preceding, and 9.2° above that of the corresponding week of last year.

HEALTH OF GLASGOW.

THE report of the medical officer of health for the fortnight ending May 28th states that there were 449 deaths registered, representing a death-rate of 23 per 1,000 living, which is 2 per 1,000 of the population less than during the corresponding fortnight of last year. This continued contrast as regards mortality in favour of the present year arises still from the freedom which exists at present from the fatal forms of zymotic diseases. The number of deaths of persons aged below one year was 98, and of persons aged sixty years and upwards, 73. The deaths from pulmonary diseases were 138, representing a death-rate of 7 per 1,000 living. Last year, this low point of fatality from diseases of the lungs was not reached until the beginning of July. There were 6 deaths from fever—all enteric, and 42 from the infectious diseases of children—viz., 18 from whooping-cough, 17 from measles, and 7 from scarlet fever. One case of small-pox was regis-

tered—a Swedish emigrant from one of the boarding-houses. The number of cases of fever registered was 61—viz., 44 of enteric, 12 of typhus, and 5 undefined; while there are at present in the hospitals at Belvidere 95 cases of scarlet fever, 55 of enteric fever, 34 of typhus, 27 of measles, 15 of whooping-cough, and 3 of small-pox—in all 229, as compared with 209 the previous fortnight, and 316 at the corresponding period of last year.

IRELAND.

A CASE of small-pox has been admitted into the Fever Hospital attached to the Cork Workhouse, but why the patient was not sent to the Intercepting Hospital, Queenstown, has caused some astonishment, and the matter will be brought before the Board of Guardians at their next meeting.

UNION HOSPITAL CLINICAL RECOGNITION.

THE following resolutions were adopted at the conference at the Hibernian Hotel, Dublin, on Monday, June 6th; Dr. Adrien in the chair. 1. That a standing committee be appointed to take all the necessary steps to carry their application to a successful termination. 2. That union hospital physicians are requested to unite as one man, and prove, by their attitude towards those ready to support their just claims, how deeply they desire to see those claims recognised. 3. That they are requested to use every opportunity for bringing under the notice of the senators in their respective neighbourhoods the grounds on which they base their claims. 4. That the memorial now read be printed, and forwarded to the Senate; and that Drs. Daly, Adrien, Laffan, and Kenny do constitute the deputation for the purpose of seeking an interview with that body. Eighty-two physicians have already signed the memorial, and numerous letters promising the most earnest support were received. Dr. O'Reilly of Lismore was called to the second chair. Drs. Daly and Kenny acted as secretaries. The meeting then broke up. The following were named the standing committee: Dr. Smith, Belfast; Dr. Baggot, Enniskillen; Dr. Ryan, Bailieborough; Dr. Brown, Derry; Dr. Bradshaw, Carrick-on-Shannon; Dr. O'Farrell, Boyle; Dr. Macauley, Ballina; Dr. Shanley, Athlone; Dr. Daly, Meath; Dr. Adrien, Drogheda; Dr. Kenny, Dublin; Dr. Moorhead, Tullamore; Dr. O'Neil, Athy; Dr. Barry, Limerick; Dr. Cremen, Cork; Dr. Laffan, Cashel; Dr. O'Reilly, Lismore; Dr. Cullinan, Ennis; Dr. Hayes, Rathkeale; Dr. Holland, Dungarvan.

ZYMOTIC DISEASES IN IRISH PROVINCIAL DISTRICTS.

DURING the quarter ending April 2nd, of the 63 deaths from scarlatina which were registered in the fifteen districts, 20 occurred in Limerick, 15 in Cork, 7 in Belfast, and 6 in Sligo. Measles caused 10 deaths in Limerick, 8 each in Waterford and Cork, and 5 in Kilkenny; while of 18 deaths ascribed to diphtheria, 10 took place in Belfast, and 4 in Londonderry. There were 59 deaths from whooping-cough registered in Belfast, where the disease has been prevalent for upwards of two years, and 25 in Cork; but few deaths were recorded from this disease in the remaining districts. Diarrhœa caused 32 deaths in Belfast, 17 in Waterford, 16 in Limerick, and 14 in Cork; and, of the 97 deaths from fever, 20 (typhus) took place in Cork, and 26 (typhoid) in Belfast. It is satisfactory to learn that there were no deaths recorded from small-pox in any of the fifteen districts during the quarter.

HEALTH OF DUBLIN.

THE deaths registered in the Dublin Registration District, calculated according to the census of 1871, for the last week in May represent an annual rate of mortality of 24.8 in every 1000. Even this unusually low rate for so unhealthy a city is probably overestimated; as, although the results of the recent census are not yet accurately known, it has been ascertained that the population of Dublin has considerably increased. The populations of Belfast, Londonderry, Newry, and Dundalk, have also increased; while in Limerick, Waterford, Drogheda, Galway, Kilkenny, Queenstown, and Clonmel, the populations have diminished. Cork, Wexford, and Sligo, show no appreciable change. Dublin is now apparently free from small-pox, but typhus is still rather prevalent.

HEALTH OF CORK.

DURING the four weeks ending May 21st, the total number of deaths registered amounted to 151, and the births to 197. The annual death-rate per 1,000 inhabitants gives a total ratio of mortality of 24.35; from infectious maladies of 1.1; an infant mortality of 1.3; and a birth-rate of 30.02. These figures show that the urban death-rate for the period referred to, has been lower than at any similar space of time during the present year, and contrast very favourably with the corresponding period last year, when the total mortality in Cork city was 29.79, and 3.64 from infectious diseases per 1,000 inhabitants respectively.

HEALTH OF BELFAST.

FROM the monthly report of Dr. Browne, medical superintendent officer of health, for May, it appears that six cases of typhus and two of small-pox were removed to the hospital for contagious diseases during that period. Every precaution was used to prevent the spread of the disease, each house from which a patient was taken having been promptly fumigated and limewashed, the clothing and bedding used by the sick disinfected and cleansed, and when found to be very bad and filthy were destroyed. During the four weeks ending 21st May, 43 deaths were registered from zymotic diseases, 66 from phthisis, and 90 from diseases of the respiratory organs, making a total of 156 deaths from diseases of the lungs. The total births recorded amounted to 638, and the total deaths to 403, showing a natural increase in the population of 235 individuals. The average death-rate from all diseases in the four weeks was 23.3, on estimated population of 224,000. The death-rate for zymotic disease averaged 2.5; that of chest affections, 9; and of whooping-cough, 1.04. For several months, Belfast has been free from cases of typhus fever, but six cases came under observation during May, and were removed to the Union Hospital. The cases of small-pox were those of sailors who arrived in the barque *Aaron* from Baltimore, and of which mention was made in the JOURNAL recently, and so far the disease has not spread. We may add that, since Dr. Browne's report was compiled the sailor who was unvaccinated, and was admitted to the workhouse, has died of the disease.

HEALTH OF IRELAND IN 1880.

DURING the past year, the births registered in Ireland numbered 128,010, being equal to a ratio of 1 in every 41.6, or 24.0 per 1,000, of the population, against an average rate of 26.6 per 1,000 for the previous ten years. The deaths amounted to 102,955 affording an annual ratio of 1 in every 51.7 or 19.3 per 1,000 of the population; being 1.5 per 1,000 persons over the average rate for the ten years 1870-79. The mortality was the highest recorded in any year since registration was established in 1864, except the year 1879.

THE REGISTRAR-GENERAL'S QUARTERLY RETURNS FOR IRELAND.

THE return of the births and deaths registered in Ireland, for the first quarter of this year, just issued by the Registrar-General, presents two new features. Firstly, a separate table has been constructed, giving the rate of mortality in each of the fifty-six urban sanitary districts in Ireland, together with such other particulars regarding the causes of death which have hitherto been published for the various territorial divisions used for registration purposes. This arrangement affords a means for comparing the causes and rates of mortality in towns with the country at large, and with one another. Secondly, three new headings have been introduced into those portions of the tables relating to zymotic diseases, instead of the single heading "fever"—namely: "typhus", "typhoid", and "simple" fevers. This change has been judiciously made with the view of affording a more accurate indication of the unhealthy conditions which promote fever, inasmuch as it is now conclusively ascertained that the promoting causes of the various forms of fever differ in kind and degree. The population of Ireland, estimated

to the middle of this year, is 5,294,436. In making this estimate, the average annual excess of births over deaths is assumed to equal one per cent. of the population, and the estimated emigration for the six months ending June 30th, 1881, is deducted. During the quarter, 10,108 persons emigrated; and the birth-rate was 3.2 per 1,000 of the population under the average of the rate for the corresponding quarter of the previous five years. The death-rate of the quarter was below the average. The calculated birth and death rates in this table are founded on the population according to the census of 1871. Although the census returns are not yet in a condition to be available for the calculation of accurate statistical results, yet information has been received from the enumerators which shows that considerable movements in the population have taken place. Thus, the populations of some of the larger towns have apparently increased, others have diminished, and, again, others seem to have remained stationary. The most important fact demonstrated by the table is that, in a total urban population of nearly one million, or about one-fifth of the whole population of Ireland, the death-rate exceeds the birth-rate in the proportion of 34.1 to 31.4 per 1,000, which points to very unfavourable conditions of life in Irish towns. The births registered during the quarter ended March 31st last amounted to 31,527, being equal to an annual rate of 1 in every 42.0, or 23.8 per 1,000 of the estimated population. The birth-rate was 3.2 per 1,000 under the average for the corresponding quarter of the five years 1876-80, which was equivalent to an annual rate of 27.0 per 1,000. The deaths numbered 28,736, affording an annual ratio of 1 in every 46.1, or 21.7 per 1,000 inhabitants, as compared with an average rate of 21.9 per 1,000 for the first quarters of the five years 1876-80. Three thousand three hundred and thirty-seven, or 11.6 per cent. of the deaths were of children under one year of age. The deaths from zymotic diseases show a considerable decrease as compared with the March quarters of 1880 and 1879, and with each of the four quarters of the past year. The deaths from the principal zymotic diseases numbered 2,127, or 7.4 per cent. of the total deaths registered, and equal to 40.2 in every 100,000 of the population. This number is 858, or 28.7 per cent. under the deaths from the same causes in the corresponding quarter of 1880, and 740, or 25.8 per cent., under the average mortality for the first quarter of the three years 1878 to 1880. Small-pox caused 10 deaths, against 17 in the preceding quarter, all of which took place in the Dublin registration district; measles 94 deaths, against 162 in previous quarter, and compared with 361 in the March quarter of last year. A decrease also is recorded in the number of deaths from scarlatina, which were 267 under those registered in the December quarter of last year; and diphtheria 85 deaths, against 80. Whooping-cough caused 475 deaths, or 1 less than those registered the previous quarter; cholera 6; and diarrhœa 386, or 175 less than in the preceding quarter. To fever, 687 deaths were due, viz., typhus 288, typhoid 255, and simple continued fever 144. There were 787 inquests held during the quarter, a number equal to 1 in every 37 of the total deaths registered.

HANDSWORTH.—Dr. Welch reports that the health of this district during 1880 was well maintained, and that the death-rate not only compared favourably, but was actually less than in any of the six previous years, although the district is growing rapidly. Of the 288 deaths, 82 were of infants under the age of twelve months, 11 of these dying within the first twenty-four hours after birth. The infantile mortality, though not numerically excessive, was slightly higher than usual: a result to be expected with an increase in the number of births in proportion to the number of deaths. The deaths between the ages of one and five years were both numerically and proportionately less than in previous years; and the deaths of persons above sixty, though numerically less than in 1878 or 1879, were relatively higher than in any of the previous years except 1877 and 1879. During the year, 45 deaths were registered from zymotic disease, this number being below the average of the seven previous years. It would have been much less but for the prevalence in the autumn of infantile diarrhœa. The great majority of the fatal cases of this disease occurred in the poorer portions of the district. This is to a certain extent ascribed to the mismanagement, neglect or bad feeding, and lowered vitality of the children of the poor; but Dr. Welch believes it is to a greater extent "due to rapid putrefaction of organic matter, or rather to the agents of putrefaction in the houses or in the fouled soil around the dwellings of the poorer classes".

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following report of the Nomination Committee was adopted at the meeting of the Council, held on Thursday June 9th. The Committee consisted of the following members: Sir James Paget, Bart., Chairman; Mr. Birkett; Mr. Savory; Mr. Marshall; Mr. Wood; Mr. Cooper Forster; Mr. Hutchinson; the President and Vice-Presidents.

The Committee recommend to the Council the adoption of the following regulations.

I. *Constitution and Duties of the "Nomination Committee."*—1. The Nomination Committee shall consist of seven members of the Council, together with the President and Vice-Presidents, and not less than three members of the Committee shall be, or shall have been, members of the Court of Examiners. 2. The duties of the Nomination Committee shall be as follows, viz.—*a*. To consider applications from candidates for the offices of examiner in anatomy and in physiology, in medicine, in midwifery, and for the dental section of the Board of Examiners in dental surgery; to report thereon to the Council; and to recommend the candidates deemed fittest for election. *b*. To be visitors of the examinations in anatomy and physiology, in medicine, in midwifery, and in dental surgery. *c*. To make representations and recommendations to the Council respecting the aforesaid examinations. 3. The members of the Council appointed members of the Nomination Committe shall be ineligible for any of the before-mentioned examinerships.

II. *Notices Respecting Elections, and Mode of Election of Examiners.*—1. Notice of intended elections to the examinerships, shall be advertised in medical journals not less than one month prior to the date of those elections; and candidates shall be invited to send in their applications to the secretary not less than fourteen days prior to the date of election. 2. The secretary shall forward to each member of the Council, a list of all the candidates applying for the office of examiner within seven days of the expiration of the period to which the application of candidates has been limited. 3. Every member of the Council shall receive notice of each meeting of the Nomination Committee for considering applications for the office of examiner, and shall be at liberty to nominate, in writing, to the secretary, before or at each such meeting, others than those applying as candidates for the said office. 4. The names of all candidates for the office of examiner, and the names of the candidates recommended by the Nomination Committee for the said office shall be inserted in the notice issued to the Council for the meeting appointed for the election.

III. *Absence of Examiners.*—1. In the event of any examiner being, through illness or any other unavoidable cause, unable to take part in any examination, the Nomination Committee shall be authorised, on behalf of the Council, to appoint a substitute for such examiner, reporting thereon to the next meeting of the Council.

IV. *Number, Qualifications, and Duration of Office of Examiners.*—*A. Board of Examiners in Anatomy and Physiology.*—1. The Board of Examiners in anatomy and physiology shall consist of nine members to be appointed by the Council to conduct the examinations in anatomy and physiology for the Membership and the Fellowship of the college. 2. The examiners in anatomy and physiology shall be elected annually from the Fellows of the college. 3. An examiner in anatomy or in physiology shall not hold office for more than five consecutive years, but after an interval of one or more years shall again be eligible for election. 4. The chairman of the Board shall be elected annually by the members of the Board, and shall be chosen from that section of the Board, either anatomical or physiological, of which the members shall at the time constitute the majority of the Board.—*B. Examiners in Medicine.*—1. The four examiners in medicine shall be chosen from the Fellows of the Royal College of Physicians, and shall be elected annually at the Quarterly Council in July. 2. An examiner in medicine shall not hold office for more than five consecutive years, but after an interval of one or more years shall again be eligible for election.—*C. Examiners in Midwifery.*—1. The two examiners in midwifery shall be chosen either from the Fellows of the college, or from the Fellows of the Royal College of Physicians, and shall be elected annually at the Quarterly Council in July. 2. An examiner in midwifery shall not hold office for more than five consecutive years, but after an interval of one or more years shall again be eligible for election. N.B. The regulation limiting the period of office for any examinership to five consecutive years may, upon special recommendation of the Nomination Committee and the approval of the Council, be suspended.—*D. Dental Section of Board of Examiners in Dental Surgery.*—1. A member or members of the dental section of the Board of Examiners in dental surgery, shall, as provided by the by-laws, be elected from "persons skilled in dental surgery," and shall hold office "for the period of five years."

The report of the President and Vice-Presidents, on the Erasmus Wilson Trust was also adopted. It stated that they had taken

into consideration the changes proposed in the Erasmus Wilson Trust, so as to provide that the proceeds of the fund shall be more advantageously employed than at present, by appropriating them, in such proportion as the Council may, from time to time, determine, in part towards the payment of the salary of a Pathological Curator of the Museum, and in part for the payment of lectures or demonstrations on the pathological contents of the museum, to be given either by the Pathological Curator or by some other person duly appointed for the purpose; that they had consulted the legal adviser of the college on the subject, and, in accordance with his opinion, had instructed him to prepare a new deed, setting forth the objects of the Trust in its altered conditions, releasing the existing trustees from their obligations under the present trust, and transferring to the college in its corporate capacity the observance of the conditions of the Trust so altered. In view of the proposed changes, they recommended to the Council that all regulations at present in force, relating to the Erasmus Wilson Trust be rescinded; and that it be referred to the Museum Committee to inquire and report to the Council on candidates for the office of Pathological Curator of the Museum, and on the regulations under which that office shall be held.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AT an adjourned extraordinary meeting of the College on Wednesday, June 15th, the attitude that the College should take with respect to any proposed new licensing body was further discussed. The debate elicited clearly that it was the opinion of the College that the establishment of a new licensing body would diminish the number of licentiates of the College, and by consequence its income. It was proposed by Dr. Wilson Fox that a resolution should be arrived at, embodying, as reasons for disapproval of a new licensing body, that such a measure would diminish the influence and control of the Colleges of Physicians and Surgeons over professional men, by creating a class independent of those Colleges; and further, that the incomes of the Colleges would suffer by the smaller number of men who would present themselves for examination. Dr. Weber supported Dr. Fox. Dr. Priestley said that the interests of the public should be attended to as well as the interests of the College and the profession. It was Dr. Barclay's opinion, as also Dr. Greenhow's, that no mention should be made of the loss the College would sustain by a lessened number of licentiates and diminished fees. Sir William Jenner maintained that the College should not be ashamed of avowing the true reasons for its action, urging that, as the College believed its existence and licensing power to be of public benefit, it was quite to the point to show that a loss of support would diminish its usefulness. It was at length decided that Dr. Pitman should be instructed to convey to the Commission that the College of Physicians, believing in the adequacy of its licence as a test of professional knowledge, would regard the establishment of a new licensing body as prejudicial to the interests of the public and the profession, by lessening the number of the licentiates of the colleges, and creating a class of practitioners not under their control.

A resolution was then carried, to the effect that any material change in the manner of electing to the College Fellowship would be highly prejudicial to the interests of the College, and lower the estimation in which it is held both by the profession and by the public.

REPORT OF THE METROPOLITAN BOARD OF WORKS.

IN this report, the Board enumerates a very large number of Acts which it has to administer, most of them bearing directly, or indirectly, on the health of the inhabitants of London. After this epitome, the sewerage and main drainage works receive notice, and a special prominence is given to an extension of the main drainage of the metropolis, which has been rendered necessary by the flooding of many low-lying places, and by the increase in the number of houses. The extension of paved streets has prevented the absorption of much rain which previously soaked into the fields around London, and consequently a much increased capacity of the sewers for storm-waters is necessary. The Board, therefore, proposes to expend above £700,000 for relieving Deptford, Lee, Brixton, Stockwell, Hackney, Holloway, Limehouse, and other localities from periodical floods. An interesting statement is made concerning the formation of three banks in the river Thames, by which it was said that safe navigation was much hindered. From the report of the referees, it appears that these banks were chiefly caused by the dredging operations carried out by or under the direction of the Conservators of the Thames, which induced subsidence of suspended matter in the reaches where the banks were situated. The Board also refers to the action taken by them to prevent flooding of riverside premises by overflow of the Thames, which has involved a considerable expenditure of time and money in the preparation of plans of the river frontage in Westminster, Chelsea, St. George, Hanover Square, Lambeth, and Bermondsey. Some of these have been completed.

The metropolitan improvements authorised to be carried out, both as regards the formation of new streets and the removal of blocks of unhealthy dwellings, have not proceeded as quickly as before, in consequence of the great expenditure and the difficulty of providing new dwellings for the working classes displaced by pulling down their houses; and the Board proposes to obtain, if possible, a new Act to lessen or remove these difficulties. Under this head, they especially refer to the proposed new street from Tottenham Court Road to Charing Cross, and to the schemes under the Artisans' and Labourers' Dwellings. Under the heading of Parks, Commons, and Open Spaces, the Board states that there are 1676 acres under their control, and that the cost of superintending and keeping them up amounted to about £18,000 during the year.

The Alkali Acts Amendment Bill is specially referred to, in consequence of many of the businesses mentioned therein being similar to those placed under the control of the Board by the Slaughter-houses' Act, and it was thought that there should not be a divided jurisdiction in the metropolis of offensive businesses. The action taken under the order for regulating dairies, cowsheds, and milk-stores is especially mentioned, as more than eight thousand persons have been registered as carrying on one or more of these businesses. The order enables the Board to regulate the lighting, ventilation, cleansing, and drainage of the cowsheds, and securing cleanliness of milk-stores, milk-shops, and milk-vessels, and for protecting milk against contamination and infection. Above 23,000 inspections of, and reports on, these premises have been made during the year. Numerous visits have also been made to slaughter-houses and to premises occupied by knackers, soap-boilers, and tallow-melters, manure-manufacturers, blood-boilers, tripe-boilers, bone-boilers, catgut-makers, blood-driers, glue and size makers, with the result of removing many nuisances. The action taken as regards the fire brigade, gas and water companies, and as to Bills to extend the powers of the latter receives due notice. The lighting of the Thames Embankment, protection of infant life, tramways, railways, subways, and many other matters are also reported on. The financial statement is necessarily voluminous, and shows a sum on the debtor side of £3,904,382, and on the creditor of £3.841,262. The real income and expenditure are not, however, so large as these amounts, as a large balance in hand, interest on loans to other bodies, loans raised by the Board, etc., are included; but the real income from precepts, rents, and fees amounted to above £930,000. Reports from the engineer and architect are appended.

IMPORTANT WILL CASE.

A CASE of disputed testamentary capacity has been lately tried in the Probate, Divorce, and Admiralty Division of the High Court of Justice, before the Right Hon. the President and a special jury. The plaintiffs propounded the last will, dated August 1st, 1880, of the Rev. Thomas Troughton, who died on September 16th of that year, at the age of 63, possessed of property of the value of £75,000. The defendants opposed this will, on the ground that it had been obtained by undue influence of the plaintiff, the Rev. Charles Kilshaw Dean, and of a German female servant named Herwig, who had lived with the testator. By a previous will, dated June 26th, 1876, the bulk of the testator's property was left to the sons and daughters of a cousin of the deceased, and a legacy of £1,075 only to Mr. Dean, with whom testator had become acquainted in 1841. Other wills were also made within a short period before the testator's death, in favour of different relatives, all of whom were interested in upsetting the will in favour of Mr. Dean. Numerous witnesses were called on both sides. Those in favour of Mr. Dean affirmed that they had never witnessed any act of the testator which could point to unsoundness of mind. The most important witness on this side was Dr. Brown of Preston, who had visited the deceased thirty-eight times, and had never observed any mental aberration. It is, however, worthy of remark, that Dr. Brown was, on every occasion, kept waiting twenty minutes before he saw his patient; and also that he was only charged with the treatment of the bodily disorder of the testator, and not with any authority to inquire into his mental condition. On the side of the plaintiffs, Mr. Oram, a schoolmaster, was called, whom, it was stated, the testator had once attempted to murder with a razor, intending to commit suicide afterwards. It was clear that, at the time of this attempt, the testator did not know what he was doing. Moreover, numerous acts of eccentricity; alternations of character; excitement, as testified by shouting and bad language; refusal of food; inability to conduct business matters; and extravagance in expenditure,—were sworn to as indica-

tions of insanity, although no distinct delusions could be proved. After a trial lasting seven days, Dr. Clouston and Dr. Page were examined as expert witnesses. Both agreed that, at the time the testator made the will in favour of Mr. Dean, he was of unsound mind, and not possessed of testamentary capacity. Dr. Sutherland had previously instructed the counsel for the defence in the line they were to take medically; and we believe we are correct in stating that Dr. Bucknill was to have appeared on the part of the plaintiff, should the occasion have arisen. The President summed up the case to the jury, dwelling strongly on the facts that the medical men had stated that the insanity was not incurable; that suicidal mania was frequently due to sudden impulse; and that, though a man might labour under it for a considerable period, he might at the same time be of sound mind; that the letters of the testator showed that he was a man of superior intellectual power down to a very recent period of his life; and that there were no real delusions on the part of the deceased. The jury, after deliberating for a few minutes, found a verdict for the plaintiffs on all the issues. The court pronounced for the will; costs to follow the event in the case of the defendants, but the intervener not to be condemned in costs.

AFGHANISTAN.

OUR correspondent writes, under date Quetta, May 19th: On May 22nd, the "Southern Afghanistan Field Force" ceases to exist as such, and becomes the "Quetta Division", with a slightly diminished staff, under command of Major-General Hume, C.B. Deputy Surgeon-General Simpson remains as Principal Medical Officer; Surgeon-Major Greene, as Sanitary Officer; and Surgeon Eaton, Indian Army, as Staff-Surgeon. All the troops, European and Native, ordered to India have passed safely down, the rear being brought up by a large convoy of sick followers in charge of Surgeon Adams, Indian Medical Department. Only one casualty has been heard of—a man of the 7th Fusiliers having died of sunstroke in the Lower Bolan. The garrison of Quetta numbers about 1,800 European and 1,500 Native troops. The usual summer weather has set in, hot, clear, and dry, with occasional dust-storms during the day, but delightfully cool and pleasant at night. The following are averages of some meteorological observations during the first half of May: Barometer, 24.73 inches, .05 in. higher at 10 A.M. than at 4 P.M.; thermometer in shade, highest 86° F., lowest 53.3°; in open, highest in sun 145°, lowest in grass 36.5°. Wind W. and N.W. The barrack accommodation is very limited and poor, but it is supplemented by large double tents, and every effort is made to secure the health and comfort of the men. At present, there are about 4 per cent. sick, and the diseases are of a mild type. The duties are light; the rations of fair quality; and the water good, though its mode of distribution is very primitive and its contamination difficult to prevent. Most of it is from one well, which is covered in and guarded. Its analysis, with that of two streams at a distance, available but not used, is shown in the following table:

	Weil.		Hanna stream.		Karez.
	Grains per Gallon.				
Total solids	16.1	..	11.2	..	11.2
Chlorine	2.1	..	1.63	..	1.68
	Parts per Million.				
Free ammonia	.01	..	.01	..	Nil.
Albuminoid ammonia	.01	..	.05	..	.02

The site of a new cantonment has not yet been fixed, but that will naturally depend on the facility for procuring a good and ample supply of pure water.

THE FRENCH ANTI-TOBACCO SOCIETY.—The French society to prevent the abuse of tobacco had a meeting recently in the large amphitheatre of the Sorbonne; a member of the "Institut", M. Bouley, presided. This society numbers 1000 members. It was founded by an army doctor, M. Decroix, who gave up his profession and all other avocations and dedicated the whole of his leisure and fortune to the interests of the society. Not only in every corner of France, but in other countries, M. Decroix sought disciples and workers to aid him in his propaganda against tobacco. The most interesting feature of this meeting was the distribution of prizes. Among those who received prizes for abstinence from tobacco, there were two sailors; one, an old man of eighty, gave up the habit of smoking when he was sixty years of age. Stable-boys in the employ of omnibus and cab companies received prizes. Their conversion resulted rather from fear of setting the stables on fire than from hygienic scruples. The Director of the Compagnie du Chemin de Fer du Nord received a medal for rigorously enforcing, in all the stations along the line, the rules prohibiting smoking. A great many schoolmasters received medals for endeavouring to foster a holy horror of tobacco amongst their pupils.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION:

FORTY-NINTH ANNUAL MEETING.

THE Forty-Ninth Annual Meeting of the British Medical Association will be held at Ryde, Isle of Wight, on Tuesday, Wednesday, Thursday, and Friday, August 9th, 10th, 11th, and 12th, 1881.

President.—G. M. HUMPHRY, M.D., F.R.S., Professor of Anatomy in the University of Cambridge; Senior Surgeon to Addenbrooke's Hospital.

President-elect.—BENJAMIN BARROW, F.R.C.S., Consulting-Surgeon to the Royal Isle of Wight Infirmary.

An Address in Medicine will be delivered by JOHN SYER BRISTOWE, M.D., F.R.S., F.R.C.P., Senior Physician to St. Thomas's Hospital.

An Address in Surgery will be delivered by JONATHAN HUTCHINSON, F.R.C.S., Senior Surgeon to the London Hospital.

An Address in Obstetric Medicine will be delivered by JOHN G. SINCLAIR COGHILL, M.D., F.R.C.P.Edin., Visiting Physician to the National Hospital for Consumption, Ventnor.

The business of the Association will be transacted in Four Sections and one Subsection, viz.:—

SECTION A. MEDICINE.—*President:* Edward Long Fox, M.D., Clifton, Bristol. *Vice-Presidents:* W. Withers Moore, M.D., Brighton; Bushell Anningson, M.A., M.D., Cambridge. *Secretaries:* William Hoffmeister, M.D., Townsend House, Cowes, Isle of Wight; Robert Saundby, M.D., 71, Newhall Street, Birmingham.

SECTION B. SURGERY.—*President:* W. Martin Coates, M.R.C.S., Salisbury. *Vice-Presidents:* Charles Macnamara, F.R.C.S., London; Alexander G. Davey, M.D., Ryde. *Secretaries:* Ed. Allan Waterworth, M.D., 40, Quay Street, Newport, Isle of Wight; Herbert W. Page, M.A., F.R.C.S., 146, Harley Street, London.

SECTION C. OBSTETRIC MEDICINE.—*President:* Sir E. B. Sinclair, M.D., Dublin. *Vice-Presidents:* John Livesay Whitehead, M.D., Ventnor; Edward Malins, M.D., Birmingham. *Secretaries:* Robert Cory, M.D., 14 Palace Road, Albert Embankment, S.E.; James Mann Williamson, M.D., South Cliff Cottage, Ventnor, Isle of Wight.

SECTION D. PUBLIC MEDICINE.—*President:* Arthur Ransome, M.D., Bowden, Cheshire. *Vice-Presidents:* George Wilson, M.D., Leamington; William Armistead, M.B., Cambridge. *Secretaries:* James Neal, M.D., Barcelona House, Sandown, Isle of Wight; H. Aubrey Husband, M.B., 13, Northumberland Street, Edinburgh.

SUBSECTION: OTOLOGY.—*Chairman:* Urban Pritchard, M.D., London; *Secretaries:* E. Cresswell Baber, M.B., 4, Preston Street, Brighton; W. Douglas Hemming, F.R.C.S., Glenalmond, Bournemouth.

Honorary Local Secretaries.—J. M. Pletts, M.D., Kent House, Melville Street, Ryde, Isle of Wight; W. E. Green, Esq., Belgrave House, Sandown, Isle of Wight; Joseph Groves, B.A., M.B., Glen Cottage, Carisbrooke, Isle of Wight.

TUESDAY, AUGUST 9TH, 1881.

2 P.M.—Meeting of Committee of Council.
2.30 P.M.—Meeting of the Council of 1881-82.
4 P.M.—Short service, with sermon by Bishop McDougall.
8 P.M.—General Meeting in the Town Hall. President's Address; Annual Report of Council and other business.

WEDNESDAY, AUGUST 10TH.

9.30 A.M.—Meeting of Council of 1881-82.
11 A.M. Second General Meeting in the Town Hall. Address in Medicine.
2 to 5 P.M.—Sectional Meetings.
9 P.M. Soirée in the Town Hall by the Mayor and the inhabitants of Ryde and neighbourhood.

THURSDAY, AUGUST 11TH.

9 A.M.—Meeting of the Committee of Council.
10 A.M. Third General Meeting in the Town Hall. Reports of Committees.
11 A.M.—Address in Surgery.
2 to 5 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner in the Town Hall.

FRIDAY, AUGUST 12TH.

10 A.M.—Address in Obstetric Medicine in the Town Hall.
11 A.M.—Sectional Meetings.
1.30 P.M.—Concluding General Meeting in the Town Hall. Reports of Committees and other business.
4 P.M. Garden party in the grounds of the Isle of Wight College, by the President-elect and Mrs. Barrow.

The following subjects have been arranged for discussion in the various Sections.

SECTION A.—MEDICINE.

1. Dr. Wade will open a discussion on Dilatation of the Stomach. 2. Dr. Gowers on Acute Spinal Paralysis. 3. Dr. Lauder Brunton, F.R.S., on Jaundice.

Section B.—Surgery.

1. A discussion will be opened by Mr. Stokes of Dublin, on Resection of the Knee in Early Life.

2. Mr. Edmund Owen will open a discussion on the Early Recognition and Treatment of Spinal Caries.

Section C.—Obstetric Medicine.

1. A discussion will be opened by Dr. Malins on the Removal of the Ovaries: *a*, for Dysmenorrhœa; *b*, for Fibroid Tumours.

2. Dr. Sinclair Coghill will open a discussion on the Mechanical Treatment of Uterine Flexions and Displacements.

Section D.—Public Medicine.

1. Mr. Ernest Hart will open a discussion on Vaccination with Calf-lymph, in which it is expected that Dr. Warlomont of Brussels and Dr. Martin of Boston will take part.

2. Dr. Strange will open a discussion on the Origin and Diffusion of Enteric Fever and Diphtheria.

3. Infectious Diseases, and how to deal with them under the Public Health Act in the best interests of the patients and of the public.

4. Considerations with regard to Infectious Hospitals: what changes are required in their character, size, site, management, etc.

5. Cremation.

Subsection—Otology.

1. The Relation of Diseases of the Nasal Passages and Naso-pharynx to Aural Affections.

2. The Treatment of Acute Suppurative Inflammation of the Middle Ear, with especial reference to Perforation of the Mastoid.

N.B.—Members who desire to take part in the discussions, or to read papers, are earnestly requested to communicate without delay to the Secretaries of the respective Sections.

Annual Museum.

The forty-ninth annual museum of the British Medical Association will be held at the School of Art on August 9th, 10th, 11th, and 12th, and will be open daily from 10 A.M. until 6 P.M., for the exhibition of the following objects:

1. Latest Inventions in Medical and Surgical Instruments and Appliances of all kinds, including No. 4.

2. New Chemicals and Apparatus; New Drugs and their Preparations; and New Articles of Diet for Invalids.

3. Drawings, Diagrams, or Models illustrating the Ventilation of Hospitals and Private Dwellings.

4. Microscopes, Thermometers, and other Instruments of Investigation.

5. Pathological Specimens.

6. New Medical Books.

The following is a list of the Museum Committee: Dr. Davey (Chairman), Ryde, Isle of Wight; Dr. Whitehead, Ventnor, Isle of Wight; Dr. Neal, Sandown, Isle of Wight; Mr. Modlin, Shanklin, Isle of Wight; Mr. Evelyn Rich (Honorary Secretary), Temple House, Ryde, Isle of Wight.

The Directors of the Royal Pier Company have granted the free use of the pier to members of the Association. The well known "Ryde Wherries" will be engaged for the use of members for water-excursions. An excursion will be made on Saturday, August 13th, which will give the members the opportunity of visiting Carisbrooke Castle and Roman Villa, the Roman Villa at Brading, and the towns of Newport, Sandown, Shanklin, and Ventnor.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A meeting of the Committee of Council will be held at the offices of the Association, 161A, Strand, on Wednesday, the 13th day of July next, at 2 o'clock in the afternoon.

Francis Fowke, *General Secretary.*

161A, Strand, London, June 16th, 1881.

BRANCH MEETINGS TO BE HELD.

Midland Branch.—The annual meeting of this Branch will be held at the Infirmary, Leicester, on Thursday, July 14th, at 2 o'clock. Members wishing to read papers are requested to communicate with Mr. Frank H. Hodges, Honorary Secretary for Leicestershire; or with C. Harrison, M.D., Lincoln, Honorary Secretary Midland Branch.

South-Western Branch.—*(Amended Notice.)*—The annual meeting will be held in Druid's Hall, Redruth, on Wednesday, June 29th, at 11.15 A.M. R. Hogarth Clay, M.D., President, will resign the chair to R. Hudson, M.D., President-elect. An address will be delivered by Mr. William Mac Cormac, Surgeon to St. Thomas's Hospital, London. After the meeting, luncheon will be provided at 10, Trewirgie Road. Excursions will be arranged for the afternoon. Dinner at Tabb's Hotel at 6 P.M. Members intending to make communications, or to be present at the dinner, are requested to send notice to S. Rees Philipps, M.D., Honorary Secretary, Wonford House, Exeter.

Thames Valley Branch.—The annual meeting of this Branch will be held at the Board-Room of the Richmond Hospital, on Thursday, July 7th, at 6 P.M. Gentlemen desirous of bringing any subject before the meeting are requested to give notice to the Honorary Secretary. Dinner at the Station Hotel, Richmond, at 7 P.M.—Edward L. Fenn, Honorary Secretary.—Richmond, June 15th, 1881.

Border Counties Branch.—The annual meeting of this Branch will be held at Melrose, on July 21st. Members who intend to give communications are requested to intimate to one of the Secretaries.—J. Smith, M.D., J. Kendall Burt, M.B., Honorary Secretaries.

Yorkshire Branch.—The annual meeting will be held in the Museum of the Yorkshire Philosophical Society, York, on Wednesday, June 29th, 1881, at 3 P.M. Members intending to read papers are requested to communicate at once to Arthur Jackson, Honorary Secretary, Sheffield.

Lancashire and Cheshire Branch.—*(Amended Announcement.)*—The annual meeting of this Branch will be held at the Town Hall, Preston, on Wednesday, June 29th, at 2 P.M. The Council will meet at 1 P.M. The President-elect, Dr. R. C. Brown, very kindly provides a light lunch for the members at the place of meeting. Dr. Ransome will call attention to the scheme for combined investigation proposed by the Committee of Council. The following papers will be read: Dr. Grossman: On Ophthalmia Neonatorum. Dr. Dixon Mann: On Electro-Diagnosis. Dr. Haddon: On Idiopathic Ulcerative Endocarditis. Mr. W. Whitehead: Case of Excision of Thyroid Gland; and on a New Method of Amputating the Leg. Dr. A. Waters: Analysis of a Series of Cases of Pneumonia. Dr. Lloyd Roberts: Puliferous Cyst of Ovary. Mr. Rushton Parker: Plastic Operations for Extrophy of the Bladder with Epispadias. Mr. Farrar: Case of Simulated Tumour. Dr. Thorburn: A New Obstetric Forceps. Dr. Walter: An Electric Battery for Obstetric Use. Dinner at 5.30 P.M., at the Bull Hotel. Tickets 7s. 6d., exclusive of wine.—A. Davidson, Honorary Secretary, 2, Gambier Terrace, Liverpool.—June 6th, 1881.

Glasgow and West of Scotland Branch.—This Branch will meet in the Faculty Hall, on Friday, the 24th inst., at 2 P.M. The two features in the meeting will be the inauguration of a medico-ethical committee, and the address of the President, Dr. Yellowlees, which will be given at the well-known Lunatic Asylum, Gartnavel, to which members will be conveyed by coaches.

North of England Branch.—The annual meeting will be held at the North-Eastern Hotel, Darlington, on Thursday, July 7th, at 3 P.M. The retiring President, G. B. Morgan, Esq., will introduce the President-elect, J. W. Eastwood, Esq., M.D., who will deliver an address. Dinner at the North-Eastern Hotel, at 5.30 P.M.; charge six shillings (exclusive of wine). Gentlemen intending to be present are requested to give early notice to the Secretary.—T. W. Barron, M.B., Honorary Secretary.—Durham, June 11th, 1881.

Edinburgh Branch.—The annual general meeting of this Branch will be held at 5, St. Andrew Square, on Tuesday, the 28th instant, at four o'clock. Charles E. Underhill, Honorary Secretary.

Cambridgeshire and Huntingdonshire Branch.—The annual meeting of this Branch will be held at Huntingdon, on Friday, June 24th; Herbert Lucas, Esq., President-elect. Members intending to make any communications should forward the titles as soon as possible.—Bushell Anningson, M.D., Honorary Secretary.—Cambridge, May, 1881.

Metropolitan Counties Branch.—The twenty-ninth annual meeting will be held at the Crystal Palace on Tuesday, July 12th, at 4 P.M. Dinner at 6.30 P.M.; Edwin Saunders, Esq., in the chair. Tickets 12s. 6d. each, exclusive of wine.—A. Henry, M.D.; W. C. Grigg, M.D., Honorary Secretaries.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

The annual meeting was held at the County Hospital, Canterbury, on Thursday, May 12th, 1881; Dr. Gogarty in the chair.

The Accounts for the past year were presented, audited, and passed.

The Honorary District Secretary was re-elected.

Meetings.—The following places of meeting were selected for the ensuing year: Margate, in September; Canterbury, in November; Ashford, in March 1882; Canterbury, in May.

Communications.—The following were read:

1. Dr. Tyson: A Case, with Remarks on Treatment.
2. Mr. A. Long: A Case of Hæmoptysis.
3. Mr. Rigden: Craniotomy during Forty-three Years' Experience.
4. Mr. Walker: A Specimen of Ruptured Uterus.
5. Mr. Whitehead Reid: A Specimen of Ruptured Duodenum from Kick of a Horse.

Dinner.—The members, with the President of the Branch, afterwards dined together at the Fleur-de-Lis.

Mr. Lewis Sharkey, son of Dr. Sharkey, of Ballinasloe, committed suicide last week by cutting his throat. Deceased was a medical student, and lately showed symptoms of mental disturbance.

CORRESPONDENCE.

WOOLSORTERS' DISEASE.

SIR,—Living, as I do, in the midst of a community where there has been much excitement concerning woolsorters' disease during the past year, it is only natural that I should hold some sort of views on the subject. Now that so-called woolsorters' disease is alleged to be assuming gigantic proportions, it becomes necessary to consider whether the disease is really as prevalent as it is represented to be. For my own part, I do not think it is; and I do not hesitate to state that I am one of the many who cannot accept, as long as we are endowed with ordinary powers of observation and reasoning, the present notions, without further, and much more substantial, evidence. I presume it will be granted that the supposed link connecting anthrax with woolsorters' disease was the discovery, or observation, in the blood of an organism called "bacillus". Such an organism has been known for many years to experienced microscopists; to them, in fact, it is an old friend with a new name. Having been found in the blood of animals dying or dead of anthrax, it received the specific name "anthracis". For upwards of twelve months the discovery of this organism, even in very small numbers, very shortly before, or generally speaking a few hours after death, has been sufficient to stamp the fatal disease with the name of anthrax. Not long since, we were told that the inhalation of these organisms or their spores was the undoubted cause of woolsorters' disease. However, in April last, at Leeds, Professor Greenfield, in answer to a question put by Dr. Clifford Allbutt, denied that he held such an opinion. This in itself was very significant, indicating the explosion of what was unquestionably the original idea, put prominently before the public in this neighbourhood. The "bacilli" before mentioned were at one time supposed to be, and therefore they were frequently called "typical". In answer to a question I had previously put, Dr. Greenfield told us that "typical bacilli" meant bacilli typical of anthrax, but that he would not commit himself. In fact, he could not mention one single character which separated the bacillus found in anthrax from any other. Therefore, it is evident that, in the present state of knowledge, "typical" is an epithet altogether inappropriate.

So-called "typical anthrax-bacilli" (and they were stated to be fine specimens) I have frequently seen, and have had the advantage of examining them under a glass, with an amplification of upwards of 1,000 diameters. To my eyes, which, on the whole, are not much amiss, there was not the slightest perceptible difference, either in form, movement, or associates, between these excellent specimens of so-called anthrax-bacilli, and bacilli found under the following circumstances:—(1) In blood and fluids taken from bodies after death in typhoid fever, scarlatina, cancer of stomach, apoplexy, heart-disease, dropsy, septicæmia, and several others; (2) in the blood of living healthy cows and sheep, brought direct from the shambles; (3) in the bodies of guinea-pigs and rabbits which were killed and examined specially for this organism; (4) in hay-infusion; (5) in the mucus from the mouth. That the bacilli observed under all these circumstances are indistinguishable from so-called "anthrax-bacilli" has been proved by several independent and well-known authorities.

With regard to Case 1, mentioned by Dr. Bell in the JOURNAL of the 11th instant, the following facts may be noticed—firstly, the patient was seventy-two years old; secondly, he had nothing to do with what was considered to be a good quality of "Van" mohair until it had been taken out of the bales and washed in soap-suds from 120° to 130° Fahr., then passed through rollers, dried by hot air, sorted, washed and dried again as before, passed through five preparing machines (or carded), then combed; and finally it came to the backwashing machine, where the deceased was at work. The hair had been manipulated by a dozen workmen before it reached deceased. At each stage its infective powers would be weakened. Those who handled it most, when it was most virulent, did not suffer.

The case communicated by Mr. Lodge appears to have occurred under precisely similar circumstances. In this instance, the patient had been subject to bronchitis, and there was great congestion of both lungs. It seems to me that there was no difficulty in diagnosis. Most probably they were cases of congestion or inflammation of lung or lungs; and yet we are asked to believe that they died of anthrax. Why? Because organisms having no typical characters, and which may be found almost everywhere, were observed in the blood. It is true, the unfortunate men were backwashers. But, after all the purification the wool had undergone, and the escape of the workmen through whose hands it had passed, it is very unlikely that these two men were poisoned by a dose which must be far on in, or beyond, decillionths of a grain. Is this evidence sufficient to satisfy the scientific mind of the medical public? I trow not.

In conclusion, I notice, in your leader, as elsewhere, the frequent use of the expression "bacillus anthracis". No one at present can tell us any definite characters which entitle the bacillus to the specific name of "anthracis". In the absence of such characters, surely the name cannot be correct, and should not, therefore, be employed. Many of my medical brethren, in common with myself, are anxiously waiting for more light on this point.—I am, sir, yours faithfully,

EDWARD T. TIBBITS, M.D.Lond.,
Physician to the Bradford Infirmary and the Bradford Fever Hospital.

Bradford, June 14th, 1881.

CALF-LYMPH.

SIR,—Your JOURNAL has recently published several letters, some in favour of, and others against, the employment of animal-lymph. When this was first introduced into Belgium, sixteen years ago, it occasioned the same diversity of opinion. In the present day, the conflict has ceased; calf-lymph and human-lymph are considered of equal value as preservatives against the small-pox—with only this difference: that animal lymph has the advantage over human lymph of offering to families an absolute guarantee against the transmission of disease from one human being to another.

It is scarcely necessary to insist upon the fact, that calf-lymph must be cultivated by expert hands, and collected and employed in the proper way, and used plentifully. The process of scarification must be rigidly observed, and, especially, the lymph must be used fresh. For this purpose, I send daily a supply of tubes and points to Mr. Edward Darke (3, Hemmings Row, St. Martin's Lane), who has the distribution of them in London, scarcely twenty-four hours after they are prepared. It is certainly not to them that the reproach of inefficiency can be applied. They cannot fail of succeeding in the hands of those who know how to make use of them; and I maintain, that the failures attributed to the animal-lymph, supplied in England from various other sources, are in no way connected with that to which I call your attention. I rejoice at it; for, at the present moment, when the increasing necessity for revaccination must render human-lymph more and more rare, it would be a great pity that confidence in animal-lymph should be shaken by erroneous or inconsiderate statements.—I am, sir, yours truly,

Brussels, June 5th, 1881. E. WARLOMONT.

ALLEGED LAXITY OF A LICENSING BODY.

SIR,—With reference to the letter of your correspondent, which appeared under the above head in the last issue of your JOURNAL, I beg to observe, that having looked over the minutes of the Court of the Apothecaries' Hall, I find that no candidate obtained the licence in *August 1877*, to whom the statements in the letter could possibly apply; and as there is such remarkable inaccuracy in this particular, and as there may be others of a similar nature, I am instructed to state that the Governor and Court of the Hall have decided on deferring any explanation until all the documents referred to in the communication have been carefully examined.—I remain, Sir, your obedient servant,

C. H. LEET, M.D., Secretary.

The Apothecaries' Hall, Dublin, June 14th, 1881.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF OXFORD.

DEGREES IN MEDICINE.—In a Convocation holden on June 7th, a decree was passed, without opposition, to amend the statute relating to the Degree in Medicine. According to the new decree, those who enter their names for the First Examination for the Degree of Bachelor of Medicine, and who satisfy the Regius Professor of Medicine that they have obtained Honours in the School of Natural Science, or that they have passed the Preliminary Honour Examination in the same School, shall not be required to be examined either in Chemistry or in Mechanics and Physics at the First Examination for the Degree of Bachelor of Medicine.

UNIVERSITY OF CAMBRIDGE.

PROFESSOR HUMPHRY has given notice of a class in human osteology, to be held by the demonstrator (Dr. Creighton) during the long vacation, commencing July 4th; and a class for practical histology (by Mr. Hill), beginning July 7th. Mr. J. W. Clark is continued in the office of Superintendent of the Museums of Comparative Anatomy and Zoology for two years.

MILITARY AND NAVAL MEDICAL SERVICES.

DEPUTY Surgeon-General J. P. Cunningham, M.D., has been transferred from the medical charge of the Northern District to Edinburgh, as principal medical officer of the North British District, in succession to Deputy Surgeon-General O'Nial.

NAVAL MEDICAL APPOINTMENTS.—The following appointments have been made: Staff-Surgeons—William D. Isaac, to the *Urgent, vice* George B. Beale, (sent home in the *Humber* in charge of invalids); William Galloway to the *Griffon, vice* W. D. Isaac; St. Lawrence Ffrench-Mullen, to the *Dasher, vice* W. Galloway (in lieu of a surgeon).

THE NEW NAVAL MEDICAL WARRANT.

THE following is a copy of the new Warrant affecting the medical officers of the navy. It is dated from the Admiralty, May 24th, 1881.

My Lords Commissioners of the Admiralty, having had under their consideration the position of the medical officers of the navy, are pleased, under the authority of Her Majesty's Order in Council of April 1st, 1881, to establish the following regulations, modifying existing rules as shown hereafter, to take effect from that date, except as regards surgeons entered since January 1st, 1881, in whose cases they will apply from date of entry.

Numbers.—1. The active list of medical officers will not exceed—inspectors and deputy inspectors-general of hospitals and fleets (of whom not more than 4 to be inspectors-general), 16; fleet-surgeons, staff-surgeons, and surgeons, 400.

Promotion.—2. An inspector-general of hospitals and fleets will be selected from amongst deputy inspectors-general who have completed in that rank—three years' foreign service; or four years' mixed service, of which not less than two have been abroad; or five years' home service in such appointments as preclude foreign service, provided they have not refused to go abroad if called on to do so. 3. A deputy inspector-general of hospitals and fleets will be selected, for ability and merit, from amongst fleet-surgeons. 4. (*a*) The rank of fleet-surgeon will be granted to staff-surgeons on completion of twenty years' full-pay service, if recommended for advancement by the Medical Director-General, subject to their lordships' approval. (*b*) Special promotions from the rank of staff-surgeon to that of fleet-surgeon will be made, at their lordships' discretion, in cases of distinguished service or conspicuous professional merit. Such promotions will be exceptional, and will not exceed the rate of one in two years; the total number at any one time of fleet-surgeons holding that rank by such promotions will not exceed six. (*c*) A staff-surgeon specially promoted to that rank under clause 5 (*b*) will be eligible, if recommended by the Medical Director-General, for promotion to the rank of fleet-surgeon after eight years' full-pay service as staff-surgeon. 5. (*a*) Rank as staff-surgeon will be granted, subject to their lordships' approval, to surgeons at the expiration of twelve years from the date of entry, provided they are recommended by the Medical Director-General, and have passed such examination as may be required after completion of eight years, from the date of entry, in the rank of surgeon. (*b*) Special promotions will be made, at their lordships' discretion, to the rank of staff-surgeon, in cases of distinguished service or conspicuous professional merit. Such promotions will be exceptional, and not exceed the rate of one a year. The total number at any one time of staff-surgeons holding that rank by such special promotions will not exceed eight. No officer will be so promoted unless he passes the examination prescribed for other surgeons; but, in such a case, the requirement of eight years' time in rank of surgeon will be dispensed with. (*c*) When a surgeon's promotion to the rank of staff-surgeon has been retarded by failure to pass the qualifying examination, he will, should he pass and be promoted, be dealt with as follows. He will be granted the seniority as staff-surgeon he would have received had he passed in ordinary course. He will reckon service for increase of full and half-pay only from the date of appointment to full-pay as staff-surgeon. If on half-pay, or if placed on half-pay when promoted, he will receive the lowest rate of half-pay of the new rank from the date of passing the qualifying examination. Where delay in passing the qualifying examination may be due to unavoidable circumstances, special consideration will be given. (*d*) The seniority of surgeons on entry will be determined by the order of merit in which they pass the competitive examination in London.

Relative Rank.—6. Existing regulations will remain in force, with the exception that, in all matters wherein the army and army-administration are concerned, fleet-surgeons will rank with and as brigade-surgeons.

Full-pay and Allowances.—7. The undermentioned scale of full-pay is substituted for that hitherto in force:

Rank.	Daily.	Yearly.
	£ s. d.	£ s. d.
Surgeon:		
On entry	0 11 6	201 17 6
After 4 years' full-pay service	1 1 6	246 7 6
,, 8 ,, ,,	0 15 6	292 17 6
Staff-surgeon:		
On promotion	1 1 0	383 5 0
After 4 years' full-pay service in rank	1 4 0	438 0 0
Fleet-surgeon:		
On promotion	1 7 0	492 15 0
After 4 years' full-pay service in rank	1 10 0	547 10 0
,, 8 ,, ,, ,,	1 13 0	602 5 0
Deputy inspector-general	2 0 0	730 10 0
Inspector-general	2 1 0	766 15 0

On first appointment to the service, medical officers will receive full-pay from date of appointment, but subject to the provisions of Art. 1255, clause 2, of the Queen's Regulations, 1879. 8. The allowance of 5s. a day, in addition to full-pay, at present granted to the fleet-surgeon of a flag-ship bearing the flag of a commander-in-chief on a foreign station, will be given to the senior medical officer of such ship, being a fleet- or staff-surgeon, and an allowance of 2s. 6d. a day to the senior medical officer, being a fleet- or staff-surgeon, of the ship of a commodore or of a senior officer commanding a foreign station. Medical officers conducting the course of instruction at Haslar Hospital will receive the following allowances; the senior officer employed upon this duty, £150 a year; the junior officer assisting, £50 a year. Lodging, hospital, and other allowances authorised by existing regulations, and which are not altered by this circular, will remain in force. As directed in Art. 1266 of the Queen's Regulations, 1879, increased rates of pay, dependent on length of service, are not to be paid until receipt of the requisite authority from the Accountant-General of the Navy.

Half-pay.—9. The under-mentioned scale of half-pay is substituted for that hitherto in force:

Rank.	Daily.	Yearly.
	£ s. d.	£ s. d.
Surgeon:		
Under 2 years' full-pay-service	0 6 0	109 10 0
After 2 years' full-pay service	0 7 0	127 15 0
,, 4 ,, ,,	0 8 0	146 0 0
,, 6 ,, ,,	0 9 0	164 5 0
,, 8 ,, ,,	0 10 0	182 10 0
,, 10 ,, ,,	0 11 0	200 15 0
Staff-Surgeon:		
On promotion	0 12 0	219 0 0
After 2 years' full-pay service in rank	0 13 0	237 5 0
,, 4 ,, ,,	0 14 0	255 10 0
,, 6 ,, ,,	0 15 0	273 15 0
Fleet-Surgeon:		
On promotion	0 17 0	310 5 0
After 2 years' full-pay service in rank	0 18 0	328 10 0
,, 4 ,, ,,	0 19 0	346 15 0
,, 6 ,, ,,	1 0 0	365 0 0
Deputy Inspector-General:		
On promotion	1 5 0	456 5 0
After 2 years' full-pay service in rank	1 7 0	492 15 0
,, 4 ,, ,,	1 9 0	529 5 0
Inspector-General	1 10 0	547 10 0

Retirement.—10. Compulsory retirement will be as follows:

Inspector- and deputy-inspector-general of hospitals and fleets.	At the age of 65, or at any age, if he has not served for 5 years.	To be retired irrespective of age, if found physically unfit for service.
Fleet-surgeon, staff-surgeon, and surgeon.	At the age of 55, or at any age, if he has not served for 5 years.	

11. Voluntary retirement and withdrawal will be allowed as follows. (*a*) Every officer will have the option, subject to their lordships' approval, of retiring after twenty years' full-pay service on the scale of retired pay provided in paragraph 12, or with a gratuity on the scale provided in that paragraph, if not eligible for retired pay. (*b*) At the expiration of eight, twelve, or sixteen years' full-pay service, every officer will be permitted, subject to their lordships' approval, to withdraw from the naval service, receiving a gratuity on the scale laid down in paragraph 12. The name of an officer so withdrawing will be removed from the lists of the navy, with which all connection will then be severed. (*c*) Voluntary retirement and withdrawal will be allowed, as a rule, only when an officer is unemployed or serving at home. (*d*) Applications from officers, not entitled to retire or withdraw, to resign their commissions will receive every consideration. 12. Gratui-

ties and retired pay will be awarded on retirement and withdrawal on the undermentioned scale :

Rank.	Gratuities.	Daily.	Yearly.
	£ s. d.	£ s. d.	£ s. d.
Surgeon and staff-surgeon :			
After 6 years' full-pay service	1,000 0 0	—	—
,, 12 ,, ,, ...	1,500 0 0	—	—
,, 16 ,, ,, ...	2,250 0 0	—	—
Fleet-surgeon :			
After 20 years' service (including proportion of half-pay time)	—	*1 0 0	365 0 0
After 24 years' service (including proportion of half-pay time)	—	*1 2 6	410 12 0
After 27 years' service (including proportion of half-pay time)	—	*1 5 0	456 5 0
After 30 years' service (including proportion of half-pay time)	—	†1 10 0	547 10 0
Deputy inspector-general	—	1 15 0	638 15 0
Inspector-general	—	2 0 0	730 0 0

* To obtain this rate, an officer must hold the commission of fleet-surgeon.
† Or on compulsory retirement at the age of 55.

13. An officer retired with less than twenty years' service on account of disability contracted in and attributable to the service will receive the half-pay of his rank, or, with the consent of their lordships, a gratuity on the scales given in paragraphs 12 and 14*b*, but such officer will not be entitled to receive any special compensation for the disability in addition to the gratuity as above. 14. An officer retired with less than twenty years' service on account of disability contracted in, but not attributable to, the service, will receive :—(*a*) If he has over eight years' full-pay service, either a gratuity on the scale given in paragraph 12, or half-pay, according as their lordships think fit. (*b*) If he has less than eight years' full-pay service, such gratuity as their lordships think fit, not exceeding the rate of £125 for each year of full-pay service. 15. Under circumstances other than those specified in paragraphs 13 and 14, an officer retired with less than twenty years' service will not be allowed half-pay or retired pay, but will receive a gratuity on the scale laid down in paragraph 12 if he has eight years' full-pay service, and on that provided in paragraph 14 (*b*) should his full-pay service not amount to eight years. 16. Every officer on the active list on January 1st, 1881, will, if compulsorily retired, be allowed at his option to receive half-pay, but subject to the provisions of the Orders in Council for reduction of half-pay and retired pay. 17. The power vested in their lordships of granting reduced rates of half-pay and retired pay in cases of misconduct is extended to the award of gratuities on retirement, and the gratuity awarded will be reduced to such an amount as is thought fit. 18. An officer retiring after twenty years' full-pay service will be eligible, if recommended by the Medical Director-General for distinguished or meritorious service, to receive a step of honorary rank, such step to be awarded at their lordships' discretion, and not to confer any claim to increase of retired pay or of widow's pension. 19. All retired officers will be liable, till the age of fifty-five, to serve in time of declared national emergency in a rank not lower than that held on retirement. This liability will not exist in cases of withdrawal on the conditions specified in paragraph 11 (*b*). 20. Retired officers will receive special consideration as regards appointments on shore connected with the Admiralty now filled by civilians. 21. Officers compulsorily retired at the age of fifty-five under the provisions of this circular, instead of at sixty, being allowed to receive the improved rates of retired pay specified in paragraph 12, will not be entitled to any further compensation.

Definition of Service.—22. Service will reckon as follows—(*a*) When borne on the books of any of H.M. ships or vessels, or when employed in naval hospitals, marine divisions, or other civil establishments at or under the Admiralty, as full pay service for all purposes, but subject to the provisions in paragraph 2 as regards promotion. (*b*) Service under any other department which may be declared by their lordships, with the consent of the Lords Commissioners of H.M. Treasury, to be for this purpose naval service, and service on commissions or committees on naval matters of importance, will be full pay service for such purposes and to the extent to which it has hitherto reckoned as service under the provisions of Art. 216 of the Queen's Regulations, 1879, and those of Orders in Council, February 22nd, 1870, and May 18th, 1870. (*c*) Time on half-pay will count as one-third service for increase of retired pay, but not for any other purpose.

Widow's Pension.—23. When an officer retires, or withdraws, on a gratuity, his widow and children will have no claim to pension or compassionate allowance.

Miscellaneous.—24. An inspector-general of hospitals and fleets, when taking passage in any of H.M. ships, will be entertained at the captain's table. 25. Cabins will be appropriated to fleet-surgeons as provided by Fleet Circular No. 68 S. of March 15th, 1881. 26. As regards the scale of baggage allowed by the Regulations, 1879, Appendix XXXVI, to be embarked by naval officers, the advantages granted to other officers of equal relative rank will be extended to surgeons under six years' service when holding shore appointments. 27. The under-mentioned Articles of the Regulations and Provisions of Orders in Council are cancelled or modified : *Queen's Regulations and Admiralty Instructions*, 1879.—Arts. 215, as regards medical officers, cancelled ; 219, the whole cancelled ; 241, pars. (*a*) to (*d*) inclusive, cancelled ; 265, the whole cancelled ; 302, modified by the words "framed by the professors of the Medical School at Netley" being cancelled ; 1,321, par. 2, modified ; 1,447, modified ; Appendices XX to XXIII (inclusive), as far as relates to full pay and half-pay of medical officers, cancelled as regards allowances, modified ; Appendix XXXVI, modified. *Orders in Council*, February 22nd, 1870 :—Sect. V, the whole cancelled ; Sect. VIII, the whole as regards medical officers, cancelled ; Sect. IX, ditto ; Sect. X, the scale of retired pay, and pars. 2 and 3, as far as medical officers are concerned, cancelled ; Sect. XII, as regards medical officers, cancelled. February 4th, 1875 :—The whole cancelled.—By command of their lordships, ROBERT HALL.

SOLDIERS' WIVES AND THEIR FAMILIES.

A WRITER in one of our military cotemporaries, the *Broad Arrow*, while agreeing with the general tenour of some observations which recently appeared in the JOURNAL on the efforts to utilise the wives of soldiers as military hospital nurses, and, while calling attention, in addition, to the want of decorum involved in the attempt to convert young married women into attendants on their husbands' comrades, expresses the hope that Lady Strangford's kindly, though misdirected, intentions may direct attention to the position of soldiers' wives when separated from their husbands, especially at foreign stations. The writer states that, "when a young officer, and in every way unfitted for the post, he was put in charge of the separated families of several regiments in a far-off land", and had practical experience of the manner in which official uncertainties and quibbles led to delays and intermissions of payment of the separation allowance, so that the women were rendered virtually dependent on charity for the time. It is easy to imagine what the result would be, in some instances, of women being left in such a state of dependence; and the subject is one well worth the attention of the military authorities. Much, we believe, is being done in the army by the officers and their wives, and by other ladies interested in the subject, for the improvement of the position and for the comfort of the families of soldiers in the ranks; but there is still room for much more exertion in this direction. If we might indicate one purpose to which such exertions might be directed with the greatest advantage, we would suggest the instruction of the soldiers' wives in the proper means of ensuring a healthy development of their children; a subject on which there is a vast amount of ignorance at present, and one which entails the worst results, physically and morally, on many of their offspring.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Friday, June 10th.

The Contagious Diseases Acts.—Mr. HOPWOOD asked the Secretary of State for the Home Department, whether it was the fact that three surgeons, acting under the Contagious Diseases Acts in the examination of prostitutes, had been appointed justices of the peace for the boroughs of Portsmouth, Windsor, and Southampton respectively ; and whether those persons acted as magistrates to enforce the Acts which they administered as officers.—SIR W. HARCOURT replied that he had inquired into the matter, and found that the three gentlemen in question were justices of the peace. But they had assured him in the most explicit way that they did not act in any case connected with the Contagious Diseases Acts, and that they would think it highly improper to do so.

Small-pox at Gravesend.—Mr. FINDLATER asked the Secretary of State for the Home Department whether his attention had been called to the fact, that, small-pox having broken out in a street of small tenements in the borough of Gravesend, the medical officer of health made an application to the Mayor to get a magistrate's order for the removal of several fresh cases to certain huts, which were last year built in an isolated country locality for the reception of those suffering from any contagious disease, which application was refused by his worship ; and whether the chief magistrate was justified in such refusal; and, if not, whether the Government would take steps to prevent a repetition of such refusal.—Sir W. HARCOURT had received a letter from the Mayor

of Gravesend, who informs him that an application was made under the 12th section of the Act of 1875, which merely authorises the removal of a child when without proper lodging and accommodation. In the circumstances of the present case, the magistrates did not think that the child in question came within that section of the Act.

OBITUARY.

C. H. ROPER, M.R.C.S.Eng., OF EXETER.

We regret to have to record the death of Mr. C. H. Roper of Exeter, who has long filled a leading position among provincial surgeons, and was several years Secretary of the South-Western Branch of the British Medical Association. The *Exeter and Plymouth Gazette* states that Mr. Roper has been cut off prematurely, in his fifty-third year, just when his great skill and experience fitted him most completely for the task of alleviating the ills of suffering humanity. It may be said of him, as truly as of Mr. William James and Mr. Arthur Kempe, that he fell a sacrifice to his ardent devotion to the duties of his profession. Work was a passion with him, and he cared not to leave it for that leisure which the human frame demands, and without which it refuses to continue its functions to a ripe old age. Mr. Roper was a Fellow of the Royal Microscopical Society; Senior Surgeon of the Devon and Exeter Hospital; Public Vaccinator for the County and City of Exeter; Senior Surgeon of the Exeter Lying-in Charity; and Surgeon to the Devon and Exeter Female Penitentiary and Western Annuitant Society. He contributed valuable essays on surgical subjects to the *Medical Times and Gazette* and the BRITISH MEDICAL JOURNAL; served the office of President of the South-Western Branch of the British Medical Association some years ago; and last year presided over the deliberations of the Exeter and Devon Medical Benevolent Society. In addition to all these public engagements, Mr. Roper had a very extensive private practice. He found time, too, to devote attention to civic affairs; in 1872-3 he filled the office of Sheriff of Exeter, and from 1874 to 1880 occupied a seat on the bench of aldermen.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Members of the College, having undergone the necessary examinations for the Fellowship, at the half-yearly meetings terminating on the 30th ultimo, were reported to have acquitted themselves to the satisfaction of the Court of Examiners, and at a meeting of the Council on the 9th instant were admitted Fellows of the College.

Messrs. William Willis, M.D.Edin., Monmouth, diploma of membership dated July 30, 1858; Charters J. Symonds, M.D.Lond., St. Thomas Street, S.E., July 21, 1865; Frederick H. Carter, L.S.A., Upper Tooting, July 23, 1875; Samuel H. Parton, M.B.Lond., Norwich, January 28, 1876; Edward B. Turner, L.R.C.P.Lond., Sussex Gardens, July 22, 1876; William R. Williams, L.R.C.P.Lond., Enfield, April 24, 1877; William L. Heath, Totnes, Devon, July 30, 1877; Charles E. Sheppard, M.B.Lond. and L.R.C.P.Lond., Addison Gardens, W., July 31, 1877; James S. N. Boyd, M.B.Lond., Huntley Street, W.C., July 31, 1877; Frederick Wadham, L.R.C.P.Lond., Horley, November 11, 1878; Robert I. Williamson, M.B.Oxon., and L.R.C.P.Lond., Ripon, Yorks.; William T. Crew, L.R.C.P.Lond., Macclesfield, July 24, 1879; Anthony A. Bowlby, L.S.A., Warrington Crescent, July 29, 1879; Bilton Pollard, M.B.Lond., Crawford Road, W. Dulwich, November 12, 1879; and Robert H. Reed, M.D.Aberd., Nottingham Place, W. (not a member).

Two gentlemen passed the examination, and when twenty-five years of age will be admitted Fellows of the College; and ten candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for twelve months.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, June 9th, 1881.

Barton, William Edwin, Shoyswell Manor, Etchingham.
Bate, Henry Hele, Plymouth.
Braga, Joao Francisco, 32, Bernard Street, W.C.
Prentice, Zacharia, Canterbury.
Smith, Gilbert Thomas, 7, Richmond Crescent, N.

The following gentlemen also on the same day passed their Primary Professional Examination.

Hart, William Hamilton, Guy's Hospital.
Holdsworth, Arthur Thomas, Queen's Hospital, Birmingham.
Roberts, Richard Pritchard, University College.
Trevor, Edward Tull, Guy's Hospital.

MEDICAL VACANCIES.

THE following vacancies are announced :—

ALDERBURY UNION—Medical Officer. Salary, £60 per annum. Applications by June 23rd.

ASHTON-UNDER-LYNE DISTRICT INFIRMARY—House-Surgeon. Salary, £80 per annum. Applications by 25th June.

BELFORD HOSPITAL—Surgeon. Salary, £150 per annum. Applications to N. B. McKenzie, Secretary, British Linen Bank, Fort William, by June 20th.

BOLTON INFIRMARY AND DISPENSARY—House-Surgeon. Salary, £120 per annum. Applications by 24th instant.

BOROUGH OF SALFORD, WILTON FEVER HOSPITAL, Cross Lane, Salford—Resident Medical Officer. Salary, £150 per annum. Applications to Resident Medical Officer by 30th instant.

CHELTENHAM GENERAL HOSPITAL—Matron Superintendent. Salary, £60 per annum. Applications by 2nd July.

COTON HILL INSTITUTION FOR THE INSANE—Assistant Medical Officer. Salary, £100 per annum. Applications to Dr. Hewson, Coton Hill, Stafford.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—One or two Resident Clinical Assistants. Applications by 23rd June.

GLASGOW ROYAL INFIRMARY—Physician. Applications, by July 30th, to Henry Lamond, Secretary, 93, West Regent Street, Glasgow.

GLASGOW ROYAL INFIRMARY—House-Surgeon. Applications, by July 30th, to Henry Lamond, Secretary, 93, West Regent Street, Glasgow.

GLASGOW ROYAL INFIRMARY MEDICAL SCHOOL—Teacher of Chemistry, Anatomy, Physiology, Medicine, Materia Medica, Midwifery, Pathology, and Mental Diseases. Applications, by July 30th, to Henry Lamond, Secretary, 93, West Regent Street, Glasgow.

GREAT NORTHERN HOSPITAL, Caledonian Road, N.—Dental Surgeon. Applications by 30th instant.

KILRUSH UNION, KILKEE DISPENSARY—Medical Officer. Salary, £80 per annum. Applications by June 17th.

LAMBETH INFIRMARY, Pleasant Place, S.E.—Assistant Medical Officer and Dispenser. Applications by 31st June.

LIVERPOOL NORTHERN HOSPITAL—Assistant House-Surgeon. Salary, £70. Applications by 24th instant.

MIDDLESEX HOSPITAL—Assistant Dental Surgeon. Applications by June 25th.

NEWTON HEATH DISTRICT, Lancaster—Medical Officer of Health. Applications to John Nield, Clerk to the Local Board, Town Hall, Newton Heath.

OSWESTRY UNION—Medical Officer to the Llansilin District. Salary, £35 per annum. Applications by July 4th.

QUEEN'S HOSPITAL, Birmingham—Surgeon. Applications by 29th June.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. Four Examiners in Medicine and two Examiners in Midwifery. Applications by 23th instant.

SOCIETY OF APOTHECARIES, London—Twelve Examiners. Applications by July 1st.

ST. BARTHOLOMEW'S HOSPITAL—Two Casualty Physicians. Applications by July 8th.

ST. THOMAS'S HOSPITAL.—Assistant Physician. Applications by 25th instant.

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, etc.—Second Assistant-Surgeon. Applications by July 1st.

STANLEY HOSPITAL, Liverpool—Junior House-Surgeon. Salary, £60. Applications by the 23rd instant.

THE DISTRICT INFIRMARY, Ashton-under-Lyne.—House-Surgeon. Salary, £80. Applications by June 25th.

WHITCHURCH UNION, Hants—District Medical Officer of Health and Public Vaccinator for St. Mary Bourne District. Salary, £40 per annum. Applications by 30th June.

YORK COUNTY HOSPITAL.—House-Surgeon. Salary, £100. Applications by June 21st.

MEDICAL APPOINTMENTS.

ADAMS, M.A., F.R.C.S.Eng., appointed Public Analyst for the Borough of Hythe.

BARKER, H. M., M.B., M.R.C.S., appointed Medical Officer and Public Vaccinator to the Brading District of the Isle of Wight Union, *vice* C. Meeres, M.R.C.S.E., resigned.

BARNS, John Gay, L.R.C.P.L., appointed Assistant House-Surgeon to the Liverpool Dispensary, *vice* Percy O. Haynes, M.R.C.S., resigned.

CARTER, Robert B., F.R.C.S.Eng., appointed Ophthalmic Surgeon to the Bolingbroke House Hospital, Wandsworth.

CORRY, William, M.D., appointed Medical Officer to the Drumquin Dispensary District, *vice* John Johnston, M.D., deceased.

DALTON, Norman, M.B., appointed House-Surgeon to the North Eastern Hospital for Children, *vice* Richard Steele, L.R.C.P.Ed., resigned.

FRASER, T., L.R.C.P.Ed., appointed Medical Officer to the Berwick-on-Tweed Union.

GORDON, S., A.M., M.D., appointed Consulting Physician to the Coombe Lying-in Hospital.

HALL, S., M.B., M.R.C.P., appointed Assistant-Physician to the Metropolitan Free Hospital.

HARRIS, F. W. H. D., M.R.C.S., appointed House-Surgeon to the Teignmouth, Dawlish, and Newton Infirmary, *vice* Frank Taylor, M.R.C.S., resigned.

HENDERSON, G. C., M.D., appointed Curator and Pathologist for St. Mary's Hospital, *vice* A. J. Pepper, F.R.C.S., resigned.

HODGSON, G. F., M.R.C.S., appointed Honorary Surgeon to the Brighton, Hove, and Sussex Throat and Ear Dispensary.

LANG, William, F.R.C.S., appointed Ophthalmic Surgeon to the Middlesex Hospital, *vice* George Critchett, F.R.C.S., resigned.

MARSH, T. A. Perry, M.R.C.S., L.R.C.P.Lond., appointed House-Surgeon to the Weston-Super-Mare Hospital, *vice* H. P. Rowlands, M.R.C.S.Eng., resigned.

MAY, Bennett, M.B., appointed Honorary Surgeon to the Queen's Hospital, Birmingham, *vice* J. S. Gamgee, M.R.C.S., resigned.

MEGSON, Alfred, L.R.C.S., appointed Assistant Medical Officer to the Township of Toxteth Park, Liverpool, *vice* N. E. Roberts, M.B., resigned.

MIDDLETON, W. H., L.K.Q.C.P.I., appointed Consulting Physician to the Mullingar Lunatic Asylum.

O'DONOVAN, Eugene, L.R.C.S.I., appointed Medical Officer to Knocknalower Dispensary District.

O'KEEFE, William Joseph, L.R.C.S.I., appointed Medical Officer to Monasterboice Dispensary, *vice* Michael Keelan, L.K.Q.C.P.I., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

EAGER.—On the 13th inst., at the County Asylum, Melton, Suffolk, the wife of Wilson Eager, Medical Superintendent, of a son.

MARRIAGE.

HARSANT—EVANS.—On June 3rd, at Highbury Chapel, Bristol, by the Rev. H. Arnold Thomas, M.A., William Henry Harsant, F.R.C.S., to Margaret, second daughter of the late D. Parker Evans, Esq., J.P., of Ashley Villa, Clifton.

DEATH.

DAY.—On June 8th, at his residence, Foulridge House, Staffordshire, Henry Day, M.D., F.R.C.S., aged 67.

ESCULAPIAN CLUB.—The members of this club, with their guests, dined together at the Holborn Restaurant on Friday, June 3rd.

PUBLIC HEALTH.—The annual rate of mortality during the week ending June 4th, in twenty of the largest English towns, averaged 20.3 per 1,000. The rates of mortality in the several towns were as follow: Brighton 12, Wolverhampton 14, Plymouth 15, Leicester 16, Bradford 17, Hull 17, Leeds 17, Norwich 17, Birmingham 17, Nottingham 19, Oldham 19, Salford 19, London 20, Newcastle-on-Tyne 21, Liverpool 21, Portsmouth 22, Sheffield 22, Sunderland 23, Bristol 23, and Manchester 25. Measles showed the largest proportional fatality in Bristol and Sheffield; scarlet fever in Wolverhampton; and whooping-cough in Leicester, Sheffield, and Birmingham. In London, 2,578 births and 1,507 deaths were registered. The deaths exceeded the average by 43, and gave an annual death-rate of 20.5. The 1,507 deaths included 82 from small-pox, 85 from measles, 32 from scarlet fever, 9 from diphtheria, 33 from whooping-cough, 2 from typhus fever, 9 from enteric fever, 2 from ill-defined forms of continued fever, 14 from diarrhœa, one from dysentery, and one from simple cholera; thus, 270 deaths were referred to these diseases, being 26 above the average. The deaths referred to diseases of the respiratory organs, which had been 256 and 241 in the two preceding weeks, were 249 last week, and corresponded with the average; 133 were attributed to bronchitis, and 84 to pneumonia. Different forms of violence caused 75 deaths; 61 were the result of negligence or accident, among which were 22 from fractures and contusions, 7 from burns and scalds, 13 from drowning, 3 from poison (including one from chronic chlorodyne drinking), and 11 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 62.9°, and 5.5° above the average. The mean degree of humidity of the air was 61, complete saturation being represented by 100; the air was, therefore, dry. The general direction of the wind was N.E., and the horizontal movement of the air averaged 7.9 miles per hour, which was 2.3 below the average. Rain fell on Sunday, to the amount of 0.29 of an inch. The duration of registered bright sunshine in the week was equal to 66 per cent. of its possible duration. No ozone was recorded during the week, except on Saturday, when the amount was below the average.—The annual rate of mortality last week, ending Saturday, June 11th, in twenty of the largest English towns, averaged 18.8 per 1,000. The rates of mortality in the several towns were as follow: Brighton 14, Portsmouth 14, Wolverhampton 15, Plymouth 15, Newcastle-on-Tyne 15, Nottingham 16, Bristol 17, Hull 17, Bradford 17, Norwich 17, Sunderland 17, London 18, Leeds 18, Birmingham 18, Leicester 19, Oldham 20, Salford 21, Manchester 21, Liverpool 22, and Sheffield 23. Measles caused the largest proportional fatality in Bristol, Sheffield, and Liverpool; scarlet fever in Norwich, Oldham, and Birmingham; whooping-cough in Leicester, Portsmouth, and Birmingham. The 14 deaths from diphtheria in the twenty towns included 11 in London. Small-pox caused 67 more deaths in London and its outer ring of suburban districts, 2 in Liverpool, one in Brighton, and one in Hull; whereas no fatal case of this disease was registered in any of the sixteen other large provincial towns. In London, 2,358 births and 1,346 deaths were registered. The deaths were 107 below the average, and gave an annual death-rate of 18.3, a lower rate than in any previous week of this year. The 1,346 deaths included 59 from small-pox, 64 from measles, 25 from scarlet fever, 11 from diphtheria, 27 from whooping-cough, 2 from typhus fever, 4 from enteric fever, one from relapsing fever, 22 from diarrhœa, one from dysentery, and not one from simple cholera; thus, 216 deaths were referred to these diseases, being 27 below the average. The deaths referred to diseases of the respiratory organs, which had been 241 and 249 in the two preceding weeks, declined to 216 last week, and were 25 below the average; 120 were attributed to bronchitis, and 70 to pneumonia. Different forms of violence caused 52 deaths; 42 were the result of negligence or accident, among which were 21 from fractures and contusions, 2 from burns and scalds, 9 from drowning, and 6 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 51.2°, and 7.3° below the average. The mean degree of humidity of the air was 76; the air was, therefore, of its average dryness. The direction of the wind was variable, and the horizontal movement of the air averaged 10.6 miles per hour, which was 0.1 above the average. Rain fell on three days of the week, to the aggregate amount of 1.09 inches. The duration of registered bright sunshine in the week was equal to 27 per cent. of its possible duration.

HEALTH OF FOREIGN CITIES.—The Registrar-General's last weekly return contains a table which supplies the following statistics, indicative of the recent health and sanitary condition of various foreign and colonial cities. In Calcutta and Bombay, the annual death-rate was equal to 29.7 and 34.7 per 1,000 respectively; a very large proportion of the deaths in both cities was referred to "fevers". The table in question does not contain the usual return from Alexandria. According to the most recent weekly returns, the average annual death-rate in twenty European cities was equal to 31.0 per 1,000 of their aggregate population; this showed more than the usual marked excess upon the average rate in twenty of the largest English towns, which during last week did not exceed 18.8. The rate in St. Petersburg was so high as 61.6, and differed but slightly from that which prevailed in the preceding week. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate did not average more than 25.6, the highest rate being 26.3 in Stockholm, where four of the 85 deaths were from diphtheria. The Paris death-rate was equal to 28.8, and showed a decline from that which prevailed in the previous week; typhoid fever, however, caused 31 and small-pox 23 deaths during the week. The deaths in Brussels were equal to a rate of 23.7 per 1,000, and included 5 fatal cases of measles. The rate in Geneva was as low as 9.9; the deaths included one from small-pox. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the death-rates ranged from 13.2 in the Hague to 26.9 in Amsterdam, where 5 fatal cases of whooping-cough were recorded. The Registrar-General's table includes seven German and Austrian cities, in which the death-rate averaged 31.2, and ranged from 25.7 and 26.2 in Berlin and Dresden, to 37.8 and 41.3 in Munich and Buda-Pesth. Small-pox caused 14 deaths in Vienna, while 28 deaths were referred to typhus fever in Buda-Pesth and 4 in Hamburg. The death-rate averaged 25.5 in three large Italian cities, and ranged from 21.7 in Venice to 28.7 in Rome; enteric fever showed fatal prevalence in Rome, and the deaths from diphtheria were somewhat numerous both in Turin and Venice. In four of the principal American cities, the death-rate, calculated upon the enumerated population in 1880, was 24.1; it was equal to 18.1 in Brooklyn, 18.3 in Baltimore, 22.0 in Philadelphia, and 29.9 in New York. Small-pox caused 23 deaths in Philadelphia and 20 in New York.

A CHINESE SURGEON AT THE THROAT AND EAR HOSPITAL.—A correspondent informs us that Dr. Yong Ton Wong, the native physician on board the *Hae Shin*, visited the Newcastle Throat and Ear Hospital on Saturday, accompanied by his assistant and interpreter. The doctor, who is about forty years of age, studied at Canton, of which city he is a native. The party were received by the honorary secretary, the Rev. Joseph Slack, and Dr. Ellis, the senior surgeon; and they appeared to be much interested in the examination of the out-patients. They were well acquainted with the use of electricity and galvanism in the treatment of disease. They stated incidentally that Chinese medicine aimed at prevention rather than cure, and that they preferred to save a limb rather than to sacrifice it by an operation. The office of physician is held in high repute in China, and is to some extent considered hereditary; at least, Dr. Yong Ton Wong explained that for several generations the medical profession had been followed in his own family. Before leaving, he inscribed his name in the visitors' book, and asked permission to revisit the hospital and witness the practice.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th.; 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

WEDNESDAY.—Epidemiological Society of London, 8 P.M. Special Meeting. Dr. H. V. Carter: Contribution to the History of the Epidemic Fever prevailing in the Country Districts of the Bombay Presidency during the Famine Period of 1876-78. Dr. J. Mackie: Report on Dengue Fever. Mr. V. B. Barrington-Kennett: On a System of Detached Floating Barracks for the Formation of a Small-pox or Fever Hospital.

FRIDAY. Quekett Microscopical Club, 8 P.M. Mr. B. W. Priest: On a new Species of Sponge from Honduras.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CONSULTATIONS WITH HOMŒOPATHS.

SIR, Whatever theory a man may hold on the action of drugs, electricity, baths or lemons, grapes, salt, mud, etc., it cannot be said that the science of medicine, or in other words the healing of sick people, is benefited in the least by the practitioner who, on the strength of a theory, however reasonable or the reverse, gives himself a distinctive name as homœopath, hydropath, professor of a particular cure, etc.—and tries to impress on outsiders that such a theory as he has selected constitutes a new "system of medicine". Such a distinctive name can be used with only one object, viz., to attract the public; and this method has always been considered a very unprofessional way of obtaining patients, and constitutes quackery. On the other hand, unless the man really practises what he preaches to the public, he is guilty, in my eyes, of something in addition to quackery.

The whole question, then, of consulting with "homœopaths" lies in such a small compass, that, to discuss the subject on wider grounds appears but to glorify "homœopathy", which, in the opinion of rational men, advances a false rule for the cure of all diseases, founded on some perfectly well-known coincidences of the effects of some drugs given in small doses and poisonous doses.

The only grounds for such a discussion are those on the score of humanity, viz., whether a conscientious physician or surgeon should refuse to meet a man who, in adopting a peculiar appellation, pretends to the public that he is in possession of a new "system of medicine". There seems to be but one answer to this, not on a narrow-minded view of the interests of the medical profession, but on its bearings on the progress of medicine, which certainly means, in the long run, the well-being of the sick and injured, and the benefit of the human race.

One cannot help remarking that, from recent disclosures, the name "homœopathy" does certainly not convey the meaning it did some few months ago; and I have no doubt, now a rival is in the field (the dosimetric system of medicine), that homœopathy will sink in favour of this still newer "system". I am, your obedient servant,

ALFRED WISE, M.D.

Geneva, May 18th, 1881.

VACCINATION WITH CALF-LYMPH.

SIR,—Of one hundred cases of revaccination performed by me since last March with calf-lymph, sixty-nine proved successful, and thirty-one failed. I always use the ivory points; and, in all the above cases, the lymph was obtained from Mr. W. Falkner of Endell Street. No bad effects followed in any case.—Yours faithfully,

334, Brixton Road, S.W., June 4th, 1881. ARTHUR G. SANDBERG.

P.S.—In eleven cases of primary vaccination with calf-lymph, during the same period as above, I have had no failures.

SIR,—In reply to an inquiry in your issue of May 21st, I beg to offer the result of my experience of vaccination with calf-lymph. I have used it in upwards of fifty cases during this season, most of them being revaccinations. The lymph has been generally obtained from Belgium, through the "Association for the Supply of Pure Vaccine Lymph", Hemmings Row, W.C. By using lymph preserved in capillary tubes, success has been exceptional; but, since I have used only the ivory points, I have had scarcely any failures. The Secretary of the Association informs me that my experience is common: and he attributes it to the fact of the lymph in the tubes being mixed with glycerine. I am, sir, your obedient servant,

Pembridge Villas, W., May 31st, 1881. E. STANLEY SMITH.

SIR,—In the JOURNAL for June 4th, your correspondent Dr. Law says that, in his practice, calf-lymph has invariably failed. I should advise him to try Dr. Warlomont's ivory points, which can be obtained from his agent, Mr. Edward Darke, 3, Hemming's Row, W.C. During the present epidemic of small-pox, I have vaccinated with them seventy-eight people. Nine of these have been done within the last week, and consequently I do not yet know the result. One other failed to present himself for inspection. Among the remaining sixty-eight, there have been only three failures.—Yours faithfully, THOMAS WAKEFIELD.

37, Nottingham Place, W., June 10th, 1881.

DILUTION OF VACCINE-LYMPH WITH GLYCERINE.

SIR,—At the present time, when vaccination is epidemic and vaccine-lymph both scarce and expensive, it may be of service to recall the fact, first pointed out by Dr. Müller of Berlin, that the vaccine virus can be advantageously mixed with glycerine without in any way interfering with its effects. I have been recently vaccinating with a mixture of vaccine and glycerine (*partes æquales*), and the results, as far as the vesicles are concerned, have been eminently satisfactory. I have not used calf-lymph. Dr. Müller states that "diluted ten times, they are always certain". I believe the army recruits are all vaccinated with the "mixed" lymph, and give the expected results.

In your issue of June 11th, Mr. A. Teevan states that he used five tubes for a family of seven; whereas one tube mixed with glycerine enabled me yesterday to vaccinate half-a-dozen policemen and one private patient, each in three places.—Yours truly, SHADFORTH MORTON, M.B.Durh., Divisional Surgeon

Croydon, June 11th, 1881. Metropolitan Police.

SPEEDY PURGATIVE.

SIR, Most of our aperients require ten or twelve hours "to act", and I should be glad of suggestions for one on which reliance can be placed for rapid action. Sulphate of magnesia, with or without jalap, senna, etc., will act in an hour or so with some patients, but is not distinctly aperient with others. Again, a person who is habitually constipated is easily moved by a drachm, whilst another more regular is disappointed as much as his doctor.—I am, yours faithfully, W. A.

Manchester, June 14th, 1881.

WINE-BOTTLE IMPACTED IN RECTUM.

SIR,—Drs. Steel and Neale, commenting on Mr. Spanton's case, suggest drilling a hole in the bottom of the bottle. Would they kindly tell us how? I, personally, should be glad to know how to drill holes in glass for various experiments, as I have to pay sixpence each to an expert, and I am sure many would be glad to know how it could be done in the bottom of a bottle in the rectum.—Yours obediently, IGNORAMUS.

WHO ARE THEY?

SIR,—The Rev. E. J. Silverton, whose advertisement in the *Christian World* (a weekly religious newspaper with a very large circulation) I enclose, was a Baptist minister at Nottingham. He now professes to cure deafness, and many other complaints, medical and surgical; and, having removed to London, has, to use his own words, "found it absolutely necessary to add to his staff of helpers consulting physicians, who sit with him on Mondays, Wednesdays, and Fridays, at 17, St. Bride Street, Ludgate Circus". Perhaps some member of the Association may be able to state who are the "consulting physicians" who have so kindly consented to act as "helpers" to the Rev. E. J. Silverton?—Yours faithfully,

A MEMBER OF THE SOUTH-EASTERN BRANCH.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

TREATMENT OF WHOOPING-COUGH.

In reply to a question on this subject, several replies have been received.

DR. SPENCER T. SMYTH (Forest Hill) writes that he has pursued the following plan with most marked benefit. At first, the various secretions must be attended to. It may be desirable to administer an emetic of sulphate of zinc, followed by a mild mercurial purge. The diet must be of a light nutritious character, easy of assimilation; a warm bath should be given to restore a healthy action of the skin; and warm suitable clothing should be used. Secondly: For a few days only, bromide of potassium, with citrate of potass, ipecacuanha wine, and glycerine, should be given until expectoration becomes free. Thirdly: Then give sulphate of quinine in milk every four hours, in doses according to age, of half a grain and upwards. A belladonna plaster should be applied to the chest; and linimentum terebinthinæ aceticum should be freely applied across the epigastric and scapular regions night and morning. Carbolic acid should be inhaled three or four times daily; and the sleeping-room should be thoroughly impregnated with its fumes. During the day, the patient should change the room, and, if the weather permit, he should be taken into the open air, being guarded against the cold easterly breezes. In order to complete convalescence, he should change his residence for awhile. No stimulants of any kind are to be administered.

DR. CAREY COOMBS (Castle Cary) writes: The most successful treatment in my hands, and that which acted very well in the cases of my children, was inhalation of belladonna and bromide of potassium in spray from Liegle's steam spray producer. In the JOURNAL of December 6th, 1879, he will find details. The formula I used was: Extr. bellad. gr. vj; ammonii bromidi gr. xx; potassii bromidi gr. xl in aq. ʒij. This lotion was put in the bottle of the spray apparatus, and inhaled by the patient for five or ten minutes, once or twice daily, according to the severity of the case. The pupils should dilate; this will determine the amount of belladonna in the lotion. No other medicine was needed by the patients thus treated.

MR. C. R. ILLINGWORTH (Clayton-le-Moors) has found carbolic acid, applied locally and given internally, to answer admirably. For local application, he uses the glycerine of carbolic acid, of the strength 1 in 30, applied daily with a laryngeal brush. Internally, for a child two years old, he prescribes a teaspoonful of the following mixture every four hours: Solut. acidi carbol. (1–20) ʒss; tinct. belladonnæ ʒss; tinct. camph. co. ʒiss; syrupi rhœados ʒiij; aquam ad ʒij. He also recommends that cod-liver oil and wine should be given three or four times a day. He never orders any special diet.

MR. W. W. MORRIS (East Bridgford) writes that he has largely used a combination of ether, valerian, artificial musk, and origanum, during the last twenty-five years with uniform success. If taken at the commencement of whooping, the first dose generally cures; or, if a week or two has elapsed, two or three days generally suffice. His druggist (Mr. Sneath of Newark) supplies them in a nicely sweetened mixture ready for dispensing. It merely requires diluting with three times as much water.

MUMPS AND WHOOPING-COUGH.

SIR,—A statement in Reynolds's *System of Medicine* (page 209), to the effect that mumps "is unknown in children under one year", induces me to state that I have lately had three cases under my care, of the respective ages of five, seven, and nine months, in two of these the disease being severe and prolonged: one having a single, and the other double, abscesses.

I am desirous of ascertaining whether it is usual to speak of a cough as whooping-cough, the whoop being absent, but the other characteristics developed, and other members of the same family having the complaint in an unmistakable form.

—I am, yours truly,
WALTER LATTEY, M.D.

Southam, June 6th, 1881.

X. Y. might consult, in addition to the authorities he names, the collected essays on alcohol which appeared in the *Contemporary Review*, and have been republished as one volume; and a lecture which is being published by Professor Fraser, of Edinburgh. The declaration concerning alcohol appeared originally in the BRITISH MEDICAL JOURNAL, copies of which may be obtained by writing to Mr. Ray, Secretary of the Temperance League, Strand.

SAYRE'S TREATMENT OF SPINAL CURVATURE.

SIR,—I would be very glad to have the experience of some of your readers as to the average time lateral curvature takes for cure under "Sayre's method". Of course, when I say "cure", I mean only those cases that are curable. I am not quite satisfied that the results already published contain the "end" of many of the cases. I have at present in hospital one case of moderate lateral curvature, where, after two years, I still find that the plaster jacket cannot be dispensed with even yet. I tried in one case the paroplastic jacket; but the heat affected it, and I had to give it up.

Cashel, June 9th, 1881.

SIR,—Will you kindly allow me, in the next number of the JOURNAL, to ask some of your readers to be good enough to give the ingredients of a harmless and effectual depilatory for superfluous facial hair?—Yours truly,

A PERPLEXED MEMBER.

MANCHESTER AND SALFORD PROVIDENT DISPENSARIES.

SIR,—In your issue of the 11th inst. you state that, at a meeting of the Manchester Medico-Ethical Society, "much dissatisfaction was expressed at the present income scale of admission. Formerly, none were allowed to become members of provident dispensaries who earned more than thirty shillings a week; of late, the limit has been raised to forty shillings." Will you kindly correct this statement, as the wages limit has not been raised above thirty shillings? Yours obediently,

E. R. STANLEY JONES, General Secretary.

6, Queen Street, Albert Square, Manchester, June 14th, 1881.

*** We have received a letter to the same effect from Dr. A. Stewart, one of the medical officers to the Pendleton Provident Dispensary.

RETURNING THANKS FOR HOSPITAL BENEFITS.

SURGEON.—The practice is one originating with the chaplains of the hospitals; it is not confined to convalescent hospitals. It certainly does not originate with medical officers; and our correspondent should be chary of far-fetched objections to well-intended practices. We shall be willing to publish a communication on the subject; but it should, we think, be signed, and should not ascribe unworthy motives where a little consideration will convince him that none exist.

THE ST. JOHN'S AMBULANCE ASSOCIATION.

SIR,—"Inquirer", in the JOURNAL of last Saturday, somewhat confuses the order of St. John of Jerusalem and the St. John Ambulance Association. It would trespass too much upon your space to answer his queries in full; but, if he will send his name and address to the Chief Secretary, St. John Ambulance Association, St. John's Gate, Clerkenwell, London, he will receive printed papers which will give him full information. I am, etc.,

G. CARRICK STELL.

A YOUNG PRACTITIONER.—Barnes, Emmett, and Eustace Smith.

FRIENDLY SOCIETIES AND DEATH-CERTIFICATES.

A. J. M.—By section 14 of the Friendly Societies Act, 1875, no registered society can pay money on death except on production of a certificate under the hand of a registrar of deaths. And by section 28 of the Act, no society, registered or unregistered, can pay money on the death of a child under ten years of age, except on a certificate which must contain certain particulars. The forms of certificate are fixed by the Registrar-General. The Act says nothing at all about a doctor's certificate. Therefore, we conclude that if, for its own convenience, the sick-club referred to by "A. J. M." requires a special certificate of death from the medical attendant, it ought to be prepared to pay for it.

A. B.—We know of no rule on the subject. It is purely a matter of sentiment, which each one must decide for himself.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Joseph Coats, Glasgow; M.D.; Mr. C. Stephens, Jedburgh; Passed Surgeon; Dr. W. Withers Moore, Brighton; A Perplexed Member; Dr. Richard Neale, London; Dr. J. Hickinbotham, Birmingham; Mr. Vernon Edlin, London; Mr. A. Jackson, Sheffield; Dr. D. Knox, Glasgow; Dr. W. Williams, Liverpool; Mr. T. A. P. Marsh, Weston-super-Mare; Nonplussed; Mr. Shadforth Morton, London; Dr. C. E. Glascott, Manchester; E. W. Hope, Liverpool; Mr. W. Frazer, Dublin; A Young Practitioner; Dr. Evans, Manchester; Dr. J. Meredith, Wellington; Dr. T. W. Barron, Durham; Dr. S. Rees-Philipps, Exeter; Mr. A. G. Klugk, London; Dr. Coombs, Castle Cary; Dr. W. Muir, Glasgow; Dr. A. Stewart, Manchester; Mr. T. M. Dolan, Halifax; Mr. R. Hughes, Bala; Mr. T. Richardson, London; Dr. Tripe, London; Our Glasgow Correspondent; Our Dublin Correspondent; Mr. J. Ingpen, London; An Old M.D.; M.R.C.S.; Dr. Chippingdale, London; Mr. D. Fosbroke, Birmingham; Our Aberdeen Correspondent; Ignoramus; Dr. Rickards, Birmingham; Mr. C. J. Evans, Northampton; A Registered Medical Practitioner; Dr. Fletcher Beach, Dartford; Dr. E. T. Tibbits, Bradford; Surgeon; Dr. P. H. Mules, Manchester; Mr. E. White Wallis, London; Mr. John Ewens, Bristol; Dr. Grigg London; Mr. William Donovan, Whitwick; Mr. S. M. Hallsworth, Atherstone; Associate; Mr. H. M. Barker, Sandown; Mr. E. R. Stanley Jones, Manchester; Mr. E. L. Dawes, London; Dr. Crichton Browne, London; Dr. F. T. Roberts, London; H. H.; Dr. C. Parsons, Dover; Dr. F. Clarke, Southborough; Dr. W. Murrell, London; J. S. H.; Mr. John Tweedy, London; A Member of the B. M. A.; Mr. Holmes, London; etc.

BOOKS, ETC., RECEIVED.

Dysmenorrhœa: its Pathology and Treatment. By Heywood Smith, M.D., M.A. London: J. and A. Churchill. 1881.

The Student's Guide to Medical Case-Taking. By F. Warner, M.D., M.R.C.P. London: J. and A. Churchill. 1881.

The Student's Guide to Medical Diagnosis. By S. Fenwick, M.D. London: J. and A. Churchill. 1881.

On the Mont Dore Cure, and the Proper Way to Use it. By H. Dobell, M.D. London: J. and A. Churchill. 1881.

Lectures on Diseases of the Nervous System, especially in Women. By S. W. Mitchell, M.D. London: J. and A. Churchill. 1881.

Contributions to Military and State Medicine. By Surgeon J. Martin, A.M.D. Vol. i. London: J. and A. Churchill. 1881.

Dr. Gheist: An Autobiography from the Midlands. Edinburgh: E. and S. Livingstone. 1881.

Wood's Household Practice of Medicine, Hygiene, and Surgery. Vols. i and ii. By F. A. Castle, M.D. London: Sampson Low and Co. 1881.

Supplement to Ziemssen's Cyclopædia of the Practice of Medicine. By G. L. Peabody, M.D. London: Sampson Low and Co. 1881.

Illusions. By James Scully. London: C. Kegan Paul and Co. 1881.

Lectures upon Diseases of the Rectum and the Surgery of the Lower Bowels. By W. H. Van Buren, M.D., LL.D. London: H. K. Lewis. 1881.

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THE HARVEIAN ORATION,

DELIVERED AT

THE ROYAL COLLEGE OF PHYSICIANS,

Saturday, June 18th, 1881.

By ANDREW WHYTE BARCLAY, M.D., F.R.C.P.L.,
Physician to St. George's Hospital, etc.

Mr. President and Gentlemen,—Our late President, in assigning to me the office which I have undertaken to fulfil this day, very justly styled it an honourable and onerous task. In his kindness and partiality, he hoped that I might have something to say which would interest such an assembly as usually greets the Harveian orator. It can be no reproach if, in each succeeding year, the well-worn theme becomes more threadbare, and loses some of its original brilliancy. The enjoyment of listening to some of the most gifted of my predecessors must produce a somewhat unfavourable contrast when the work has to be accomplished by feebler hands. I cannot but feel that to give real vitality to my address demands a skill in oratory which I do not possess, an originality of thought to which I can lay no claim.

I have purposely avoided looking back to previous orations. A *pot-pourri* of the thoughts of others is not what I want to produce in this assembly; and I am sure you will forgive me if, on the one hand, I repeat what has already been said so well by others, or if, on the other, I depart from the lines laid down by precedent as those on which this oration should be framed. It is my desire to lay before you some of the difficulties which meet the student of the present day in his search after truth.

Though so far removed from the Harvey of the past, we may surely learn something from observing the way in which the great master worked. It is only by treading in his footprints that anyone can hope to gain entrance into that temple of enduring fame in which he will ever hold so high a place. It was indeed no mind of ordinary stamp which animated the discoverer of the circulation. It does not appear that he had prepared himself by any special training for the work of his life. Indeed, it is quite remarkable that no record of devotion to science in his earlier days is anywhere to be found. It is true that when he entered the University of Cambridge he enrolled his name among the pensioners of Gonville and Caius College; and among the MSS. preserved in its library is the original grant by Queen Elizabeth to the Master and Fellows "of the bodies of two criminals annually, condemned to death and executed in Cambridge or its Castle, free of all charges, to be used for the purpose of dissection, with a view to the increase of the knowledge of medicine, and the benefit of the health of Her Majesty's lieges, without interference on the part of any of her officials". This grant was obtained by the influence of Dr. Caius in the sixth year of her reign, just twenty-nine years before Harvey entered as undergraduate. Unfortunately, no record has been kept of whether the privilege thus conferred was ever used, but taken in connection with the existence of medical fellowships, it shows that the College was in those days marked as one specially devoted to medical science; and we may perhaps be entitled to assume that some part of Harvey's subsequent career was due to this early training. That when he had finished his terms at Cambridge, he left England to study in the school of medicine held in the greatest repute in those days, we all know; and that he brought back from thence a very high testimonial of his skill in anatomy and physiology, is also a matter of history; but as yet we find no trace of the first steps of his progress. We can but picture to ourselves what a glorious awakening must have followed that early dawn when the idea first occurred to his mind that the blood propelled from the heart must return to it; when he was able to question Nature, and prove that the circulation of the blood was no vain imagination.

Harvey's discovery came so soon after the publication of the *Novum Organon*, that it is not surprising to find in his writings phrases almost identical with those of Bacon, proving, as they do, that the general principles of that philosophy were congenial to his mind. But, to my thinking, he was not in any sense a logician, and did not attempt to frame his arguments on any defined rule. His was a mind to which a false argument was impossible; he rejected it, not because he could have or had applied to it any test of its logical fallacy, but simply because, to his clear intellect, the argument was unsound. I trust my younger hearers will not misunderstand me. The clear perception of truth, the faculty to analyse, and the power to grasp it in all its bearings, belong but to a few gifted individuals. Even to them, the cultivation of these talents is of the utmost importance; to the great majority of us, such education of mind is absolutely essential if we would arrive at truth. Almost all the mistakes into which men of pure and simple aim have fallen may be traced to the imperfect development of the logical faculty. Without it, true theories and correct practice are equally impossible. Where was it, we may well ask, when in Paris half a century ago patients were actually bled to death in rheumatic fever? Where is it now, in this enlightened country of ours, as we draw on towards the end of the nineteenth century, when we find the sustaining treatment in enteric fever pushed to such an extreme that the alimentary canal becomes overloaded with undigested aliment, and the consequent tympanitic distension of the bowel bursts the slender bonds, which have hitherto saved from rupture the thinned walls of a deep ulcer, and the patient from a fatal peritonitis? Alas! medical science is ever bending the knee to the idols of fashion and prejudice, forgetful of her high mission, to seek after and follow only the truth.

I think we may trace, in the method in which Harvey first propounded his views, a very early attempt at the inductive mode of reasoning associated with the name of Bacon, which was then but in its infancy. In the light of further knowledge, the discovery of the circulation must be regarded as one of the most brilliant examples of that philosophy, surpassed perhaps only by Newton's magnificent discovery of the laws of gravitation, some seventy years later. All of these great thinkers were working on the same lines; embued with the same spirit; each alike casting aside the dry logic of the schoolmen, which was once replete with life, but had become in their hands an almost unintelligible jargon.

It has always seemed to me that, in the recent revival of medical science—based, as it has been, on pathological research—one of the greatest hindrances to progress has arisen from a misunderstanding of what Bacon meant. To many, it conveys no idea beyond that of the dry accumulation of facts, in the hope that some great truth may be elicited from their comparison. All honour to those who, in the past as in the present day, have made, and are making, our knowledge of various departments of medicine and the allied sciences more full and complete. But theirs is not the path which leads to such discoveries as those of Harvey and Newton. They have missed the first link in the chain.

Let us ever bear in mind, with reference to this subject, that no two consecutive facts are exactly alike; and that, as a consequence, the second observation does not fully confirm the first, but of necessity differs from it, in some particulars, to a greater or less extent. A mind that has grasped the cause of the successive facts, will regard only the differences, and seek for their explanation. A mind that labours after their simple enumeration will regard only the analogies. It is true, that, by adding together the results of a large number of well-recorded instances, we obtain a general average, which is more or less correct in proportion to the number of cases taken; and they thus form the basis of what are called statistics. If I am right, it is of the very essence of statistics that each instance differs from the rest; and that the very next observation made will necessarily be different from the average already calculated. For example: if one frames, from fifty years' observations, a curve indicating the average daily temperature at any given locality, it is almost certain that this year's curve will differ from the average; and it is absolutely certain that a large proportion of the daily ranges of temperature will be quite different from those calculated for corresponding days from the fifty years' observations.

This was not what Bacon meant, or what Harvey did. His aim was to establish the law by which one of the great and essential processes of life was carried on, and that this law was constant and unchangeable. He showed that the circulation was just as certain as the heat of summer and the cold of winter; but, in the law which he traced, there is nothing to indicate the quickness of the pulse—any more than, in the changes of season, can there be found anything to determine beforehand the degree of heat or cold which may be registered by the thermometer. He saw that the blood, propelled from the heart, must return to it; he sought for the law of this phenomenon, and, having found it, was able to show that it was unchanging so long as the heart continued to beat; in fact, that it was a law of nature.

If my memory serves me rightly, it is to John Stuart Mill that philosophy is indebted for the induction, that all laws of nature, as at present known to us, are unfailing; and, further, that this induction must form what logicians call the major premiss in every argument regarding such obscure subjects as—*e.g.*, in medical science—the origin of life, generation, development, growth, decay, and death. What, then, do we

mean by "Laws of Nature"? A law, if I understand the question, implies the existence of a Law-giver. It implies that if I, who am a living sentient being, acting and thinking for myself, am subject to such laws, there must be a Superior Being; who is over me, above me; who can give laws to me; who can act, and think, too: one who meets me, when boasting of my own existence as the highest type with which I am familiar, as a higher Being still. Further: I feel that I must submit to these laws, and that their supremacy and duration are bounded only by the Will of Him who framed them.

I am not sure that this was what Mill meant. He conceived the laws of nature to be immutable, eternal; and I suspect that he based this belief on the ground that matter was eternal too—though he positively disclaims the necessity for any such supposition. If I mistake not, he believed that each atom of matter had ever possessed the same properties which it exhibits now; that these atoms associated themselves in certain groups, in consequence of their special requirements; and that, out of these groups, certain definite results of combination occurred, which were, like matter itself, eternal, and, for this reason, entitled to be called "laws of nature".

Now mark that, from the very definition of the subject, it must be admitted that these combinations are secondary, not primary, and, as compared with eternity, are but of recent origin. One might concede to an exponent of this philosophy, that countless ages have passed since the first dawn of life in this world's history; that, prior to that period, any most extreme duration was assigned to the slow aggregation of microscopical elements to form centres of spheres; that, going still backward in dim and fading antiquity, atoms filled space before they had even assumed such dimensions as the microscope can take cognisance of. Let us grant that the atom at the centre of our solar sphere was but the beginning of our own system, and try to guess how long it must have taken to elaborate this small unimportant orb, which is yet all the world to us; let him, if he please, add cipher to cipher in calculating this world's antiquity; it is to me quite immaterial whether he multiplies his numerals by thousands or by millions; it cannot be of the slightest consequence how long he makes the total of his figures. They all have a beginning; eternity has none!

Let us just for a moment by an examination of one of our most acute and most prized faculties, the sense of light, try to conceive what this idea means. Let us accompany the astronomer into his observatory, where, in the glory of a magnificent starlit night, he gazes out on the heavens, decked in the splendour of countless myriads of stars. Some meteor gleams in fitful brightness across the expanse as it enters the region of our atmosphere. Further off, he knows that our moon revolves in regular circuit round the earth. Sometimes nearer, sometimes at greater distance, each planet in its own orbit revolves round the centre of the system. Beyond all these, reaching into boundless space, minute scintillations of light gleam forth, each possibly the centre of other harmonious systems of perpetual motion. With his present knowledge, the star-gazer has almost forgotten that, in long bygone days, there were astronomers who could reconcile their minds to the idea that our world was enclosed by a sort of crystal sphere, which, day and night, ever rolled round and round. He has actually measured how far we are separated from the nearer bodies; he has even got the length of computing, with some degree of accuracy, the more startling distances which intervene between us and some of the fixed stars. From these data, he is tempted, by the help of the more perfect instruments of the day, to guess at the possible intervals between our system and the more distant lights. The nebulæ, which have been already resolved into countless myriads of stars, tempt him to conclude that those which he yet cannot solve are but more distant groups; and thus a faint glimmer is borne in upon his understanding of the utterly immeasurable distances at which some of these self-luminous bodies stand from our insignificant sphere. So long as a foothold, however slender, can tempt the philosopher to spring from point to point in the contemplation of this marvellous whole, his mind seems to grasp, though but faintly, a picture of its immensity. Myriads of miles, such as an untrained mind can barely conceive, become to him little more than the inches on a mechanic's rule. But, even by him, a point is at last reached where the mind has no object to contemplate, no resting-place from whence it can make a fresh start. Beyond his farthest-reaching speculations there is still a beyond, and yet a beyond more distant still! Surely the mind of man must recoil from any attempt to grasp the infinite. It is easy to argue in words that we ought to know the beyond from what we have already proved within the limits of our knowledge. But, if we ask ourselves the simple question what that beyond is, and how far it may reach, I think we shall all admit that we cannot comprehend the infinite. Infinity is, but we understand it not!

So, too, of eternity. I make bold to say in this place that the man who talks of the eternity of matter knows not of what he speaks. It is a question that human reason cannot grasp, that logic cannot reach. One thing, however, comes out very clearly in the argument, which might almost have been predicated of the dictum when evolved out of the finite human understanding. Every speculation tacitly assumes a beginning for this evolution of matter. Eternity counts no beginning in its history! History, indeed, it knows not; duration is not of it; it is ever the same; a thousand years and the thousandth part of a second are just alike in that calendar; the limits of time and space are unknown; the present, the finite, the tangible, can scarcely be regarded as fragments of that great unfathomable abyss.

When I assert my belief in a Law-giver, it is because thus alone can I account for my own existence; its beginning and ending; and the existence of a world around me. That laws are impressed upon matter, and that it is governed by them, no educated man can deny; that matter framed these laws for itself seems to me too gross a hypothesis for anyone to conceive. Let me crave your indulgence if I further attempt to define the meaning of the term "law" as it is employed in the present day. No greater hindrance to progress can arise than when, in the employment of scientific language, a restrictive sense is present to the mind of the person using it, which others are not aware of, and are consequently not prepared to adopt. It will be in the recollection of most of my hearers that, not long ago, when the laws of the development of life during putrefaction were very much under discussion, Professor Tyndall announced an observation of some importance as bearing on the subject. Dr. Bastian had cited experiments in which he found that, however carefully the agency of the atmosphere was excluded, a certain putrescible fluid which he had employed still showed, after the lapse of a given number of days, signs of the development of life. Professor Tyndall, on the other hand, alleged that such fluids might be freely exposed to an atmosphere which showed itself absolutely pure to a beam of electric light, without this effect being produced. Dr. Bastian's reply was short, sharp, and decisive. Professor Tyndall had not used the same fluid as Dr. Bastian, and the assertions made regarding a-bio-genesis applied to that fluid, and that fluid only, and to none other. Between the two philosophers, there could be neither agreement nor argument, because the one had mentally imposed a restrictive sense upon the terms employed, which was not recognised by the other.

The importance of this subject will be noted hereafter; it has been mentioned here merely as an illustration of the need of clear definitions. But I think we may draw other useful lessons from the controversy which has occupied so large a portion of the days of living physiologists. It had been formulated as a law, that putrefaction and the development of living organisms bore some constant relation to each other. Its exact bearing had not been reached, but its application seemed to be universal. Here let me just observe the difference between a "law" and a "cause". The law merely declares the certainty with which the cause acts. The law does not compel obedience; it merely shows how the result is to be traced, as the effect of some definite, though perhaps unknown, influence. In the case before us, the law was a very imperfect one, the cause utterly unknown. It had been suggested that, somehow or other, the presence of atmospheric air was essential, and experiments were being made to ascertain which of its constituents originated the change. Tyndall's experiment seemed to point to some ingredient mechanically suspended in the air; other observations tended in the same direction, and the law has thus been so far simplified, that it is now comprehended under the more general laws of the perpetuation of living beings on the earth's surface. The cause of life is just as distant and as obscure as before.

One more lesson let me deduce from the discordant views of these philosophers. *In limine*, the questioning of Nature should have proceeded from both in the very same form; the answers could not otherwise be in harmony. It is very remarkable that later observations have shown that there were special circumstances affecting Bastian's solution, not present in Tyndall's, which made it of some importance that the formula should have been exactly copied. On the other hand, it seems almost incredible that a law of Nature should have been based on a single instance, when all other experiments on similar substances failed to confirm it. In fact, it ought to have been regarded simply as an exception to the law, and the modifying circumstances closely investigated.

In attempting, then, to give a definition of the term, I wish merely to place before you the idea of what is present to my own mind in its employment. It may be regarded as a short statement of the certainty arrived at by our reason, that out of one condition another necessarily arises, and that the two conditions are associated together by some principle or mode of causation which may or may not be known to us. Let us not imagine, however, that the law is the cause. I am afraid

that many think and speak of the laws of gravitation as if they were the final cause of attraction. A larger body attracts a smaller one, not because it is larger, but because the principle of gravitation, whatever that may be, acts in proportion to its dimensions. This is one of the laws of its action, but the whole of these laws taken together do not explain its cause; and I conceive that it may be said generally that all laws are liable to exception: all causes operate uniformly.

No better or happier example of this difference can be cited than the suggestion of Adams of Cambridge, that the law of attraction from which the orbit of Uranus could be calculated was interfered with by some extraneous influence, which, for the time, modified the ordinary force, and produced an exception to the usual law. He calculated that a body external to it, moving in a similar orbit, attracted to the same centre, and attracting and being attracted by other bodies placed in relation to itself, would produce just such deviations from the recognised law as had been previously observed. By his calculations, he was able to indicate the exact portion of the heavens in which the planet Neptune was to be sought.

The lesson taught by this and similar instances seems to me to be this, that the cause of attraction or gravitation, which is quite unknown, is always acting in a certain definite method, while the law of its action may seem to be modified for the time being. Hence it follows that when a true induction has been reached, these exceptions tend to prove its truth; in other words, the exception proves the rule.

You will all, I am sure, grant that Harvey's own aims and wishes should ever be present to our minds at this annual celebration. I may, therefore, be permitted to quote some of the words of his deed of gift, by which, among other things, this foundation was originally constituted. Speaking of the person appointed to deliver the oration, he says he shall make it "publicly in the said College, wherein shall be a commemoration of all the benefactors of the said College by name, and what in particular they have done for the benefit of the said College, with an exhortation to others to imitate those benefactors, and to contribute their endeavours for the advancement of the Society according to the example of those benefactors. And with an exhortation to the Fellows and Members of the said College to search and study out the secrets of Nature by way of experiment; and also, for the honour of the profession, to continue in mutual love and affection among themselves, without which neither the dignity of the College can be preserved, nor yet particular men receive that benefit, by their admission into the College, which they might expect, ever remembering that 'concordiâ res parvæ crescunt, discordiâ magnæ dilabuntur'."

First let us note the evidence which this document contains of his great love for this venerable institution. I think that no one of us can read his life, study his works, or review his character, without feeling for the moment stimulated to follow his own example. He regarded the College of Physicians as a grand foundation. He looked to its future as the great centre from which the light of medical science and skill was to shed its lustre over England; was to be the teacher of her people, the adviser of her rulers, and the training-school of her medical men. He sought to help in this development; and, while he made the old physicians' hall his school of medical philosophy, where he for so many years taught his new doctrine, he sought also to bind in the bonds of friendship those who met in solemn conclave to determine the great questions of the day.

It must be confessed that until recently his hopeful anticipations have not been realised; for a narrow and exclusive jealousy grew up in place of the large-hearted sympathy which he had hoped would guide the steps of the Fellows of the College. It was not till the fatal Act of 1815 brought the certain Nemesis of overweening pride in the general lowering of the status of the profession, that any one seemed to think that a nobler future might be in store for the College. It had become little better than a gossiping club for Oxford and Cambridge graduates in medicine, with the select few whom they admitted into the Fellowship.

The origin of all this is not far to seek. The first failure lies at the door of the older universities of this kingdom. I will not venture to inquire how all the trusts placed in their hands have been discharged, but there can be no doubt that one of the most sacred—the encouragement of the study of medicine—has not had in times past the fostering care of either Alma Mater. Harvey himself left Cambridge to study in Italy, and from that day forward so little has that branch of science been regarded, that foundations set apart for its advancement have been awarded wholly on account of other distinctions, even to men who never opened a book on medicine and the allied sciences. It is true, indeed, that the English character has developed in her public schools and universities in a way that seemed to defy all antecedent probability—that the majority of those who have passed through the curriculum bear in after life the hall-stamp of gentlemen, and that a few have distinguished themselves as critical scholars or as pioneers in the path of scientific research. For teaching purposes beyond the limits of classical and mathematical study, the English universities were for long ages practically without resource. Medicine seemed to a certain extent to be secured by the foundation of professorships, fellowships, and scholarships; but in the general lethargy it failed to awake any enthusiasm in England, and Edinburgh stands pre-eminent as the teacher that first drew away students from the foreign universities. The titular M.D. of Oxford and Cambridge necessarily sank in general estimation, while the graduates arrogated to themselves the rights and privileges conferred by the charter of the College.

From such a state of languor and depression a reaction was unavoidable. Outside the College, a strong phalanx of medical practitioners arose; inside the College, many a keen-sighted observer foresaw the doom which awaits exclusive mediocrity. Measures to stop the advancing tide have been eagerly grasped. Much has of late been done to raise the status of the profession; but at the present moment no prophetic eye can clearly discern the issue. So long as scientific workers are content to labour in a field where the hire is so small and the fruit so slow in its growth, increase of knowledge must be gained; progress must be made. But whether practical medicine is to drift into a trade, in which the breath of popularity alone raises a man above his fellows, or is to mount into that position in which the esteem of those competent to judge shall be the only portal to eminence, who can say? It is for the younger Fellows of this College to choose which path they will follow; and may God defend the right! Let me entreat them, in the words of Harvey, to imitate the example of past benefactors, and to contribute their endeavours for the advancement of this society according to that example, and to search and to study out the secrets of Nature by way of experiment.

Let me now shortly consider how far this aim has been kept in view of late years, as the only sound basis of scientific knowledge and practice. Time would fail me were I to attempt to analyse all that has been done in the various departments of pathology, and endeavour to sift the wheat from the chaff. I propose to select two only among the salient subjects of observation and discussion, and compare them together from this point of view.

Harvey's name comes down to us as a great physiologist. No theory of inflammation arose in his mind out of the discovery of the circulation. He did not waste his energies on idle speculations; but, assuming the necessity of some hypothesis as the starting-point in the inductive method which he followed, he saw clearly that it was valueless until he had put it to the proof by questioning Nature. Few among that vociferating crowd of antivivisectionists know that he did not shrink from observing for himself what was going on in the circulation of living animals. If he had not done so, he could not have obtained the sure answer to his questions—the proof of his hypothesis. The answer was in his case definite and unmistakable. There was no longer any possibility of denying the truth of the facts, or disputing the conclusions deduced from them. It is much to be regretted that some philosophers of the present day, some close observers of Nature, have been content with a line of argument falling short of that certainty which, in my opinion, is at all times true of what I have already classed as laws of Nature. When the questioning of Nature has not produced an answer in accordance with their expectation, some have been content to substitute a pretty and perhaps plausible theory as the main prop of their hypothesis, in place of abandoning it as a delusion which could only lead away from the strict path of scientific truth.

The survival of the fittest is by no means a new idea among physiologists. It was recognised, in its relation to the many varieties of the races of men, by Prichard, when he wrote on this subject nearly seventy years ago. He used it as an argument in favour of the unity of the human family, which even in those days was sometimes called in question. Its importance was overlooked chiefly because philosophic speculation set in a current opposed to the idea that the high mental culture of Europe could belong to the same race of beings as those who adored a fetish in South Africa. It was evident that some other principle was involved when, in the vast continent of America, a copper-coloured race of a comparatively low type of humanity had taken the place of a people who had left behind them evidences of a much higher state of civilisation at an earlier period. In the old continent, events of the same kind had happened. Long ages ago, the treasures of Nineveh had been buried, and over the mounds under which they lay hid wandering Arabs had reared their tents. The wisdom of Egypt has long since perished; but the huge masses of solid rock out of which her ancient monuments were constructed still remain, amid a debased and degraded population. The Greek race has abandoned its high intellectual eminence; the Roman Senate has

ceased to rule the world. These considerations gave rise to speculations which influenced the theories of the last generation. The survival of the fittest could hardly offer a solution of changes such as these; and rash hypotheses regarding the origin of species obscured the question of the origin of varieties. It was contended by some that human beings so utterly unlike each other as some of these races are must have sprung from distinct progenitors, who had come upon the earth's surface at different times and at distant localities. Such a suggestion was very naturally met by others with the assertion that all belong to the same species.

Here let me just observe that, in the employment of the term species, I mean merely to convey the idea that, however closely any animals are related to each other, they do not belong to the same species if it be ascertained regarding them that the union of the sexes does not produce a prolific offspring. It is quite immaterial to my purpose to inquire further into this proposition, or why it is that the hybrid product of the union, when any such takes place, is incapable of producing progeny; it is only necessary here to define the sense in which the term is employed. I may further add that, whether this word continue to be used by scientific writers, or any other term be substituted for it, the law of Nature remains, and must be recognised. This has, no doubt, deprived much of the contention of its interest, so far as man at least is concerned, because nowhere is there any barrier to the propagation of the species. It has, indeed, been asserted that the mixed breed of certain races has degenerated and died out. Were this proved, it would go no further than to serve as an illustration of the survival of the fittest within the limits of the species. No one has ever ventured to assert that the fruit of these mingled races could not themselves intermarry and produce fruitful offspring. The unity of the species remains unquestioned.

The subject has again been brought into prominence, in connection with Professor Darwin's theory of natural selection, by a certain section of philosophers, who profess to range themselves under his banner. The wild speculations which now pass current under the name of Darwinism, start with the assumption that if there be apparently no limit to the origin of varieties within the bounds of species, there should be no difficulty in the transition from one species to another. I do not propose to argue the grounds on which this assumption is supposed to rest. I would only ask whether nature has been questioned in the sense which Bacon and Harvey alike propose, and what answer she has given. I am not exaggerating the opinions held by these advanced thinkers, in saying that one of their dogmatic beliefs is that no single species has been throughout its history quite unconnected with other genera or species than its own, or was evolved at any one particular time or place in the world's history. It has been pointed out, without altering the current of modern thought, that in the fossil fauna of past times, there are many examples of extinct forms of life alongside of many existing in the present day; and that while both may be grouped under genera and species, there is no transition form discoverable bridging over the line which defines the limit of species.

Popular as these speculations have become, in consequence of the charm of the writer's language, and the wide scope which the play of thought may, in imagination, reach in reading Professor Darwin's beautiful illustrations of natural selection, they seem to me to want all that could give them firmness or stability. The conclusions, which may possibly be true, with reference to the origin of varieties, cannot be applied to the wider field of the origin of species without some kind of evidence that nature has worked in this way. Many of her laws are yet unknown. The growth and the decadence of nations are problems which yet await solution. The high culture of European races, as contrasted with the moral degradation of the negro tribes, has not been brought into the domain of any definite law; but, in my judgment, what is popularly known as Darwinism has not added one new item to our scientific knowledge, and cannot be commemorated as an instance of the real progress of science in a Harveian Oration. I would here broadly assert that no law of Nature has been enunciated by which our origin, as we meet here this day, can be presumed to be derived from an animal or vegetable: no lapse of time can suffice to trace the human form divine back to some primeval mollusc, or find its beginnings in the existence of an infusorial animalcule. Surely no one imagines that, in the recent revelations of the microscope, we can hope to search successfully for the first germs of life on our planet.

In a totally different direction, these minutest organisms have come to hold a very important position in the view of the real student of Nature in the present day. We must pass on mainly to their pathological aspect, though not losing sight of their physiological importance. I have already referred to the vexed question, which so long occupied the attention and stirred the antagonism of microscopical observers. Whether it has yet been finally settled, or is now only at rest while the opposing forces are preparing for a fresh encounter, I know not. The question was simply whether life could spring out of inert matter which had itself once attained to any of the functions of life, or had been at any time indirectly associated with some living organism. Could it, in its separate state, retain such a degree of vitality that life of the lowest form could spring out of its disintegration? Was it possible that such matter could, by its own molecular changes, give rise to living organisms capable of rapid reproduction? I confess that I have always ranged myself with those who believed that the newly-developed organism commenced in the same germinal form which afterwards served for its propagation. Let me not be misunderstood. There is nothing irrational in the conception that these minute organisms may either produce fully-matured spores or germs, or may be propagated by fissure and subdivision. The word germ may, for the present, be fairly applied to the immature object of either kind, which afterwards developes into a living being.

All the hypotheses which have been suggested in connection with the propagation of this lower stratum of life, revealed, as it has been, within a comparatively recent period by the more perfect optical instruments of the present day, have gone on the assumption that their development demands the presence of some force different from that which we find in constant operation; and the further question opens a wide field of controversy—viz., What is that force? The minutest of these creatures are invisible to the highest powers of the microscope in the solution to-day—to-morrow they are swarming in hundreds or thousands. How is this? Has any other change in our solution taken place, and is that change constant? It was very easy to confute Mr. Cross, who put forward the suggestion that electricity had the power to develop animal and vegetable life, when it was found that if other circumstances remained the same, the life was developed without the presence of electricity. But it was not so with regard to chemical change. Putrescence or fermentation was found to be almost invariably present; and there was evidently some correlation between the two facts thus established. So far, the law of their being was, with a few exceptions, absolute.

The law was absolute, but indefinite; and the existence of exceptions made it necessary to seek for a clearer insight into its meaning. The hypotheses which have been suggested divide themselves into three main classes. First, there was the old popular belief that putrefaction breeds worms, refined and transformed by scientific research into the statement that during the devitalisation of previously living organic matter, new life in another form sprang into existence—in principle, perhaps, not unlike the present view of the conservation of force. Secondly, there was the view, diametrically opposed to it, that the germ comes from without, and by its presence and power of development excites the chemical change which accompanies the presence of the fully-formed being. Thirdly, that the putrefying or fermenting material offers a suitable nidus for its growth and development. The first, I think one may say, has for the present passed into the region of oblivion. The second has been recently engaging the attention of an ever-increasing number of enquirers. The third still counts a few trustworthy observers, and certainly contains some element of truth, the exact import of which has not yet been determined. For example, the oidium albicans appears in certain forms of maturition, while in others its presence has not been detected. Again, how curious to note the appearance of the milk bacillus almost simultaneously with the conversion of an outbuilding of a farm into a dairy.

It is to the second hypothesis that I specially wish to call your attention in its bearing on the causation of disease. Probably no name has become more widely associated with this view of the question than that of Lister. Ever since scientific observation has been associated with the practice of surgery, union of parts by what is technically called "the first intention" has been the great aim of the surgeon. Suppuration, and especially unhealthy suppuration, has marred the results of the most skilful operations. Mechanical and chemical aids have at various times been suggested, and have been more or less successful in the hands of those who introduced them; their subsequent adoption or rejection by the profession has depended very much upon whether, in their more general use, they justified the anticipations which had been formed concerning them. I think they may all be said to have been based on one cardinal principle—viz., an attempt to exclude air from the wound. To some the air seemed to produce evil consequences by its coldness—to some by its dryness—to others by a kind of stimulating property; but to Lister's mind it occurred that the evil depended not so much on the air itself as on the impurities it contained. Among the floating particles were unquestionably those germs which the biologists of all schools were so busily trying to exclude from their solutions and infusions when discussing the origin

of life; and these he endeavoured to exclude from his operations by the employment of germicides and cotton-wool. It is not for me here, as a physician addressing physicians, to attempt to estimate the value of his results. The hypothesis is one that claims the earnest consideration of surgeons, and the practice which it suggests numbers now a large number of adherents. I need only add one word of caution in weighing the arguments on one side or the other. If these germs abound, as we are led to believe they do abound, and if their exclusion be a matter of such delicate manipulation that it has stirred up the strife of two opposing parties of scientific enquirers for a long series of years, it is unquestionable that the precautions necessary for their exclusion or death must be most minute. True conclusions as to their influence on the divided tissue cannot be attained by any rough and ready method. If germs are to be excluded, they must be shut out without an exception—if they are to be destroyed, the death of every fragment, every spore, must be accomplished with the minutest care, or the experiment will necessarily fail so far as it is to be ranked as proving a law of Nature. The partial exclusion of atmospheric dirt may exercise a certain amount of beneficial influence; but it is impossible to appreciate it at its proper value in dealing with so complex a problem.

A much more engrossing aspect of this lower stratum of life presents itself to us in this Hall, when we turn to the consideration of the question whether these germs in the widest sense of the word have anything to do with the propagation of disease. Our means of research are probably yet far too limited to enable the most patient and painstaking observers to penetrate far into such mysteries. But I must confess that, as I have recently read some of the revelations which the microscope has already made, as I have followed some of the results obtained by the cultivation of these minute organisms, it has seemed to me that a vista was opened into a new region, that to our successors, if not to ourselves, a new era was about to commence, which might bring about a most complete change in the science and practice of medicine. Probably none of those early inquirers who first argued the questions of homo-bio-genesis, a-bio-genesis, and hetero-bio-genesis, had the remotest conception that these questions bore any relation to the spread of small-pox and the influence of vaccination, or were directly involved in the development of anthrax and splenic fever. The inquiry began as a matter of purely physiological research. What was the life history of a bacillus? What were its parentage, development, and offspring? What were its relations to other beings, and to inert matter?

The history of this investigation affords a remarkable illustration of the manner in which the observation of facts, guided by a scientific aim, and prompted by a keen perception of the bearing of scientific truth, has led on by slow degrees to the development of a view of life consistent with itself, and closely interwoven with all that was previously known.

No great discovery has marked any step of its progress, no startling hypothesis has overturned the conceptions of a past age; if we exclude the possibility of its being hereafter proved that each specific disease has its own parasite. The descent from the examination of the higher to that of the lower stratum of life has followed naturally on the improvement of the optical instruments now in familiar use. The germ-theory of life is only the application to the lower classes of what was already known of the higher classes of organised beings. The observation that each of these creatures was distinctly differentiated was no more than the differences of other species would lead us to anticipate. The several varieties must of necessity have their own habitats, and their own surroundings, if they were subject to the same laws of life as other animals and vegetables; and each must fulfil its own purpose in the economy of Nature. In the progress of this investigation, it was found that some of these minute organisms were traceable as parasites in other living beings; and the strong presumption was that they were associated with certain morbid states. It further became evident that this development was not restricted by the action of chemical laws, but that the processes of putrefaction and fermentation might be superseded by morbid processes which have hitherto, at all events, refused to be classed under chemical or physical laws. One additional step led to the conclusion that, in each instance, the special organism was of a different kind. It would be somewhat rash to assert that all of these facts have yet been brought into the domain of laws of Nature. But if we may trust some of the most careful observers, we must admit that certain morbid states, *e.g.*, splenic fever, are accompanied of necessity by the development of a specific bacillus, *e.g.*, the bacillus anthracis, and that this bacillus, introduced into a healthy animal who is susceptible, will produce in it an attack of the same disease. And further, that while the bacillus lactis will excite fermentation in milk, and cannot produce splenic fever, the bacillus anthracis may fall into milk without producing any acidity.

Yet another idea presented itself apparently unbidden to the minds of some of these inquirers. In the proper sense of questioning nature, an attempt had been made to infect a susceptible animal with splenic fever by injecting blood from a diseased animal, which, by delicate manipulation, was supposed to be freed from the germs of the bacillus, and the answer given was that, even so, a mild form of the disease was communicated. Out of this the inquiry necessarily sprang: In what consists this mild form of the disease, and what are the means by which it may be excited? Separate observations had been teaching that a given menstruum, or what is now called a nutritive fluid, ceases after a certain time to be capable of reproducing the particular form of organism for which, in the first instance, it served as a matrix. This decadence of the growth could at any period be arrested by a change in the nutritive fluid. By experiment, it has been ascertained that, during the period of degeneration, the disease produced by inoculation becomes milder and milder; while, on the contrary, it increased in intensity as the reproductive powers of the germs become increased and their numbers multiply. At present, two factors seem to be recognised as determining the severity of the attack due to inoculation, viz., the vitality and reproductive power of the germs, and the number introduced.

It would be idle to speculate further on the ideas thus suggested. Can it be that the specific fevers of the human race have each their own bacillus? May the exhaustion of the menstruum serve as an explanation of their termination in individual cases; and the loss of reproductive powers be the cause of the termination of an epidemic? May we hope in each of them some day to inoculate a mild form of the disease which will preserve the individual from a more severe attack? Whatever answers may in the future be given to these and similar questions, the definite results already arrived at in the two diseases which have formed the subjects of investigation cannot be ignored, and can only be set aside by showing them to be exceptional instances. I feel bound to affirm that, in my judgment, the course of inquiry pursued has been in strict accordance with Harvey's principle of questioning Nature by way of experiment; and I cannot but believe that the answers do really present what may be called "Laws of Nature".

I have done. But I cannot conclude this Oration without a reference, however brief, to the memorial about to be erected to Harvey in his native town, in recognition of his great work, more than three hundred years after his birth. Tardy as this particular acknowledgment is, it must not be regarded as an evidence that his work has only now begun to be appreciated. His fame needed no such monument to bring it afresh to our memory; his name will last when the marble has crumbled into dust. While our race continues on this globe, he will be remembered as one of the great pioneers in scientific research; while this College lasts, he will be remembered as one of its most sincere well-wishers, one of the kindliest of our Fellows. If we be but true to ourselves and to him, the College will yet triumph over the attacks of its foes. But the temptation which assails every practitioner of medicine must be stoutly resisted, sternly put aside. The race for fame and popularity is not for such as we venture to call ourselves. The acquisition of wealth is not for any of us a legitimate aim. Pecuniary rewards will attend success, however attained; but success is not necessarily a test of merit. Truth must be sought for its own sake, and not because its publication brings renown to its discoverer, and opens up to him the avenues to future distinction. If such a course calls for some self-abnegation on the part of our junior Fellows, they will bear with me, I am sure, if, as one of the seniors, I remind them that thus alone can they have the enduring reward of an approving conscience, and the approbation of those whom we all recognise as the leaders we should choose to follow. May the College never want worthy representatives of the character and conduct of Harvey; may it never fail in having such a worthy head as our present President.

BEQUESTS AND DONATIONS.—The Great Northern Hospital, the Middlesex Hospital, and the National Hospital for Consumption at Ventnor, have each received £1,000, under the will of Major Charles Stephen Barron.—The National Hospital for the Paralysed and Epileptic has received £100 from Miss L. Warrington, £50 from the Duke of Bedford, and £50 from Miss Green, towards building and furnishing the new wing; and £50 additional, from the Misses S. S., to be applied as most required.—The National Hospital for Consumption at Ventnor has received £300, under the will of Miss Martha Reife.—The Royal Hospital for Children and Women has received £300, and the Middlesex Hospital £50, from the residuary legatee under the will of Miss Adelaide Neilson.—The Home for Incurable Children, at Maida Vale, has received £73 6s. 6d. in aid of the building fund, being the proceeds of a private subscription ball at the New Town Hall, Kensington.

GLOMERULO-NEPHRITIS.

By D. J. LEECH, M.D.,
Physician to the Royal Infirmary, Manchester.

For many years it has been known that the glomeruli are a special seat of lesion in certain cases of post scarlatinal nephritis; and Klebs separated the form in which this was the case from other forms of nephritis under the head of glomerulo-nephritis. He found here, accumulated between the capsule and the glomerulus, angular nuclei embedded in a finely granular mass, and the vessels of the glomeruli covered by nuclear masses.

Dr. Klein, in his well known account of the minute anatomy of scarlet fever, has shown that glomerular changes not only play a very important part in the tissue-alterations met with in the kidney in this disease, but occur at a very early stage. Like Klebs, he found an accumulation of nuclei between the glomerulus and the capsule, and an increase in the nuclei in the glomerulus itself; but, whilst Klebs attributed the cell-growth to proliferation of the connective tissue between the capillaries forming the glomerulus, Dr. Klein looked upon it as due to the proliferation of the epithelium lining the capsule and the glomerulus, and to a germination of the nuclei in the walls of the capillary vessels.

Very recently, it has been pointed out that glomerular changes very similar to, if not identical with, those observed in the scarlatinal kidney are met with in other forms of nephritis. Langhans, in the seventy-sixth volume of Virchow's *Archiv*, has described several cases of the kind; and Dr. Greenfield, under the head of subacute interstitial, describes a form of nephritis in which the clinical symptoms are those of acute desquamative nephritis, but to the naked eye the kidney resembles the large white, or the kidney of scarlatinal nephritis; whilst, on microscopic examination, interstitial change with affection of the glomeruli is found. He states, however, that the changes do not so distinctly commence in and around the Malpighian bodies, but more generally throughout the intertubular spaces. During the past eighteen months, three cases have come under my notice which, in most respects, correspond to those included by Dr. Greenfield under the head of interstitial nephritis, but in which, it seems to me, the glomerular change, as in post-scarlatinal nephritis, is the most prominent and essential feature of the lesion. I have ventured to allude to them as cases of glomerulo-nephritis, in order to indicate this prominence, though I know that objection may be taken to this term, for, in all three, interstitial and tubular changes, as well as glomerular, were present. I will briefly state the leading features of the cases, together with the pathological changes found after death.

Case I.—J. E. L., a boy aged 17, was admitted into the Manchester Royal Infirmary on April 28th, 1879, suffering from albuminuria and excessive anasarca. No history could be obtained of previous syphilis, excess of alcohol, or infectious disorder. Fourteen weeks before admission, after a fall on the ice, an abscess formed in the left gluteal region, which discharged for some time after it was opened. Eight weeks before he came under my care, he noticed, for the first time in his life, a swelling of his feet, which soon spread to the legs, arms, and face. He lost ground very rapidly; the anasarca became very pronounced, the anæmia very marked, and he suffered from vomiting.

On admission, he was extremely white, and the tissues of his body were enormously distended with fluid. The area of superficial cardiac dulness was slightly enlarged, but there were no indications of considerable cardiac hypertrophy. He coughed frequently, and expectorated a little mucus. The scanty urine had a specific gravity of 1018; it contained much albumen and a little blood. In the deposit from it were found epithelial and granular casts. He died somewhat suddenly, apparently from lung-œdema, four days after admission. The average daily excretion of urine whilst he was in hospital was only twenty-six ounces.

At the necropsy, the heart was found slightly enlarged, the walls of the left ventricle being distinctly, but not greatly, thickened. The kidneys had the ordinary appearances of the large white kidney. The capsule stripped off easily; the cortex was thickened, and of a yellowish white colour.

On microscopic examination, it was found that the Malpighian bodies were the chief seat of the change. Within the capsules of almost all of them a considerable cell-growth had taken place, which had assumed a more or less fibroid appearance; the capsule itself seemed thickened, and blended undistinguishably from the adjacent structures. In some of the glomeruli, a thick fibroid and nucleated tissue was in close contact with the glomeruli, on which it appeared to press; the glomeruli themselves being squeezed to half or one-third their size. (Fig. 1.) In others, the growth between the capsule and

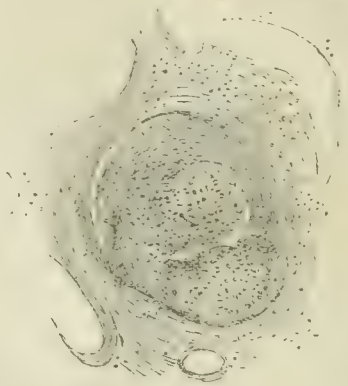


Fig. 1.

glomeruli seemed to consist of cells with elongated nuclei, arranged parallel to the capsular epithelium, with which it was continuous, and from which it appeared to spring; and all stages between this and the appearance represented in Fig. 1 were to be met with.

In very few places unattached cells or nuclei were seen, though in some of the least affected glomeruli, epithelial cell-proliferation seemed to have taken place.

The intervening tissue is some glomeruli cemented the capsules firmly to the glomeruli. In others spaces appeared between it and the capsule, or the glomeruli, or both, as represented in the drawing.

In all the new tissue dipped between the lobules of the glomeruli, appearing in some to cut the glomeruli into segments, hardly any healthy glomeruli were to be met with. In a few, the nuclei were unduly abundant; but in most they were less distinct than in the normal state, the glomeruli seeming to have undergone hyalin or fibroid change. Considerable interstitial change was present, especially round the Malpighian bodies outside the capsules; but it was also well seen between the convoluted tubes; some parenchymatous change was also present, and in some of the tubes casts could be seen. The vessels of the cortex exhibited but slight change. There might be a little increase of the muscle-nuclei, and thickening of the intima in some, but the change did not appear very considerable.

Case II.—In my second case, the glomerular alterations were not so advanced, though the illness had run a longer course. F. F., a man aged 26, had enjoyed good health until five months before admission to the Manchester Infirmary. There was a history of alcoholic excess, none of syphilis or infectious disease. Five months before, he noticed that his legs and abdomen were slightly swelled; yet for two months he continued, as he thought, in fair health. Then, for the first time, he noticed his urine brown and scanty, and he felt ill.

When he came under my care, on May 27th, 1879, there was considerable general œdema and ascites. There was no increase of the superficial cardiac dulness, but he had an accentuated second sound at the aortic cartilage. He suffered slightly from bronchitis. The urine was scanty, amounting to from eight to fourteen ounces daily. It contained much albumen and a little blood. In the abundant deposit from it were found epithelial casts, free cells, and hyaline casts. The man continued under my care till June 15th, when he died from uræmia within six months of the first appearance of dropsy. He never once passed above thirty-two ounces in twenty-four hours, often much less. The specific gravity varied from 1012 to 1017. Towards the fatal termination, the amount of albumen in the urine became very large.

At the *post-mortem* examination, the heart weighed thirteen ounces; both cavities were somewhat dilated, and the thickened walls seemed streaky, mottled, and easily torn. The kidneys were very large. Their outer surface was smooth and mottled; the capsule stripped easily. On section, the cortex was increased in thickness, yellowish-grey in colour, and contrasted strongly with the dark-coloured pyramids.

The microscopic examination showed that the glomeruli were largely involved in the lesion, much parenchymatous and some interstitial

change being also present. The glomerular affection differed somewhat from that observed in the first case. The cell-growth, with fibroid appearance, was much less distinct, adjacent to the capsule. The capsule itself was thickened, and several layers of spindle-shaped cells were found lining the capsule in many of the Malpighian bodies. Inside this were nuclei more or less free, round or oval; and further inwards, in many glomeruli, a second fibroid arrangement of the cells, most advanced near the glomerulus, sometimes in contact with it, but often slightly separated from it. (Fig. 3.) Many of the glomeruli were divided into segments, the fibroid tissue seeming to penetrate between the component lobes. Some of the glomeruli were little, if at all, affected; in others, the cell-growth had not assumed a fibroid change, and it seemed to me that all stages of its development from the glomerular and capsular epithelium could be traced. The glomeruli themselves were not nearly so much altered as in the first case, the nuclei being in some instances unduly abundant, in some normal; whilst in some, fibroid and hyaline changes had occurred. Parenchymatous, as well as glomerular, changes were very marked, and there were also some interstitial changes, especially around the capsule. Figs. 2, 3, and 4, represent different stages observed in the capsular contents. Like Fig. 1, they have been drawn for me by Dr. Bary, from sections shown the Pathological Museum.*

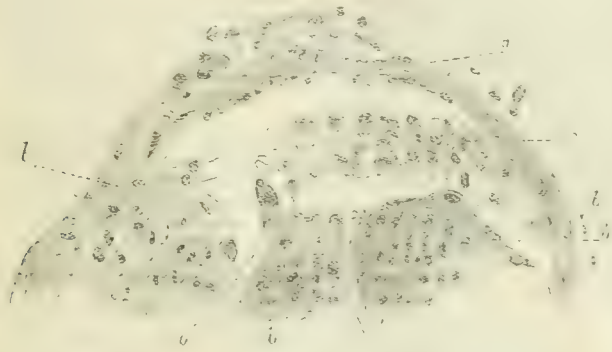


Fig. 2.

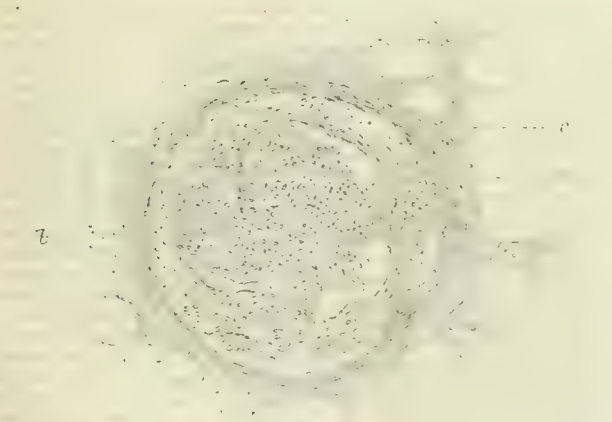


Fig. 3.

In Fig. 2, an early condition is seen; epithelial increase appears to have taken place, both on the capsular and glomerular surfaces (*a* and *b*, Fig. 2), whilst at *c* there is a collection of nuclei, in the granular material, to which the epithelium of capsule and glomerulus seem contributing. At *b'*, large nucleated cells, one having a double nucleus, are very noticeable.

In Fig. 3, a more advanced condition is seen. The growth at *b*, close to the glomerulus, and at *c*, adjacent to the capsule, is more fibrous in appearance than in the intermediate position.

In Fig. 4, a still later stage is shown; the growth between glomerulus and capsule is more fibrous, but where it is separated from the capsule, nuclei, some free, some united in small masses, are seen.

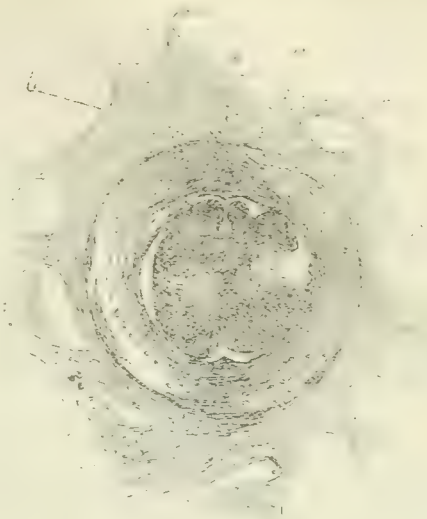


Fig. 4.

CASE III.—For the third case, I am indebted to my colleague, Dr. Dreschfeld, under whose care T. M., aged 24, was admitted into hospital on June 17th, 1879. He stated that he had suffered for a week from swelling of the legs, headache, and vomiting; before this, he said he had enjoyed good health, but some faint cicatrices on the penis showed that he probably had suffered from syphilis at one time. The urine was loaded with albumen, scanty, and had a specific gravity of 1015; it contained blood and epithelial casts. At first, he improved somewhat under active purgation, and the urine increased in amount, though it never became normal; but during the third week of residence in hospital, he became worse. The general œdema increased; the urine became less copious, was more albuminous, and of lower specific gravity. Diuretics, vapour-baths, etc., failed to give relief, and the man died on the 5th of September, three months after the first symptoms of kidney-disease showed themselves.

At the *post mortem* examination, the heart was found normal; the kidneys looked like the large white variety, but, under the microscope, glomerular changes were very manifest. Interstitial change, too, was well marked, but parenchymatous alterations, though present, were slight. The glomerular alterations were very similar to those observed in the last case, but less advanced, that is to say, there was less of that fibroid appearance which was well marked in the cell-accumulations between capsule and glomerulus in the first two cases, but the thickening of the intima and the proliferation of the muscle-cells in the arterial coat was better seen than in either of the other cases.

The three cases I have recorded presented very similar clinical symptoms. They ran a course of two to six months. In all, general œdema was a conspicuous symptom, and the urine, small in quantity and of low specific gravity, contained a large amount of albumen. In none of them was the heart considerably hypertrophied. Pathologically, too, they resembled one another in this, that the glomerular changes seemed to depend on cell-accumulation between the glomerulus and the capsule, which assumed, to a greater or less extent, a fibroid appearance, and eventually led to destruction of the function of the glomerulus.

The changes resemble those which are met with in scarlatinal nephritis. The origin of the cell-accumulation and fibroid appearance which is observed in scarlatinal nephritis and the cases I have recorded is difficult to determine. There are three views held on this point.

1. It arises from proliferation of the connective tissue contained in the glomerulus, as held by Klebs.

2. It is due to wandering leucocytes.

3. It is the effect of proliferation of the epithelium which lines the capsule and also the glomerulus.

The latter view is the one which Dr. Klein advanced in explanation of the appearance presented by his scarlatinal cases, and it is the one,

* Cambridge Meeting of the Association.

too, to which the examination of my own cases and sections from the kidneys of those dying of scarlatinal nephritis leads me.

I believe that the fibroid appearance which I have mentioned is due to the flattened condition of the proliferated epithelial cells arising partly from natural mode of growth, partly from pressure, and that this change may take place both in the epithelial cells from the glomerular surface and in that of the capsular surface. I think, however, that the epithelial change is not the only source of cell-accumulation, but that wandering leucocytes take part in the process; for in some instances I see collections of round cells without corresponding changes in the adjacent epithelium. I doubt whether the cell-elements are derived from the interstitial tissue contained in the glomerulus: firstly, because the appearance of the cell-growth between the glomerulus and the capsule appears to me to betoken, as I have said, an epithelial origin; secondly, because it appears to me not yet proved that interstitial tissue exists in the glomerulus. It is true that Axel Key has asserted its presence; and recently Dr. Waller, in a paper on Scarlatinal Nephritis in the *Journal of Anatomy and Physiology*, has stated that the connective tissue can easily be shown by injecting the fresh kidney with gelatin tinged with carmine, and then staining with logwood. I have certainly failed to find proof of its existence in this way, and it has to be remembered that there are many sources of fallacy in the examination.

Langhans, in the paper to which I have referred, has lately given the result of his examinations of the constitution of glomeruli; and he is wholly unable to detect any connective tissue in the glomerulus, further than the division of the vas afferens. Runebergs, too, who has still more recently studied the structure of the glomerulus, is unable to find in it connective tissue.

There was a very marked distinction in the appearance of the glomeruli in the first case, and in the second and third cases. In the first, the changes seem largely connected with the capsular epithelium, though there were in many parts indications that the glomerular epithelium was also affected. In the second and third cases, whilst the capsule was thickened, and its epithelium considerably changed, the cell-accumulation seemed connected for the most part rather with the epithelium covering the glomeruli, than with that over the capsules.

Langhans has distinguished three kinds of structural alteration in the glomeruli: 1. Glomerular, where the proliferation of the glomerular epithelium takes place; 2. Capsular, where the capsular epithelium is the chief seat of proliferation; 3. Swelling of the capillary nuclei. Of the third form I have met with no examples, but I think the cases I have described bear a close relation to the two first divisions he has drawn, but that both changes are apt to occur together.

In the cases I have brought under notice, the glomeruli themselves have evidently undergone great changes apart from epithelial alterations. In some, the nuclei seem unduly numerous; in some, the glomeruli seem changed into fibrous tissue. The increase of the nuclei may be due to proliferation of the epithelium deeply seated within the glomerulus, or to increase in the capillary nuclei. The fibrous appearance may be due to simple obsolescence from pressure.

Dr. Klein has described a hyaline change as taking place early in the capillaries of the glomeruli in scarlatinal nephritis.

The cause of the special implication of the Malpighian corpuscle in glomerulo-nephritis can only be guessed at; but, if we look upon the capsular epithelium as being a continuation of the epithelium lining the tubules, as some hold it to be, then we may consider the glomerular nephritis as allied rather with parenchymatous than interstitial affections; but, like parenchymatous nephritis, it is usually accompanied by interstitial changes.

Dr. Klein seems to consider the glomerular affection as secondary to the blocking up of the afferent arteries, owing to changes in the arterial coat; but the arterial changes met with in many cases do not seem to me sufficiently great to lead to this result.

With regard to the effect of changes in the capsule and its epithelium, and in the glomerulus and its epithelium, it is evident that we may possibly have different results, if, as seems probable, these changes can occur separately, or one can greatly predominate over the other. Of course, in late stages, when the surfaces of the glomerules and capsules are united, the function of the glomerules is abolished; but, in an earlier stage, effects of capsular changes may possibly differ from those of glomerular epithelial changes, and eventually be recognised clinically.

There seems every probability that the albumen present in the urine in nephritis transudes through the glomeruli; and Lépine, in a recent article on the pathogenesis of albuminuria, in the *Revue Mensuelle*, sums up evidence giving fair ground for the belief that this transudation is probably connected with alteration in the epithelium lining the glomerulus, which he believes has much to do in health in preventing this transudation.

On the other hand, we might expect that capsular changes would only influence slightly the passage of albumen into the blood. Now we find, in cirrhosis of the kidney, where the capsules are commonly found greatly thickened, but extensive glomerular epithelial changes do not seem to be present, that the urine is copious, and the amount of albumen it contains small, until a late period of the disease is reached. It may be, of course, that a large number of glomeruli escape affection till a late stage, but the absence of any effect of capsular change on the amount of urine and albumen passed, seems to me the more probable explanation; whilst the fact that, in the cases where I have found a glomerular epithelium affected the albumen has been copious, leads me to think that this structural change may be at least one of the conditions, though by no means the only one which influences the amount of albumen present in the urine.

In Cases I and II, the amount of albumen was not due to undue vascular pressure, for the sphygmographic tracing registered no indication of increased tension. On the arterial condition in the third case, I have no record. In all these cases, the rapidity with which the patients succumbed seemed to be dependent on the glomerular affection. In Case I, where it was most extensive and advanced, life lasted the shortest time. The rapidity with which intrascapular growth can occur is very remarkable. Unless we are to suppose that it can exist without giving rise to symptoms—a most improbable supposition—it would appear that in Case I two months was sufficient for the advent of most extensive and advanced glomerular nephritis. In this case, too, the influence of glomerular changes on the production of dropsy was very plain. I never before met with such enormous anasarca.

The cases which I have brought forward seem to indicate that the glomerular changes may play a most important part in the production of the clinical phenomena in Bright's disease; and it is somewhat remarkable that, until a very recent period, these changes have not received that attention to which, it seems to me, they are entitled.

ON THE TREATMENT OF UTERINE FLEXIONS.

By HENRY GERVIS, M.D., F.R.C.P.,

Obstetric Physician to St. Thomas's Hospital; Examiner in Obstetric Medicine at the University of London; and the Royal College of Physicians.

I PROPOSE in this paper to bring forward a few practical observations on the subject of uterine flexions. On its general pathology, I do not wish to say anything beyond expressing my agreement with the proposition laid down by Dr. Graily Hewitt, that, in cases of acquired flexion, an unhealthy condition of the uterine tissue, an "undue softness", connected probably in a large proportion of cases with general malnutrition, is the condition antecedent to the bend; and I would add my belief, that the recognition of this factor is of primary importance in relation to the treatment. A healthy uterus may be displaced as a result of a change in the correlation of its supports; but a healthy uterus will not, I believe, bend upon itself as a result of any force which may be applied to it, unless its normal firmness and resiliency be diminished or lost. One other general remark I would make is this, that the importance of flexions depends very much upon the amount of obstruction in the utero-cervical canal produced by the bend. If there be no obstruction, I believe the bend, *per se*, to be in many cases, at all events, of small consequence; but, if there be obstruction, and in direct proportion to its amount, then a series of pathological results follows, including obstructive dysmenorrhœa, endometritis, uterine hyperplasia, ovarian irritation, and pelvic hyperæmia. Thus, I have been consulted in many cases of sterility, as to its probable cause; and, on making examination, I have found distinct flexion in the uterus, but no evidence of any other disease whatever; and no complaint of any interference with menstruation, no local pains, and no difficulty in locomotion. In some of these cases which I have had the opportunity of watching, the reposition of the uterus, and its maintenance in a correct position by a pessary, has not resulted in the issue wished; and so, probably, the malposition was not the cause of the sterility, as certainly as it was not of any other pathological conditions. I do not wish by these remarks to be supposed to undervalue the importance of flexions. On the contrary, I believe that, in the large majority of cases, they are conditions of extreme importance; but I believe that importance is in direct proportion to the obstruction produced, and that, in the few cases in which there is no obstruction, the direction in which the fundus uteri looks is of small consequence.

In the majority of text-books, the treatment of flexions is described, without any guidance as to its applicability in individual cases; and I believe this is why disappointment is frequently experienced by practi-

tioners in the results of their treatment. Flexions are directed to be treated by certain means, but the cases are not sufficiently particularised as to their suitability for one sort of treatment rather than another.

Firstly, as to cases of retroflexion. I would suggest, for practical purposes, the division of these flexions into three classes: 1. Those in which the uterus is capable of reposition, and, when replaced, fairly retaining, with suitable external support, the normal position; 2. Those capable of reposition, but resuming the faulty position on the withdrawal of the replacing force; 3. Those incapable of reposition, either from the presence of adhesions, or from the permanently damaged condition of the uterine tissue at the site of the bend.

The first class obviously includes the more recent and the more hopeful cases, and in these, the line of treatment which yields the best results is I think as follows. The question of capability of reposition has of course been first settled by the use of the sound, and the general conditions of the case investigated. Sometimes, indeed, without the use of the sound, if much parametric exudation be found to be present, it may be evident that, for a time at all events, until some impression has been made upon the exudation, it will be useless to attempt reposition. But, supposing that no such exudation be found, and no other obvious obstacle to reposition, and that examination simply reveals the existence of a flexion more or less acute, there still remains certain preliminary treatment before commencing systematic reposition. Attention to the bowels is of considerable importance, a loaded rectum being a serious obstacle to all pelvic manipulation. Not less important is the removal of any acute congestion of the uterus or vagina by rest, tepid irrigation, salines, and in some cases even leeching, before commencing mechanical treatment. If, however, there be endometritis present, I think it best not to treat it by local intra-uterine applications until the uterus is in better position. I have frequently known a remarkable improvement occur in the condition of the lining of the uterus, solely as a result of the restoration of the uterus to its normal position, without any local treatment whatever. As much of local congestion, therefore, as possible being removed by such measures as I have indicated, the replacement of the uterus is proceeded with.

There are various methods adopted by different practitioners with this object in view. Some attempt it by digital pressure applied to the fundus, either *per rectum* or *per vaginam*; some by various modifications of the postural method, aided or not by fundal pressure; while others employ some variety of sound. And, on the whole, the use of the sound is, I think, the most effectual method, and, when employed with care and dexterity, is attended but very rarely with any untoward results. Reposition with the sound may be effected in some cases by using it simply as a lever, after introduction carrying the handle gently backwards; in others, by accomplishing a careful rotation of the handle; but, in both ways, much advantage is gained by a simultaneous pressure on the fundus by one or two fingers introduced into the vagina. Indeed, many cases which appear to resist either digital pressure or the sound separately, will yield readily to the combination. When in this manner the uterus is placed in normal position, in the class of cases under consideration, on the withdrawal of the sound, it does not fall at once back into its faulty position, although it probably would do so were the patient to move about, and no support be given to the uterus. But at once a pessary is introduced. The pessary I use, in the large majority of cases, is a vulcanite Hodge's, with a square front, and the sides curving considerably upwards to the posterior bar. The advantage of the square front is, that it lies well behind the symphysis, with which it is parallel, so that any incorrectness of position can be at once recognised at any future examination. With the circular-fronted pessaries, this is not so; it is extremely difficult, indeed, with such to be certain that they are in proper position; and the objections to the pessaries narrowing to a point in front which projects under the pubic arch, are obvious, at all events, in the case of married women. One object of the treatment is now obtained; the uterus has been straightened, and is maintained in its proper position by external support. It remains to adopt measures to so strengthen its tissues, that it may in time be able to maintain its position without external support. To this end, both local and general tonic measures are adopted suitable to each case. If there be endometritis present, its cure will be facilitated by the use of appropriate intra-uterine applications, although in many cases I have found, as already mentioned, the endometrial symptoms gradually disappear after the rectification of the malposition.

Beyond this, it is important from time to time to make sure that the uterus is maintaining its correct position, and that the means used to rectify its want of tonicity are proving effectual. And if, from digital examination, it is obvious that the further use of the sound is unnecessary, it will yet be advisable every few weeks to remove the pessary, to wash and replace it; pessaries which have remained in position too long without removal having, as is well known, often led to ulceration of the vagina, and sometimes the production of fistulæ.

And, finally, after a time varying with each case from three to twelve months, it will be well to remove the pessary, and allow the patient to be without it for a week or two, and so test the ability of the uterus to retain without extraneous support its normal position. And, even after such trial, and the uterus found remaining in its normal position, it is advisable to warn the patient of the possible relapse which might follow impairment of general health, or any overstrain on the pelvic viscera. Of the second class of cases—those capable of replacement, but resuming their faulty position on the withdrawal of the replacing force—the preliminary treatment remains the same; but the further treatment differs in regard to the frequency with which reposition is effected; and the prognosis varies with the condition of the tissue at the seat of the bend and the progress of the case under treatment. In the previous class of cases, after reposition is once effected, the sound may never have to be used again, if by digital examination the position be found obviously good; but, in the class now under consideration, the regular use of the sound is an essential part of the treatment. At least once a month the uterus should be straightened, and the accurate fitting of the Hodge's pessary carefully tested. The adoption of the prone position should also be encouraged, and the tonicity of the uterus especially cared for by external and internal applications, apart from any question of uterine catarrh.

The third class includes those cases in which the attempts at reposition are unavailing, from the presence of adhesions. These adhesions may have resulted from bygone pelvic peritonitis, or parametritis, of which the previously flexed uterus itself may have been the predisposing cause; or from pelvic inflammation, following miscarriage, the result also, possibly, of the flexion. In some cases an enlarged ovary will be found by the side of the uterus, more or less adherent to it, and adding to the difficulty of reposition. These cases are not numerous, but are certainly met with from time to time, and I have known several instances of acute and dangerous symptoms arising from forcible attempts in such at reposition. Something, however, may be sometimes done towards encouraging absorption of the exudations and so freeing the uterus; and if this fails, still some relief is often gained by such support of the fundus as can be attained by wearing a pessary, and if menstrual disorders are severe, the patency of the canal can be insured by the use of the uterine bougies, and their severity thus mitigated, if not cured; and finally, in some cases there remains the question of the bilateral division of the cervix.

Secondly, with respect to cases of anteflexion, the variety of pessaries recommended, and the frequent disappointment experienced, are, I think, sufficient indications of the difficulty met with in maintaining the uterus in position when once it has bent forward. The classification suggested for cases of retroflexion is not equally serviceable for these. It is much rarer, on the one hand, to find cases of anteflexion, which, when straightened by the sound, retain even for a short time the normal position; and on the other it is also rare to meet with cases of anteflexion, in which temporary reposition is opposed by adhesions. It should be noted, however, that cases are sometimes met with in which the uterus is so soft that at one time it is found in anteflexion and another in retroversion. In a much larger number of cases of anteflexion than of retroflexion, the defect is either congenital, or dating from early life, and not unfrequently associated with a conical cervix and small os. The difficulty of applying adequate external support to the anteflected uterus appears to arise very much from the shallowness of the anterior vaginal *cul-de-sac*; and this difficulty applies more or less to all varieties of external support. The two with which I am most familiar are Dr. Hewitt's and Dr. Thomas's. I have used both in numerous cases; but the number in which their use has cured the patient has been extremely small. They both undoubtedly give support to the simply anteverted uterus, especially if it be associated with some general prolapsus; but they frequently fail, even partially, to rectify anteflexion.

The stem pessaries, although keeping the uterus straight when flexed upon itself, have proved so frequently sources of endometrial inflammation, and where they have to be removed during the catamenial flow are so obviously unsatisfactory that I have not largely used them. But adopting the principle that the patency of the cervical canal is the chiefly important matter, I have for some time now treated these cases mainly by securing dilatation of the cervix by the uterine bougies, supplementing this in some by the use of an elastic ring pessary, which appears sometimes to add to the patient's general comfort, although by itself alone doing little or nothing to relieve her menstrual disorders. I begin, shortly after a period, with one of the lower numbers, according to the condition of the canal, in a few days passing the next in size, and in a few days again one larger still; on each

occasion leaving the bougie *in situ* for about ten minutes. Within ten days before a period, it is not advisable to use the bougies. The process is repeated, until No. 12 can be passed easily. In some cases, those especially of corporeo-cervical anteflexion, the process is undoubtedly a painful one; and in any, it may have to be intermitted occasionally for acute congestive symptoms; and in all it is needless to say it must be employed with judgment. I can but add that, in a very large number of cases the result has been highly satisfactory, and followed by distinct alleviation of the worst symptoms of the flexion, direct and indirect. In conjunction with this mechanical treatment, attention is also paid to whatever may be the associated pathological condition of the uterus. If, for example, there be endometritis, it is quite appropriate to carry out suitable intrauterine applications in the usual manner. Any associated disorders of the vagina or bladder may also be treated concurrently: and it is almost needless to add that attention to the general health is invariably considered of the first importance.

Note. June, 1881. Since the above was read at the Cambridge meeting last August, I have been using, for cases of retroflexion of the uterus, a modification of Hodge's pessary which has given me much satisfaction. In all the Hodge's pessaries with which I am familiar, the sacral end, which supports the fundus uteri, is more or less rounded. The result is a constant tendency on the part of the fundus uteri when resting on it to slip to one or other side. The posterior aspect of the fundus being rounded, and the pessary rounded also, it can only give the uterus support at the point of contact. I have therefore had the sacral or upper cross-bar of the pessary made with a central depression, the convexity looking downwards instead of upwards. On this the uterus securely rests; and while a steady equable pressure is thus maintained by the pessary on the fundus, all lateral shifting of the instrument is obviated. These new pessaries are made by Messrs. Walters, of Palace Road, Lambeth.

THE DIRECT METHOD OF ARTIFICIAL RESPIRATIOIN FOR THE TREATMENT OF THE DROWNED, STILL-BIRTH, ETC.

By BENJAMIN HOWARD, A.M., M.D., F.R.C.S.Ed.

II.

COMPARED with the apnœa from drowning and with that from chloroform narcosis, the apnœa of the newly born presents features different and distinctive.

In contrast with other methods, each of which has but one process alike for the drowned adult, for the still-born infant, and for all other cases of apnœa whatsoever, the direct method has, for still-birth and for apnœa from other causes respectively, adaptations and provisions correspondingly different and distinctive.

Of the principal distinctive conditions in apnœa neonatorum requiring special modifications of the ordinary treatment for apnœa, may be mentioned:

1. The continued maternal continuance of the circulation in the funis;
2. The undeveloped state of the lungs.

In view of the maternal continuance of the fœtal life in apnœa neonatorum, the ability to continue the treatment for the respiratory life, without the first and customary sacrifice of the fœtal life, must be admitted to be of no small importance. The lungs having never been used are objectively, I think, less readily receptive of air in response to the ordinary mechanical means of artificial respiration. The early and regular alternation of insufflation with these means, therefore, greatly promotes and ensures an exchange of air, the failure to obtain which may otherwise be complete, and also unnoticed. Both these important desiderata, though impossible by other methods, will be found to be easily practicable by the direct method; and this before the division of the funis, as well as after it.

Of other distinctive subjective conditions, the undeveloped state of the respiratory muscles may be noticed in passing, the medium between the costal and abdominal, after the manner of Sylvester, and the alleged consequent thoracic expansion, being therefore comparatively wanting. *Per contra*, the very incomplete ossification of the ribs renders the entire lower part of the chest particularly susceptible to the direct compression by arms, shoulders, etc., peculiar to the method under consideration. Assuming that the direct method, as it has been explained by me, for the treatment of the drowned (see BRITISH MEDICAL JOURNAL for June 18th, 1881, if not already familiar, it is needless to say that the treatment to be described for apnœa neonatorum is, of course, simply an adaptation by which the same principles may be applied, with the greatest convenience, in the very different conditions of still-birth. Briefly stated, the infant's body rests in the left hand of the operator as to make the chest prominent, the shoulders rather dependent, and the head hang free; while the thoracic compression is made at will by the right hand. Also: in addition to anything attempted or practicable by other methods, insufflation and the movements for expiration are easily and rhythmically practised before division of the funis, when expedient, as readily as afterwards.

Although the treatment of apnœa neonatorum, unlike that of the drowned, falls to those only who, being more or less expert, require suggestion rather than direction, it may not be amiss to describe more in detail the course which I have more generally been accustomed to follow.



Assuming, then, the possibility of some remaining circulation in the funis, and that smart slaps, alternate dashes of hot and cold water, etc., have failed to awake natural respiration, I receive the child in the left hand—so that its buttocks rest upon the fingers, and its head falls by its own weight over the forearm or wrist. The little thorax, thus brought prominently forwards, is grasped by the right hand (as seen in the accompanying engraving), by which the desired compression is readily located, distributed, and alternated, as may be expedient. As a rule, the compression is made gradually and thoroughly in about three seconds; then, suddenly letting go, I rest about three seconds, to allow a complete rebound; then repeat the bellows-movement at about the rate of ten or twelve a minute. If within the first minute or two there be still no natural respiration, I get an assistant at once to practise mouth-to-mouth insufflation in the following manner. The mouth of the infant having been thoroughly cleansed and dried, the assistant closes the nostrils of the infant with one hand, while the forefinger of the other hooks forward the tongue—the middle or little finger meanwhile pressing firmly back the larynx. Mouth-to-mouth insufflation of fresh air being now steadily and forcibly made, none of the air will pass down the œsophagus, but will so directly enter the lungs that the entire thorax may be seen so to expand that, in many cases, the lower intercostal depressions will be quite obliterated. At first, it is well to make the insufflations alternate with the compressions regularly, and so continue this for about five minutes. By this time, any good which may have been hoped for from the maternal connection has almost certainly ceased, and the funis may be divided. The artificial respiration, with regular or only occasional alternations of insufflation, may now be resorted to; and, if preferred, with all but the head of the infant in a warm bath, or covered loosely with flannel. Without interrupting the process, friction-electricity also, or, if desired, even tracheotomy, may now be superadded, according to the preference of the operator, each one of which may be practised without interfering with the other. The position of the infant's head, which should, as nearly as possible, be that of utmost extension, as I have elsewhere described (see *Proceedings of the Royal Medical and Chirurgical Society*, part 67, page 332, and BRITISH MEDICAL JOURNAL, June 18th, 1881) not only ensures the complete raising of the epiglottis, but also increases the antero-posterior diameter of the entire pharyngeal air-way to the glottis. By this position, too, the mouth of the infant is most conveniently accessible to the assistant, who, on the other hand, is quite out of the way of the principal operator.

So much for a mere outline of my own general procedure in an average case. Respecting the time for dividing the funis, and many other details, probably no two persons would precisely agree—nor is it important that they should. Indeed, in cases like these, where every resource can be on hand in advance, few practitioners of experience would be content to confine themselves to any single course: hence the convenience to such of the direct method, which, in contrast to other methods, maintains respiration in a way so simple as to allow almost any other means of resuscitation whatsoever to be used, at discretion, simultaneously.

A curious confirmation of the efficacy of the head-down position is afforded by an old empirical German custom, which I have noticed particularly in Bonn. It consists simply in swinging the infant by the heels, describing a half-circle, as many times as may seem desirable. I was assured the plan was frequently successful; and the explanation of its *modus operandi*, as given in the direct method, concerning the opening of the glottis thus induced, has been fully appreciated there. This, with the changing relations of the diaphragm, makes it clear how this procedure may have come to be regarded as an effective one.

In the physiological laboratory, the superfluous motions of the methods of artificial respiration, which have been in vogue for persons, have never been practised. In the most prolonged vivisections and experiments, simple direct thoracic compression, and, if necessary, tracheotomy, with alternate inflation, perhaps, have always been and are still the only and constant reliance.

Besides certain other incidental advantages, I think I have shown :

1. That the compression attempted by other methods is, by the direct method, easier, more complete, and better regulated.

2. That, in addition to what is attempted, or is possible, in other methods, everything pertaining to the direct method is practicable before, as well as after, division of the funis.

3. That it provides for easy and thorough insufflation.

4. That it is compatible with the simultaneous use of every other adjunctive procedure.

Although the direct method, in its application to apnœa neonatorum, has been but little promulgated, compared with its rules for the treatment of the drowned, the experience with it in England, as well as in the United States, has so far more than confirmed its superior advantages as above indicated.

CHAULMOOGRA-OIL AND GYNOCARDIC ACID IN THE TREATMENT OF SKIN-DISEASES.

By WYNDHAM COTTLE, M.A., M.B.Oxon., F.R.C.S.Eng.,

Senior Assistant-Surgeon to the Hospital for Diseases of the Skin, Blackfriars.

THE high opinion I had formed of chaulmoogra-oil, both as an internal remedy and as a local application in some cutaneous affections, led me to expect that its active principle—gynocardic acid—when freed from the other constituents of the oil, would give results both more uniform and energetic. I have used chaulmoogra-oil and gynocardic acid side by side, and the following summary of the results of my experience of them may, I hope, lead other observers to make trial of these agents, and add to our knowledge of their action. When given internally, gynocardic acid appears to be assimilated, and but rarely produces nausea—in this respect being less objectionable than chaulmoogra-oil. In nearly all cases, the nutrition of the body seems to improve while either the oil or the acid derived from it is being taken, and a gain in weight is sometimes noticeable. It is especially beneficial in diseases depending on general malnutrition. Rheumatism and gout have been found to improve rapidly under the use of chaulmoogra-oil; and it is of undoubted efficacy, too, in some late forms of syphilis. The difficulty of giving chaulmoogra oil, owing to its taste and odour, and the necessity of ordering it in perles, have militated against its general employment. The substitution of gynocardic acid, which can readily be given in the shape of pills, will remove these objections, and bring it within the sphere of practical medicine.

Applied locally, chaulmoogra-oil and gynocardic acid are demulcent and lubricant; but, like all greasy substances, act more benignly when the acute stages of inflammatory action have passed.

Leprosy.—I have had the opportunity of trying gynocardic acid in but one case of this disease. The patient had been taking chaulmoogra-oil in large doses for over a year; and the complaint had passed into a quiescent state, with gradual amelioration of the symptoms, and without experiencing a relapse. He took three grains of gynocardic acid daily for about four months, and felt no inconvenience. During this time, the skin-staining faded somewhat, and the areas of anæsthesia contracted and became less pronounced.

Psoriasis.—Chaulmoogra-oil and gynocardic acid are not sufficiently stimulating as local applications to cause any marked improvement in the ordinary chronic cases of this disease. Where much burning and pain are present, or the tracts of inflamed skin are stiff and fissured, I have found an ointment of one to two drachms of chaulmoogra-oil with an ounce of vaseline, or of about twenty-five grains of gynocardic acid in an ounce of vaseline, applied three or four times daily, give great relief and promote healthy action in the part. The internal remedies suitable to each case should be employed simultaneously, and gynocardic acid may generally be given internally with advantage.

In lichen planus, in lichen scrofulosorum, and in some cases of relapsing prurigo, a similar use of chaulmoogra-oil or gynocardic acid often acts most beneficially, in conjunction with the appropriate internal treatment.

Eczema.—After treating a large number of cases of this disease with chaulmoogra-oil or gynocardic acid, I find it is as a local application in some forms of this most frequent of skin-diseases that both chaulmoogra-oil and gynocardic acid are such valuable servants. In persons with delicate skins, the portions of the cutaneous surface that are uncovered, or exposed to the action of accidental irritants, as the face, the hands, and the arms, are peculiarly liable to attacks of painful and most troublesome eczema. In these situations, often from the difficulty of removing the exciting cause, such an inflammation is frequently most rebellious under treatment, and very apt to recur. When eczema affects the face, it is sometimes acute, and generally intolerant of local applications. In such cases as these, and in the more chronic form, when it shows itself as patches of dry eczema, I have found an ointment of gynocardic acid of from fifteen to twenty-five grains to the ounce of vaseline almost a specific, when most of the ordinary applications in use only served to aggravate the local mischief. The ointment should be applied three or four times daily, so as to keep the affected parts lubricated with it. Again, in eczema of the hands, such an ointment is the most generally useful application with which I am acquainted. I have seen many most obstinate examples of this disease affecting the hands, which had in no way improved under treatment by the ordinary measures, rapidly heal under the application of gynocardic acid ointment. The ointment should be used of about the above-mentioned strength, and should be applied four or five times daily; or, if the patient can bear the inconvenience, the ointment should be spread on soft rag and laid over the affected part, and may be kept in position by wearing gloves, or by a few turns of bandage. Very useful and soothing also are both chaulmoogra-oil and gynocardic acid when applied in this way in eczema of any part of the body; but it is in cases where this disease attacks the face and hands that I have found them so pre-eminently beneficial. I have met with no ill effects consequent on their use, nor do they exert any action on the sound skin. The employment of such local measures in no way interferes with nor removes the necessity of the assistance of the internal remedies adapted to each case. In the acute form of this disease, or where there is much discharge, the good effects following the use of chaulmoogra-oil or gynocardic acid locally applied are not so marked.

Lupus.—Some cases both of the tubercular and erythematous forms of lupus improve under the local and internal use of gynocardic acid or chaulmoogra-oil; but I have not found them alone sufficient to remove the disease.

The amount both of chaulmoogra-oil and gynocardic acid that individuals can take internally varies greatly. The oil, and the acid, in less degree, are both apt to produce nausea, and occasionally constipation. It is well to begin with a small dose, about four minims of the oil or half a grain of the acid, which should be taken after food twice or thrice daily, and gradually increased to half a drachm to a drachm of the oil, or one to three grains of the acid. An aperient should be given at the same time, if necessary. The oil may be enclosed in perles, which is the most agreeable mode of administering it if only a small dose be required; or it may be given in emulsion. It is convenient to have the gynocardic acid made into pills containing half a grain of the acid, with three grains of extract of gentian, extract of hops, or conserve of roses. To commence, one such pill may be given thrice daily. The amount may be gradually increased to two, three, or four pills for each dose. If larger quantities be required, it is then better to order pills containing from one to two grains of gynocardic acid.

The chief advantages of gynocardic acid over chaulmoogra-oil are, that, in using it, we are dealing with the active principle of the body, and a definite substance, rather than with an uncertain mixture; its more certain and marked action; its lessened bulk; and the facility with which it can be administered in pills.

The constitutional effects of the drug may be obtained by the inunction on the skin of chaulmoogra-oil, or of gynocardic acid in the form of ointment. This is especially useful in the case of children. Gynocardic acid might be combined with a soap with advantage. I should expect such a soap to possess much of the soothing and remedial influence of the gynocardic acid, and that it would probably be useful in the treatment of many forms of skin-disease.

DURING the past ten weeks of the current quarter, the metropolitan death-rate averaged 20.5 per 1,000, against 22.9 and 19.2 in the corresponding periods of 1879 and 1880.

THE ETIOLOGY OF CARIES OF THE SPINE.

By E. NOBLE SMITH, L.R.C.P., M.R.C.S.

Opportunities for making pathological investigations into the morbid anatomy of caries of the spine so rarely occur, that, in order to form an opinion upon the nature of this disease, we are compelled to extend our inquiries to the consideration of cases of caries of those bones which are more accessible to observation.

We meet with—1. *Chronic ostitis, commencing in the periphery of the bone*, usually following or accompanying periostitis; and 2. *Ostitis commencing in the centre of the bone*, and independent of periostitis. With regard to the former, we find its progress slow and insidious. The periosteum becomes thickened and less firmly attached to the bone, and beneath this membrane particles of new osseous deposit often occur. This form of chronic inflammation is common in syphilis. A further grade is that of suppurative *periostitis*, generally accompanied by superficial suppurative *ostitis* (caries superficialis). The salts of lime gradually disappear, and the organic framework is absorbed by the vessels the product of the inflammation.

Billroth emphatically urges that if an injury is the exciting cause of caries, there must yet exist a chief element "either in the injured part or in the whole organism, for otherwise the process would run its usual course, as in all traumatic inflammations, and soon come to a termination".

Syphilis and scrofulosis, as elements in the whole organism, will predispose to superficial caries. So also, as elements in the injured part, will those circumstances which interfere with the natural process of resolution in a simple and non-specific periostitis. Thus local disturbance of the inflamed part may cause a lingering, chronic process of inflammation (caries).

In the form of caries which commences in the centre of spongy bones (caries centralis), we find that the salts of lime become soluble and are absorbed, the surrounding tissue becomes more vascular, and the medulla (infiltrated with migratory cells), takes the place of "the gradually but constantly decreasing bony tissue". The bones become light and their cortical substance attenuated. It is rare for the medulla to undergo suppuration in these cases without some external cause.

Ostitis may occur in the spongy bones, and therefore in the vertebræ, in consequence of which the bones are penetrated by a mass of interstitial granulations completely breaking up their tissue without any suppuration (ostitis interna granulosa or fungosa). Sir Benjamin Brodie described caries of the spine as sometimes occurring without suppuration, and he considered the origin of such cases to be of a rheumatic nature.

Shaffer considers these cases of *caries sicca* to be non-scrofulous; and Billroth says that this form is just as variable as regards its vitality as chronic periostitis; that we can here also distinguish some cases which have a distinctly atonic, others a fungous character, while a series of cases lie between these extremes.

Ostitis with caseous degeneration is another form occasionally met with as a sequela of typhoid fever, scarlet fever, small-pox, etc. The distinction between simple and scrofulous caries is clearly described by Mr. Holmes; the former commencing superficially, the bone not being apparently much altered except in the immediate vicinity of the ulceration. In the latter, the whole, or nearly the whole, bone being softened and infiltrated with oily matter.

Billroth's opinion upon the etiology of chronic ostitis, under which term he includes caries, is, that primary chronic ostitis from a traumatic injury in subjects otherwise healthy happens but rarely. It *may* happen, however, from violent concussion and compression. He considers that scrofulosis and syphilis are the most frequent causes; that in syphilis the local disease is seldom set up by external agents, while in scrofulosis such may fairly be regarded as the rule.

Of the authors who have written upon caries of the spine, some consider the disease to be entirely dependent upon scrofula; some admit that an injury may be the exciting cause; and a few American surgeons have advanced the theory that Pott's disease is the result of traumatic causes alone, and is quite independent of the constitutional condition of the subject.

If the views which I have already expressed are correct with regard to caries generally, may they not be so with reference to caries of the vertebræ? My observations of cases that have come before me have led me to form the following conclusions.

1. Pott's disease very often occurs in patients who present the symptoms which are supposed to indicate scrofula, whatever the true nature of that disease may be. 2. It often occurs in patients who, although delicate, and in a condition which has been denominated pretubercular, have no decided symptoms of constitutional disease, and who have no family history of disease of any kind. 3. It occurs in patients who have been debilitated by fever, or some other disease calculated to impair nutrition, such as syphilis. 4. It sometimes occurs in patients who present no apparent signs of other illness of any kind except the pain following an injury.

In the cases where the disease occurs after an injury in apparently robust individuals, I imagine it may arise in the manner I will now describe.

I have already, at one of the Branch meetings of this Association, shown that fractures of the vertebræ *almost always* present the same kind of displacement of the fragments of bone; that, in consequence of a violent bending forwards of part of the spinal column, the anterior portion of a vertebra is crushed or broken off by the vertebra above it, and that the posterior portions of the bodies of the vertebræ are not injured. This common result will probably be recognised in the accompanying illustration. The crushing of the anterior upper edge of



a vertebra seems to be the general tendency of the majority of accidents which injure the bones of the spinal column; and it seems to me probable that an injury, especially to the bones of young children, may, although insufficient to cause absolute fracture, be sufficient to injure the anterior part of a vertebra to such an extent that inflammation is set up. Such inflammation would speedily get well, were not the parts subjected every day to an almost constant movement. Now, it is quite in accordance with the pathology of the disease to suspect such frequent irritation capable of ultimately giving rise to caries of the injured vertebræ. If it is possible for caries to be set up thus in a healthy child, much more readily will it occur in one whose powers of repair are weak, either in consequence of constitutional delicacy, or as the result of some fever or other disease. Therefore, I would assume that local injury is the exciting cause in the majority of, or in all, the cases; that a slight local injury may cause caries in an unhealthy subject; and that a less slight injury (repair being interfered with as above described) may produce caries in an otherwise healthy subject.

International Medical and Sanitary Exhibition.—The committee are sparing no pains to promote the success of this exhibition; and, to judge from the admirable plans which have been issued to exhibitors, the collection of medical and sanitary appliances, to be opened under the auspices of the Parkes Museum of Hygiene at South Kensington, on July 16th, will be of national importance. In connection with the exhibition, the Board of Trade issued the following certificate on June 21st:—"The Board of Trade, by virtue and in exercise of the powers conferred upon them by the Protection of Inventors' Act, 1870, do hereby certify that the International Medical and Sanitary Exhibition, which it is proposed shall be held from July 16th to August 13th, 1881, both days inclusive, at South Kensington, London, in certain rooms, buildings, and galleries at the Royal Horticultural Society's Gardens, and at the Royal Albert Hall, South Kensington, in the county of Middlesex, is, in their judgment, calculated to promote British industry, and to prove beneficial to the industrious classes of Her Majesty's subjects.—Signed by order of the Board of Trade, this twenty-first day of June, 1881, Henry C. Calcraft, Assistant-Secretary to the Board of Trade."

SURGICAL MEMORANDA.

TRACHEAL CATHETERISM IN CROUP.

WITH reference to this treatment in children, I beg to subjoin notes of the following case, which occurred in my practice in March, 1880. The patient was a little girl, aged two and half years, said to have been taken ill on the evening of March 22nd. I saw her on the evening of the 24th, and found her suffering from great difficulty of breathing and a sharp clanging cough. Her face was red and hot; her breathing hissing and sometimes crowing, with lengthened inspirations; and, at each effort to breathe, the sides of her chest and lower part of the sternum were visibly retracted. Her temperature was 103° Fahr. The paroxysms continued to recur with increased severity; and it was evident by the pulse, which was about 150 and almost imperceptible, that, unless some relief could be given, the end was not far off. The face gradually became pale, and wore a distressed expression, and the lips were of a livid blue colour. As the mother objected to tracheotomy, and as emetics, hot bath, and the ordinary routine treatment, had been previously tried, I introduced a large (No. 12) gum-elastic catheter into the trachea, with less difficulty than I anticipated—having first gagged the child's mouth with a cork, for want of something better, and depressed the tongue with a spoon. After a severe paroxysm, she succeeded in getting a pretty good breath, and the next expiration was followed by the ejection of muco-purulent *débris* and sticky phlegm through the tube. In about ten minutes, these convulsive efforts ceased—the child, in the meantime, getting a good amount of air into her lungs. In half an hour, her face was flushed, but had lost its lividity, and the breathing was fairly comfortable. The tube was retained by tape tied round the child's neck, and was removed twenty hours after its insertion, when the temperature had fallen to 100° Fahr. and the pulse to 110. Five days later, she was running about the house, not much the worse for her dangerous illness. I observed hardly any difficulty in swallowing liquids, after the first two or three attempts, when the tube had been introduced.

THOMAS SANCTUARY, Hayle, Cornwall.

REMOVAL OF A FRAGMENT OF IRON FROM THE VITREOUS CHAMBER BY MEANS OF THE ELECTRO-MAGNET.

HENRY H., aged 16, whilst at work, was struck on the right eye by a piece of steel, which flew with great force from between the blades of shears. When examined at the hospital, an incised wound, about a quarter of an inch in length and horizontal in direction, was found on the outer side of the eye, just over the corneo-scleral junction. The iris was torn, and prolapsed through the wound. The prolapsed iris was freed from the wound, and snipped off; atropine instilled; and the eye covered with a wet compress, and firmly bandaged. On the following day, there was no pain or irritation; the pupil was dilated; the anterior chamber full; the wound closed. When examining the eye with the ophthalmoscope, a little blood, which previously clouded the anterior chamber, having cleared away, a bright glistening piece of steel could be distinctly seen suspended in the vitreous humour, posterior and to the upper and outer side of the centre of the globe. The piece of steel was flat, square, and lying vertically. This being eminently a case for the electro-magnet, I determined to employ it. Mr. Salt, junior, the well-known surgical mechanician, at once constructed for me an electro-magnet. The magnet was similar in principle to that described in this JOURNAL by Mr. Snell of Sheffield, but contained a greater length of wire of finer diameter, which increased its power, and enabled finer points to be used for introduction into the eye. The magnet was connected with a thirty-cell Stöhrer's battery, which for the occasion was charged with bichromate of potash, instead of sulphuric acid. The whole thirty cells were employed, and the power developed was sufficient to lift with the smallest point a large bunch of keys. The lever of the commutator was kept out of contact until the point had reached the foreign body. Ether being administered, I made an incision, posterior to the ciliary region and above the insertion of the external rectus muscle, through the tunics. I then passed the point of the magnet into the globe, and to the site occupied by the piece of steel. The current was then turned on, and the piece of steel at once removed on the point of the magnet. On June 7th, one week after the operation, the wound was healed; the eye perfectly quiet. No trace was discoverable by the ophthalmoscope. Vision = $\frac{20}{XX}$.

D. C. LLOYD OWEN, F.R.C.S.I.,
Surgeon to the Birmingham Eye Hospital.

OBSTETRIC MEMORANDA.

PLACENTA PRÆVIA.

MR. ASHWORTH, in the JOURNAL of May 28th, reports five cases of this kind which have occurred in his practice. As I have encountered more placental presentations than usually fall to the lot of men who have been in practice for the same period, I here publish the notes of my cases, having waited in vain for two weeks for some one else to comment on Mr. Ashworth's experience (an anonymous writer, June 4th, is excepted).

I have seen in consultation two cases, and ten have arisen in my own practice. Of these twelve cases, two were attended with little hæmorrhage, and were left to natural delivery, under the care of my assistant. Of the ten cases of complete placental presentation, three died—all having lost a large amount of blood before I saw them; but, the hæmorrhage continuing, and the os being dilatable in each instance, turning was speedily effected. Some of these labours occurred thirteen or fourteen years ago, when chloroform was used in midwifery less than now; but I think it might have been used with advantage in many of the cases of those which recovered, as well as of those which were fatal.

The first patient who died was forty-three years of age, and the hæmorrhage occurred in her ninth full-time pregnancy. I was called in after the discharge had existed for about four weeks. The pelvis was narrow, and the child's head required to be punctured before it would come through. This difficult delivery, of a corpulent woman, past her prime, who had been flooding for a month, was followed by her death thirteen hours afterwards.

The second death occurred in the practice of a neighbour, who, having employed styptic remedies as long as was justifiable, turned quickly, and, so far as I could judge, easily. The patient was in a satisfactory condition when we left her, but she died about ten hours later.

The child was very large, in the third and last fatal case (the woman was over forty, and had long suffered from procidentia uteri). There was loss of blood at each period in the pregnancy (the ninth or tenth); but it was larger at the latter periods; and had continued for thirty-six hours when I first saw her. The os was easily dilated by the hand; but the large size of the child rendered the delivery rather difficult. Death occurred about two weeks after, apparently from metritis, which Dr. Barnes points out as a probable sequence of attachment of the placenta to the cervical region.

The treatment of the remaining seven cases was substantially the same in each instance—namely: the use of the plug and frequent doses of opium, when the hæmorrhage was slight, or occurring two or three months before the child was mature; delivery by version, as soon as the os was dilated, when the hæmorrhage was persistent at the seventh, eighth, or ninth month.

Dilatation of the os has always been effected by my hand, without the use of bags—one advantage of the method being this: that hæmorrhage cannot go on unnoticed. In this particular, the treatment differs from that advised by Dr. Barnes; in other respects, it generally resembles his method.

My notes do not give the fœtal mortality; but it is not remarkable that the children should be born dead, as version is so fatal to them, and they suffer from the maternal and placental loss of blood before and during the delivery. Mr. Ashworth is to be congratulated on saving two of the five children in his cases. He does not state the age of his patients, which is an important factor in the result of a confinement with shock or loss of blood; nor does he tell us what number of children the patients had previously given birth to; nor the stage of pregnancy when the hæmorrhages appeared. I may mention that all my cases occurred in multiparæ; and that the patients were accustomed to stand a great deal in dairy or domestic work.

CAREY COOMBS, M.D.Lond.

TWO CASES OF LABOUR AT TERM IN WHICH THE HYMEN WAS UNRUPTURED.

CASE I.—Mrs. X. had been in labour twelve hours, when I was asked to see her. Her pains were and had been very strong, and forcible. On examination, I found the vulva distended by a round firm but elastic body, which, for the moment, I took to be the unruptured membranes; but I soon saw that it really was an immensely thickened hymen, having a very small opening at its anterior edge which would barely admit a probe. An incision was made with a pair of curved scissors, and the labour was soon terminated by the natural

efforts, the head being immediately behind in the still unruptured membranes. An inspection showed the divided hymen to have been sacculated; it was so thick as to make its division by the scissors very difficult.

CASE II.—A young woman, whose case will be more fully recorded with reference to other particulars, was delivered of her first child. She had for many years been the subject of prolapse, which had come on gradually and painlessly; in fact, so painlessly, that "he did not know she was different from other women". An examination showed the hymen perfect, but hanging down on the posterior wall of the vagina, it having been gradually pushed out of the way by the prolapse of the uterus in front of its free circumferential margin. The prolapse was due to wheeling heavy barrows of bricks during her girlhood. JAMES HICKINBOTHAM, M.D.,

Physician to the Birmingham and Midland Hospital for Women.

RESUSCITATION AFTER STILL-BIRTH.

ON June 15th I attended a woman near this town in her confinement. It was a breech-presentation. On the delivery of the body, I found that the cord was coiled around the child's neck. I sought to deliver the head as quickly as possible, but, as it was rather large, I did not effect this for perhaps about five minutes. A short time before the appearance of the child at the vagina, I had listened to its heart, and observed that it had become slower than when I had auscultated some hours before.

The child when born exhibited no sign of life, and did not respond in any way to the usual methods of exciting respiration. Being relieved from anxiety respecting the mother by the presence of the dispensary midwife, whom I knew to be trustworthy, I at once began artificial respiration by the Silvester method. The pulsation of the heart soon became perceptible to the hand. As there was a sound produced by expiration as if there were a quantity of fluid in the tubes, I turned the child on its face and raised its body above the level of its head, when some blood-tinged fluid flowed out of its mouth, proving that efforts at inspiration must have been made while still in the womb on the stoppage of the utero-placental circulation by the compression of the cord. I continued artificial respiration for at least three hours and a quarter before natural respiration was established. The application of hot and cold water was tried; and, except for a time at the commencement, the body was covered by hot dry flannels constantly renewed. The first time the child moved was when a very hot flannel was applied to the back of its shoulders and neck, and this was about three hours from the time of its birth. I have never read of respiration having been established after so long a time.

EDMOND SHACKLETON, L.M., L.K.Q.C.P.I., Tandragee.

CLINICAL MEMORANDA.

POISONING FROM EATING A CANTHARIDES BLISTER.

THE following unique case of poisoning may be interesting to the readers of the JOURNAL.

A boy, about twelve years of age, had suffered from a suppurating ear for several years. A fortnight ago, symptoms of meningitis set in, which gradually improved under treatment by blistering, etc. Unnoticed by any one, he took the last blister off and put it into his mouth, and chewed it; how much may have been swallowed, it is not easy to say (the blister would be four by four inches). As soon as the accident was noticed, a large dose of ipecacuanha was given, followed by vomiting. No evil effects showed themselves for twelve hours, when tenderness over the stomach and bowels, great restlessness, increased stupor gradually deepening to complete coma, and ultimately convulsions, came on. The boy died in twelve hours after the onset of the symptoms. As the boy was much better, and showed every symptom of recovering, the fatal result may fairly be credited to the cantharides.

W. L. MUIR, L.R.C.P.Ed., Glasgow.

ABSCESS OF THE BRAIN, FATAL WITHOUT COMA.

MISS F., a delicate young lady, aged 17, slightly strumous, sustained a severe shock to her nervous system on December 1st, 1880. This was followed two days afterwards by headache, which was continuous and severe, causing her constantly to cry out with pain. It was accompanied with obstinate vomiting and pyrexia. There was sleeplessness, but no marked delirium. After about a fortnight, the pyrexia subsided, the headache became much less, and the patient was apparently better; still the vomiting did not cease, and she became in consequence extremely low and prostrate. About this time, the right arm became paralysed. She was still able to walk about and dress herself with some assistance; and, although there was some difficulty of articulation, still she always answered correctly when spoken to. On January 1st, I was called to see her in consultation. She was then extremely low and prostrate—anæmic to the last degree. The tongue was moist, furred, and raw in patches; pulse 80; temperature normal. The right arm was completely paralysed; the pupils were equal, and contracted on exposure to light. She had severe pain in the head at times. Vomiting was severe and constant. The bowels were rather confined. There was no delirium. The patient answered questions when spoken to. There was, of course, great suspicion of brain-disease; but it was not sufficiently certain to justify a positive diagnosis. The patient continued conscious to the last, and died quietly five days afterwards, immediately after taking some liquid, some of which may possibly have got into the windpipe, and so been the immediate cause of death, as there was gurgling in the throat, followed by cessation of the respiration, though the heart continued to beat for nearly ten minutes. At the necropsy, the dura mater over the left hemisphere was found firmly bound down with adhesions; and at the posterior part of the left frontal lobe, a little anterior to the vertex of the cranium, was found a cavity containing pus, about the size of a walnut; it was immediately under the dura mater, but extended some distance into the cerebral substance. JAMES HUDSON, M.B., Nelson, New Zealand.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

MOORFIELDS AND UNIVERSITY COLLEGE HOSPITALS.

SEGMENTAL KERATO-IRITIS: FICTITIOUS (MIRRORED) CATARACTS.

IN some recent remarks, Mr. Streatfeild used the expression segmental kerato-iritis in reference to a small class of cases, of which he has lately had several striking examples. He observed that, when a part only of the cornea is inflamed, if the inflammation is peripheral and extends deeply, this partial keratitis is not unlikely to extend to the iris, and that this secondary iritis may be then also partial, affecting only, or chiefly, that part of the iris which corresponds with, and is adjacent to, the original corneal inflammation. The iritic complication, and afterwards the results of this inflammation, the posterior synechiæ consequent upon the iritis, if mydriatics have not been used in time and sufficiently, are obscured by the keratitic opacities, and are certainly missed unless they are suspected, and are carefully looked for by the surgeon; indeed, the iritis and its worse results cannot be detected and known certainly at all in some cases which, no doubt, may be properly enumerated in this class: those, that is to say, in which the *whole* cornea is clouded by the keratitis, and, perhaps, the whole iris inflamed, but which may be nevertheless called segmental, inasmuch as the focus of inflammation, or the original source of the disease, where it is, or has been, more particularly, occupies one part only peripherally, where, afterwards, only in the result will be found the permanent corneal opacity and the iris adhesion, or most of each of these sequelæ. The segments of cornea and iris most frequently affected are, because they are exposed, and for other reasons which need not here be detailed, the lower, or at least any other than the upper, segments. This is as characteristic as it is that pannus opacities are only, or particularly of the *upper*, part of the cornea. It is unfortunate for vision, Mr. Streatfeild added, that all true corneal opacities and iris adhesions are least commonly found in the upper segments of the circumference of the cornea and iris. His remarks had no reference to any traumatic or other cases of resultant corneal opacities and *anterior* synechiæ, which, from the very nature of these cases, can only be in a situation corresponding to that part of the cornea which has been the seat of the injury, or the focus of the inflammation—where the leucoma is, in fact. These again are probably in any other than the upper segments of the corneæ.

The first case shown to us by Mr. Streatfeild was that of a man who, a month previously, had got some freshly made mortar (half-slacked lime) in his left eye. He had had this segmental kerato-iritis, the lower and inner third of the cornea, at its periphery, showing a recent whitish opacity, partly the result of an ulcer, which had healed; and, looking from the upper and outer part of the cornea, where it was transparent, or nearly so, with oblique illumination, ophthalmoscopically, the whole of the lower and inner margin of the pupil was seen

to be adherent to the lens capsule, and unaffected by the atropine solution which had been dropped into the eye, and by which the rest of the circumference of the pupil had been already well dilated. All this posterior synechia, however, became detached by continuous use of the strong (pharmacopœial) solution of the same, and, in time, the cornea partly cleared. (Mr. Streatfeild says that the pharmacopœia ought to contain two solutions of the sulphate of atropine—one very dilute, for ordinary ophthalmoscopic and other purposes.)

Another patient of Mr. Streatfeild's, who was attending at Moorfields at the same time as the preceding, had had kerato-iritis, with no history of any former injury to the eye. He had a considerable leucoma at the lower and outer part of the cornea, and many posterior synechiæ; the pupil was extensively adherent to the lens capsule. Of these adhesions, *most were downwards and outwards:* upwards (and only upwards) the pupil was *quite* free. And in another case of old leucomata, which were, for the most part, in the lower and outer segment of the cornea, it was noteworthy that, atropine having been used, no iris adhesions were found; but he observed that there was a myopic "crescent", and commencing cataract, a few striæ (at intervals only) in the periphery of the lens, and these were *chiefly in the lower and outer segment.* In this part only were they numerous, and of any considerable extent, in the direction of the centre of the lens.

Mr. Streatfeild always lays much stress on the importance of drawing a line to separate some cases often half-diagnosed—such as those of granular lids, by which he would designate only the true *trachoma*, and never include any cases of papillary, vascular, or other conjunctival elevations, occurring in the ophthalmiæ; and those of *cataract*, as distinguished from other opacities of the lens. He would not include, as cataracts, any of those cases in which the light of the ophthalmoscopic mirror shows, in the pupillary space, in the place of the lens, no opacity, no striæ or ill-defined opacity, which in any part of the area of the pupillary aperture, obstructs the view of the parts beyond. If the lens opacity, as seen by the naked eye, or oblique illumination, thus is perfectly penetrable by the light of the ophthalmoscopic mirror, Mr. Streatfeild would never call the case cataract, but only lens opacity. Such opacities, he says, do not necessarily imply commencing cataract, and should not be confounded with them. If the line is not drawn between granular lids and cases simulating them, the prognosis and the treatment may be all wrong, and quite inefficient; and if the distinction is not clear between cataractous opacities of the lens or on the lens capsule, and other common lens opacities, the cases are never well understood, and the prognosis at least, in these cases also, is often wrong. But, Mr. Streatfeild continued, besides those common senile changes in the lens, where there is a greyness or amber colour diffused in it, which is not, and never will be, cataractous, there are other deceptive appearances often mistaken for cataract. In illustration of this, he directed our attention to the case of a girl, twelve years old, at the Moorfields Eye Hospital, who had first come there in July last year, and had then keratitis of the right eye, which no doubt was of inherited syphilitic origin, for although the upper central incisors were not notched, and she had not some other of the common characteristic signs of the disease, she was ill-grown, and had a senile look. She was also the youngest, the only surviving one of five children, the others having been, some of them, premature births, and all had died in early infancy. She had an "eruption" when she was five months old, for which the doctor gave her powders. Besides all this, she had now, for many months past, had the keratitis in *both* eyes. The effects were now worse in the left eye, not only as the more recently inflamed (and both were still somewhat inflamed, the right one now very slightly—a faint circumcorneal injection only remaining), but, because treatment had been neglected, for she had not been at the hospital lately. She was ordered originally iodides, iodide of iron, etc., and, locally, atropine. These she continued for some time, but she had not been to the hospital at all for two months. The omission of the atropine was the more serious in this case, as, besides the chronic interstitial keratitis, she had now, or recently, also in both eyes, some iritis; but for want of care and mydriatics, the pupils were contracted, and there were left some synechiæ in both eyes. Notwithstanding the usual symmetry of the constitutional disease, and the generally equally diffused corneal opacity of this form of keratitis, this case, Mr. Streatfeild observed, partook in some degree of the character of the segmental keratitis above alluded to, as could now be seen in the right eye at least—the first affected, in which the cornea was clearing: not equally from the margin all round, as is usual, but *especially at the upper and inner part*, so that the lower and outer two-thirds of the cornea were still very nebulous. Seen by oblique illumination, ophthalmoscopically, the light being on her left, and directed from above, the iris and pupil might be well seen by looking through the clearer part of the cornea, in somewhat the same direction as that in which the light was thrown. Strong atropine drops having been again used, the pupil was moderately dilated, and there were seen to be, altogether, three or four posterior synechiæ, but they were very narrow and fine *excepting one on the lower and outer part of the pupil, which was very broad and extensive*, thus corresponding with that peripheral part of the cornea which remained very opaque, whilst the rest of it was clearing; and with that part, therefore, in which the kerato-iritis in this eye must, presumably, have been concentrated "segmental kerato-iritis". The light being thus directed obliquely in upon the lens, *through an imperfectly transparent cornea*, showed, as in a mirror, or polished surface of glass, reflected from the lens capsule, the image of the brightly-illuminated grey patch of somewhat opaque cornea, on which the concentrated light of the oblique illumination by the ophthalmoscope lens fell; and this mirrored grey patch, in the situation of the natural lens, in this and in other such cases is, therefore, at first sight, not very unlike a true lens opacity, and may be even mistaken for cataract; whereas it is neither one nor the other—entirely fictitious—less real than the senile changes of the lens, which really do imply a loss of transparency, though they do not stop the light of the ophthalmoscopic mirror, or indicate cataract. In the latter cases, the concentrated light of the ophthalmoscope lens, the ophthalmoscopic mirror not being used, shows a greyness or amber colour which is in the lens; whereas, in the case of this child, the lens was normally transparent, and normally reflected the light concentrated upon a somewhat opaque medium just opposite to it—the cornea. The greyness, or amber-coloured discoloration, of the senile opaque lenses is easily distinguished from real cataracts, because the principal greyness, if not the principal discoloration, is always chiefly and apparently *from the posterior lens capsule, opposite the light*, so that, in a second experiment, the light being thrown from the contrary side, the situation of the apparent chief opacity is then changed, as from right to left, or *vice versâ*, and proved to be fictitious. In cases like the present, the mirrored opacity of a nebulous cornea in a perfectly transparent lens is, Mr. Streatfeild says, from the anterior capsule; but in either of these two kinds of fictitious cataract, the opacity changes its apparent situation, as the situation of the lamp, the direction of the light with the ophthalmoscope lens, or the position of the head (or rather of the eye) of the patient is changed; whereas, of course, a real cataractous opacity is always to be seen in the *same* place in the lens.

KING'S COLLEGE HOSPITAL.

THREE CASES, IN WHICH THE GERMAN ("SCHNITT") METHOD FOR THE RADICAL CURE OF HYDROCELE WAS RESORTED TO.

(Under the care of Mr. JOSEPH LISTER, F.R.S.)

FOR the notes of these cases we are indebted to Mr. J. POLLARD, M.A. (Cantab.), Senior Clerk.

CASE I.—John C., aged 36, a strong healthy-looking man, was admitted on January 3rd, 1881, suffering from hydrocele. An inquiry into his family history showed the existence of a phthisical tendency. He had himself suffered from no illnesses of importance. About seven years ago, he noticed that his left testicle began to swell, and it had been ever since gradually enlarging; the increase in dimensions had been more rapid shortly before admission. Slight pain, of a shooting character, was experienced, more especially during the day. On examination, the scrotum was found distended with fluid, and the testicle was found to be high up. The skin was movable, though tense. The swelling measured eleven inches in circumference. The fluid had often been drawn off before by a trocar and cannula; this was last done on November 13th. On January 5th, Professor Lister punctured the hydrocele, and drew off about six ounces of straw-coloured serous fluid. He then injected half a drachm of the Edinburgh tincture of iodine, diffused the liquid through the sac, and removed the cannula. This was followed by acute pain, and subsequently by swelling, which lasted for two days, and then began to diminish. About three weeks afterwards, the patient said that the fluid was again accumulating, and it was found that the circumferential measurement had increased about an inch in a week. It was decided to wait a few days, and see if any diminution took place. The swelling, however, continued slowly to increase; and Professor Lister, therefore, determined to resort to the German ("Schnitt") method for the radical cure of hydrocele. The patient was placed under the influence of chloroform, and the parts were purified and shorn. The first step in the operation was to pass two blunt straight needles through the skin and the sac of the hydrocele, in order that the sac might be kept in position; an incision one inch and a half long was then made between the needles into the hydrocele, when about two ounces of serum, with here and there a flake of lymph, escaped. The bleeding points were ligatured, and the sac stitched to the skin; the wound was not closed; the entire operation was con-

ducted antiseptically; the usual dressings were applied; and a special padding of wet and dry gauze was arranged on the perinæum. The next day, he stated that this operation was attended with less pain than the former one; the antiseptic dressings were renewed, a free discharge having taken place. He was dressed three times during the ensuing week. At the end of that time, the wound having nearly healed, the carbolic dressings were discontinued, and their place supplied by a nest of salicylic jute, retained in position by a bandage. In ten days, the wound was completely healed; the patient, however, thought that the swelling was going to recur, and so, to a small extent it did. He was, therefore, allowed to go on a visit to some friends in the country, promising to show himself again in a fortnight if the swelling increased, when Professor Lister proposed, if necessary, to repeat the operation, with the addition of an irritant (chloride of zinc being mentioned) after performing the "schnitt". On his return, however, though he had walked a good deal, the swelling had disappeared; but whether this is a radical cure remains to be seen. The failure of the old plan of injecting with the Edinburgh tincture, followed by a questionable success of the German "schnitt", is, however, remarkable.

This patient was seen again at the end of May, and there was then no sign of any return of the disease.

CASE II.—John D., aged 18, was admitted on February 15th, 1881, suffering from hydrocele. Two days before admission, while lifting a sack of potatoes, he strained himself, and noticed the following morning that his scrotum was swollen. The patient presented the usual symptoms: the testicle lay posteriorly, the left side was affected. The patient having been placed under the influence of chloroform, Professor Lister performed the "schnitt" in the manner described above, and evacuated a large quantity of hydrocele fluid; several gelatinous cysts, found sticking to the inner surface of the sac, were removed, and the parts syringed with 1 in 20 carbolic lotion. The wound was dressed as in the former case; and, in addition, salicylic cream was applied to the perinæum, symphysis pubis, and scrotum, to cleanse the hair-follicles. The following day he was dressed, with the usual precautions, and the salicylic cream freely applied. Two more similar dressings were performed in the following week; after that, it was thought safe to resort to the salicylic jute. He was thenceforth dressed with this antiseptic preparation, and discharged cured on March 16th, a day or two more than three weeks from the date of the operation.

In this case, the "schnitt" was decidedly successful, and a permanent cure was the result. The salicylic cream and jute proved very safe, and less irritating to the parts than carbolic gauze.

CASE III.—Charles A., aged 63, was admitted on May 5th, 1881. The patient had had a hydrocele for the last eighteen months; it had been frequently tapped, but no radical cure had been attempted. On admission, the hydrocele was about the size of a large orange. On May 9th, without chloroform, and with the usual antiseptic precautions, Mr. Lister passed two needles through the skin and tunica vaginalis; he then made a free incision between them, about three inches long; and after the escape of the fluid, he injected some carbolic lotion (1 in 20), which was also allowed to escape. The skin and tunica vaginalis were then stitched together with catgut; the incision into the scrotum remaining freely open. A dressing of eucalyptus gauze was applied.

On the following day, the patient was reported to have slept well, and to have suffered no pain whatever; he took food well. The wound was dressed, and was looking well; there was no irritation of the scrotum; in fact, the patient felt so well, that he wished to go home. On May 11th, the wound was dressed again; it was looking well, and there was no irritation. On the 13th, the dressings were renewed, and again on the 16th. The wound at the latter date was quite superficial, all the deeper parts having healed; there had been no irritation of the scrotum whatever. The spray was discontinued. On May 18th, the wound was nearly healed. On May 21st, he was discharged; a slight superficial sore only remaining. The pulse had, during the time he was in the hospital, varied between 68 and 72; the temperature ranged from 97° to 99°.

The chief point of interest in this case is the total absence of all irritation of the skin of the scrotum. This irritation had been a distressing symptom in the two earlier cases, in which carbolic dressings had been used; but the new eucalyptus gauze dressing was entirely free from this inconvenience. The scrotal skin being extremely sensitive to the action of irritants, this was a good test of the non-irritant qualities of the gauze; its antiseptic qualities were also severely tested, and were not found wanting.

AMONG the deaths registered in the March quarter, was that of a man aged 80, who died at Pallaskenry, Rathkeale Union, and who, it is related, never had a tooth in his head, whether as a child or during manhood.

REPORTS OF SOCIETIES.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, JUNE 1ST, 1881.

EDWARD LUND, F.R.C.S., President, in the Chair.

Acute Idiopathic Osteo-myelitis.—Mr. JONES exhibited a patient, aged 32, who had undergone amputation at the hip-joint for acute idiopathic osteo-myelitis of the femur. For nearly a month before his admission on the 26th January, 1881, the thigh had been the seat of severe and constant pain; a large abscess formed on the inner side, immediately above the knee. The abscess was emptied, with antiseptic precautions, but no improvement in the acute general and local symptoms followed. The febrile symptoms often ran high, and were combined with profuse sweating and occasional diarrhœa. In consequence, the man became very emaciated, and amputation was resorted to. The limb was, in the first instance, removed at the junction of the upper with the middle third of the thigh; as, however, the medullary canal in this situation was in a state of suppurative inflammation, exarticulation of the femur was carried out. With one exception, torsion was applied to the vessels in the stump. Since the operation, the progress had been all that could be desired. On making a section of the femur, a sequestrum was formed on its anterior. New bone was thrown out on the surface of the bone, as well as into the medullary cavity. The compact tissue was sclerosed, and the cancellous structure filled with disintegrating products of inflammation. An opening in the lower part of the anterior surface of the bone communicated with the interior, and a probe passed along this fistulous channel entered the medullary canal in the situation of the sequestrum.

Preputial Calculus.—Dr. WAHLTUCH mentioned the case of a man, aged 42, who came under observation at the Hulme Dispensary, Manchester, suffering from inability to micturate, owing to an elongated, red, and swollen prepuce. On slitting this up, a large calculus was at once removed, which had formed during many years between the prepuce and glans, as the patient had always difficulty in micturition. Dr. Wahltuch exhibited the calculus, which measured $\frac{7}{8} \times \frac{5}{8} \times \frac{5}{8}$ inch, and was of a triangular shape, with three flat facets, and consisted of phosphates with a uric acid nucleus. Two smaller stones of uric acid were found besides the large one.

Drugs for Hypodermic Use.—Dr. WAHLTUCH showed a convenient arrangement he had devised for containing thirty-six different drugs in the form of small wafers or lamels, each wafer to be dissolved in a little water, and the solution injected subcutaneously.

Axis-Traction Forceps.—Dr. THORBURN made some remarks on recent attempts which had been made to supplement the forceps with axis-traction handles, in addition to those used for introduction. After explaining the use of Tarnier's instrument and Simpson's modification, he expressed his opinion that such complications of the ordinary British instrument had not met with general acceptance, and would not do so. They met, however, a want which was occasionally felt in making traction at or above the pelvic brim. Such a case had recently occurred to himself, and he had overcome the difficulty by passing a strong piece of string through the fenestra of each blade, thus extemporising axis-traction; a duck-bill speculum was used to prevent injury to the perinæum. Mindful of this case, he had had made an instrument, which he showed, and which he preferred to term the "aide-forceps". This instrument consisted of a couple of appropriately curved rods, which could be hooked by safe clips into the fenestra of Barnes's, Simpson's, or any ordinary forceps, and which united in one tractile handle. This simple instrument was supplied at a very small cost by Messrs. J. and W. Wood, and met a want which, though only occasionally felt, might at any time occur in ordinary or consulting midwifery, without detracting from the value of the present incomparable instrument, as all fixture screws and irremovable traction-rods most certainly did.

Case of Hæmatinuria.—Mr. STOCKS mentioned a fatal case of hæmatinuria, accompanied by cyanosis and anæmia, but without any anasarca, apparently the result of disintegration of the red blood-corpuscles, in which the *post mortem* examination showed a spleen reduced to the consistence and appearance of a blood-clot, the liver very friable, and the kidneys enlarged, slate-coloured, having many of the uriniferous tubes choked with red blood-discs, while others were empty and denuded of epithelium. The blood-cells, examined during life, had in many instances become misshapen, and the blood coagulated very imperfectly. The primary cause of this disease appeared to be exposure to cold for a length of time together.

The Various Uses of Intra-uterine Injections of Hot Water in Obstetric Practice.—Dr. WALTER read a paper on this subject. He ex-

cluded from consideration the well-known use of intra-uterine injections in the various forms of metritis, or septic complications arising after labour, and as a treatment of chronic disease of the uterus. The object of his paper was to bring before the notice of the profession a new and simple mode of overcoming many forms of difficult labour, by means of causing a temporary relaxation and dilatation of the uterus. His attention had been directed to this subject in the year 1878, when treating cases of *post partum* hæmorrhage by injections of hot water. His experience of the treatment he embodied in a short paper read before the Section of Obstetric Medicine at the annual meeting of the British Medical Association for 1879, and published the following April in the BRITISH MEDICAL JOURNAL. In the paper referred to, he mentioned a case in which he was unable to remove a placenta retained by what is known as "the hour-glass contraction" until after he had injected through the cervix a stream of hot water, with the effect of overcoming the muscular spasm; and so marked was the success attending this treatment, that it led Dr. Walter to give it a trial in a variety of cases of which his present paper was an epitome. The cases in which the treatment was applicable might be enumerated as follows. I. For the purpose of checking *post partum* hæmorrhage, in which class of cases the temperature of the water used should be 104°, or not higher than 110°. (In all of the following cases, the temperature of the water must be raised to 115° or 120°, the object in view being to cause relaxation and dilatation of the uterus.) II. In podalic version, it would be found of the greatest value, especially in those cases where, from early escape of the liquor amnii, the uterine walls had become moulded to the body of the fœtus, rendering thereby the introduction of the hand dangerous, or almost impossible. III. Whenever cephalic version was difficult. IV. When bipolar version was difficult to accomplish from escape of the liquor amnii, and was required to be performed quickly, before the os uteri was much dilated, as in cases of partial placenta prævia, or some severe cases of accidental hæmorrhage. V. In rectifying malpresentations, such as returning a hand or an arm into the uterus, in changing a face or a brow presentation into a vertex; in these cases, one could not speak in too high terms of its usefulness. VI. Retention of the placenta, when arising from irregular uterine contractions, or what was known as the hour-glass contraction; also in cases of abortion when the placenta or membranes were retained. VII. Where one was without chloroform, or the patient was either unwilling or unfit to take an anæsthetic, the injections would be found not only useful in aiding version, but, by their dulling the sensibility of the uterine tissue to pain and lessening its susceptibility to contusion, the danger of rupture would be found diminished, as well as the risks of metritis. In addition to the cases above enumerated, one might also add rigid os (when the whole cervix or lower muscular fibres of the uterus were implicated in the rigidity); locked twins; and the delivery of monsters. In alluding to the precautions to be observed while employing this treatment, Dr. Walter drew special attention to the importance of seeing that the syringe (Higginson's) was a strong one; the cheaper forms of this syringe being useless when the temperature of the injection was raised above 110°. The tube for insertion into the uterus was recommended to be twelve inches in length, and to be fastened to the syringe by means of a screw; it was also well to have two sizes, the smaller tube being made flexible, and therefore easier of introduction in cases where the presentation had descended into the pelvis. Too much attention could not be paid to filling the syringe thoroughly with water prior to inserting the tube into the uterus, so as to avoid any chance of injecting air. When the injections were used for *post partum* hæmorrhage, it was well to introduce the uterine tube to the fundus, and most essential also to offer no impediment to the escape afterwards of the water from the uterus; the injections, moreover, in these cases should be continued until the stream returning was colourless; and their value was much increased by alternating the hot with cold water injections, and the addition of carbolic acid (1 in 100) to the injection was also recommended. The patient should be placed on the left side in the obstetric posture; but when more than ordinary difficulty was present, either in performing podalic version, or returning a presentation from the pelvic cavity, the semi-prone posture, with the pelvis raised, was recommended. The temperature of the water should always be taken with a thermometer, and at least one degree allowed for cooling while passing through the syringe. The quantity of water usually required for injection was a pint and a half. Dr. Walter considered that the intra-uterine injections should never be resorted to before the membranes had ruptured and the liquor amnii had escaped, lest a rupture of the uterus should occur; but this did not preclude vaginal injections of hot water for rigid os, or even for inducing premature labour, which for many years has been known to the profession. In his concluding remarks, Dr. Walter stated that he believed the treatment advocated to be devoid of danger, provided ordinary precautions were adopted to prevent the injection of air. He did not recommend it to be used in every case in the above list, or indeed in any, until after the ordinary means of treatment had first failed. In no single instance did any untoward symptom follow the treatment, nor had *post partum* hæmorrhage in any cases resulted from its use; to prevent any chance of its occurrence, it was well, towards the completion of the third stage of labour, to inject hypodermically three grains of ergotin. Dr. Walter feared that some might consider he anticipated results far too good; but such was not the case, inasmuch as he only spoke of what he had seen and proved to be true; and, in doing so, he felt confident that those who tried the treatment would soon perceive how wide was the sphere of usefulness it offered to the obstetric practitioner.

REVIEWS AND NOTICES.

DIE PNEUMATISCHE BEHANDLUNG DER RESPIRATIONS-UND-CIRCULATIONS-KRANKHEITEN IM ANSCHLUSS AN DIE PNEUMATOMETRIE UND SPIROMETRIE. Von Dr. L. WALDENBURG. Zweite vermehrte Auflage, erweitert um einen Beitrag über das Hohenklima. Mit Holzschnitten. Berlin, 1880. August Hirschwald.

THE PNEUMATIC TREATMENT OF THE DISEASES OF THE RESPIRATORY AND CIRCULATORY ORGANS AS AN ADJUNCT TO PNEUMATOMETRY AND SPIROMETRY. By Prof. L. WALDENBURG. Second enlarged edition. Berlin: August Hirschwald, 1880.

THE first edition of this remarkable work was published in 1875. In the preface, the author, whose sudden and premature death elicited so much warm sympathy a few weeks ago, then expressed a hope that he had succeeded in giving to the diagnosis and treatment of the diseases of the organs of respiration and circulation a strictly physical, viz., a mechanical, basis, similar to that possessed already by ophthalmology in the form of the laws of optics. That an immense progress would have been made if we were enabled to apply the simple laws of the mechanics of unorganised matter to the living organism, is too obvious to be dwelt upon at any length. Actually, the suggestion was received with great enthusiasm on the continent; contributions came in from all quarters, mainly corroborating, and but little modifying, the author's original statements and conclusions; within some few years, the pneumatic treatment became, not only a recognised, but a much valued, method in Germany, Austria, Russia, and Italy; and Dr. Waldenburg was called upon, after very few years, to prepare a new edition of his important work. This second edition is revised and enlarged, the changes consisting, however, mainly in additions, not in alterations.

The book consists of four distinct parts. The first of those treats, in a very exact and convincing manner, of a method of physical examination, which will often be found most valuable when other methods show themselves deficient. This is *pneumatometry, i.e.*, the measurement of the forces of inspiration and expiration. After a brief history of its development, and a description of its present forms, its technics, and of the results obtained in healthy persons and forming the physiological basis of the conclusions to be drawn in disease in general, those diseases are considered more specially in which this method is likely or sure to be of special diagnostical value. Amongst those may be quoted emphysema, phthisis, pleurisy, pneumonia, different forms of stenosis of the upper air-passages, bronchitis, nervous asthma, diseases of the heart, skoliosis and kyphosis, abdominal affections, atrophy and paralysis of muscles, febrile disturbances, alcoholism, etc. Though this list comprises so many and so important affections, it is, according to the author's own belief, by no means complete. He thinks that there are many more agents, especially those of a toxic nature, which might directly interfere with the elasticity of the lung-tissue, and invites observations in this direction.

The second chapter deals with another method of physical examination, namely, *spirometry, i.e.*, the measurement of the vital capacity of the lungs. The author admits that the great expectations which were at first entertained of this method have not been fulfilled, and that it has fallen into almost complete oblivion. He explains the reasons of this failure by stating that the individual vital capacity of every person cannot be ascertained with absolute security; and that, again, it is very different in healthy persons of equal size, age, and sex. Consequently, the only answer given by the spirometer, if used in health, and later in disease, will be an approximative comparison of the capacity of the lungs of the patient in either state. But this answer, in all instances, will only be a general one, and not a means of diagnosis between the different diseases, all of which may produce a loss of elasticity of the lung-tissue, or of a part of the working tissue itself. Nevertheless, the author declares the value of the method to be a high one, inasmuch as it gives us a very good clue as to the degree of the

pathological changes, especially in phthisis and emphysema, and thus allows of forming a reasonable prognosis, and of adopting a rational treatment corresponding with the state of things demonstrated by the result of the spirometric examination.

After some communications on his experiments made with a view of finding the exact quantity of the so-called "residual air", which he believes to be nearly doubly as great as the vital capacity, the author shortly treats of the measurement of the chest, which he, in common with many other observers, considers a very defective and superfluous method.

The heading of the fourth chapter, which occupies nearly two-thirds of the book, is identical with the title of the entire work. The chapter treats in a most methodical manner of the pneumatic treatment of the diseases of respiration and circulation. It begins by a critical review of the different instruments and apparatus constructed for serving this purpose, followed by a distinct description of the author's own improved and modified pneumatic apparatus, and of its effects upon the organs of respiration and circulation, according to the different methods of its application, viz., whether it be used for inspiration of either compressed or rarefied air, or for expiration into either compressed or rarefied air. These effects are most carefully discussed and explained; and a large number of experiments on elastic membranes and of sphygmographic observations is added, to show the correctness of the author's views. Having thus studied physiologically the effects of the changes of the mechanism of respiration obtained by the use of the pneumatic apparatus, the author next comes to discuss the indications and contra-indications of the method in different diseases, a chapter which must be read in the original to be properly appreciated; and he then passes on to treat of those diseases individually which are most likely to be benefited by the pneumatic method. The results he has obtained are profusely illustrated by a large series of instructive cases of every affection thus treated; these results are so striking in many instances, and at the same time so incontrovertible, because controlled by pneumatometric and spirometric measurements at the commencement and end of the treatment respectively, that it is hard to explain why a method which can boast of such successes in the hands, not only of its originator, but also of many others, should have remained so unknown in this country as it actually is.

Dr. Waldenburg next compares the pneumatic apparatus with the pneumatic cabinets now *en vogue* in many continental places, and comes to the conclusion that not only their effects, but also their modes of action, differ in many respects from each other. They consequently will never exclude each other, the indications for their use being often entirely different.

The concluding part of this second edition, entitled, "Contributions towards our Knowledge of the Climate in Altitude", is entirely new. The experiments of the author, made with a view of studying the influence of rarefication of air upon the circulation of the blood, have led him to certain definite conclusions, fully explaining the well-known beneficial effects of mountain-air upon pulmonary phthisis and other diseases produced by deficient nutrition.

In conclusion, we can but wish to the new edition of Dr. Waldenburg's important work that circulation, and, to his valuable therapeutic method, that popularity, in this country which both of them richly deserve. Unhappily, he can no longer witness and enjoy the increasing recognition of his labours.

DE L'ANESTHÉSIE PAR LE PROTOXYDE D'AZOTE D'APRÈS LA METHODE DE M. LE PROFESSEUR PAUL BERT. Par le Docteur RAPHAEL BLANCHARD. Paris: Bureaux du Progrès Medical. 1880.

ON ANÆSTHESIA FROM NITROUS OXIDE. By Dr. RAPHAEL BLANCHARD. Paris. 1880.

THE work before us is Dr. Blanchard's doctoral thesis, presented to the Faculty of Medicine. The author begins his thesis by making a *résumé* of former researches concerning the physiological action of nitrous oxide; he then proceeds to consider its utility in important operations. He reminds us of Sir Humphry Davy's experiments, made at the laboratory of the Medical Pneumatic Institution of Clifton, who, as he states, was the first to study this gas; also of those of Colton in 1844, who administered it to Horace Wells, who, in his turn, made experiments on the nitrous oxide, which were followed by the famous failure at Boston of which everyone has heard. This circumstance, added to the grief and disappointment he suffered on witnessing his pupils and plagiarists rob him of the honour of his discovery, drove him mad, and he committed suicide. In 1863, Dr. Colton, after having extracted three thousand teeth by the aid of nitrous oxide, determined to found at New York an institution for the extraction of teeth during anæsthesia produced by nitrous oxide. Some little time after this institution was founded, the nitrous oxide was administered in America as an anæsthetic agent during important operations. The author calls our attention to the fact that such a use of this agent has serious drawbacks. For instance, if the pure nitrous oxide, such as the dentist gives, be administered, the assistant, when he sees the patient in danger of suffocating, lets him breathe freely, and he consequently regains consciousness. The surgeon interrupts his operation; and, when the patient has completely recovered his normal condition, he is made to inhale afresh the anæsthetic; and the surgeon continues to operate until a fresh interruption from a similar cause occurs, and so on, many times repeated. In 1866, M. Prétere introduced the nitrous oxide into France, as an anæsthetic agent to be used for the extraction of teeth; he assured the author of this thesis that he had extracted more than twenty thousand teeth, without witnessing the slightest symptom of an accident consequent on its use. In 1867, Colton introduced the nitrous oxide in the London Dental Hospital. Walton, in 1868, used it during slight ophthalmic operations. Shortly afterwards, in consequence of a combination proposed by Clover, it was used as an anæsthetic agent during serious operations. By this new method, insensibility is produced by the nitrous oxide, but is prolonged by the use of ether. Mr. Clover's method, which is generally adopted in the English hospitals, is in some respects preferable to anæsthesia by the administration of chloroform. The initial period of excitement, which in some cases is prolonged and violent on the administration of ether, never occurs when the nitrous oxide is used. Nevertheless, as M. Paul Bert very truly remarks, "This method (Clover's), good in theory, is practically difficult, requiring the utmost care. The combination of the nitrous oxide with ether vapour produces an explosive substance, which, unless handled with the greatest precaution, would cause most serious accidents; besides which, the disadvantages and danger attending the use of ether are the same, except that the initial stage of excitement is avoided."

M. Blanchard now describes the different methods of preparing the nitrous oxide, also the apparatus which up to the present time have been used in its administration. He then passes on to Hermann's experiments, who was the first to show that this gas is simply dissolved in the plasma of the blood, and does not oxidise the blood-corpuscles. The experiments of Krishaber, Jolyet, and Blanche are afterwards reviewed, all of which unite in a conclusion unfavourable to the use of nitrous oxide. Finally come those of Golstein, who is of opinion that rapid and thorough anæsthesia cannot be obtained and maintained so long as oxygen is not present. Here the author addresses himself to the experiments of M. Paul Bert, and tells his readers how that Professor came to observe that, when anæsthesia is produced by nitrous oxide, one hundred volumes of arterial blood contains forty-five volumes of that gas. This fact led Professor Bert to believe that anæsthesia from nitrous oxide could be attained, unattended by asphyxia, if the patient be made to inhale a *mélange* composed of 85 parts of nitrous oxide to 15 parts of oxygen; he being at the same time submitted to a mercurial pressure of 14 centimètres more than the normal, which brings the pressure of the anæsthetic gas up to that of 100.

After thus formulating his theory, Paul Bert proceeds to make experiments on the lower animals. These, placed under the conditions described, are plunged into a state of thorough anæsthesia, which can be indefinitely prolonged, inasmuch as no vital function is disturbed. With this result of his experiments on the lower animals, M. Paul Bert, well aware of their value, though some ignorant persons deny their utility with reference to man, was able to call the attention of surgeons to them, and demonstrate that the results obtained were in thorough accordance with the physiological data previously acquired.

The first operation was performed by M. Labbé, on a young woman aged 20, who suffered from an ingrowing toenail. She was excessively nervous, and intensely frightened at the notion of the operation. When the surgeon with his assistants, accompanied by the patient, had entered the chamber (made of sheet-iron, which we will describe later on), the mercurial pressure was increased by 17 centimètres (total pressure being 92). The patient inhaled a mixture of 85 parts of nitrous oxide to 15 of oxygen. From ten to eighteen minutes after the first inhalation, the patient became insensible, muscular resolution ceasing. When the operation and the dressing were completed, the patient woke up about thirty seconds after they had ceased to make her inhale the nitrous oxide. She said her foot hurt her, but otherwise she was well, and should be very glad to have some food; before the operation, she was too frightened to eat, and could neither dine the previous evening, nor eat any breakfast that morning. She had not felt any pain during the operation, nor had she been troubled by bad dreams; during the first inhalation, it seemed to her as though she was going up to heaven. She walked without help to the cab which conducted her from the

hospital, bitterly complaining of hunger; and, on her way home, the cab was stopped in order to buy her something to eat.

The author, having described M. Paul Bert's experiments, proceeds to explain the apparatus used by this professor in the course of his experiments; but we do not propose to do likewise, as a full account of them will be found in M. Bert's work, entitled "*La Pression Barométrique*".

We will now describe the metal chamber constructed by M. Fontaine, which can be moved easily from place to place. It is a large iron box, 2 mètres wide, 3 mètres 50 centimètres long, 2 mètres 65 centimètres high. Ten bull's eyes serve as windows, of which the four highest light up the operating table. Ten or twelve persons are quite at ease in it. To facilitate its removal from place to place, it is mounted on a chariot. Two manometers, one outside, the other inside, register the pressure inside the chamber. The apparatus is composed of a double-bodied pump, with a handle, and a piston containing water, capable of furnishing from 400 to 600 litres of air per minute. This, before being diffused into the chamber, passes through a serpentine conductor, filled with cold water in the summer, with hot in the winter. Underneath the bed of the patient, there is a recipient containing 350 litres of the anæsthetic *mélange*, compressed by ten atmospheres. Here the author describes the muzzle by means of which the patient inhales the nitrous oxide. Iron handles, working in contrary directions, allow the air proceeding from the lungs to escape, and never combine with the nitrous oxide. Dr. Blanchard expresses the hope that there will be built, in the different hospitals, chambers large enough to accommodate the operators, students, and patients. He denies the assertion made by some, that it is painful to breathe the compressed air of the chamber, the pressure being so feeble. The only disagreeable result is a slightly unpleasant sensation on the tympanum. This is often easily avoided by executing the movement of deglutition. If the Eustachian tube be still obtruded, on allowing a small quantity of air to escape from the chamber, sufficient to lower the pressure 1 or 2 centimètres, the tube is emptied, and a movement of deglutition renders it permeable. The author recognises that this method of administering an anæsthetic cannot be utilised in army surgery, and only with great difficulty in country practice; but in cities, on the contrary, it can easily be adopted.

The thesis of M. Blanchard furnishes us with a list of sixty operations, performed at Paris by MM. Labbé, Péan, and Ledentu; at Brussels by M. De Roubaix. Among these operations, we observe excision of tumours of the breast, disarticulation of the middle finger, resection of the fibula, removal of tumours of the vulva, operation for fistula, for strumous disease of the tibio-tarsal articulation, for epithelial cancer of the lip and cheek, for circular lupus of the forearm, and wrist treated by scraping for "mouvements forcés" after ankylosis.

We will finish our notice of Dr. Blanchard's thesis by quoting the general conclusions at which he arrives. They are these. 1. Nitrous oxide administered under tension, and combined with oxygen, produces in a few seconds profound anæsthesia. 2. Under these conditions, there is not any danger to life, nor is suffocation possible. 3. By increasing or lowering the pressure, the intensity of the anæsthesia can be modified according to the will of the administrator, and this with mathematical precision. Thus we are not threatened by the dangers attending the use of chloroform or ether. 4. As soon as inhalation of the nitrous oxide ceases, the patient recovers consciousness, and is free from any disagreeable sensations. 5. Nitrous oxide is dissolved in the plasma of the blood. As soon as inhalation ceases, it is rejected by the lungs. Its use, therefore, does not entail any trouble to nutrition, nor any modification in the chemical composition of the tissues. 6. The fact that the operator and his assistants are obliged to breathe compressed air need not cause any alarm. Compressed air has a most beneficial effect on catarrh of the olfactory mucous membrane, and the respiratory tracts. 7. From the evidence of all these facts, nitrous oxide is evidently immeasurably superior to either chloroform or ether. It not only produces profound anæsthesia, but at the same time is perfectly harmless. If a mercurial pressure no higher than 0.30 millimètre be observed, it is absolutely impossible to endanger the life of the patient by placing him in a condition of anæsthesia. 8. In all cases where chloroform and ether are used, the nitrous oxide, if feasible, ought to be substituted.

THE Fijian name for a doctor, on being translated, turns out to be "carpenter of death"; and Mr. C. F. Gordon Cumming, in his work *At Home in Fiji*, says that Dr. Macgregor, who is practising the healing art in that part of the world, has substituted a new term signifying "man of life"; though how far it has superseded the original is not known.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

LLOYD'S UNIVERSAL FOOD.

THIS is a cooked, malted, farinaceous food, described as consisting of the most nutritious and finest selected cereal grains and pulse, combined with the active constituents of pure fresh malt-meal, as originally suggested by Liebig; and in such proportions as to render the mixture, as nearly as possible, chemically identical with the constituents of the human body itself. It has, we find on trial, many recommendations: it is easily digested, and requires no cooking, needing only to be mixed with boiling water or milk. It is highly nutritious, being described by Professor Attfield, F.R.S., Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain, as "a true food rich in all the elements necessary to the formation of flesh, fat, bone, and muscle, and therefore greatly superior to more starchy 'foods'. Its elements are in a proper form, in a perfectly cooked form, and in natural proportions. The phosphates present equal fully two per cent. of bone-phosphate. The nitrogenous or flesh-forming matter amounts to as much as fifteen per cent." This food is very palatable, and has the merit of being cheap. It makes an excellent supper-dish, and a delicate custard with fruit. It has more nutrition than rice, sago, or tapioca, and makes, like these *farini*, excellent pudding. As an article of ordinary diet, it is applicable for general use as well as for the special use of invalids and children, for whom it may, at pleasure, be made to replace, and often very advantageously, bread-and-milk, and various forms of porridge. It is not artificially sweetened, and is on the whole a very excellent food skilfully devised and well prepared. The wholesale agents are J. and C. Lloyd and Co., Verulam Street, Gray's Inn Road.

AN ADDITION TO THE BINAURAL STETHOSCOPE.

SIR,—I can fully corroborate the advantages claimed by Mr. Irwin Palmer of his addition to the binaural stethoscope. For some months past, I have been in the habit of making use of a pair of calipers for the measurements of deformities, especially in estimating the difference in expansion of the two sides of the chest in spinal disease. Of late, I have employed the same instrument in taking the chest-measurements of recruits for the army. Its simplicity and accuracy strongly recommend it.

The instrument I would advocate differs only from Mr. Irwin Palmer's in possessing a much simpler spring, and also in having a small screw passing through the hand of the indicator, by tightening which one is able to remove the instrument without losing the measurement. I would suggest this manifest improvement to Mr. Irwin Palmer.—I have the honour to be, sir, your obedient servant,

G. SHERMAN-BIGG, Surgeon Army Medical Department.

Allahabad, India, May 24th, 1881.

POISONING BY LOCAL ACTION OF PYROGALLIC ACID.—An account is given by Dr. A. Neisser, in a recent number of the *Annales d'Hygiène Publique*, of poisoning by an ointment containing pyrogallic acid. A man of strong constitution was admitted into the dermatological ward of the Breslau Hospital, suffering from general psoriasis. He was treated by frictions with chrysarobin (in the form of an ointment of alcoholic extract of rhubarb, containing 1-20th) on one half of the body, whilst the other half was treated in the same manner by an ointment containing ten per cent. of pyrogallic acid. Six hours after the application, the patient had violent shivering with vomiting and intense collapse. He then recovered somewhat, but the accidents reappeared in about forty hours. Death occurred on the fourth day after the application of the ointments, preceded by coma and a very low temperature. Experiments undertaken at once on rabbits proved that this catastrophe was due entirely to the pyrogallic acid ointment, and that the chrysarobin was innocuous. The pyrogallic acid acts by its extreme avidity for oxygen when in contact with alkaline fluids. The patient during the whole time he was at the hospital produced very little urine. The last quantity voided was dark brown, and very thick; it contained no blood corpuscles, but a considerable amount hæmoglobin, which was recognised by means of the absorption-bands it gives in the spectroscope. *Post mortem* examination showed that the blood had a dirty brownish red tint, and contained an abundance of *détritus* of red corpuscles. The kidneys were uniformly bluish black. In some of the experiments on rabbits the animal died within two hours.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JUNE 25TH, 1881.

EXPURGATION OF THE DENTISTS' REGISTER.

THE *Journal of the British Dental Association* for June contains an article from the pen of a competent lawyer, reviewing the Dentists' Act, and legal opinions thereon, and the action of the Medical Council in respect to the correction of the *Register*. We have good reason to believe that the opinions put forward in the following extracts coincide with those entertained by the leading dental practitioners, and that they will meet the approval of many members of the Medical Council. The writer of the article to which we refer says:

"The main questions as to registration arise with respect to the meaning of section 6 of the Act, which states: "That any person who is at the passing of the Act *bonâ fide* engaged in the practice of dentistry or dental surgery, either separately, or in conjunction with the practice of medicine, surgery, or pharmacy, shall be entitled to be registered under the Act."

"It would probably not occur to the ordinary mind that the interpretation of such plain English words could be much at variance with their grammatical import, still less that they would be ignored or held to mean almost the opposite of their bare sense. The dental profession have construed the section to mean that only persons were entitled to be registered who, at the passing of the Act, were simple dentists, or who, together with dentistry, practised medicine, surgery, or pharmacy, being legally entitled to do so by virtue of registration under the Medical Act or the Pharmacy Act. It was in accordance with these views that the representative board at once acted; and, on finding that a number of persons had registered as being engaged in the practice of dentistry, with pharmacy, who were not on the *Chemists' and Druggists' Register*, while others had registered who were practising dentistry in conjunction with business not recognised in the Dentists' Act, obtained counsel's opinion that the names of persons so registered could be removed under the Act from the *Register*.

"This opinion (of Mr. G. A. R. FitzGerald), with the alleged cases of incorrect registration, was sent to the General Medical Council, and by them, with Mr. C. (now Mr. Justice) Bowen's opinion added thereto, submitted to the Dental Committee for an investigation of facts.

"Neither the Medical Council nor even the Executive Committee, so far as can be seen from their minutes, authorised a further appeal to counsel. But upon some authority—it does not appear what—and, acting apparently without regard to, indeed wholly ignoring in their report, the two opinions submitted to them by the Medical Council, the Executive or Dental Committee proceeded to seek further opinions on the subject. These opinions, however obtained, were, in the first instance, those of Sir F. Herschell and of Mr. Vaughan Hawkins; and subsequently of Sir F. Herschell and Mr. Muir Mackenzie.

"It would seem that the effect of the above opinions would be to render meaningless the words "either separately or in conjunction with the practice of medicine, surgery, or pharmacy"; and that, according to the view taken by these counsel, the only condition necessary to registration is, that a person shall have been in the *bonâ fide* practice of dentistry at the passing of the Act, irrespective of his pursuit of any other business concurrently.

"We must confess that this opinion would seem to us to override the meaning of the words of the section, the intentions of the promoters, and the beneficial and remedial scope of the Act. The acceptance, however, of such construction is by no means incumbent on the dental profession, who are already armed with Mr. FitzGerald's opinion.

"This opinion appears to us to put a fair common sense interpretation upon the section in question, and to follow the grammar and spirit of the Act. It states that, "A person who, being at the passing of the Act engaged in the practice of dentistry, and also in some business not mentioned in the Act, declared himself to have been engaged in the practice of dentistry separately, or a person who declared himself to be engaged in the practice of dentistry in conjunction with pharmacy, but whose name was not in the *Chemists' and Druggists' Register*, is liable to have his name erased from the *Register*". That appears to us to be a fair interpretation of a section which needed legal ingenuity to become obscure.

"It must be remembered, too, that this view is borne out by the construction generally put on beneficial Acts of Parliament, and by the meaning of the Dentists' Act, when construed, as it should be, in connection with the Medical Act, 1858, and the Pharmacy Act, 1868. We believe it to be a maxim of law that remedial statutes, which are passed for the benefit of the public, are to be construed liberally and beneficially—so as to promote, as completely as possible, the remedial nature of the Act, and to give life and strength to the remedy.

"The preamble of the Medical Act, 1858 (21 and 22 Vict., c. 90), gives, as the reason for its passing, that "it is expedient that persons requiring medical aid should be enabled to distinguish qualified from unqualified practitioners"; and the preamble of the Pharmacy Act, 1868 (31 and 32 Vict., c. 121), states that the Act is passed because "it is expedient for the safety of the public, that persons keeping open shop for the retailing, dispensing, or compounding of poisons, and persons known as chemists and druggists, should possess a competent practical knowledge of their business, etc." Both preambles thus clearly show that they were promoted and passed for the protection of the public; and a person not registered under the Medical Act is subject to a penalty if he take the title of physician, or any similar title; and, under the Pharmacy Act, 1868, a person not registered under that Act is liable to a penalty if he take the title of chemist, druggist, or any similar title. When, therefore, Section 6 of the Dentists' Act speaks of the "practice of medicine, surgery, or pharmacy", the legislature must surely have meant the practice by legally qualified (that is, registered) practitioners. The legislature could scarcely have intended to define the legal practice of medicine in one statute, pharmacy in another, and subsequently stultify its own definitions in an analogous statute.

"The main question, as to the power under the Act to purify and keep pure the *Register*, depends on the interpretation of Section 6 of the Dentists' Act. As long, therefore, as the matter is allowed to rest supported in its present position by the force of one opinion, it is impossible to view the case with satisfaction; and we shall advance the dignity of the profession, and, at the same time, proceed in no unkindly spirit to the Medical Council, if we urge upon the dental profession to combine with its leading members in obtaining an opinion from counsel, as high in the legal profession as Sir F. Herschell, upon the whole merits of the case. Armed with such an opinion, if favourable to our view, the cases should be carried into a court of law, and the matter finally set at rest by a judicial decision of the courts. In this, and this way only, can we see any practical way of solving a question which is of great importance to the dental profession. It would, indeed, be a tame ending to a spirited and unselfish movement, upon the part of the leading dentists, whose conduct and motives throughout have been approved by their profession and the public, to allow the Dentists' Act, the charter of their new professional life, to fail in its application; and be shorn of one of its chief objects from a want of determination to sift the question thoroughly, and to bring to the certainty of a judicial decision what is now only a high legal opinion."

The writer of the article comments, in condemnatory terms, upon the baneful secrecy with which the Committee conducted its judicial proceedings; upon the careful exclusion of the leading dentists from any knowledge of the proceedings, and hence from offering any evidence on questions upon which they were qualified to speak: and, after an extravagant expenditure from the dental fund, upon leaving the burning question of correction of the *Dentists' Register* so wholly unsettled, that it becomes necessary, in vindication of the profession, for the British Dental Association to take further legal action for the determination of points which it was within the power of the Dental Committee of the Council to have placed beyond dispute.

THE REFLEX RELATIONS BETWEEN LUNGS, HEART, AND BLOOD-VESSELS.

THE influence which the respiratory movements exert upon the blood-stream in the lungs, heart, and blood-vessels is a subject which must always attract the attention of the physician and the physiologist. At first sight, it might appear that the problem was a simple mechanical one, explicable by physical laws; but here, as elsewhere within the body, it is necessary to take into account the nervous apparatus and the influence it exerts directly or in a reflex manner in modifying the action of the organs concerned. In considering the relation of the respiratory movements to the heart, lungs, and great vessels, it has recently been the practice to look, perhaps, too much to the subject as a physical problem, to the exclusion of the nervous apparatus and its effects thereon. We consider, therefore, that Dr. Julius Sommerbrodt of Breslau has done good service in directing the attention of physicians and physiologists to the "reflex relations between lungs, heart, and blood-vessels". Dr. Sommerbrodt shows that afferent nerve-impulses proceed from the lungs, and modify by reflex action the activities of the heart and blood-vessels in even a greater degree than is already known to be the case.

The recent histological investigations on the nervous apparatus of the lungs in the newt, frog, and other animals, by Egerow, W. Stirling, and Kandarazki, afford an anatomical basis in support of the physiological results. The results of these observers are conclusive that the lungs are supplied by a very large number of nerve-fibres—medullated and non-medullated—in the course of which many nerve-ganglia, as Remak showed, are intercalated. It is quite certain that all these nerve-fibres do not end in the non-striped muscle which exists in the bronchial wall and between the air-vesicles; but that many of them are afferent fibres, which convey impressions from the lungs to the respiratory and cardiac centres, so as to modify the activity of these centres by reflex agency. The present teaching on this question is that, during inspiration, the intrathoracic pressure is lowered, more blood flows from the veins into the right side of the heart, the blood-stream in the lungs is affected, so that more blood passes into the left side of the heart. Both these factors, as well as the increased number of heart-beats during inspiration, increase the arterial blood-pressure during inspiration. During expiration, the increased intrathoracic pressure causes a diminution of the supply of blood to the right and left heart; and the decrease in the number of heart-beats during expiration—through stimulation of the terminations of the vagus in the lungs—causes a fall in the arterial blood-pressure.

It has been attempted to show the influence of respiration on the circulation by sphygmographic investigations. In these investigations during normal breathing, the increase of the heart-beats during inspiration, and the decrease during expiration, is scarcely perceptible, but occurs very markedly during forced respiration, or when the respiratory movements are interfered with (Marey). It would seem that all the phenomena of the influence of the respiration on the circulation are explicable on mechanical grounds, except the changes in the number of heart-beats, which are of a nervous nature. The first proof of a reflex relation between the lungs and the heart was given by Hering, who showed that moderate inflation (30 to 35 millimètres of mercury) of the lungs in dogs caused an increase in the number of heart-beats. The first effect was always a fall of the blood-pressure; the second, an increase in the number of heart-beats, and that to the extent of double or treble the number of beats before the experiment. As soon as the inflation of the lungs was interrupted, the acceleration disappeared. Hering came to the conclusion that the afferent nerve-fibres of the lung bear the same relation to the inhibitory cardiac centre in the medulla that the depressor nerve bears to the vaso-motor centre. Both centres appear to be in a state of excitation, which is diminished by stimulation of certain afferent nerve-fibres.

There can be no doubt that one might expect to find a similar relation between the lungs and heart in man. Dr. Sommerbrodt has analysed more than one thousand sphygmograms of the radial artery, especially during the performance of Valsalva's experiment, and during the inhalation of compressed air. During Valsalva's experiment, three marked changes occur in the sphygmographic curve: 1. When the expiration with closed glottis begins, the sphygmogram rises above the abscissa, then falls slightly, and rises again before the end of the experiment; 2. During the experiment, and for a few pulse-beats thereafter, the individual pulse-beats become dicrotic; 3. The heart-beats are accelerated during the experiment, and for a few beats after free respiration. The rapidity of the rise in the sphygmographic curve depends on the rapidity, force, and duration of the expiration. The dicrotic or hyperdicrotic condition of the pulse-beats is always present, and is the most important sign of a diminished tension of the arterial wall and a fall of blood-pressure. The acceleration of the pulse-beat is always most marked in the latter half of the experiment, and the increase may reach 75 per cent. of the original number of beats.

With regard to inhalation of compressed air, its effects are twofold: first, purely mechanical; and, second, a reflex nervous action. The mechanical effects—apart from the ventilation of the lung and the gymnastics of the lung—are these. After a minimal increase, the blood-pressure in the aorta is much diminished, venous blood accumulates in the extrathoracic veins, the lesser circulation is thereby relieved, and the arteries become emptier. The reflex nervous effects are shown in the acceleration of the heart-beats, the diminution of the tension in the arterial wall, and the fall of the blood-pressure. Whilst the inspiration of compressed air is itself a hindrance to the circulation, its further effects exert a favourable influence on the circulation by accelerating the blood-stream. In cases of lesion of the valves of the heart, all of which hinder the circulation, inhalation of compressed air, as it favours the circulation, must be useful; and both Waldenburg and Sommerbrodt speak very strongly of its therapeutic effects in certain cases of valvular lesion of the heart.

From a careful analysis of his own sphygmographic tracings, and from a consideration of the experiments of other observers, Dr. Sommerbrodt gives the following conclusions as the result of his researches.

1. Every increase of the intrabronchial pressure in man (reading aloud, singing, accelerated deep breathing, running and climbing, coughing, inhalation of compressed air, Valsalva's experiment) stimulates the sensory nerves of the lungs, and causes—

2 *a*. A reflex effect on the vaso-motor nerves in a depressory sense, thus lowering the tones of the arterial vessels, widening the blood-channels, and causing a fall of the blood-pressure; *b*. A reflex-depressor effect on the inhibitory cardiac centre, causing acceleration of the heart's action. This effect takes place with a lower intrabronchial pressure, and disappears sooner than the effect 2 *a*. *a*. and *b*. together favour the circulation of the blood by increasing its rapidity, and thereby also influencing the renal secretion.

3. After the fall of blood-pressure, caused by high intrabronchial pressure due to 2 *a*, as well as by the stagnation of the venous blood, there occurs, after cessation of the intrabronchial pressure, a short stage where the blood-pressure is above the normal. This is due to the overfilling of the heart with the pent-up blood. During this period, there is slowing of the pulse and disturbance of the heart's rhythm; then follow the effects described under 2 *a* and 2 *b*.

4. The increased intrabronchial pressure, by obstructing the flow of blood in the extrathoracic veins, hinders the circulation; but, as the results described under 2 *a* and 2 *b* rapidly over-compensate for this, the circulation is really favoured.

5. It follows, therefore, that, when there is a slight increase of the intrabronchial pressure produced by deep respiration, as by singing or reading aloud, that these conditions essentially favour the circulation, because they suffice to produce the effects described under 2 *a* and 2 *b*, without causing any considerable obstacle to the blood-stream in the veins.

6. It is obvious that the muscles, and also the central nervous sys-

tem after any energetic efforts have been made, as lifting a weight, climbing, etc., necessarily obtain an increased supply of oxygen and nutrient material.

7. To a certain extent, the intrabronchial pressure must regulate the rapidity of the blood-stream; as the combined reflex effect is greater, the stronger and more prolonged the stimulus, and *vice versâ*. Stimulation of the sensory nerves of the lungs, besides producing the effects 2 *a* and 2 *b*, can also change the rhythm of the human heart, both in normal and pathological conditions. This irregular action of the heart is called allorhythmie. It seems, however, that an increased excitability of the heart is necessary before this can take place.

8. This experimental allorhythmie of the heart can be produced when the blood-pressure is low, and is, therefore, different from that discovered experimentally on animals by Knoll, when the blood-pressure is high. Knoll found, from experiments on animals, that an abnormally high blood-pressure; a rapid or considerable increase of the blood-pressure, caused irregularity in the heart-beat. These irregularities appear chiefly as pulsus bigeminus. Further, that increase of the intracardial pressure (by compressing the abdominal aorta) is connected with a moderate retardation of the heart, apart from the irregular heart-beat, when the spinal cord and the cervical nerves are intact.

NERVE-PLEXUSES OF THE EXTREMITIES.

In the whole province of practical human anatomy, no subject can be found that is better known and more familiar to the well-educated student and practitioner, than the formation of the cords of the great plexuses that supply nerves to the upper and lower extremities. A plexus is easily drawn on a diagram-board, is not readily forgotten, and presents but little difficulty in dissection. There is nothing very abstruse about a case of partial paralysis of the arm or leg; and its localisation determines, to a great extent, its origin. Anæsthesia of one patch of skin, or paralysis of one set of muscles in either limb, implies, from the very fact of the plexiform arrangement of the nerves supplying the limb, a lesion of one cord of a plexus at some point in its course from the spinal cord to the extremity, rather than any absolutely peripheral or central affection. The effects of an ununited wound completely severing the ulnar nerve in the forearm are well known. When a violent wrench of the shoulder, or a stab in the subclavian region, produces precisely similar effects, we reasonably conclude that the cord of the brachial plexus, whence the ulnar nerve is given off, has been damaged. It is on this principle, experimenting under conditions where every element of fallacy may be eliminated, that we may hope to attain a very precise knowledge of the nature of the cervical, brachial, lumbar, and sacral plexuses. In the case of observations on the lower animals, it is far easier to determine the distribution of motor than of sensory fibres.

Professors Ferrier and Gerald Yeo have recently contributed a valuable monograph on this subject to the *Proceedings of the Royal Society*. They prove that a plexus has a great functional significance, and does not merely represent a convenient arrangement for the distribution of nerves to individual muscles. They rightly insist on the determination of the effects of excitation or destruction of the individual roots of a plexus, as being the only possible method by which we can discriminate between the sensory and motor constituents of the nerve-trunks, or indicate their functional relations and distribution. In order to throw light on these questions by physiological researches which may be regarded as almost directly applicable to man, these physiologists have made a series of experiments on the motor roots of the brachial and lumbo-sacral plexuses. Excepting in the absence of a branch to join the phrenic nerve, the brachial plexus is essentially the same in the higher quadrumana as in our own species. Reckoning the first lumbar as a thirteenth dorsal vertebra, and counting the last lumbar as a first sacral, then numbering the nerves in harmony with this arrangement, it is found that, in the old-world monkeys, the mode of distribution of the lumbar and sacral plexuses is the same as in man. In observing the effects of stimulation of exposed motor roots, after numerous precautions, attention was directed more especially to the resultant muscular combination, rather than to the mere number of muscles thrown into action; since the actions thus excited are all complex co-ordinated movements of great significance. It was found very difficult, when so many events are occurring simultaneously, to analyse each muscular combination into the individual factors at work; and, on that account, the muscles stated to be in action when any one particular root was stimulated, were only definitely registered as being thrown into action, under such a condition, after repeated observations, the suspected muscles being partially exposed when it was found difficult to be otherwise sure of their co-operation.

The movements resulting from stimulation of the individual roots of the brachial, lumbar, and sacral plexuses, appear to represent a highly co-ordinated functional synergy, and not mere contraction, more or less strong, of a given number of muscles, although many muscles are excited to contraction by more than one root, as previous observers have already discovered. The muscles thrown into action by irritation of each root being innervated, in most cases, by several nerve-trunks, it would appear that the plexuses which contiguous roots form with each other, serve to distribute the requisite motor fibres in different trunks to the various muscles engaged in each functional combination. Section of any motor root was found to paralyse, not the individual muscles involved, but their power of combination.

Irritation of the eighth cervical root, for example, caused firm closure of the fist, pronation and flexion of the wrist, extension of the forearm, and retraction of the upper arm; an action precisely imitated by pulling some object, hanging in front, downwards and towards the hip. Stimulation of the seventh cervical produced invariably a complex action, which brought the back of the hand against the nates. On irritation of the fifth lumbar (the fourth, in man), the lower extremity was straightened directly backwards, in the position which immediately precedes the lifting of the foot to take another step forward in the act of walking. Although division of the roots above mentioned involved complete loss of voluntary exercise of the given combinations, it was found not to cause paralysis of the individual muscles contributing to each combination. This is what was to be expected, since many of these muscles are innervated by more than one root, and hence, though weakened, they might still act in other combinations in so far as they were supplied by other roots. Panizza has gone so far as to believe, from experiment, that there is no absolute immobility of a limb until every root is cut.

In conclusion, these experiments tend to show that the cervical and lumbar enlargements of the spinal cord are centres of these highly co-ordinated muscular combinations. We understand that important work, to elucidate this question, is at present being carried on by the same physiologists—work that may bear fruit of great physiological and pathological value.

THE SECRETS OF MESMERISM.

In their *Iconographie Photographique de la Salpêtrière*, MM. Bourneville and Regnard have explained at some length the methods by which the phenomena of what is popularly called mesmerism may be induced. They have recently republished these chapters in *Le Progrès Médical* on account of their general interest.

Hypnotism, or the phenomenon of mesmeric or magnetic sleep, may be induced in a variety of ways. In all times, says M. Bourneville, what we term contemplative asceticism has been produced by the prolonged observation of some object, brilliant or not, to which some virtue is attached. In India, fanatics contemplate space, or even the tips of their noses, which answer just as well; the Greek monks fall into ecstasy by staring fixedly at their navels; even Mahommedanism has given rise to a special method of inducing it by means of a prolonged and monotonous sound. Certain sects of Mahommedans provoke ecstatic crises by the beating of tambourines.

Braid of Manchester was the first to recognise that the phenomena of hypnotism should be attributed, not to any fluid, but to prolonged

maintenance of the gaze and attention on some object. Braid made his patients fix their eyes on his, while others who have followed him have made them look simply at some object placed in front of and a little above them.

The method employed at the Salpêtrière is the following. The patient should be preferably a female, young, impressionable, and possessing a certain degree of sentiment. The patient is seated before the operator, and told to fix her eyes on his, while he takes one of her thumbs between the thumb and forefinger of each hand. At the end of two or three minutes, the eyes of the patient redden, tears roll down her cheeks, and often she shuts her eyes and falls back; but if this do not occur spontaneously, the operator lets go her hand, and, with his thumb, closes her eyes. Sleep is then immediate; she falls back emitting a succession of sighs, while a little froth sometimes appears on the lips. Simple application of the thumbs to the eyeballs sometimes provokes hypnotism without the previous stage, and may be used in the case of patients in whom it is found impossible to maintain attention sufficiently long.

If we wish to have proof that the effects are not produced by the intervention of any fluid, it is afforded by the success of such a method as seating the patient, and making her look fixedly at something—a pencil or a silver penholder, placed between her eyes, which succeeds equally with those already described. But patients who have been already frequently hypnotised, may be influenced much more rapidly and by still more simple means. Their own imagination plays the most important part; and this it is of which charlatans have taken advantage. A patient at the Salpêtrière was so convinced of the power of one of the staff to "magnetise" her, that she fell hypnotised whenever she met him. With such predisposed patients, even simply extending one hand over their heads is sufficient to thoroughly hypnotise them. This gesture has often been used by wonder-workers. M. Bourneville having persuaded a patient that she could not leave the ward because he had magnetised the door-handles, when she touched them she fell down asleep. This illustrates how magnetised waters and magnetised trees have produced their effects. Magnetisation at a distance is equally explicable as the result of imagination. If one of their patients were told that M. X—— was in the next ward engaged in magnetising her, she would fall asleep. On one occasion, M. Bourneville told a patient that, from his own house, he would cause her to fall asleep at three o'clock in the afternoon; and, on the following day, he learnt that, at three o'clock, she fell asleep.

Such are the stories with which the books of magnetism are filled, and which are repeated by a credulous public, always eager to believe whatever excites their curiosity and wonder; but there is this difference: the charlatans who publish these stories pretend they have done something to produce the effect described; but M. Bourneville assures us that he did nothing at all; that he did not even think of the patient at the time when she supposed him to be exercising his mysterious influence over her, and that the result was entirely the effect of her own imagination.

The staff of the Salpêtrière deserve great credit for the courage with which they have investigated questions which have been so intimately mixed up with quackery and superstition, as to be regarded by most as incapable and unworthy of scientific investigation, as well as dangerous to meddle with, from their influence on the easily inflamed imaginations of the ignorant.

THE DIAGNOSIS OF TUMOUR OF THE CEREBELLUM.

AMONG the many recent advances which have been made towards a better knowledge of the pathology of intracranial disease, none has been more needed than that which has taught us to recognise, with more or less certainty, the symptoms to which a tumour involving the cerebellum may give rise. Not unfrequently, the early symptoms are so indefinite, so variable in their duration and periods of occurrence, or so entirely subjective in their nature, that the suspicion of hysteria or of malingering is aroused, and leads to the adoption of a very inappropriate and regrettable line of treatment. As is the case with all intracranial growths, the earliest symptoms are often vomiting, headache, and giddiness, a combination which may recur at more or less frequent intervals, and be mistaken for a "bilious attack", or "liverishness". In some cases, one of the first symptoms is a stiffness about the back of the neck, combined frequently with pain referred to the occipital region; such cases resemble not a little in their symptoms cervical caries, and this diagnosis may receive apparent confirmation from the history of a fall or blow about the back of the head; but Dr. Bastian has shown, by a valuable collection of cases, that the symptoms of cerebellar tumour may begin to develop soon after a fall on the head, and he seems inclined to think that such an injury may initiate the new growth. In other cases, the patient first seeks advice because he has found himself liable to "fits" or "spasms"; these fits may offer a valuable clue to the diagnosis of the malady, for frequently it will be found that the fit is really an attack of spasmodic rigidity in the muscles of the back, especially of the back of the neck, leading to forcible retraction of the head.

Not the least of the services which Dr. Hughlings Jackson has rendered to medicine has been his insistance on the necessity for making an examination of the optic discs in all cases in which any suspicion of structural change within the cranium may be aroused. Headache, vomiting, and double optic neuritis, are the signs and symptoms to which intracranial tumour habitually gives rise; the coincidence of these three conditions is enough of itself almost to assure us of the existence of such disease somewhere within the cranium, but they tell us nothing of its nature or situation; the evidence which shall confirm the existence of the tumour must be sought for in the symptoms which also enable us to localise its situation. What then, in the case of the cerebellum, are these symptoms? Without entering on the much debated question of the functions of the cerebellum, it will suffice to say that a tumour involving it gives rise to disturbances of motility, which, when well developed, are very characteristic; and of these, the commonest is a peculiar reeling gait, "the cerebellar reel"; Dr. Hughlings Jackson describes it as "like the walk of a drunken man", while Dr. Bastian says that, "in some respects", the patient walks "as a person does on the deck of a vessel in a rather rough sea". As to the cause of this peculiar walk, Dr. Jackson believes it to be due, not to any ataxic condition of the legs, but to a paresis of the muscles of the spine, which causes an uncertainty in the maintenance of the spinal equilibrium; and thus the legs act erratically, because they have to "run after" the trunk to prop it up in its various inclinings. Later on, this paresis gradually becomes more general, so that the legs are no longer able to prop up the now powerless trunk. In other cases, the disease develops in another direction, and a condition of muscular rigidity gradually ensues; at first, there is merely noticed some stiffness about the back of the neck, with occasional retraction of the head; gradually, the attacks of tonic convulsions become more severe and extensive; during the seizures, there is marked opisthotonos, the arms are semiflexed, the fingers clenched upon the palms, the lower limbs rigidly extended; and, in the intervals, there is no complete relaxation, but a condition of constant slight tonic contraction. Broadly stated, says Dr. Stephen Mackenzie, tonic contraction is a product of cerebellar, clonic of cerebral, disease. As with the loss of power which leads to the reeling gait, so with the rigidity, the muscles of the trunk suffer before those of the extremities. Now it will be seen that this is the order in which the muscles are called into play in locomotion: first, the trunk must be held erect, and balanced, then the limbs come into play, and finally, as we may observe in a person running swiftly, every muscle of the body is in action. If then, we suppose the cerebellum to preside over the ordering of those movements which are bilateral and alternate, that is, over those movements which habitually occur in locomotion, it will not be difficult to admit that any disease which shall gradually abolish the functions of the cerebellum should first manifest itself in those muscles which are first and most frequently

called into play in locomotion, and thence gradually extend to all the muscles of the body.

Though these motor disturbances most commonly occur, yet, from a variety of circumstances, their orderly development may be disturbed. In some cases, the attacks of tonic convulsions are very severe, and the patient dies during a seizure; in others, where the growth is situated in the middle lobe, it is said that pressure on the fourth ventricle, or on the iter a tertio ad quartum ventriculum, leads to a passive effusion into the ventricle, manifesting itself, in fits, in increased impairment of vision, and gradual abolition of function; in young children, this effusion may be so great as to lead, according to Dr. Stephen Mackenzie, to enlargement of the head. Another symptom which is sometimes a very prominent and distressing one, is vertigo; it may develop early, before optic neuritis or any definite disturbance of motility can be observed, a fact which it is well to bear in mind. Cases of tumour of the cerebellum are no doubt rare, and their diagnosis, it must be admitted, is frequently surrounded by difficulties and perplexities which may be in some cases even insurmountable; but we trust we have said enough to show that it is very necessary for every practitioner to be acquainted with that combination of symptoms to which they most commonly give rise, and in the absence of which even the most skilful neuro-pathologist may be completely at fault.

ALEXIS ST. MARTIN, of immortal story, is dead, as we read in the *New York Medical Record*, and his gastric fistula is closed for ever.

THE deaths annually, in the city of New York, exceed the births by about ten thousand.

THE next meeting of the Canada Medical Association is to be held in Halifax, Novia Scotia, on Wednesday, August 3rd.

THE Guild of St. Luke has forwarded to the Bishop of Bombay the sum of £100 (which the members hope to continue annually) for the support of a purely medical missionary at Rolhapur.

JOHN FRISCOM, who began a 45 days' fast on the noon of May 28th, is reported to be progressing satisfactorily in the process of starvation, under minute medical scrutiny.

THE third Domestic Economy Congress has been opened at the Royal Albert Hall, where a *conversazione* was held. The practical business has been carried on at the Society of Arts.

WE understand that the candidates already in the field for the vacant Assistant-Physiciancy at St. Thomas's Hospital are Dr. George Gulliver, Resident Assistant-Physician to the Hospital; Dr. W. B. Hadden; and Dr. Seymour Taylor, Demonstrator of Anatomy to St. Thomas's Hospital.

IT is announced that the Bradshaw lecture of the Royal College of Physicians will be given this year by Dr. Vivian Poore, and will probably bear upon paralytical affections of the hand. This lecture is given for the first time this year, in virtue of an endowment of £1,000 left to the College of Surgeons and College of Physicians respectively by the widow of Mr. Bradshaw, the well-known medical practitioner; the interest to be devoted to an annual lecture on the anniversary of his birthday, the 18th of August. The date is, perhaps, unfortunate, and especially as two lectures will be delivered, one at each College, simultaneously on this day, when a large number of practitioners are absent from town on vacation. It is not yet announced whether the College of Surgeons' lecture will be given this year, the endowment not having been available throughout the year for the accumulation of interest.

THE attendance at Dr. Barclay's Harveian lecture, which we print in another column, fell far short of what is usual, or, indeed, what may be considered respectful, either to the College or to the lecturer. It was said many of the Fellows and Members of the College had, through the omission of preliminary notices, not had the date of the lecture so well impressed upon their memories as in some former years. On this occasion, the Baly Medal, which, as we announced some time since, was awarded to Professor Burdon Sanderson, was publicly handed to him by Sir William Jenner, who took the opportunity for paying a well merited tribute to his lifelong study of biological science in this country. No one has done more than Dr. Burdon Sanderson to organise physiological teaching, to found a school of young physiologists, and to create a veritable enthusiasm for the study and advancement of this science, which lies at the basis of our modern exact knowledge of the processes of life in health and disease.

HARVEY TERCENTENARY MEMORIAL FUND.

A MEETING of the subscribers to the above named Fund, will be held, by the kind permission of the President of the Royal College of Physicians, at the College, Pall Mall East, on Wednesday next, the 29th instant at 5 P.M. precisely. The following will be the business of the meeting :—1. To receive a statement respecting the arrangements sanctioned and carried out by the Executive Committee.—2. To invite some eminent person to unveil the statue. Professor Richard Owen, C.B., F.R.S., will be duly proposed for this office.—3. To make final arrangements for the disposal of the statue.—4. The settlement of any other matters having reference to the Memorial Fund which may be introduced.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

NOTICES will be sent off this day (Friday) to every Fellow of the College in the United Kingdom whose address is known to the Secretary, announcing the following gentlemen as candidates for election into the Council on the 7th proximo, viz.: Sir James Paget, Bart., and Mr. Walton, for re-election; and of the following new candidates: Mr. John Whitaker Hulke, F.R.S., nominated by Messrs. Christopher Heath, E. R. Bickersteth, George Lawson, T. Pridgin Teale, Arthur E. Durham, and W. Morrant Baker; Mr. John Croft, nominated by Messrs. F. Le Gros Clark, John Simon, W. Morrant Baker, A. E. Durham, T. P. Teale, and T. H. Bartleet; Mr. Christopher Heath, nominated by Messrs. George Critchett, J. W. Hulke, T. P. Teale, W. P. Swain, W. M. Baker, and A. E. Durham; Mr. Reginald Harrison, Liverpool, nominated by Messrs. Alfred Willett, Oliver Pemberton, T. R. Jessop, T. W. Crosse, W. M. Banks, and Rushton Parker.

THE LATE PROFESSOR ROLLESTON.

IMMEDIATELY after the funeral of the late Professor Rolleston, a meeting of his old pupils was held in the Oxford Museum, with the object of perpetuating his name by some suitable memorial. A committee was formed, with power to add to its number; the following gentlemen being elected honorary secretaries: Dr. C. Mansell-Moullin, 17, George Street, Hanover Square, W., and Dr. Theodore Dyke Acland, St. Thomas's Hospital, S.E., London; Mr. E. B. Poulton, M.A., Wykeham House, and Mr. Algernon G. Thomas, M.A., Anatomical Department, Museum, Oxford.

DR. C. D. F. PHILLIPS.

AT a special meeting of the Westminster Hospital Medical School Council, held April 11th, 1881—Dr. Sturges in the chair—the following resolution, moved by the Dean of the School (Dr. Allchin), seconded by the Treasurer, (Mr. Cowell), was carried unanimously, and ordered to be transmitted to Dr. Phillips: "That, in accepting with much regret the resignation, on account of continued ill-health, of Dr. C. D. F. Phillips of the Chair of Materia Medica and Therapeutics in the Westminster Hospital School of Medicine, the Council desires to record in their minutes, and to present to Dr. Phillips their best thanks for his many services to the School, not only in ably discharging the duties connected with the Chair of Materia Medica, but in the entire renovation of the materia medica museum, in various additions to the library, and the endowment of the Fence and Houldsworth En-

trance Scholarships, presented through his instrumentality; and in other magnificent donations to the School. And the Council further desires to express to Dr. Phillips their sincere hope for his ultimate restoration to health." A resolution recording so much good work done for one of the public medical schools of the metropolis certainly deserves public record. We may add that we learn that Dr. Phillips has returned to England improved in his general health, and that he is actively engaged upon the second volume of his treatise on *Materia Medica;* but he is still paraplegic, and the respiratory mechanism on one side is still suffering from the effect of the injuries which he sustained from railway accident. His general health, however, is steadily improving; and there is good reason to hope that it may continue to improve, and render possible, at a future time, some degree of professional activity beyond merely literary work.

NEPHRECTOMY.

AT the last meeting of the Royal Medical and Chirurgical Society, owing to the number of papers to be read, and the long debate which took place on one of them, two or three interesting cases, which might have elicited discussion, were postponed till next session. Among the living patients brought to the meeting was the man on whom Mr. Clement Lucas successfully performed nephrectomy in February 1880. This man, who is thirty-six years of age, looked ruddy and well, and free from pain and all symptoms of scrofulous pyelitis, for which extirpation of the left kidney was undertaken. The wound is soundly healed, and there has been no sinus since Christmas. This is the first case in which the operation has proved successful on an adult in this country.

ROYAL COLLEGE OF SURGEONS: ELECTION OF A PATHOLOGICAL CURATOR.

THE Council, as will have already been seen in our columns, have decided to appoint a pathological curator of the museum; and this appointment will be made at the quarterly council on July 14th next. Applications should be sent in not later than the 4th proximo, as announced in our advertisement of this day. The curatorship will be associated with the Erasmus Wilson Fund; and the salary, made up out of the proceeds of that fund, supplemented from College sources, will amount to £170 *per annum*, with an additional £30 yearly should the holder of that office undertake the lectures or demonstrations. The duties of the office, which have not yet been finally determined by the Council, will necessitate the devotion of four hours daily to the work of the pathological department of the museum, and actual attendance at the museum from 3 to 5 P.M., excepting on Saturdays.

PROHIBITION OF VIVISECTION.

ON Monday, a deputation waited upon Sir J. Eardley Wilmot, Bart., M.P., in reference to the Bill for the Abolition of Vivisection, which is down for second reading on the 13th proximo. The deputation, which comprised members of the International and London Anti-Vivisection Societies, consisted of Mr. William Adlam, J.P., D.L.; Mr. Denny Urlin; the Rev. J. Matthews, M.A.; the Rev. F. G. Lee, D.D.; the Rev. H. N. Oxenham, M.A.; Mr. R. Ellis; Mr. Llewelyn; and Mr. Walbrook. Sir Eardley Wilmot said that he would rigorously proceed with the Bill, as already arranged. A lengthy conversation followed. A vote of thanks was given to Sir Eardley Wilmot for his courtesy, and the deputation withdrew.

THE ARTISANS' DWELLINGS ACT.

AT the first sitting of the Select Committee appointed to inquire into the working of the Artisans' and Labourers' Dwellings Improvement Act, presided over by Sir R. Cross, it was proposed first to call the medical officers of the districts where schemes had been carried out by the Metropolitan Board. At a subsequent meeting, Mr. G. A. Rogers, medical officer for the Limehouse district, gave evidence with reference to the Nightingale Lane scheme and the Brown Bear Alley scheme. He described the condition of the houses as very defective, and it was necessary to clear the whole of them away, and begin again. Mr. Liddell, medical officer to the Whitechapel district, and Dr. Tidy, medical officer of Islington, gave evidence as to some improvements carried out in those neighbourhoods.

THE INTERNATIONAL CONGRESS.

A MEETING of the General Committee of the International Congress was held at the College of Physicians, on Wednesday afternoon; Sir William Jenner in the chair. There was a very numerous attendance, and the report was read summarising the arrangements, and presenting a completed programme. The business of the Congress will be conducted in sixteen sections; and the arrangements of the general meetings include, as has already been stated, addresses to be delivered on Wednesday, by Sir James Paget; on Thursday, by Professor Huxley, who will take as his subject the connection of the biological sciences with medicine; on Friday, in German, by Professor Volkmann on modern surgery; on Monday, by Professor Raynaud, in French, on scepticism in medicine in past and present times; on Tuesday, by Surgeon Billings, on medical literature. The entertainments provided have already been announced. Attention was called at the meeting, however, to the fact that on only two evenings were any free entertainments provided for the general body of the Congress—one being a *soirée* given by the Royal College of Surgeons, and the other a *soirée* at the South Kensington Museum. It was pointed out that, considering the very large sum which would be subscribed and obtained by the fees of membership, estimated at between £6,000 and £7,000, the provision could hardly be considered adequate to the necessities of the case, or to suitable precedents. The *soirée* at the College of Surgeons is due to the liberality of the College, and costs the Congress nothing. The *soirée* at the South Kensington Museum costs only a few hundred pounds; whereas the total receipt is estimated as not less than six thousand pounds—a receipt and expenditure which has never been approached on any such occasion. A general feeling was expressed in favour of the suggested provision of a third entertainment; and it was referred to the Reception Committee (with the assent of Mr. Prescott Hewett, the chairman of that committee), to see whether suitable arrangements could not be made, by some further meeting, for the purpose either for an out-door *fête* at the Botanical Gardens, or in some other way. In response to an inquiry as to whether an estimate of receipts and expenditure could not now be presented to the subscribers and the committee, with the view of determining what fund would be available for general purposes, the general secretary, Mr. William Mac Cormac, stated that he could already see before him an expenditure of at least £5,000—this to include one volume of *Transactions*; and if the *Transactions* extended to two volumes, it might be estimated that the whole of the £6,000 to be received was already covered by the necessary expenditure now arranged. Very urgent appeals were made and repeated, both by the treasurer, Mr. Bowman, and by Mr. Mac Cormac, for more funds; and we feel sure that the profession generally, and our readers in particular, will be very willing generously to respond to any such appeal in the degree necessary for the credit of the profession and of the country, if they are satisfied that the funds in hand are being economically and judiciously expended; but such an estimate *en bloc* as that given at this meeting can hardly be considered adequate, and further details should be forthcoming with the least possible delay, as to the mode in which it is proposed to lay out this vast sum of money. It must be remembered, and it is fair here to say, that on the occasion when the Metropolitan Counties Branch of the British Medical Association received 2,000 members of the profession, they expended a sum of less than £1,500 on the reception, and in that expenditure was included the provision of a very handsome daily luncheon, free, for 1,200 people, on each of the four days, and considerable contributions towards some of the more costly excursions, as well as a large contribution towards the payment for the public dinner. To these purposes £1,100 were devoted. In the present instance, so far as at present appears, there is to be no free luncheon (which is, we think, a very wise arrangement);

everyone will pay for his luncheon, and will pay also for his expenses from beginning to end. The meeting-rooms are provided free; and as the one expenditure on the South Kensington *soirée* will not amount to more than a few hundred pounds, it will not be perfectly clear, without further explanation, to a person accustomed to an organisation of this sort, how, with a prospect of £6,000 to £7,000 in hand, there should be a prospective lack of further funds, and inability to provide for more than 5 to 10 per cent. of the members on more than two evenings. These matters were lightly commented upon at the meeting, and have been so much discussed in professional circles, that we think it only fair to the Acting Executive Committee to give them some opportunity of explaining their view of the subject, and putting before the profession such an outline *pro formâ* estimate of receipts and expenditure, as will justify that further appeal for funds which it is now proposed to make. We may say at once, that the expenditure on printing appears to be very much in excess of anything that has been heard of on any former occasion, and that, unless some check be put upon the expenses of administration, especially in this respect, it seems likely that a very undue proportion of the funds will be swallowed up in that item. In the report, a proposition was put forward, which was passed without comment, to strike a medal in honour of the Congress, with a charming design, furnished by Mr. Tenniel, on the one side, and on the back the head of the Queen, surrounded by the names of the President and General Secretary; for which purpose it is proposed to allocate £250. Possibly, if funds be deficient, this little luxury might be dispensed with.

THE AMERICAN MEDICAL ASSOCIATION.

THE thirty-second annual meeting of this Association was held in Richmond, Virginia, under the presidency of Dr. J. T. Hodgen of St. Louis, on May 3rd, 4th, 5th, and 6th. Addresses were delivered in Medicine by Dr. William Pepper of Philadelphia, in Obstetrics and Gynæcology by Dr. J. R. Chadwick of Boston, in Surgery by Dr. Hunter McGuire of Richmond, and in Ophthalmology by Dr. D. S. Reynolds of Louisville. The report of the Committee, appointed at the last annual meeting, on the publication of a weekly journal, was read, and a committee of five was appointed to digest and report in detail a plan for the publication of such a journal, and its time and place of publication. The committee is to report next year; in the meantime the *Transactions* are to be published. A Committee of five, consisting of Dr. N. S. Davis of Chicago, Dr. J. M. Toner of Washington, Dr. H. O. Marcy of Boston, Dr. W. Geddings of Aiken, and Dr. S. M. Bemis of New Orleans, was appointed as a Standing Committee on "Atmospheric Conditions and their Relations to the Prevalence of Diseases". The Committee is to select not less than six nor more than twelve places in the United States, at which to make continuous observation and record of all appreciable conditions of atmosphere, and of the origin and prevalence of acute diseases. They are to be entitled to draw on the funds of the Association, to an amount not exceeding 500 dollars in the year. It was decided that the next annual meeting be held in the city of St. Paul, Minnesota, in the first week of June 1882; and Dr. J. J. Woodward of Washington was chosen president. Dr. Woodward is well and most favourably known in the United States as the chief assistant in the surgeon-general's bureau at Washington, and as the medical editor of the *Medical and Surgical History of the Rebellion*. He is also the author of several valuable works.

WOOLSORTERS' DISEASE.

THE following is an extract from the report of the Bradford Medico-Chirurgical Society, presented at the annual meeting, held on June 14th.

"The Society is aware that a commission, from the members and others, was formed during the autumn of last year, to investigate the whole question of woolsorters' disease, with a view to the discovery of the nature of the infective poison, and for the suggestion of the remedies best calculated to combat and prevent the disease. The commission has met eighteen times, and a considerable mass of information respecting cases, etc., has come before it. It must be said that the opinion of the members of the commission is as yet divided as to the true nature of the poison producing so called woolsorters' disease, though it is admitted by all that there is a virulent infective agent at work. Nor, until a unanimous, or almost unanimous, conclusion can be arrived at respecting this, is it the intention of the commission to issue a decisive report upon the subject. Meanwhile, the members have determined to pursue their labours till they realise the end in view. Many interesting points and collateral issues have arisen during the prosecution of the inquiry, not the least of which is the discovery that bacteria are present in other diseases besides that of woolsorters', both in the blood and tissues of human beings and animals, and if not before, at least immediately after, death; and, furthermore, that they are found in the fluids of healthy animals, killed for the purpose of ascertaining this fact, and that, too so immediately after death, as to lend the strongest probability to the opinion that they may exist in the healthy tissues during life; for, in one instance, they were found within half an hour after the animal was killed, and thus before decomposition could possibly have set in. Of course, the great point for determination is, whether a sufficiently marked distinction exists between what is called the bacterium bacillus anthracis and other bacteria. This point remains for decision, and there appears at present no reason to doubt that a satisfactory solution will be arrived at. One duty the commission has thought it advisable to fulfil at once, which is, to communicate to employers of woolsorters and other workers in wool, the necessity of some decisive effort to prevent infected material from entering their premises at all; such a rule, for example, as requiring their agents, abroad and at home, to exclude all fallen and suspected fleeces from the bales of wool, whether that be of foreign, colonial, or home growth. Such a rule would at least strike at the root of the mischief so far as woolsorters and woolworkers are concerned, and be the best measure of prevention which can be suggested in the meantime."

LISTERISM IN FRANCE.

A PAPER read before the Société de Chirurgie by M. Boinet, on the subject of carbolic acid, has raised an interesting discussion, which is so much to the honour of French surgeons, as well as of our illustrious colleague Lister, that a short summary will be read with general interest. M. Boinet repeated all the historical notices of carbolic acid, and its employment in surgery, passing in review the various forms under which carbolic acid was utilised in the impure state (tar, phenol, etc.); and applied, as he said, for the first time in the dressing of wounds by Lemaire, for whom he claimed notoriety. To M. Lucas-Championnière belongs the chief honour of having studied the theory and practice of Mr. Lister; of having, in his handbook, set forth with the most intelligent precision the principles and details of Lister's antiseptic method; and, still more, of having faithfully, intelligently, and most successfully adopted that method in practice in the French hospitals. And to him has been due the introduction of the Listerian method into the French hospitals, with results so strikingly successful, that they have not failed to secure the attention of French surgeons generally, and have resulted in a striking reduction in the rates of mortality after surgical operation, which had until lately been the subject of severe comment throughout Great Britain and America. M. Lucas-Championnière appears to have replied to M. Boinet with great effect. He observed that M. Boinet's memoir, though long, was neither complete nor exact. Lister had never pretended to be the first to employ carbolic acid; long before Lister's time, antiseptic agents were employed. To speak only of French surgery, Larrey had devised a dressing of wounds with oil of tar, Nélaton had used alcohol, and Maisonneuve had employed carbolic acid in strong solutions. Lister's method consists in a system based on a theory which directly proceeded from the work of Pasteur. The theory is entirely founded on this fact: that the surgical complications of wounds, including suppuration, are produced by microscopic organisms, which are agents of a process resembling fermentation. These organisms must be destroyed *in loco*, or prevented from reaching the wound; hence the employment of pulverisation and the other classic parts of Lister's dressing. Carbolic acid has been hitherto found the most convenient agent, but an antiseptic dressing may be made as well with other substances (boracic acid, thymic acid, chloral, etc.). In short, the theory of Lister is based on clinical facts which are absolutely incontestable and uni-

versally recognised; and, among the most resolute adversaries of the method, there are few who, if they had to undergo a serious operation, would hesitate to avail themselves of the advantages and the security of the antiseptic dressing. M. Verneuil observed that he could not avoid comparing this discussion with those that took place when the American methods of cure for vesico-vaginal fistula were introduced into France. Long before Marion Sims and Bozeman made known their operations in Paris, vesico-vaginal fistulæ were occasionally cured. Jobert had long since obtained successes, but he cured only a very few fistulæ. Then came the Americans, with their form of speculum, their new position for the patient, with the metallic suture, the oblique method of fringing the edges of the wound so as to preserve the vesical mucous membrane, and with their S-shaped catheter. Evidently all these materials had existed before, but none had combined and applied them as they were applied in the operations of Marion Sims; and thus, when Sims presented his operation, with its various stages and new details, to him was attributed the logical conception which became his personal work; and now, with his method, we obtain commonly successes which were extremely rare before his time. M. Verneuil desired to declare himself a partisan of the Listerian method. He had long since employed antiseptics, but neither phenol nor any antiseptic in use had given successes comparable with those that are now obtained with Lister's dressing. The English surgeon has not invented all parts of the antiseptic method. The reform was in the air, and, after the labours of Pasteur, Tyndall, and Alphonse Guérin, had already obtained good results in following this path. So long ago as 1865, Maisonneuve, in a note presented to the Institute, already recommended certain substances as capable of destroying impurities of the air when applied to wounds. To Lister belongs the honour of having laid down and regulated the principles and practice which formed the condition of a good antiseptic dressing. Lister does not pretend to have originated antiseptic surgery. Those who know him can testify how modest and simple he is, always ready to inform himself of the defects of his dressing, accepting objections, and seeking the truth; he is a philosopher in the best acceptation of the term.—M. Monod, in the name of the young surgeons of France, rendered homage to the method of Lister, which to-day they all adopted without exception, and with success. For his part, since he had practised in the hospitals, he had not seen a single case of purulent affection in a patient to whom he applied Lister's dressing.—M. Déspres said that he had seen many methods of dressing fall into disuetude after having been recommended and accepted by many. It was necessary to know how to resist general enthusiasm.—M. Faraboeuf was of opinion that Lister's method was already consecrated by time. Ten years had passed before it had become acclimatised in France. Five years ago, the young surgeons who brought news of the results they had seen of that dressing, were not believed; now its adversaries were few, and it was almost universally adopted, even by the surgeons who seemed the most prejudiced against it.—M. Boinet considered carbolic acid a dangerous agent, and thought that the recent statistics of the English, in which 85 to 90 per cent. of successes were recorded in ovariotomy, must be accepted with caution. They could only refer to chosen cases; but it would be found best to employ carbolic acid vapour and washing out when cysts attached to the walls of the abdomen, to the intestines, and the liver had to be dealt with. M. Boinet evidently lives in the past, and has clearly not read the statistics or the reports of the cases, which he impugns with so much levity and on such small grounds. M. Lucas-Championniére did not allow the statement to pass without protest, that men such as Spencer Wells founded their statistics upon cases selected for the purpose of giving successful figures. Of course, M. Boinet is not aware that Spencer Wells, Keith, Bantock, Knowsley Thornton, and others, publish all their cases, and that they include a very large proportion of complications such as those of which he speaks.

A MEDICAL student named Huban has been arrested at Ballinasloe, under the Coercion Act, and removed to Dundalk Gaol.

SCOTLAND.

DISPOSAL OF THE CITY REFUSE IN GLASGOW.

WITH a view of solving the difficult problem of how best to dispose of the city refuse of our large towns, the Glasgow authorities have recently erected extensive works, where they have resolved to make an experiment in the matter, on the lines of the system adopted in Manchester. The leading idea of this latter method is the conveyance of the refuse from all its centres of accumulation in the city to a station outside, where it undergoes various changes, one of the chief of which is its transformation into manure, which is sold to customers, at a profit to the town. The Glasgow authorities, having determined some time ago to make trial of this plan, have had the necessary works constructed for the conversion of the city refuse proper into a marketable form. The proposal is to fix upon at least three despatch stations in the different districts of the city, in each of which there will be a railway siding and machinery suitably enclosed, where all the different materials constituting the city refuse may be manipulated, and sent out of town daily. In this way it is hoped that soon there will be an entire discontinuance of the plan of storing refuse in the city—a matter of no small importance to the health and comfort of the inhabitants; for wherever these manure depôts have been placed, they have speedily proved a nuisance to the people living in the vicinity, and must have been prejudicial to health. The authorities are to be congratulated on their efforts to get rid of these objectionable collections of refuse in a scientific and economical manner; and it is to be hoped that their efforts may prove successful financially, and thus induce other large towns to follow in their steps.

PROSECUTION UNDER THE VACCINATION ACT.

PROSECUTIONS under the Vaccination Act are so rare in Scotland, that it is refreshing, when one occurs, to read of the decisive way in which the administrators of justice treat offenders against the law. At the Sheriff's Court, Selkirk, a power-loom worker from Galashiels was prosecuted for refusing to have his twin children vaccinated. He pleaded guilty, and then proceeded to state his views on the subject of vaccination. The sheriff told him he could not entertain such views, and at once imposed a fine.

ANNUAL EXCURSION OF THE ABERDEEN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

THE Aberdeen, Banff, and Kincardine Branch held their annual excursion on Saturday last, under the presidentship of Dr. George of Keith. The company visited the vitrified fort which stands on the hill of Dunnideer, and afterwards dined at Insch.

MEDICAL OFFICER OF HEALTH FOR ABERDEEN.

THE Town Council met on Monday, and, by an absolute majority over the other two selected candidates, Dr. W. J. Simpson was elected to the post.

HEALTH OF EDINBURGH.

THE health report of the medical officer of health for Edinburgh shows that, during May, there were 381 deaths in Edinburgh, 26 fewer than in the same month last year. The death-rate was 20.49 per 1,000, as compared with 22.19 last year; and the average of the same month during the five preceding years was 22.40. Scarlatina caused 24 deaths, whooping-cough 13, typhoid fever 4, diphtheria 3, erysipelas 2, and typhus 1, while small-pox and measles caused none. The birth-rate was 34.98 per 1,000 of the population. The Health Committee, to whom the report was submitted, had also under its consideration reports of samples of milk which had been analysed, from which it appeared that only two of the samples obtained were deficient; and, in connection with this subject, the committee also considered the desirability of some regulation being exercised as regards the dairies from which milk is supplied to the town, with the object of preventing the dissemination of disease. During last week, the mortality of the city

increased suddenly to 77 per 1,000; 12 deaths were due to zymotic diseases, 6 of these being due to scarlatina and 4 to whooping-cough; while no fewer than 42 were due to phthisis and chest-diseases, 22 to nervous diseases, and 19 to debility and age.

THE HEALTH OF GLASGOW.

THE report of the medical officer of health for the week ending June 11th, states that there were 469 deaths registered, representing a death-rate of 24 per 1,000 living. There had been a remarkable combination of extremes of temperature in the last fortnight. The highest point reached—viz., 78° Fahr.—was not attained last year until the middle of August; while the lowest point—viz., 34.5° Fahr.—reached this year on June 8th, was not touched last year after April 27th. The number of deaths from pulmonary diseases was 165, representing a death-rate of 8 per 1,000 living, and constituting 35 per cent. of the total deaths. The number of deaths from fever was 10—viz., 9 from typhoid, and 1 from typhus. No cases of infectious disease of any sort have been discovered among emigrants during the fortnight; but one case of small-pox, which occurred in the suburb of Kinning Park, was apparently derived from contact with the previous cases of small-pox among the foreign emigrants.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending June 11th, it appears that the death-rate in the eight principal towns during the week was 18.7 per 1,000 of estimated population. This rate is 3.1 under that for the corresponding week of last year, and 1.9 under that for the previous week of the present year. The lowest mortality was recorded in Dundee—viz., 15.7 per 1,000; and the highest in Leith—viz., 21.7 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 2.6 per 1,000, or 0.2 above the rate for last week. Acute diseases of the chest caused 95 deaths, or 11 less than the number recorded last week. The mean temperature was 47.8°, being 12.3° under that of the week immediately preceding, and 4.6° under that of the corresponding week of last year.

HEALTH OF THE EIGHT PRINCIPAL SCOTCH TOWNS.

THERE were registered in the eight principal Scotch towns during the month of May the deaths of 2,280 persons; of this number, 1,127 were males, and 1,153 females. Making suitable allowance for increase of population, this is 587 under the average of the last ten years for the same month. The death-rates of the individual towns were, per 1,000 of the population—Dundee 17, Greenock 19, Aberdeen 20. Edinburgh 21, Glasgow and Leith 22, Paisley 26, and Perth 27. Thirty-eight per cent. of all the deaths was of children under five years of age—a lower percentage than has obtained for a considerable time. The percentage of children under five years of age who died in the different towns was—Paisley 23, Greenock 29, Perth 31, Aberdeen 35, Dundee 36, Edinburgh 38, and Glasgow and Leith 41. Of the entire mortality, 12.4 per cent. was due to zymotic diseases. This class of diseases in Leith, however, caused this rate to be considerably exceeded, owing to the prevalence of typhus and scarlet fevers and whooping-cough. Scarlet fever caused 44 deaths, of which 21 occurred in Edinburgh alone. Measles caused 32, diarrhœa 30, diphtheria 15, and croup 10 deaths; while, of 38 registered as fever, 14 were of typhus, 22 of enteric, and 2 of simple continued fever. Whooping-cough was, as usual, the most fatal, and caused 3.2 per cent. of the entire mortality. Apoplexy and paralysis caused 115 deaths, cardiac diseases 129, hydrocephalus 87, and premature birth debility 79 deaths. Phthisis pulmonalis contributed 311 deaths, equal to 13.6 per cent. of the entire mortality; while inflammatory affections of the respiratory organs (other than phthisis, croup, or whooping-cough) contributed 447 deaths, or 19.6 per cent. of the whole. Of 90 deaths from violent causes, 6 were of suicides. Four persons died whose ages were over ninety years—one male and three females; the oldest, a female, was ninety-five years of age. There were registered during the month the births of 3,959 children, of whom 2,061 were males, and 1,898 females. As to meteorological conditions, the mean barometric pressure was greater by 0.106 inch, the barometric monthly range greater by 0.548 inch, the mean temperature greater by 1.3°, the mean daily range of temperature greater by 2.3°, the mean humidity less by 6, the rain-depth greater by 0.29 inch, and the wind-pressure greater by 0.20 lb., than the average of the same month during the preceding twenty-four years. The greatest mean temperature was at Paisley, the lowest at Aberdeen; while the greatest rainfall was at Greenock, and the smallest at Dundee. The prevailing direction of the wind was west.

IRELAND.

THE UNIVERSITY OF DUBLIN.

THE summer commencements were held in Trinity College, on Wednesday last, (22nd instant) and were of special interest, from the fact that the chancellor of the University, the Right Hon. Earl Cairns, was formally installed on the occasion into the office, which he has held for many years. A large number of honorary degrees were conferred upon the occasion, amongst the recipients being Ahmuty Irwin, Esq., C.B., Inspector-General of Hospitals and Fleets. Mr. Irwin is a Licentiate of the Royal College of Surgeons in Ireland, and his career has been most distinguished. He was appointed Staff-Surgeon in 1855, Fleet-Surgeon in August, 1870, Deputy Inspector-General in March, 1874, and Inspector-General in February, 1880. For his services in the Crimea he received the Knighthood of the Legion of Honour, the Medjidie of the Fifth Class, and the Imperial Order of Valour, First Class. He was "specially mentioned" as continually under fire while attending the wounded at the capture of Ning-Po, 10th May, 1862; and served with the Naval Brigade during the Ashantee campaign, 1873-74, for which he received the Ashantee medal and the Companionship of the Bath.

QUEENSTOWN INTERCEPTING HOSPITAL.

THE question of admitting patients to the Intercepting Hospital, suffering from infectious diseases other than small-pox, came before the Cork Board of Guardians last week. Dr. Downing, the medical officer, considered that small-pox cases only should be admitted, otherwise he could not undertake their treatment at so low a remuneration as £20 per annum. After some discussion, it was determed to submit the matter to the Local Government Board for their opinion.

SMALL-POX IN BELFAST.

DR. J. SEATON REID, medical officer of the Belfast Workhouse, reported to the guardians last week that an increase had taken place in the number of patients admitted with small-pox. He thought that one of the cases might have been infected by having been in hospital when the sailors were under treatment for small-pox, but five others had been admitted who were unable to state how they contracted the disease. A stricter prohibition of intercourse between persons in the workhouse and the hospital has been established, as it was found that a woman from the wash-house of the Union visited her son in the school, who was subsequently admitted with small-pox. Dr. Reid has made the necessary arrangements to accommodate a considerable number of patients, should the disease become more prevalent. On June 11th, eight cases were under treatment.

URBAN SANITARY DISTRICTS.

SEPARATE statistics for the urban sanitary districts have been compiled by the Registrar-General in his recently issued quarterly report on the health of Ireland; and, when the difficulties experienced by the registrars in compiling separate returns have disappeared, each birth and death will be accurately assigned to the proper urban district. The most important fact demonstrated by the separate returns is that, in a total urban population of nearly one million, or about one-fifth of the whole population of Ireland, the death-rate exceeds the birth-rate in the proportion of 34.1 to 31.4 per 1,000—a result which points to very unfavourable conditions of life in Irish towns.

HEALTH AND POPULATION OF DUBLIN.

In the Dublin registration district, the births registered during the week ending the 11th instant amounted to 177, and the deaths to 141. The deaths represent an annual rate of mortality of 22.0 in every 1,000 of the population by the census of 1871. But even this comparatively low death-rate for Dublin is over-estimated, since, according to the late census, the population of the Dublin registration district has increased to 338,579, against 320,735 ten years ago. Looking at the city of Dublin, as separate from the county and from its suburbs, the population has been almost stationary, the population having increased but 1.3 per cent. in ten years—249,486 now, compared with 246,326 in 1871. But, taking in the suburbs, it shows an increase of 12,979 since 1871. Clontarf has grown in population 22.3 per cent. in the decennial period. Rathmines and Rathgar, 17.9 per cent.; Kingstown, 11.3 per cent.; Blackrock, 11 per cent.; Kilmainham, 8.7 per cent. Amalgamating these so as to merge them in the general population of the city, the total collective increase is only just 4 per cent. The number of inhabited houses in Dublin and the suburbs is 38,588. In 1871, the number was 35,285. Dublin, Antrim, and Kerry are the only counties which do not show a decrease in population. In the whole of Ireland, the decrease has amounted in forty years to a loss of 3,036,784 people.

THE IRISH CENSUS OF 1881.

It appears that, on the night of the 3rd of April last, there were 5,159,849 persons in Ireland. Since the previous returns in 1871, the population has shown a further falling off by no less than 252,538, or at the rate of 4.7 per cent. The population at the late census was composed of 2,522,804 males and 2,637,035 females, showing a large preponderance of the latter sex, though not so large an excess as in the previous decade. This diminution of upwards of a quarter of a million in the entire population was made up of a decrease amounting to 4.4 of the male population and 4.9 of females. The province of Leinster had a falling off of 60,261 persons, or a decline of 4.5 per cent.; Munster, 69,575, or 5 per cent.; Ulster, 93,686, or 5.1 per cent.; and Connaught, 29,016, or 3.4 per cent. In 1841, the inhabitants numbered 8,196,597; and since then, by reason of famine, fever, emigration, and the consolidation of small farms, they have persistently declined to 5,159,849. The religious distribution of the population was composed of 1,168,842 Protestants (including under this heading members of the Church of Ireland, Presbyterians, and Methodists), 3,951,888 Roman Catholics, and the remainder of other denominations. Eleven hundred and forty-four persons refused to give any information about their religious opinions. The births during the ten years amounted to 1,392,113, and the deaths to 969, 110, showing a natural increase of 423,003. Emigration, however, so much more absorbed the increase, that it amounted to 622,686, showing a net decrease of 199,683. This is even less than the actual difference in the population by as much as 52,850, compared with 1871; but the loss is accounted for by defective registration. The population of Dublin has been almost stationary, having varied but 1.3 per cent. in ten years, and that as an increase; but, taking the neighbouring townships into account, the increase has been very rapid. Amalgamating them so as to merge them into the general population of the city, the total collective increase is just 4 per cent. Belfast, as was expected, has shown a great and rapid increase of its population. In 1871, the total number of its inhabitants was 174,412; and now it is 207,071—an increase of 33,259, or at the rate of upwards of 3,000 a year.

THE HEALTH OF DUBLIN.

Dr. Cameron, Superintendent Medical Officer of Health and City Analyst, has issued his annual report upon the state of the public health and the sanitary work performed in Dublin during the year 1880. The report is an able document, extending over 197 pages, and containing, in addition to numerous tables, two charts (one of which is rather confusingly coloured) representing the number of deaths from all causes and from zymotic diseases registered weekly in 1880. Dr. Cameron thinks that the "very excessive mortality in the Dublin metropolitan registration area" in 1880—at the rate of 35 per 1,000—was owing to two causes, namely, an unusually severe year, and a large increase of poverty; the result, directly or indirectly, of three successive bad harvests. The average death-rate of the ten previous years was 27.75. Dr. Cameron enters fully into the acknowledged factors in the production of the high death-rate, and makes several admirable, and some novel, suggestions for their removal. He refers especially to the half-naked condition of the children of the poor as an important exciting cause of disease and death; and thinks that parents who keep their children half-naked in the winter ought to be prosecuted for endangering their lives.

THE MANAGEMENT OF HOSPITALS.

On Friday, June 10th, at 8 P.M., an adjourned general meeting of the Metropolitan Counties Branch, was held at the rooms of the Medical Society of London, 11 Chandos Street, Cavendish Square, to receive the report of the Committee appointed at the meeting, on February 23rd, to collect information on the subject of the Management of Hospitals. Dr. Habershon, President of the Branch, occupied the chair.

The following report of the Committee was read.

"In response to your instructions to obtain information with regard to various matters connected with hospital administration, and the relation of the medical schools to the hospitals in the metropolis and in the country, many valuable facts have been collected relative to the following points, viz.: Hospital management, maintenance, finance, erection, extension, and distribution of hospitals, their uses and abuses, medical relief, nursing arrangements, hospital teaching, museums, school buildings, school management, school finance, etc. Your Committee takes this opportunity of expressing its obligation, and according its best thanks to the deans and secretaries of the numerous institutions, who have afforded it the necessary information in so courteous a manner. Having devoted much time to the consideration of these large and important questions, your Committee is of opinion that the interests of the public, the welfare of the poor, and the advance of medical education, would be best promoted by the adoption of the accompanying memorial to the Home Secretary. Your Committee therefore recommends that an influential deputation of the Branch, accompanied by those who have practical acquaintance with hospital administration, be deputed to strongly urge upon the Home Secretary the appointment of a Royal Commission to investigate and report upon matters of hospital reform. —(Signed) Timothy Holmes, Chairman."

Accompanying the report was the draft of a proposed memorial to the Home Secretary, in which the following conclusions were set forth as the result of investigation.

"1. That the present system of hospital administration is attended with many anomalies which call for public inquiry.

"2. That in the metropolis especially the hospital accommodation is imperfectly distributed, and in many districts altogether inadequate.

"3. That the unsatisfactory condition of the present out-patient system of our large metropolitan hospitals demands reform.

"4. That the workhouse infirmaries, as at present administered, do not render such services to medical science and education as they might do.

"5. That it is desirable that every hospital and medical institution intended for the relief of the suffering poor, should be administered by a board of management subject to periodical election by the governors, upon which board the medical staff of the charity should be adequately represented.

"6. That a public audit of the accounts of all such institutions is needed to secure a right distribution of medical relief, and a more economical expenditure of the funds entrusted to the boards of management.

"7. That the importance of medical education, and the adequate training of the members of the medical profession require an intelligent recognition of the relation of the hospitals to their medical schools, to insure an improvement in such relations.

"8. That the absence of organisation and combination amongst the medical institutions throughout the country materially lessens their usefulness.

"9. That in the administration of the wards, so far as it affects the treatment of the patients, and especially in the management of the nursing arrangements, the medical staff should have an authoritative voice."

"10. That in order to ascertain fully the needs of the suffering poor throughout the country, and the means at present available for their relief, especially with the view of obtaining reliable data upon which to base the needful reforms, it is most desirable that a Royal Commission should be appointed."

Mr. HOLMES moved the adoption of the report, and the appointment of a deputation. Attempts had been made for many years to remedy the defects in the management of hospitals, but things remained much as they were nearly twenty years ago, when Sir William Fergusson and others endeavoured to introduce improvements into the out-patient system. There were also defects in other departments of hospital administration—he would not say abuses, as the word conveyed an opinion which he had no desire to adopt. He believed that the hospitals were under the management of men who were desirous of acting for the best, but at present all was confusion. It was necessary that the public should have information; and, therefore, the Committee proposed to ask for a Royal Commission—not for the purpose of making radical changes in the administration of hospitals, but in order to collect information and digest it into a book, so that it could be usefully applied. It was not desired that the hospitals should be placed under a Government official, but that an inquiry should be conducted by skilled persons, so as to put the whole matter before the profession and the public. It had been objected that this would lead to undue interference on the part of Government; but he did not think that this would occur. Another objection, an antiquated one, was that matters were very well as they were. As to this, he would say that anyone who could contend that the present system was the best for medical education and for the patients, must have a very strange mental constitution. That there were deficiencies in the system, and a waste of material for teaching, was palpably notorious. It was not proposed to ask the Government to make improvements in medical teaching—that must come from the physicians and surgeons. But in the hospitals a large amount of material was allowed to go to waste; there was a great deficiency of material for clinical teaching. One thing that was desired was, that the Royal Commission should inquire whether the Poor-law hospitals and similar institutions might not be used for medical education. It had also been objected, that the present movement was merely the result of recent events at Guy's Hospital. To this he would reply, that he had been interested in the reform of hospital administration long before the affair at Guy's; but he would not deny that this complication formed an additional motive for again pressing forward the matter. When it was considered that the misunderstanding nearly led to the closure of the medical school, then it was obvious that an inquiry was necessary in the case of Guy's Hospital; and not only there, but also with regard to the other endowed hospitals. And, if this were so, why should not the inquiry be extended to all other hospitals? Many hospitals would be well pleased to have an inquiry into their circumstances. A striking testimony in favour of the course which was proposed was, that the treasurer of Guy's Hospital was one of a body which, some time ago, asked for a Royal Commission on hospitals. The Committee had endeavoured to make the memorial as moderate as possible, and to support it by facts, avoiding all expressions which might give offence. They only desired an inquiry into all the facts. If all were found to be right, every one would be pleased—but he did not think that this would be the case. The present system of hospital administration had grown up without any arrangement; and it was time that there should be an inquiry into it.

Surgeon-General C. A. GORDON, C.B., seconded the motion. It had been found in the army that, where there were a number of different establishments conducted by different persons, various difficulties arose in regard to finance, the treatment of the sick, etc. He had been informed that it had been suggested that there be an establishment, somewhat analogous to the *assistance publique* in France, to manage especially finance and the arrangement of the sick. The difference in the expenses of the various hospitals might, perhaps, be reduced if they were under some control.

Dr. BRISTOWE said that, though a member of the Committee, he dissented from several points in the memorial. He assumed that, if a Royal Commission were appointed, the inquiry would be conducted with the intention of legislation. If it were so, then several points were mentioned on which no legislation was possible. No Royal Commission was required to inquire into the causes of the differences in the cost of hospitals; these might, he thought, be accounted for by the different circumstances of the places in which the hospitals were. As to the distribution of hospital accommodation in the metropolis, a Royal Commission would tell us nothing new, and could make no new arrangements. The out-patient system might be a fair subject for inquiry, but he did not go so far with regard to it as many did. He admitted the correctness of the fourth conclusion; but questioned whether the workhouse infirmaries could be of much use for clinical teaching, as they mostly contained not acute, but chronic cases. With regard to medical schools, he thought that their value was becoming more and more recognised by the governors of hospitals; and, if it were not so, what power had Parliament to interfere? As regarded the nursing, at most hospitals there were no difficulties; and, if there were a proper feeling, none would arise. For his own part, he was not disposed to recommend the appointment of a Royal Commission.

Dr. CHOLMELEY opposed the motion. The Home Secretary would refuse a Royal Commission to inquire into the management of private charities. What would be the use of a Royal Commission if it did not lead to the Government taking charge of the hospitals, or making alterations? As to the three Royal hospitals, there was very good ground for inquiry into their management; but, as regarded all others, the Government would be unwilling to interfere with English feeling. The propositions were in many instances supported by mere matter of opinion, not of evidence. In many respects, the correction of defects depended on the governors of the hospitals. What should be done was, to give the governors a more active interest in the institutions.

Mr. ERNEST HART was astonished at the remarks of Drs. Bristowe and Cholmeley, who had spoken as if there were no ascertained facts with regard to defects in hospital management. The whole mass of evidence on the subject had been repeatedly brought forward; and the necessity for interference had been recognised by the highest authorities. Only a fortnight ago, Sir William Harcourt had acknowledged that an inquiry was necessary, and had said that he was only waiting for certain information before entering on one. As regarded interference with institutions that had sprung out of private charity, the hospitals were, he believed, the only ones which had been left out. Friendly societies, life-assurance offices, etc., were all under the control of Government; and there was no interference with the liberty of the subject, but safety against abuse. It was not the large so much as the small hospitals that required investigation. A Royal Commission might collect and codify valuable information, and found thereon important recommendations regarding such matters as the presentation of financial and vital statistics on an uniform plan, the management of the out-patient departments, the distribution of hospitals, etc. The treasurers of the hospitals had been unanimous in asking for a Royal Commission. As regarded the Poor-law hospitals, it had been originally intended, in accordance with a suggestion made by him, that the Metropolitan Sick Asylums should have visiting physicians and surgeons, and clinical clerks and dressers, and that the only resident medical officers should be the house-surgeons. This, however, had been changed, and those institutions were closed against clinical teaching. All the points referred to in the memorial were important matters for inquiry by a Royal Commission.

Dr. POORE questioned the correctness of many of the statements in the report. He could not understand the fascination in favour of State interference. In the Parliament, one-half of the Lords were homœopathists; many of the House of Commons were antivaccinationists and antivivisectionists. He feared that matters of science would be made secondary to matters of policy. A Royal Commission could only result in a blue-book, which would do as much harm as good. England differed from most other countries in that the hospitals were (except in a few instances) supported by public charity. Great harm might be done by interfering with this. It was quite right that insurance companies should be controlled; as to the Railway Commission, very little good had been done. There were some small hospitals which did not publish balance-sheets; and, if the public would give to such, all that could be said was—*Caveat donor*. As to the Poor-law hospitals, he thought that much might be done if representations were made to the Poor-law authorities as to their value for clinical teaching. With regard to the proposal to appoint visiting physicians and surgeons to these hospitals, he would ask, what guarantee was there that the appointments to these hospitals would be properly made? The medical profession was not represented on the Government; and Government interference with hospitals would do great harm. He thought that much might be done as to improvement by private organisation.

Mr. H. C. BURDETT said that the question should be approached with careful consideration by the profession and by the public. The hospital governors felt the necessity of enlightenment as to facts. What was wanted was a commission of inquiry, containing representatives of all bodies interested in the management of hospitals, to obtain information so as to enable hospital managers to make improvements. In many cases, the object of Royal Commissions was not immediate legislation. Some authentic guidance was wanted for charitable persons as to the direction in which their charity should flow. If anyone would refer to the "agony column" of the *Times*, and appeal for any charity, he would get something, within three or four applications at most. The

Commission would call the attention of charitable persons to the abuses, and to the traps laid for them. It was desired to strengthen the hands of charities that were properly conducted; but, at present, the worst charities got most money, because they were most importunate and most reckless. Far from stopping the flow of charity, the Royal Commission would tend to bring an adequate income to every deserving institution. As to medical schools, he had observed that the lay governors required education as to the advantages of medical teaching in hospitals. Many thought that a clinical hospital was a great institution for experiments on the sick; and if the inquiry showed the accurate relation of the schools to the hospitals, much good would be done. The managing committee often did not appreciate the strength which the teaching staff brought to the hospitals. As to the workhouse infirmaries, some of those in the metropolis contained every modern improvement in hospital instruction, and might be developed greatly for teaching. As to the great discrepancies in the cost of hospitals, there was much room for an investigation of the circumstances. He hoped that the meeting would consent to the memorial.

Dr. HEYWOOD SMITH said that private organisation for the purpose of inquiry would not lead to any practical result.

Dr. GILBART SMITH said that many of the facts referred to in the report were furnished by hospital treasurers one or two years ago; and he thought that there would be very few mistakes in the report. He had been greatly struck with the great ignorance of the lay governors of hospitals as to the medical schools; and he believed that, if they saw the importance of the medical schools, they would go in for a high class of men on the hospital staff. If they paid the assistant-physicians, so as to enable them to retain their offices, they would have a better range of choice for the senior offices. Having got the best talent among the juniors, they might then further seek to educate them for further responsibility. At present, however, the junior members of the staff had no beds, and were not encouraged to teach. The sum of £1,000 a year would cover the grants made by the hospital governors to the museums.

Dr. HARE said that a broad fact was, that hospital management was not satisfactory. Was this to be remedied by a Royal Commission? by a voluntary society? or by leaving things as they were? He doubted whether any satisfactory progress would be made in the last way. No doubt some improvements had been made; but much remained to be desired. He had not heard of any better plan than a Royal Commission; if he had, he would support it. It was not an exceptional thing for Government to interfere. The asylums were, no doubt, better managed in consequence of the control of the Lunacy Commission; but this did not unduly interfere with their management. There would be nothing inconsistent with the genius of the country and with liberty. The question was, how to get authoritative information, on which something feasible might be constructed. The Marylebone Infirmary was once a grand school of pathology, in which Clendinning, Tweedie, and others worked; and also Sir Henry Thompson. He had been once ambitious to be physician at the infirmary, but was prevented by not being old enough to be a member of the Royal College of Physicians, which was necessary. The infirmary was now accessible to medical men only through the courtesy of the resident medical officer. There were now in London not merely workhouse wards, but magnificent infirmaries, containing the means of great work, but which were quite unused. If these infirmaries were open for clinical teaching, a great boon would be conferred on the profession; and they would also be valuable in furnishing cases at the examinations of the licensing boards, and also as regarded clinical investigation. He called attention to the excellence of the arrangements at University College Hospital, in its effects on teaching.

Mr. JABEZ HOGG said that Dr. Bristowe took an active part in the first inquiry into hospitals, which had led to very valuable results. What had been said against the conclusions had been quite as much in favour of them. No doubt the medical profession ought to be more represented in the House of Commons. There were many abuses which could not be reached in any other way than by a commission of inquiry. There was in many cases too strong a lay element. At Charing Cross, only the two senior members of the medical staff were on the managing committee. The committee took one-sixth of the fees; and he believed that, at University College Hospital, the whole of the medical officers' fees were taken by the hospital. He did not think it just that the medical officers should be deprived of their fees. The profession should be united, and obtain a reform of the abuses. As to the workhouse hospitals, the profession had a right to ask for admission to them for the purpose of clinical teaching. A vast amount of good teaching, and valuable cases of an acute kind, were lost in them.

Dr. A. P. STEWART said that the report was clear, full, and convincing. He was surprised that gentlemen so clear-headed as Drs. Bristowe and Cholmeley should be so little conversant with facts. With the fact of the treasurers of hospitals applying last year for a Royal Commission, the matter might be regarded as safe. The Committee expressed the feeling of the public and of the profession, that inquiry was necessary as to many things on which it was difficult to get information. We were apt to be blinded by laudable prejudices in favour of institutions of which we were proud. But opinions indicated the need of check from some quarter or another. His own opinion, formed many years ago, when he was abroad, as to the superiority of the system in England, had been materially changed. He thought we should be better for a little State interference. If an inquiry led to some efficient check on certain matters, he believed that good would be done. Of course, there was great anxiety for the liberty of the subject; but he had no fear of the Government being allowed to interfere to any prejudicial extent. Scarcely two hospitals were managed in the same way, as to the relation of the medical staff to the managing committee. Where a hospital was managed by one man, in certain cases he might do well; but, if not, he might produce a condition which would lead to general dissatisfaction. He approved of the plan of having a medical committee, whose minutes should be sent to the weekly board for confirmation; differences being arranged by a conference. But that there should be some permanent medical body as a part of the hospital management, was an axiom.

Mr. A. P. GOULD said that the analogy of asylums had been referred to; but they were not charitable institutions. St. Bartholomew's Hospital was well managed, and also St. Thomas's. Experience showed that no House of Commons would allow the workhouse infirmaries to be used for clinical instruction. The passage of paupers to the infirmaries was not voluntary, and the attempt to use them for clinical study would be opposed by all the Radicals. There had been a difficulty of obtaining subjects for dissection. Teachers of anatomy had been trying to get the bodies of paupers, but were told that no one dare make such a proposal. Government investigation would lead first to Government control, and then to Government management.

Mr. HOLMES said that a good deal of intelligent criticism had been made by gentlemen for whom he had great respect; but it had not come to much. He was glad that Dr. Bristowe did not oppose the memorial, though he was sorry he did not support it. Dr. Cholmeley seemed to go halfway, and then stop. It would be impossible to investigate the Royal hospitals without others. The Commission must bring up other hospitals, at least for comparison. The subject of hospital reform had been talked of for twenty years, and nothing would be done for twenty years more by depending on the action of a privately organised society. Would all the petty hospitals, which most needed inquiry, come into such a scheme? He thought that the only alternative was a public inquiry.

The motion was carried; and the President was authorised to make the necessary arrangements as to the deputation.

The meeting concluded with an unanimous vote of thanks to the Committee for their labours.

PLAGUE AND QUARANTINE.

IN the recently issued annual report of the medical officer of the Local Government Board for 1879, Dr. Buchanan omitted any reference to to the action taken within his department, as to foreign epidemics, proposing to submit later on a separate report upon that subject. The promised report has just been published, as a second supplement to the annual report of the Local Government Board, and it consists mainly of two elaborate papers (with appendices) by Mr. Netten Radcliffe, on the recent progress of plague, and on quarantine in the Red Sea respectively. In the first of these papers, Mr. Radcliffe gives a summary account of the progress of plague from 1876 to 1879, and details of recent outbreaks in Western China, the Assyr Country, and in the province of Astrakhan. The interest of these outbreaks is now purely historical, and it would serve no useful purpose to give any detailed account of them, as they are related in Mr. Radcliffe's memorandum; but as the various opinions have been expressed as to the causation of the Vetlianka epidemic, it may be well, in view of the exceptional interest it excited at the time, to record Mr. Radcliffe on the subject. He gives due consideration to the theory of importation from Resht in Persia, in the course of traffic along the Caspian, and to conveyance from infected places in Asia Minor by Cossacks returning from the seat of the Russo-Turkish War of 1877-8; but he thinks that the view entertained by the British Medical Commissioners—viz., that the outbreak was one of local growth, "alone of the several suggestions as to origin, covers the whole phenomena of the outbreak," (see vol. ii, 1879, p. 516). It would, however, seem to be of little avail to demonstrate, if it were

possible, one definite place of origin for this outbreak. Its analogies appear to be with occurrences of the disease in Mesopotamia, in Benghazi (North Africa), in the Assyr country, where during the years 1874 and 1879 plague made its appearance in circumscribed epidemics of limited duration; coming and going under unknown or unexplained conditions, more after the fashion of a disease that requires for its prevalence same fresh development in customary unhealthy circumstances, than like a disease that depends altogether for its appearance upon the importation of a specific contagion from elsewhere. Mr. Radcliffe's memorandum contains reasons for regarding in this light the outbreak on the Volga, as his papers in former blue books had led him to a like view of plague in other districts. There are, indeed, in the series of reports, a good many indications of plague resembling typhus fever (if not, as some have contended, in its nature) in its behaviour among populations, living under conditions of privation, of squalor, and of over-crowding; and just as it may be affirmed from our knowledge of the conditions of typhus, that European populations need no longer suffer from this scourge, so it may be expected that as civilisation carries with it a knowledge of the elementary conditions for health, plague may, at least, as an epidemic, be driven behind a more and more remote Asiatic and African frontier.

Mr. Radcliffe gives a complete *résumé* of the precautionary measures taken by the various European nations, on the announcement of the epidemic, and he is particularly severe upon the futility of the measures of quarantine adopted. He observes that the experience of quarantine in this country has been such as to show its utter futility, as a practical measure of precaution against the invasion of a foreign disease, and hence it is now retained on our statute book, only for the purpose of avoiding certain disabilities to which our shipping would else be subject in countries in which quarantine is held to be an essential element in the prevention of certain spreading diseases. In other countries the experience of quarantine does not appear to have been more favourable than our own, and such advantages as are still claimed for it, could probably be obtained in a less onerous fashion. The measures of quarantine adopted for the Volga, were applied at a time when they were useless in preventing the earlier extension of the disease, and relaxed at a period when, from the mode of execution, they would have been as certainly useless in preventing a later extension. "They were instituted before the facts of the outbreak were clearly known; interposed an almost insuperable obstacle to the proper ascertainment of the facts; directly tended to confirm the popular notions of plague out of which panic arose; were probably, if not certainly, in their earlier application, largely (although it must be said, unnecessarily) responsible for the great fatality of the disease; and had they been continued longer in operation than they were, by the interruption of commerce, must have led to deplorable results with regard to the sustenance of the people."

Indications have not been wanting of late, that there is growing a widespread discontent at the administration of quarantine in the Red Sea. It would seem from Mr. Radcliffe's second paper that so long ago as 1878, the department had been asked by Lord Salisbury to prepare "a complete and exhaustive memorandum on the whole question of the quarantine in the Red Sea, showing the medical opinions on the nature of cholera, the extent to which it has existed of late years, the action of the Indian and other Governments in regard to it, the weight that should be attached to the various sources from which information as to cholera, reaches Her Majesty's Government, and the complaints brought against the sanitary administration of the Red Sea. This somewhat arduous commission was undertaken by Mr. Radcliffe, who brought his exceptional experience of such questions to bear on a great mass of diffuse material, and soon found himself concerned with caravans and pilgrimages as well as with ships, with plague as well as cholera, and with the action of other Governments as well as of those that order quarantine in the Red Sea. The memorandum deals therefore, not only with the question of quarantine in the Red Sea, but with the sanitary administration of the Hejaz, and the regulation of the pilgrimage to Mecca, from which indeed it cannot be considered apart.

The experience of cholera in 1865—how it then for the first time chose the Red Sea as its route from Asia into Europe—taken along with a variety of geographical indications that, by the opening of the Suez Canal, the Red Sea has become the readiest route for the travel of cholera in the future, has invested the annual pilgrimage of Indian Mohammedans to Mecca with a fresh and very serious importance to the public health of Europe and of England. In the sort of people who enter upon the pilgrimage, in the want of sanitary observation of them at their setting out, in the absence of reasonable sanitary care for them during their journey and while in the Hejaz, most dangerous facilities are afforded for the extension of disease. The extinction of cholera in its native haunts, the discontinuance of this pilgrimage, an efficient sanitary administration in the Hejaz, are of course things not to be proposed as of immediate possibility. It may indeed be hoped that as a wider education spreads among the population concerned, and as they come to know of a dependence of cholera upon circumstances of air, water, and soil, which local communities have the power to influence the prevalence of cholera in India, and the danger to the Red Sea from cholera travelling in the wake of the pilgrims, may one day become less than they now are. But many years must needs elapse, before such lessons can be learned and acted upon, and, meanwhile, it is necessary to consider what may be practicable for the protection of Europe, against the importation of cholera by the Red Sea route. Apparently this must, for any purpose, consist in some kind of regulation of the pilgrimage in the interest of health, both at its outset and during its course; and the adoption of means that shall be at once the most practicable, and the most efficient for limiting the spread of infection when it has appeared among pilgrims.

Mr. Radcliffe's memorandum finds much matter for criticism in the administration of quarantine in the Red Sea, and indeed contains not a little in confirmation of the views expressed in his former paper, and in other publications of his department, respecting the small assurance to public health that is afforded by quarantine, imposed under such conditions as the necessities of modern existence ordain. The chief difficulties felt, would seem to be in the regulation of the pilgrim traffic. Under the present circumstances of this, and of the traffic through the Red Sea, there are obstacles to be surmounted, and international agreements to be arrived at, before the risk of cholera travelling towards Europe by way of the Red Sea can be reduced to its earlier proportions. This object is one of real importance, and well worthy of pains for its attainment; though the *vis inertiæ* to be overcome before it can be compassed will doubtless be, as is usual where Eastern Governments are concerned, of the most formidable and exasperating kind.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Scientific Grants Committee of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences, that they are empowered to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting should be made without delay to the General Secretary, at the office of the Association, 161A, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary on the conclusion of the research in furtherance of which the grant was made.

A NEW MEDICAL SCHOOL IN MANCHESTER.

A CORRESPONDENT writes from Manchester: Considerable interest, and no little excitement, has been produced in medical circles in Manchester by the announcement of the formation of a new medical school, which is to be opened next October, with a complete staff of teachers, including many prominent members of the profession in this city. The full list of lecturers has not yet been made public; but, from the names of those whom rumour credits with being connected with the new school, there will be no lack of thoroughness in the undertaking. The promoters, propose to themselves to inaugurate a healthy competition with the older teaching body, the Victoria University; they have, I understand, selected premises for the new school close to the Royal Infirmary, thus saving the students their long daily trudge to and from Owens College, complaints upon this head being neither few nor far between. The scheme has been well received, and has been accorded a fair meed of support from the profession at large. I understand the initial difficulties inseparable from such an important enterprise have been overcome, and the new school will be very much *en évidence* at the commencement of next winter session.

HOVE.—In the first quarter of the present year, there were 148 births and 80 deaths in this district, amongst a population recently enumerated as 20,820. The death-rate is calculated as 15.2, or 3.0 more than in the corresponding quarter of 1880. The increase is ascribed by Dr. Kebbell to the very low temperature which prevailed during the earlier part of the year. Thirty per cent. of the deaths were of children under one year of age, and 32 per cent. of persons over sixty years; both considerably above the average, and showing that the cold and inclement weather had an injurious effect upon young and old alike. Five deaths during the quarter were those of visitors, and six were ascribed to zymotic diseases.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION:

FORTY-NINTH ANNUAL MEETING.

THE Forty-Ninth Annual Meeting of the British Medical Association will be held at Ryde, Isle of Wight, on Tuesday, Wednesday, Thursday, and Friday, August 9th, 10th, 11th, and 12th, 1881.

President.—G. M. HUMPHRY, M.D., F.R.S., Professor of Anatomy in the University of Cambridge; Senior Surgeon to Addenbrooke's Hospital.

President-elect.—BENJAMIN BARROW, F.R.C.S., Consulting-Surgeon to the Royal Isle of Wight Infirmary.

An Address in Medicine will be delivered by JOHN SYER BRISTOWE, M.D., F.R.S., F.R.C.P., Senior Physician to St. Thomas's Hospital.

An Address in Surgery will be delivered by JONATHAN HUTCHINSON, F.R.C.S., Senior Surgeon to the London Hospital.

An Address in Obstetric Medicine will be delivered by JOHN G. SINCLAIR COGHILL, M.D., F.R.C.P.Edin., Visiting Physician to the National Hospital for Consumption, Ventnor.

The business of the Association will be transacted in Four Sections and one Subsection, viz.:—

SECTION A. MEDICINE.—*President:* Edward Long Fox, M.D., Clifton, Bristol. *Vice-Presidents:* W. Withers Moore, M.D., Brighton; Bushell Anningson, M.A., M.D., Cambridge. *Secretaries:* William Hoffmeister, M.D., Townsend House, Cowes, Isle of Wight; Robert Saundby, M.D., 71, Newhall Street, Birmingham.

SECTION B. SURGERY.—*President:* W. Martin Coates, M.R.C.S., Salisbury. *Vice-Presidents:* Charles Macnamara, F.R.C.S., London; Alexander G. Davey, M.D., Ryde. *Secretaries:* Ed. Allan Waterworth, M.D., 40, Quay Street, Newport, Isle of Wight; Herbert W. Page, M.A., F.R.C.S., 146, Harley Street, London.

SECTION C. OBSTETRIC MEDICINE.—*President:* Sir E. B. Sinclair, M.D., Dublin. *Vice-Presidents:* John Livesay Whitehead, M.D., Ventnor; Edward Malins, M.D., Birmingham. *Secretaries:* Robert Cory, M.D., 14 Palace Road, Albert Embankment, S.E.; James Mann Williamson, M.D., South Cliff Cottage, Ventnor, Isle of Wight.

SECTION D. PUBLIC MEDICINE.—*President:* Arthur Ransome, M.D., Bowden, Cheshire. *Vice-Presidents:* George Wilson, M.D., Leamington; William Armistead, M.B., Cambridge. *Secretaries:* James Neal, M.D., Barcelona House, Sandown, Isle of Wight; H. Aubrey Husband, M.B., 13, Northumberland Street, Edinburgh.

SUBSECTION: OTOLOGY.—*Chairman:* Urban Pritchard, M.D., London. *Secretaries:* E. Cresswell Baber, M.B., 4, Preston Street, Brighton; W. Douglas Hemming, F.R.C.S., Glenalmond, Bournemouth.

Honorary Local Secretaries.—J. M. Pletts, M.D., Kent House, Melville Street, Ryde, Isle of Wight; W. E. Green, Esq., Belgrave House, Sandown, Isle of Wight; Joseph Groves, B.A., M.B., Glen Cottage, Carisbrooke, Isle of Wight.

TUESDAY, AUGUST 9TH, 1881.

2 P.M.—Meeting of Committee of Council.
2.30 P.M.—Meeting of the Council of the Association.
4 P.M. Short service, with sermon by Bishop McDougall.
8 P.M.—General Meeting in the Town Hall. President's Address; Annual Report of Council and other business.

WEDNESDAY, AUGUST 10TH.

9.30 A.M.—Meeting of Council of the Association.
11 A.M.—Second General Meeting in the Town Hall. Address in Medicine.
2 to 5 P.M.—Sectional Meetings.
9 P.M.—Soirée in the Town Hall by the Mayor and the inhabitants of Ryde and neighbourhood.

THURSDAY, AUGUST 11TH.

9 A.M.—Meeting of the Committee of Council.
10 A.M.—Third General Meeting in the Town Hall. Reports of Committees.
11 A.M.—Address in Surgery.
2 to 5 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner in the Town Hall.

FRIDAY, AUGUST 12TH.

10 A.M.—Address in Obstetric Medicine in the Town Hall.
11 A.M.—Sectional Meetings.
1.30 P.M.—Concluding General Meeting in the Town Hall. Reports of Committees and other business.
4 P.M.—Garden party in the grounds of the Isle of Wight College, by the President-elect and Mrs. Barrow.

The following subjects have been arranged for discussion in the various Sections.

SECTION A.—MEDICINE.

1. Dr. Wade will open a discussion on Dilatation of the Stomach. 2. Dr. Gowers on Acute Spinal Paralysis. 3. Dr. Lauder Brunton, F.R.S., on Jaundice.

SECTION B.—SURGERY.

1. A discussion will be opened by Mr. Stokes of Dublin, on Resection of the Knee in Early Life.

2. Mr. Edmund Owen will open a discussion on the Early Recognition and Treatment of Spinal Caries.

SECTION C.—OBSTETRIC MEDICINE.

1. A discussion will be opened by Dr. Malins on the Removal of the Ovaries: *a*, for Dysmenorrhœa; *b*, for Fibroid Tumours.

2. Dr. Sinclair Coghill will open a discussion on the Mechanical Treatment of Uterine Flexions and Displacements.

SECTION D.—PUBLIC MEDICINE.

1. Mr. Ernest Hart will open a discussion on Vaccination with Calf-lymph, in which it is expected that Dr. Warlomont of Brussels and Dr. Martin of Boston will take part.

2. Dr. Strange will open a discussion on the Origin and Diffusion of Enteric Fever and Diphtheria.

3. Infectious Diseases, and how to deal with them under the Public Health Act in the best interests of the patients and of the public.

4. Considerations with regard to Infectious Hospitals: what changes are required in their character, size, site, management, etc.

5. Cremation.

SUBSECTION—OTOLOGY.

1. The Relation of Diseases of the Nasal Passages and Naso-pharynx to Aural Affections.

2. The Treatment of Acute Suppurative Inflammation of the Middle Ear, with especial reference to Perforation of the Mastoid.

N.B.—Members who desire to take part in the discussions, or to read papers, are earnestly requested to communicate without delay to the Secretaries of the respective Sections.

ANNUAL MUSEUM.

THE forty-ninth annual museum of the British Medical Association will be held at the School of Art on August 9th, 10th, 11th, and 12th, and will be open daily from 10 A.M. until 6 P.M., for the exhibition of the following objects:

1. Latest Inventions in Medical and Surgical Instruments and Appliances of all kinds, including No. 4.
2. New Chemicals and Apparatus; New Drugs and their Preparations; and New Articles of Diet for Invalids.
3. Drawings, Diagrams, or Models illustrating the Ventilation of Hospitals and Private Dwellings.
4. Microscopes, Thermometers, and other Instruments of Investigation.
5. Pathological Specimens.
6. New Medical Books.

The following is a list of the Museum Committee: Dr. Davey (Chairman), Ryde, Isle of Wight; Dr. Whitehead, Ventnor, Isle of Wight; Dr. Neal, Sandown, Isle of Wight; Mr. Modlin, Shanklin, Isle of Wight; Mr. Evelyn Rich (Honorary Secretary), Temple House, Ryde, Isle of Wight.

The Directors of the Royal Pier Company have granted the free use of the pier to members of the Association. The well known "Ryde Wherries" will be engaged for the use of members for water-excursions. An excursion will be made on Saturday, August 13th, which will give the members the opportunity of visiting Carisbrooke Castle and Roman Villa, the Roman Villa at Brading, and the towns of Newport, Sandown, Shanklin, and Ventnor.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the offices of the Association, 161A, Strand, on Wednesday, the 13th day of July next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, June 16th, 1881.

BRANCH MEETINGS TO BE HELD.

MIDLAND BRANCH.—The annual meeting of this Branch will be held at the Infirmary, Leicester, on Thursday, July 14th, at 2 o'clock. Members wishing to read papers are requested to communicate with Mr. FRANK H. HOOKS, Honorary Secretary for Leicestershire; or with C. HARRISON, M.D. Lincoln, Honorary Secretary Midland Branch

SOUTH-WESTERN BRANCH.—*(Amended Notice.)*—The annual meeting will be held in Druid's Hall, Redruth, on Wednesday, June 29th, at 11.15 A.M. R. Hogarth Clay, M.D., President, will resign the chair to R. Hudson, M.D., President-elect. An address will be delivered by Mr. William MacCormac, Surgeon to St. Thomas's Hospital, London. After the meeting, luncheon will be provided at 10, Trewirgie Road. Excursions will be arranged for the afternoon. Dinner at Tabb's Hotel at 6 P.M. Members intending to make communications, or to be present at the dinner, are requested to send notice to S. REES PHILLIPS, M.D., Honorary Secretary, Wonford House, Exeter.

THAMES VALLEY BRANCH.—The annual meeting of this Branch will be held at the Board-Room of the Richmond Hospital, on Thursday, July 7th, at 6 P.M. Gentlemen desirous of bringing any subject before the meeting are requested to give notice to the Honorary Secretary. Dinner at the Station Hotel, Richmond, at 7 P.M.—EDWARD L. FENN, Honorary Secretary.—Richmond, June 15th, 1881.

BORDER COUNTIES BRANCH.—The annual meeting of this Branch will be held at Melrose, on July 21st. Members who intend to give communications are requested to intimate to one of the Secretaries.—J. SMITH, M.D., J. KENDALL BURT, M.B., Honorary Secretaries.

YORKSHIRE BRANCH.—The annual meeting will be held in the Museum of the Yorkshire Philosophical Society, York, on Wednesday, June 29th, 1881, at 3 P.M. Members intending to read papers are requested to communicate at once to ARTHUR JACKSON, Honorary Secretary, Sheffield.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting will be held at the Town Hall, Preston, on Wednesday, June 29th, at 2 P.M. Lunch at Bull Hotel 12.15 to 1.45 P.M. Council meets at 1 P.M.; general meeting at 2 P.M. Dinner at the Bull Hotel at 5.30 P.M. Tickets 7s. 6d., exclusive of wine.—A. DAVIDSON, Hon. Secretary, 2, Gambier Terrace, Liverpool.

NORTHERN COUNTIES (SCOTLAND) BRANCH.—The annual meeting will be held at Strathpeffer, Dingwall, on Saturday, July 9th, at 12 noon; Dr. Bruce (Dingwall) President. Members intending to make any communication are requested to make intimation as soon as possible to the Secretary.—J. W. NORRIS MACKAY, M.D.—Elgin, June 20th, 1881.

NORTH OF ENGLAND BRANCH.—The annual meeting will be held at the North Eastern Hotel, Darlington, on Thursday, July 7th, at 3 P.M. The retiring President, G. B. Morgan, Esq., will introduce the President-elect, J. W. Eastwood, Esq., M.D., who will deliver an address. Dinner at the North-Eastern Hotel, at 5.30 P.M.; charge six shillings (exclusive of wine). Gentlemen intending to be present are requested to give early notice to the Secretary.—T. W. BARRON, M.B., Honorary Secretary.—Durham, June 11th, 1881.

EDINBURGH BRANCH.—The annual general meeting of this Branch will be held at 5, St. Andrew Square, Edinburgh, on Tuesday, the 28th instant, at four o'clock. CHARLES E. UNDERHILL Honorary Secretary.

METROPOLITAN COUNTIES BRANCH.—The twenty-ninth annual meeting will be held at the Crystal Palace on Tuesday, July 12th, at 4 P.M. Dinner at 6.30 P.M.; Edwin Saunders, Esq., in the chair. Tickets 12s. 6d. each, exclusive of wine.—A. HENRY, M.D.; W. C. GRIGG, M.D., Honorary Secretaries.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.—The annual general meeting of this Branch will be held on Tuesday, June 28th, at the Grand Hotel, Colmore Row, at 4 P.M. An address will be delivered by the new President, Mr. T. H. BARTLETT. A ballot will be taken for the election of members of the Branch. The annual dinner will take place at the Grand Hotel, at 6 P.M. Dinner tickets, exclusive of wine, five shillings each. Members have the privilege of introducing friends who are members of the medical profession both to the meeting and the dinner.—E. MALINS, M.B., E. RICKARDS, M.B., Honorary Secretaries.

BATH AND BRISTOL BRANCH.—The annual meeting of the above Branch will be held on Thursday, June 30th, 1881, at the Museum and Library, Bristol, at 4.30 P.M., when ALEXANDER WATCH, Esq., will resign the Chair to DAVID DAVIES, Esq., President-elect, who will deliver an address. The business of the meeting will be to receive the report of the Council; to elect the officers of the Branch; to transact the necessary business; and to discuss such subjects connected with the interest of the Branch and the profession as may be brought before it. Members having any communications for the meeting are requested to give notice of them to the Secretaries. The dinner will be held at the Imperial Hotel, Clifton Down Station, at 6.15 P.M.—E. MARKHAM SKERRITT, Honorary Secretary for the Bristol District, Thornton Villa, Richmond Hill, Clifton; R. S. FOWLER, Honorary Secretary for the Bath District, 6, Belmont, Bath.

NORTH OF IRELAND BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held in the Belfast Royal Hospital, on Thursday, May 26th; J. W. T. SMITH, M.D., President, in the Chair.

Report of Council.—The report for the past year was read, and the Treasurer's statement of accounts submitted. The report stated that the Branch, which now numbers one hundred and twenty members, continues steadily to progress. Since last annual meeting, the Council regret to have to record the death of Dr. Alexander Robinson (Fintona), a member who was greatly respected and deeply regretted. Meetings of the Branch were held on December 3rd, 1880, and March 4th, 1881. At the former, Dr. J. W. Byers read notes of a case of Cerebral Meningitis; Mr. Fagan exhibited an Ovarian Cyst which he had successfully removed, and read notes of the case; Dr. J. W. Browne read notes of a case of Tracheotomy he had performed on a patient who had previously undergone the same operation. At the meeting held on March 4th, the President read a paper on Ascites, and Dr. Thompson (Omagh) read a paper on Paracentesis Thoracis. The subject of Notification of Infectious Diseases was brought under the notice of the Branch, and a resolution passed desiring to record its opinion that the onus of reporting such cases should not devolve on the medical attendant.

President's Address.—The President delivered an admirable address.

Officers and Council.—The following were elected for the ensuing year:—*President:* Edward Thompson, M.B. (Omagh). *Vice-Presidents:* John Fagan, F.R.C.S.I. (Belfast); Alexander Filson, M.D. (Portaferry). *Representatives of the Branch on the Council of the Association:* James Cuming, M.D.; John Fagan, Esq.; William McKeown, M.D.; Sir William Miller, M.D.; J. M. Palmer, F.R.C.S.I.; T. K. Wheeler, M.D. *Members of Council:* John Adamson, M.D. (Lurgan); J. W. Browne, M.D. (Belfast); S. B. Coates, Esq. (Belfast); James Cuming, M.D. (Belfast); A. T. Carson, M.D. (Portrush); Alexander Dempsey, M.D. (Belfast); John Fagan, Esq. (Belfast); Alexander Filson, M.D. (Portaferry); William Frier, M.D. (Warringstown); J. K. Maconchy, F.R.C.S.I. (Downpatrick); Sir William Miller, M.D. (Derry); William McKeown, M.D. (Belfast); J. M. Palmer, Esq. (Armagh); J. W. T. Smith, M.D. (Belfast); T. K. Wheeler, M.D. (Belfast). *Honorary Secretary and Treasurer:* John Morn, M.D.

Communications.—1. Dr. Cuming exhibited a rare specimen of Nepro-Lithiasis. 2. Mr. Fagan exhibited an enormous Tumour (Elephantiasis of Labium) which he had removed. 3. Dr. Byers introduced a patient suffering from Paralytic Chorea.

Dinner.—The members and friends dined together at the Imperial Hotel, at seven o'clock.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

A MEETING of this District was held on Wednesday, May 25th, at the Royal York Hotel, Brighton; Dr. W. AINSLIE HOLLIS in the chair.

Honorary District Secretary.—Dr. Trollope having expressed his wish to resign his post, the following resolution was passed unanimously, on the motion of Dr. PARSONS, seconded by Mr. SPOONER:

"That the members of the East Sussex District of the South-Eastern Branch of the British Medical Association now assembled cannot receive the resignation of the District Honorary Secretary, without wishing to convey to Dr. Trollope their hearty thanks for the able and kind manner in which he has performed the duties of the office for the past ten years. The members, recognising the importance, not only to the District, but also to the whole Association, of the services rendered by the Honorary Secretaries of the Branches and the Districts, desire that their sentiments, thus expressed, be entered on to-day's minutes, and that a copy of them be sent to Dr. Trollope, and another copy to the JOURNAL of the Association."

It was proposed by Mr. HODGSON, seconded by Dr. FUSSELL, and carried unanimously:

"That Mr. Thomas Jenner Verrall of Brighton be requested to undertake the duties of Honorary Secretary."

Mr. Verrall signified his willingness to accept the post.

Papers.—The following papers were read.

1. Dr. F. Parsons: On the Health-Resorts of the Lower Engadine. The author, after describing the geographical position of the valley of the Inn, dwelt on the following points: The nature of the soil; temperature; rainfall; atmospheric conditions; relative amount of watery vapour and carbonic acid; absence of organic matter in the air at an elevation of 4000 to 6000 feet. The effect of these upon the health of the population, and also their action in modifying the course of disease, were next considered. Dr. Parsons described the various springs of the region, and their medicinal uses, and concluded with a general summary of the objects and aims of treatment in the Lower Engadine.

2. Mr. Penfold: *a.* Case of Orbital Tumour, with Photograph; *b.* Glioma of Retina.

3. Mr. Cresswell Baber: Diffuse Inflammation of the External Auditory Canal. Mr. Cresswell Baber read a paper on this subject, based on the notes of about a dozen cases of this affection which had been under his care during the last few years. The causes, symptoms, diagnosis, treatment, and prognosis were briefly described in succession, and the paper concluded with a short account of an acute and of a chronic case of the disease, both terminating favourably.

4. Dr. Ewart: Is an Indian Career suitable to Persons inheriting the Tubercular Diathesis? The author dissented from the opinion advanced by some, that such persons were positively benefited by a residence in India. If this were so, he argued, we should find phthisis very rare among the men of the civil and military services resident in India, who had been subjected to a careful examination previous to leaving home. Figures were quoted to prove there was no such immunity among the men. Dr. Ewart gave some interesting statistics of the temperature, range of temperature, rainfall, barometric pressure,

etc., at various stations both in the hills and plains. He described the ill effects of a residence in the plains, and dwelt on the fatal sequence of malaria, chylopoietic congestion, and dyspepsia; hence anæmia and phthisis in those predisposed. He concluded by emphasising the comparative freedom from these dangers enjoyed by hill-stations.

5. Mr. Edwards: Notes of a Case of Diphtheria, with the Treatment.

Dinner.—The dinner took place at the Hotel; Dr. Hollis presided.

The Next Meeting will take place in September at Hayward's Heath; Dr. Byass of Cuckfield is to be invited to take the chair.

SOUTH-EASTERN BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held at the Public Hall, Reigate, on Wednesday, June 8th. The chair was taken by the retiring President, W. WITHERS MOORE, M.D., of Brighton; and thirty-two members were present.

After a few introductory remarks, Dr. MOORE vacated the chair, which was taken by the President-elect, Mr. F. A. HALLOWES of Redhill.

Vote of Thanks.—Dr. GALTON moved—"That the best thanks of the meeting be given to the retiring President and to the Vice-Presidents (Mr. W. J. Harris and Dr. Paxon) for their services during the past year." This was seconded by Mr. KELSEY, and carried by acclamation.

President's Address.—The President delivered an address, taking as his principal text the subject of medical education. Speaking of preliminary education, he said that he was in favour of the extension of Greek as well as Latin. He hoped that physics, natural philosophy, and chemistry, with the first principles of physiology, would be more generally taught in schools; and that the student should be allowed to pass an examination in these at the outset of his career. He advised also an increased development of the tutorial system and a reduction of the amount of lecturing, with frequent compulsory examinations. He suggested that the British Medical Association might encourage medical study by the foundation of a scholarship, probably on some such plan as that of the Radcliffe Travelling Fellowship. He thought that registration should not follow at once on the passing of the final examination, but that a period of probation or articled pupilage, of at least six months' duration, should be gone through. He referred to the absence of general practitioners in the Medical Council, and pointed out the necessity of their representation in that body.

Dr. CARPENTER (Croydon) moved a vote of thanks to Mr. Hallowes for his address. He was quite sure that the address was as excellent in its way as had ever fallen from the President of the Medical Council, touching, as it did, upon those points that were most interesting to them as a profession, and showing that amongst the general practitioners there were men fully able, and quite ready, to take part in legislation for the profession. The subjects which were mentioned by Mr. Hallowes were some in which he (Dr. Carpenter) had taken very great interest, and he was very glad to hear the President express opinions to which he had given very strong expression in the committee which issued the report on the subject. He urged there that, before medical men could register, they should be on probation for twelve months with a practitioner who was in charge of some hospital or dispensary; the period of six months' probation, however, was retained. The reporting of infectious diseases by the householder to the sanitary authority was a matter which the Association had urged upon the Legislature and the profession; but it had not met with that general support from the body of the profession that he thought it ought to have received. The attempt to compel the medical practitioner to disclose to the local authority information of infectious disease was, in his opinion, a step in the wrong direction. If the medical man was also made criminally responsible for not disclosing information, his mouth would be closed; thus preventing the possibility of his being examined in the witness-box, and being enabled to declare what a certain disease was. The members of the medical profession should be true to themselves. It was their not being so that enabled the outside world to ride over them occasionally. Respecting the question of Association scholarships, to which the President had referred, he hoped the Association would, after a time, become powerful and rich enough to do many things that ought to be, and would be, done for the advance of the profession. There were some lines on which they had moved in that direction since he had the privilege of being President of the Council; but the one particular line they must keep before them was their solvency, and they must go on until they had got such a substantial position that might enable them to launch out in this movement, such as Mr. Hallowes had indicated, without being obliged hereafter to retrace their steps. In conclusion, Dr. Carpenter remarked that, as far as he could recollect, the President's address had not fallen short of those that had preceded it.

Mr. REID (Canterbury) seconded the motion, which was carried unanimously, and acknowledged by the President.

Report of Council.—Dr. PARSONS, Honorary Secretary, read the report of Council, of which the following is an abstract.

"At the last annual meeting, the Branch numbered 421 members, and to-day 437. In the interval, six have migrated to other parts of the kingdom, three in arrears have been erased from the list, two have been removed by death; whilst thirty new members have joined our ranks. The progress of the Branch is therefore satisfactory.

"But, though our losses from death have been fewer than usual this year, your Council have to deplore the decease of a highly valued former colleague, who for many years occupied a prominent position, and took an active part, in all that related to the Branch. Mr. Heckstall Smith, of St. Mary Cray, was one of the oldest and most trusty friends of the Association; and, though for some time past he was disabled by ill-health from attending our meetings, his commanding presence, persuasive eloquence, and untiring energy are not likely to be soon forgotten by those who were acquainted with him, and were fellow-labourers in the business of the Association.

"As regards the Districts, it is gratifying to report that everything works most satisfactorily. Periodical meetings have been held as usual in each, and on the whole have been attended with more than ordinary success. This is in great measure to be attributed to the unwearied assiduity of the Honorary District Secretaries in the performance of their duties, and your best thanks are due to these gentlemen for their self-denying labours. Of late years, changes in the honorary staff of the Districts have not been infrequent, and your Council have to regret to-day the retirement of yet another Honorary District Secretary. Dr. Trollope, who for the past ten years has ably conducted the affairs of the East Sussex District, has tendered his resignation. Your Council cannot allow so long a connection to terminate without placing on record their high appreciation of such services, and tendering to Dr. Trollope, on your behalf, their grateful thanks. Mr. T. J. Verrall, of Brighton, has been elected by the members in his District to the vacant office.

"The subject of gratuitous School-Board certificates has occupied the attention of the Council, and of a subcommittee, to whom it was referred by them. After mature consideration and discussion of the matter, your Council are of opinion that certificates should not, as a rule, be given gratuitously, but should be paid for either by the parents of the children, or by the School-Board when the parents are too poor to do so. In the majority of cases, the evidence of the school-attendance officer should be sufficient. Your Council are also of opinion that the certificates of the closing and reopening of public schools required by the Education Department should be obtained from the medical officer of health of the district.

"A resolution from the East Sussex District relative to the establishment of an Ethical Committee for the Branch also received the consideration of your Council, and they have decided to recommend to this meeting 'that the Council be empowered to constitute itself an Ethical Committee whenever, in the opinion of the President and the Honorary Secretary, it is desirable to do so'. This recommendation is in accordance with the resolution of the annual meeting at Maidstone, in June 1876, when the Council was constituted an Ethical Committee for one year only."

The report then referred to the action, with reference to local sanitary legislation, of the Parliamentary Bills Committee, of the Dublin Branch of the Association, and of the recent deputation to Mr. Dodson; and also to the proceedings of the Parliamentary Bills Committee with regard to the military and naval medical services.

"With a view to elicit the opinion of the profession upon the report upon medical education recently issued by the Committee of Council, and also on some questions of medical reform, your Council determined to hold a general meeting at Brighton on May 31st; and a circular of invitation was addressed to every member of the profession resident in the counties of Kent, Surrey, and Sussex. At this meeting, with our President in the chair, resolutions were passed approving the report and policy of the Committee of Council, and a petition to Parliament embodying these resolutions was framed, which the Chairman was requested to sign on behalf of the meeting." (A full report of the proceedings appeared in the BRITISH MEDICAL JOURNAL for June 11th.)

The Financial Statement showed the receipts to have been during the past year £154 19s. 5½d., and the expenditure £64 2s. 10d., leaving a balance in hand on the 23rd May last of £90 16s. 7½d.

The report and financial statement were received and adopted.

Medical Benevolent Fund.—Upon the proposition of Dr. CARPEN-

TER, seconded by Dr. LANCHESTER, it was resolved to vote ten guineas to the Medical Benevolent Fund.

Vote of Thanks.—A vote of thanks was accorded to the Council, auditors, and scrutineers, for their services during the past year.

Honorary Secretary.—On the motion of Mr. CHALDECOTT, seconded by Mr. HARRIS, Dr. Parsons was re-elected Secretary.

Dr. PARSONS said that as his services seemed to meet with the approbation of the members, he should be very happy to continue to discharge them to the best of his ability.

Place of Meeting in 1882: President-elect.—Mr. WORSHIP moved—"That the place of meeting for 1882 be Tunbridge Wells, and that the President-elect be Mr. Blackall Marsack". He was satisfied the medical gentlemen of that town would be glad to receive the visit of the Association.—This was agreed to, and Mr. MARSACK acknowledged the honour.

After the meeting, the members drove to Galton Park. They visited Earlswood Asylum and the Philanthropic Farm Schools, and afterwards availed themselves of the opportunity kindly afforded them of inspecting Mr. Webb's rare and splendid collection of old china and coins.

Dinner.—At half-past five, about fifty members and visitors dined together at the Public Hall; Mr. Hallowes, President, in the chair. Among the visitors present were Mr. Erichsen (President of the Royal College of Surgeons), Surgeon-General Mouat, V.C., Mr. A. E. Durham, the Rev. C. Walters, Mr. William Adams, Dr. Yandell (Louisville), Mr. Ernest Hart, Mr. Christopher Heath, etc.

EAST YORK AND NORTH LINCOLN BRANCH: ANNUAL MEETING.

THE twenty-fifth annual meeting of this Branch was held at the Infirmary, Hull, on May 25th; the President, W. STEPHENSON, Esq., of Beverley, in the chair.

New Members.—Nine new members were elected to the Branch.

President's Address.—The President read his opening address, which dealt with the following topics: (1) Benefit clubs; (2) Provident dispensaries; (3) The Contagious Diseases Acts; (4) Consultation with homœopaths; (5) The duties of the medical officer of health.

Summer Diarrhœa.—Mr. EVANS read a paper on summer diarrhœa. This was especially prevalent in Hull in the third quarter of the year, when the heat in the sewers had produced putrid fermentation, with formation of bacteria; these were carried into the air and infected fluids and solids. The evil effects of feeding-bottles and farinaceous diet for young infants was insisted on. The opinions of Professor Lister and Dr. Johnston of Leicester were mentioned as confirming these views. It was absolutely necessary that there should be a pumping-station for Hull. The reading of this paper was followed by a full discussion.

Excision of the Knee-Joint.—Mr. SHERBURN showed four children on whom he had performed excision of the knee-joint. Two of the cases were done about two years and a half ago, one eleven months ago, and one three months ago. They were all performed antiseptically. The results were excellent. Two of the cases had been elsewhere condemned to amputation.

Double Osteotomy.—Mr. R. H. B. NICHOLSON showed a child on whom he had performed double osteotomy with very good result. He also related a case of empyema, treated by drainage, followed by recovery.

Lithotomy.—Mr. KEETLEY related a case of lithotomy in a boy aged 12, which was complicated by the unusual shape and size of the calculus.

Notification and Isolation of Infectious Diseases.—Dr. J. H. GIBSON read a paper on this subject.

Umbrella-end in Face.—Dr. LUNN exhibited a patient from whose face he had extracted the broken end of an umbrella 2⅝ inches in length, which had been thrust through his antrum, and had remained there for twelve weeks.

Dinner.—In the evening, the members dined together at the Victoria Hotel.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—The nineteenth annual meeting of this society was held in the infirmary, on Tuesday evening, June 14th, 1881. The report reviewed the work of the session, and was regarded as highly satisfactory. The following gentlemen were elected as officers for the ensuing year:—*President*, J. Craig, M.D.; *Treasurer*, T. C. Denby; *Secretary*, D. Goodall, M.D. *Committee*: J. Appleyard, M.B., H. Butterfield, W. H. Ellis, and S. C. Hirst. *Pathologists*: J. Appleyard and T. Wilmot. *Auditors*: J. Dunlop, M.D., and S. C. Hirst.

SPECIAL CORRESPONDENCE.

MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

Owen's College.—Small-Pox.

THE medical department of the Owens College has outgrown its habitation. When the medical school and college were united, about seven years ago, the total number of students was not more than one hundred and forty; this year two hundred and thirty-six are attending the school, and almost all the departments are inconveniently crowded. A considerable increase of the school buildings is now contemplated; indeed, it seems probable that the additions will be commenced forthwith. A pathological laboratory is to be provided, and likewise a new materia medica museum and pharmaceutical laboratory. It is proposed, too, to make provision for a museum of hygiene. In addition to this, the physiological laboratory, already large, is to be extended, and a reading-room supplied for the Medical Society. It is probable, too, that very shortly a large museum will be erected for the natural history and geological collections belonging to the college. Large funds will be required for the new buildings, but it is not likely that they will long be wanting.

Manchester is threatened with a small-pox visitation; indeed, it is probable that an epidemic has already broken out. Seven cases were admitted into hospital on one day last week. The health-authorities of the city possess no infectious hospital, but send all cases requiring isolation to the fever-wards connected with the infirmary, which are situated about two miles outside the town. Fortunately, the infirmary board many years ago secured a large plot of ground on which the present fever-hospital was built; and, should more accommodation be wanted, there is ample room for the construction of wooden tents or more permanent buildings. Not only does the Manchester corporation send infectious cases to the infirmary fever-hospital, but a considerable number of the districts for many miles round Manchester do the same—the several health-authorities paying an annual subscription to the infirmary and a fixed sum for each patient sent. In this way, they are saved the expense of constructing and maintaining separate infectious hospitals. It has become a serious question, however, as to how far this system can be carried out. At the present time, patients are often brought eight or ten miles to the hospital, and a question as to the influence of removal on mortality is now being raised. Does removal of severe infectious cases several miles in a suitable conveyance do any harm? No evidence has yet been adduced that it does; still, it is manifest that there must be a limit as regards distance. But where is the line to be drawn?

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

The Western Infirmary.—Volunteer Ambulance Work.—The Public Health Act.

THE main object, no doubt, of this public opening of the new wards of the Western Infirmary was to bring prominently before the citizens the necessity for increased contributions for the support of the Infirmary. Unless subscriptions flow in more liberally than in the past, the new beds cannot be utilised, as the directors do not possess funds for their maintenance. This question how best to support these large infirmaries, which are now being erected in our towns, is one that will, sooner or later, have to be faced. Already, it has been suggested that a public rate should be levied for their maintenance. If such a course were adopted, it would have several disadvantages. It would throw an extra burden on the upper classes for the support of those who are really able to do more for themselves than they at present do. In the next place, such a step would tend to change the philanthropic character of our infirmaries, and bring them entirely under the charge of municipal corporations. The better solution of the matter—and, in fact, the only one—is to provide a system of provident institutions for the working classes, who are really those that people our hospitals; and in this way relieve the great demands on our public charities, and do something to stem the thriftless and improvident habits which the present system of charity in many of our large towns tends to encourage.

The past winter has seen considerable activity among the members of our various Glasgow volunteer regiments in ambulance work and drill, thanks to the energy of the volunteer surgeons. In every corps, a certain number of men, per company, have been fully instructed in a knowledge of the immediate assistance to be rendered to men severely

wounded, and in everything connected with their transport on stretchers and improvised seats. In view of the coming Scotch volunteer review, which it has now been decided to hold in the last week of August, it is hoped that steps will be taken to have the medical arrangements at the review under the charge of the volunteer surgeons; and that there may be a march past of the bearer-companies, as is proposed at the English volunteer review at Windsor—so that our Scotch volunteer service may not seem to be behind their English brethren in this important department.

There has just been issued a pamphlet, by Lord Provost Ure of Glasgow, in connection with the amendment of the Public Health Act in Scotland, that will very well repay perusal. For some time there has been a growing feeling that, compared with England, Scotland has not kept pace with the advancements made in sanitary reforms; and, if we look to the legislation that has been passed in connection with the subject, such an opinion derives further support. Since the general Public Health Act of 1867, very little has been done, save by local authorities acting within their own spheres. It is now thought that the time has come for improving and amending the Public Health Act of the country; and, with a view of obtaining the support of other cities and towns, the Glasgow Town Council issued to them a circular, inviting co-operation in the matter. It would take up too much space to detail all the suggestions made; but it may be said that they embrace changes in the administrative bodies connected with the public health, as well as in the subject matter of the law. The pamphlet just issued embraces the above memorandum of the Town Council, but enlarges at length on the suggestions it contains, and is a very valuable contribution to the subject of sanitary legislation as it affects Scotland.

CORRESPONDENCE.

OFFICIAL INQUIRY INTO THE CAUSATION OF SUMMER DIARRHŒA.

SIR,—Will you permit me to address you, and through you my medical brethren about the kingdom, on the subject of the large and most important inquiry into the etiology of "summer diarrhœa", with which the Local Government Board has charged me?

It is an official inquiry; but, from the first, I have perceived that it would be impossible, even if it were desirable, to conduct it altogether through official channels. Naturally, I have looked for help, first of all, to medical officers of health. Among these, there are many earnest workers with whom I am personally acquainted, whose willing aid in the collection of facts I have enlisted, and who are taking upon themselves much labour in my behalf. Through medical officers of health, I am seeking to obtain such minute details of statistical information respecting mortality as are necessary for my purpose. There are many of these officers with whom I have been anxious to confer, but time and opportunity have been against me. I shall be glad of volunteers.

But there is another and important class of facts, which can only be supplied by men engaged in medical practice—namely: facts which relate to summer diarrhœa as a disturbance of the system of the individual, or a disease (fatal or non-fatal). As such, it is met with in all ranks of society and at all ages, although its fatality is apparently greater in certain ranks and at certain ages. Various hypotheses have been advanced to account for the summer incidence of the disease, and for differences in its fatality; and all these hypotheses will have to be passed under consideration. My difficulty is to obtain data, accurate and sufficiently numerous, to enable me to estimate their value; and for these data I now make an appeal to members of my own profession, in the full belief that there are many among them who will feel an interest in the subject, and that I shall not appeal in vain. Especially I beg for aid from such of my brethren as practice among the well-to-do classes of the community. I particularly want to discover whether summer diarrhœa is a disease of equally frequent occurrence among the well-to-do and among the poorer classes; the rate of fatality, when it does occur, among different classes of people; and the circumstances under which the illnesses happen.

In order to facilitate the giving of the information I require, I have prepared, and am now issuing to those practitioners who will kindly help me, small pocket note-books, patterns of which I enclose. I think you will see that, in these books, I have reduced my actual specific inquiries to a minimum. One of the books is for the record of individual cases of diarrhœal sickness; the other is complementary to it, and has for its object to ascertain, with some approach to accuracy, what is the practice of mothers in respect of the feeding of infants at different ages, in different ranks of life, and in different parts of the country. Any required number of these little books will be furnished to medical men who are willing to use them, on their writing for them to me at the Medical Department, Local Government Board, Whitehall.—I am, sir, yours, etc.,

EDWARD BALLARD.

Local Government Board, June 20th, 1881.

THE ANTISEPTIC TREATMENT OF WOOLSORTERS' DISEASE.

SIR,—Seeing that treatment by the ordinary methods is of so little avail in this malady, and taking the presence of bacilli in the blood as an indication, will you permit me to suggest the administration of antiseptics? Recently, the benzoate of soda has been given subcutaneously in cases of yellow fever. I myself have some reason for believing, that, where germs (or ferments, if we choose to call them so) are present in the system, carbolic acid, given by the mouth, is of use. So may other antiseptics be, when tried.

It would, then, be of the greatest interest to know whether an agent, which prevents the development of germs, will avert the fatal result in this disease?—I am, sir, your obedient servant,

A. D. MACDONALD, M.B., C.M.Edin.

Exeter, June 15th, 1881.

OPIUM TRAFFIC.

SIR,—In the JOURNAL of May 21st, Dr. Murrell asks the question, "Is opium-eating and opium-smoking necessarily and universally pernicious?" Men who have lived in China, Java, Singapore, and other places where opium is used, are often found to hold different—I might almost say contradictory—views on this subject, being influenced not unfrequently by early predilections or the more mature associations of later years. My own experience, collected among the large Chinese mercantile population resident in Mandalay, is that its continuous use is pernicious, but pernicious in the same sense that Sir Wilfred Lawson might speak of alcohol being pernicious, or as an antitobacconist might object to the use of tobacco.

In one respect it is more dangerous than either tobacco or alcohol, and that is, in the fact that its use is more liable to degenerate into abuse than either of these. In moderation, I have been told, many people look upon their daily supply as a fillip—a sherry-and-bitters, in fact; and in numerous instances it has been found, after a lifetime, as little injurious. On the other hand, when the mind has become unbalanced from pecuniary loss or domestic calamities, the usual allowance is exceeded, and what was originally a moderate dose would eventually be looked upon as a homœopathic or even infinitesimal one. Moderation even here is often regulated by the purchasing power of the individual; and this, as the drug is expensive, will ever remain a barrier not only against its general abuse, but even against its universal use amongst the immense population of China. Thus in Singapore, where the wages of the Chinese are good, the consumption of opium is at the rate of 330 grains a year for each person. In Java, where the Chinese community is a small one and the wages comparatively low, the consumption does not exceed forty grains; and in China itself the rate of consumption is 140 grains, or adult doses, which would not give half a grain a day. But, as I said before, it is inaccessible to the mass of people, owing to their poverty. In many instances with which I was familiar, it did not produce constipation or loss of appetite, even when attended with listlessness and voluptuous reveries. No such effect followed as the result of separate doses; but, as a rule, its continued use will eventually end in loss of appetite, constipation, mental decay, and sexual impotency. The classic description of what I should call the confirmed rather than the habitual opium-eater, quoted by Dr. Murrell, though exaggerated and highly coloured, as such descriptions are likely to be, is in many particulars correct. For instance, a casual observer can "recognise at a glance", among any collection of well-to-do Chinamen assembled round the joss-house or other resort, a few possessing most distinctive characters of the confirmed debauchee. I have never seen a death the immediate and exciting cause of which was opium-eating, but can remember a few the result of an active and excessive debauch with this drug, in conjunction with *bang*, an extract of Indian hemp.

I may say that the Government of the King of Burmah visits with severe and condign punishment the opium-eater and the drunkard amongst its own subjects, though of course it does not interfere with the numerous foreigners living in the country. This may be looked upon as condemnatory of the use of opium on the part of those competent to form a correct opinion; and the wisdom that denies to a lazy and listless people the use of an agent that will further develop those qualities cannot be questioned.

Opium was first used, as far as we know, by Hippocrates, and afterwards more extensively by the Arabs. It is derived from the Greek

word ὄπος, a juice; and its Arabic, Chinese, and Hindoo names, as well as our own, clearly testify to the truth of this source.—I am, sir, yours obediently,

D. H. CULLIMORE.

15, Connaught Square, W.

MILITARY AND NAVAL MEDICAL SERVICES,

DEPUTY Surgeon-General John O'Nial, C.B., has been appointed principal medical officer of the Northern District, in succession to Deputy-Surgeon-General J. P. Cunningham, who has been appointed principal medical officer of the North British District, headquarters at Edinburgh. Dr. O'Nial was late chief medical officer of the Candahar Division, and had charge of the whole of the sick and wounded during the defence of that fortress and subsequent operations.

DESIRABLE PRECAUTIONS FOR THE VOLUNTEER REVIEW.

As fifty thousand men equipped in marching order will be moving early next month from various points for the Volunteer Review before the Queen at Windsor, and as it is to take place in one of the hottest periods of the year, it may be useful to call attention to the subject of "heat-stroke", as it is generally called on the Continent, among troops on the march, especially as to the measures necessary for its prevention, and the remedies to be adopted on its occurrence. From the numerous accidents, often of the most serious nature, which occur from the effects of heat, even in the moderate climate of England, when regiments are on the march in summer, or are going through summer manœuvres and exercises, it is obvious that this subject requires particular attention. We do not find any special reference to this topic among the various precautionary measures which medical officers are charged to bring to the notice of commanding officers, under the head of "Sanitary Duties", in the official Regulations for the British Army Medical Department; but in the Army Sanitary Regulations of Germany (*Kriegs-Sanitäts-Ordnung*, January, 1878, page 214), several pages are devoted to the subject, and the directions regarding it are very precise and complete. These directions have evidently been framed from experience and a careful consideration of the whole subject and its bearings; and we cannot do better, at the present occasion, than furnish a short analysis of them. The instructions are given under the five following sectional headings: General Remarks, Causes, Symptoms, Prevention, and Treatment. We will follow the same order.

General Remarks.—The obligations of surgeons in medical charge of troops to make themselves acquainted with the military regulations concerning marches are here pointed out, so that they may be more competent to propose to the officers in command useful and practicable measures for avoiding illness and losses when a march is in progress. The attention and activity of surgeons ought to increase in proportion to the efforts demanded from soldiers during a march, especially if the march is taking place in a heated atmosphere, for it is then that cases of heat-stroke are imminent. As a matter of diagnosis, heat-stroke is to be distinguished from sun-stroke. The effects of sun-stroke, which, in tropical climates, may induce meningitis and encephalitis, in European climates are limited to inflammatory conditions and blistering of the skin of the parts of the body exposed to the solar rays. Heat-stroke is a far more serious and dangerous condition. It is a malady which, in certain circumstances, under the influence of great heat, with a clouded sky as well as in clear weather, is developed very rapidly, and one which, unless opportune assistance is afforded, may lead to death, sometimes within a few hours, sometimes after days have elapsed. Every officer directing the movements of troops ought to understand the causes of heat-stroke, as the disease is a preventable one.

Causes.—Among the conditions which favour the production of heat-stroke are the following: *a*. An elevated external temperature, especially when the air is muggy, that is, when it is charged with a large quantity of watery vapour and there is no wind, so that perspiration does not evaporate, and, consequently, the natural process for cooling the body is interrupted; *b*. Physical efforts, which induce an elevation of the internal temperature of the body; *c*. Deficiency of water, that is, the absence of one of the most natural of the internal means of bodily refrigeration, on which depends the preservation of a due proportion of water in the blood and the supply of the materials necessary for transpiration; and *d*. Insufficient ventilation of the column of men on the march.

Besides the above causes, there are a number of influences, the concurrence of which favour the invasion of heat-stroke. Such are: a want of the habit of marching; a constitution too weak for much exertion; anterior fatigue or illness; insufficient sleep; excesses; and, above all, indulgence in alcoholic drink.

It may be readily understood that, at a time of great heat and under other external circumstances, the appointed means of regulating the temperature of the body, and maintaining it at a constantly even degree, become insufficient for troops marching on foot in close ranks, particularly when the marches are made, as they often are, during the warmest hours of the day. The sweat, in close weather, cannot evaporate sufficiently; it collects on the face, on the chest, and flows over the body. This is the first refrigerant which fails. If, further, the soldier has not the means of drinking frequently to cool the body and restore to the blood the water abstracted from it by transpiration, if the production of heat continues as a result of the muscular efforts of the march, it may happen, on the one hand, that the blood becomes thickened, and the tissues dry and impaired; on the other hand, that the bodily temperature attains a degree dangerous to life. The man is then struck by heat-stroke. The two other regulators of the temperature, respiration and circulation, are not then sufficient for cooling the body; they become disordered under the influence of the extreme heat of the bodily economy, and in the end paralysis of the heart ensues. To these causes must be added, when soldiers march in close order in calm weather, the vitiation of the air in which the column moves. Everyone who has marched with troops knows what a fetid condition the air attains in warm weather, when there is not a strong wind to remove it fast enough and renew it sufficiently.

Among cavalry soldiers, heat-stroke happens more rarely than with infantry, because the muscular efforts, and, therefore, the elevation of temperature, are less with them, and because they move at wider distances apart, than men marching on foot.

Symptoms.—The premonitory symptoms of heat-stroke are the following. The perspiration is abundant on the surface of the body, yet the pulse is rapid, the respiration hurried, and the heart beats violently. The soldier feels his head hot, as well as his skin; he has a sense of constriction at the chest; a feeling of faintness; his tongue is dry, his hands swollen, and his face turgid or scarlet; his limbs totter. If at this time a man falls out of the ranks, he will generally soon be restored on being relieved from the pressure of his uniform and accoutrements, by exposure to fresh air, by having some water given to him to drink, and by applying a wet handkerchief to his head and chest. But if this help be not afforded, and he drags himself painfully onwards, the transpiration becomes exhausted, the skin becomes dry, the lips glued together, the heart beats more feebly and more quickly, the respiration becomes more superficial, and at last the man loses sense and falls, sometimes as if in a fit, sometimes even with the signs of having become suddenly insane. When the condition has reached this degree, death is certain, unless help be afforded. Occasionally, the group of symptoms of heat-stroke are different, and depend on congestive determinations towards the brain, the lungs, or other organs, according to circumstances.

Prevention.—Soldiers the most habituated to marching cannot prevent their bodies from becoming overheated under certain circumstances. The natural remedy for this condition is drinking water. The belief that swallowing water is hurtful when the body is heated arises from prejudice. Of course, some precautions must be used if the liquid is very cold. It is important not to swallow a large quantity at a draught; it is better to drink more often and less at a time, and to mix with the water a little vinegar, tea, or coffee. To wait long that the body may become cool is useless; a few minutes suffice. The wooden water-bottles with narrow throats which soldiers usually carry answer all the purpose required. If circumstances permit, it is important at periods when, after the morning, the temperature reaches 77° F. in the shade, to arrange the march so that part of it may be accomplished by eight or nine o'clock A.M., the men reaching a halting-place at that time; the rest of the march can be taken late in the afternoon or evening. Before quitting a cantonment or halting-place, it should be seen that the water-bottles are filled. Spirits should be avoided. When the soil is sandy, or the roads dusty, it is well to march in as open ranks as possible. Halts should be multiplied and prolonged in airy places as far as practicable. Other points have to be attended to in time of war, but need not be described now.

Treatment.—When a man is attacked by heat-stroke, he should, pending the arrival of a surgeon, be carried to as cool and shady a place as possible; his clothes and accoutrements should be unfastened; his head raised; and care should be taken that he is surrounded as little as possible by people, who would prevent the access of pure air. Cold should be applied, by means of wet towels, to the face and chest, and if this be not sufficient, cold affusions, especially over the trunk,

should be had recourse to. The man should be made to swallow water freely, only a small quantity being given at a time. When respiration appears to be nearly arrested, artificial respiration should be proceeded with in the usual way. This should be continued, if natural respiration fails to be quickly re-established, until the arrival of the medical officer. Air should be constantly conducted to the sick man while these means of restoration are in progress. Friction of the palms of the hands, and of the soles of the feet, and other means of stimulating the circulation, are advantageous. Drowsiness should excite mistrust; sleep should be watched with much care. In case of hæmorrhage occurring, the man's comrades should abstain from all stimulating or exciting applications, and merely attend to the general measures above mentioned until the arrival of the medical officer, who will then give whatever directions the particular circumstances of the case may call for.

INDIAN MEDICAL SERVICE.

ATTENTION was recently (April 16th) drawn to the retardation of promotion to the administrative grades caused by the Warrant of 1880. Besides the lessened number of prizes and the increased delay in their award while on the active list, the number of *extra* retiring pensions is reduced.

The rule continues that, after a five years' tour in office as surgeon-general, an extra pension of £350 *per annum* is awarded. Deputy surgeons-general, after five years' service in that grade, receive a similar extra pension of £250. But, in the Bengal Presidency, up to 1869, there were two inspectors-general. In that year, the number was reduced to one, now called surgeon-general. Since then, there has been one surgeon-general for each presidency.

In 1880, the office of surgeon-general was abolished in Bengal, Madras, and Bombay alike. A new office of surgeon-general with the Government of India was created; but, as the officer appointed did not vacate his sanitary commissionership, his elevation has given no promotion. In short, within twelve years, of four offices carrying extra pensions of £350, three have been abolished.

Till quite recently, there were in Bengal ten deputy surgeons-general, viz.: 1. Presidency; 2. Eastern frontier and Assam; 3. Saugor; 4. Rawul Pindee (now Punjab frontier); 5. Meean Meer; 6. Dinapore; 7. Allahabad; 8. Agra; 9. Lucknow; 10. Umballa. During every five years, therefore, ten officers, on retirement, got *extra* pensions of £250. This number is now reduced to five, corresponding to the first five. Three new appointments in this grade have been created, with local rank as surgeons-general. These are for control of civil officers within the lieutenant-governorships of Lower Bengal, North-West Provinces, and Punjab. These appointments will not be open to all, but will be given to officers serving in civil capacities in the different provinces. But, even if they are counted as equivalents, there remains a loss within three years of two prospective extra pensions of £250.

The rank of brigade-surgeon has been conceded: twenty-one surgeons-major in Bengal are to receive this title. It carries no increase of pay, although in the Army Medical Department it does—honour, but *empty* honour.

NEW MUSEUM AT SYDNEY.—A technological, industrial, and sanitary museum is being established at Sydney, New South Wales. It is intended to occupy a similar position and fulfil the same purpose in this colony which the South Kensington Museum, the Bethnal Green Museum, the Museum of Practical Geology, the Patent Office Museum, and the Parkes Museum of Hygiene, do in London. To this end, it is intended to collect together typical collections of all materials of economic value belonging to the animal, vegetable, and mineral kingdoms, from the raw material through the various stages of manufacture, to the final product or finished article ready for use. It is intended that the following shall be more or less completely represented: 1. Animal products, and specimens to show the methods followed in their preparation and manufacture, their uses and applications. 2. Vegetable products, from the raw material through the various stages of manufacture to the finished fabric or other article. 3. Waste products. 4. Foods, animal and vegetable, their constituents and adulterations. 5. Economic entomology. 6. Economic geological specimens. 7. Educational apparatus and appliances. 8. Sanitary and hygienic appliances and systems. 9. Mining, engineering, and machinery. 10. Agricultural tools, appliances, and machinery. 11. Models, drawings, and descriptions of patents. 12. Ethnological specimens. 13. Examples of historical furniture and of artistic workmanship in metals. 14. Photographs, electrotype, plaster, and other reproductions of examples of art workmanship. 15. Exhibition catalogues, trade journals, price lists, and descriptions of new processes or industries.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE PENISTONE UNION AND DISTRICT MEDICAL RELIEF.

ACCORDING to a report in the *Barnsley Times* of the 28th ultimo, of a recent meeting of the Penistone Board of Guardians, Mr. Gruggen, medical officer for the Silkstone district, had recently applied for an increase of salary. From his letter of application, it was shown "that he had paid 828 visits during the preceding year; in addition to this, he had prescribed at home, and supplied all medicines. That, during 1880, his fortnightly average was thirty patients; since 1881 had commenced, this had risen to thirty-three. That his salary, out of which all the medicines had to be found, was £26 10s., or at the rate of 1s. 5¼d. per day". The letter having been read, the Chairman observed "that they had lately taken the matter into their consideration"; that the acreage of the Penistone district was 17,380, Silkstone 8,830, Denby 8,240; the population—Penistone 6,095, salary £21; Silkstone 5,213, salary £26; Denby 4,378, salary £25. It seemed to him to be only opening the whole question". Mr. Richmond said that "it is getting the thin edge of the wedge in for the others". Mr. Muklethwaite said Dr. Gruggen's district might have been rather heavy of late, but he proposed that the application be not entertained. Mr. G. Wordsworth seconded. Mr. Smith suggested "that they should say the question was left over". This was deprecated by several members, when the Chairman remarked that the doctor had 2¾d. for each visit! Ultimately, the application was rejected by an unanimous vote.

In such a matter, the only persons for whom we feel a real pity are the unfortunate sick and the general body of ratepayers, who, under the vicious economy of their guardians, ultimately have to pay more in the maintenance of widows and orphans.

THE USE OF ANÆSTHETICS IN PAUPER SURGERY.

OUR readers will be pleased to learn that, consequent on our calling attention to the refusal of the South Molton Board of Guardians to reimburse Mr. S. Burrows his outlay in engaging the services of a medical gentleman to administer chloroform in a recent case of operation for strangulated hernia, Mr. Thorold Rogers, M.P. for Southwark, called Mr. Dodson's attention thereto, with the result that the President of the Local Government Board has undertaken to revise the scale of fees, and to make arrangements whereby chloroformists who have been employed should be paid for their services. This is as it should be. The information, however, is accompanied by the statement that the Board had always discouraged the performance of capital operations by workhouse and district medical officers; alleging, as their reason, that the sick poor would thereby be enabled to obtain a higher character of surgical consideration. This view might have been correct when fees were first allowed, nearly forty years ago; but at the present time there are hundreds of surgeons holding Poor-law appointments who can compete on equal terms with hospital surgeons. We should be well pleased to see the whole system of fees commuted in a fairly remunerative stipend. When the scale of fees was first introduced, appointments were made annually; and the guardians met the principle of granting fees by reducing the salaries, so that many of the medical officers were worse off after their establishment than they were before. It would be as well if the Council of the Poor-law Medical Officers' Association took this important question into their serious consideration, with the view of securing from the department the most favourable terms.

THE SEWAGE QUESTION AT HELENSBURG.

A VERY pretty dispute is now going on between Dr. Henderson of this watering place, which is described as the Brighton of Scotland, and the local authorities of Glasgow and Helensburg, who deny his allegations. He states that an endemic of influenza is prevalent in the town and neighbourhood; and in this he is supported by Dr. Cowan, the late Professor of Materia Medica in the University of Glasgow, both believing that no other cause except the state of the shore has been discovered or suggested to account for its continued presence. Dr. Henderson says that the polluted waters of the Clyde run up the Gareloch, and deposit sewage-sediment on the banks of the river, and that a chemical analysis of the water and mud prove this. On the other hand, a joint committee of the local authorities of Helensburg and the parish of Row have brought up a report, in which they state

that they do not care to inquire whether or not there is an endemic of influenza, but that analyses of the water and of the mud on the foreshores show that there is no such pollution as that described by Dr. Henderson. The analyses were made for one party by Dr. Wallace of Glasgow and Dr. Smith of Manchester, and for the other by Dr. Stevenson Macadam of Edinburgh, all competent chemists. How are we to account for this discrepancy? It appears that one set of samples were collected by Dr. Henderson himself, in shallow vessels placed on the shore at one ebb, and removed at the next ebb; whilst the other set was collected by his opponents in another and much less satisfactory way. At any rate, Dr. Macadam, who was engaged by the opponents of Dr. Henderson, says: "I would suggest, for the general improvement of the main drainage of Helensburg, that the pipes conveying the sewage to the sea should be carried considerably beyond low-water mark, which, with the abundant supply of water, will conduce materially to the increased health of the burg". It is clear, therefore, that Dr. Henderson has good grounds for complaint; and that, although the local authorities may deny that there is not any unusual quantity of organic matter in the mud, they had better improve their own drainage, even if they do not compel their gigantic neighbour, Glasgow, to refrain from pouring its sewage into the Clyde, at the risk, to say the least of it, of polluting the foreshore, and consequently the air, of Helensburg. The joint committee were certainly ill advised in not accepting Dr. Henderson's offer to be present when their samples were taken; and something more than reporting must be done before the sanitary condition of Helensburg will be considered to be in a satisfactory state.

MR. A. KEMPE.—The certificate of competency is, in our judgment, amply sufficient, and may, in the case of our correspondent, be accepted unhesitatingly by the board of guardians and Local Government Board.

PAROCHIAL MEDICAL APPOINTMENTS.

SIR,—Will you kindly inform me whether it is legal, in the case of a death-vacancy in a parochial medical appointment, to elect a successor to the deceased without first publicly advertising the said appointment? Even if the successor so appointed have been partner with deceased.—Respectfully yours, MINIMO MINOR.

*** We are of opinion that it is within the competence of a board of guardians to fill up a vacancy thus arising without public advertisement. It should be remembered that every appointment to office must be reported to the central board; and, if any irregularity have taken place, the department will at once proceed to order its rectification.

LUNACY AND LUNATIC ASYLUMS.

DUNDEE LUNATIC ASYLUM.

AT the annual meeting of the directors of the Dundee Lunatic Asylum, held on Monday, it was stated that an exceptionally large number of cases had been treated during the year, the total number of patients under treatment having been 385, which was 11 more than during the previous year. The percentage of recoveries was 41.2, and the percentage of mortality was 5.7. Dr. H. O. Benham was appointed assistant to Dr. Rorie, the medical superintendent. Although the severity of the weather had interfered with the progress of the works at the new asylum, West Green, it is hoped that it will be ready for occupation in two months. For the year, the income was £8,027, and the expenditure £6,832. Sir John Ogilvy, Bart., was elected chairman of the board of directors.

THE LUNACY DISTRICTS (SCOTLAND) BILL.

PREVIOUSLY to the year 1877 (when the Prisons (Scotland) Act became law, and prison boards were abolished), the Commissioners in Lunacy had the power, on the application of any prison board, to alter or vary districts by combining counties or dividing counties, or otherwise, as they might consider best, for the erection of proper asylums for the insane. When the prison boards ceased to exist, after the Act of 1877, there was no legal authority left who could make such application to the Commissioners. The Lord Advocate has introduced a Bill into the House of Lords, which is intituled "The Lunacy Districts (Scotland) Act, 1881", and which, if it pass, will empower the Lord Advocate, on the application of the General Board of Commissioners in Lunacy for Scotland, to alter or vary the said districts, either by combining counties or parts of counties, or dividing counties, or otherwise, as may be necessary.

THE BORDER COUNTIES ASYLUM.

THE Border Counties Asylum contained, on the 31st of December last, 241 patients, its population having increased by 10 during the previous twelve months. The Commissioners in Lunacy speak in approbatory terms of its condition and management, and especially advert to the kindly relations which subsist between the patients and the officials of the institution. Dr. Grierson, the medical superintendent, refers to the case of a woman who placed herself under care in the asylum, in order to be protected against a strong impulse to suicide, by which she was from time to time assailed. No one could have a greater horror than she at the idea of self-destruction; and yet she feared that she might be forced, in spite of her most valiant resistance, into the commission of the act which she loathed, and so sought the aid of those restraints which a lunatic hospital affords. One patient escaped from the asylum during the terrible storm of last winter, and wandered amidst sleet and snow on to a desolate moorland, where he was found so benumbed and exhausted, that all efforts at resuscitation proved inefficient.

THE LINCOLN LUNATIC HOSPITAL.

MEDICAL men who are often at a loss to find suitable accommodation for lunatic patients who are not paupers, but whose means are small, will be glad to know that the Lincoln Lunatic Hospital receives such cases, and affords them the best possible return for such small payments as they are able to make. This hospital, which claims to have been the cradle of the non-restraint system of treating the insane in this country, is now under the superintendence of Dr. Russell, who is strenuous in his endeavours to keep it abreast of all the most recent advances in lunatic asylum administration which are the outcome of that system. The advantages which it now offers to patients of the lower middle class only require to have publicity given to them, say the Commissioners in Lunacy, in order to ensure the immediate filling of the establishment, which at present contains a number of vacant beds.

PRIVATE PATIENTS IN PUBLIC LUNATIC ASYLUMS.

FREQUENT applications, says Dr. Murray Lindsay, in his report on the Derby County Asylum, continue to be received, under the belief that there is some special accommodation for private patients in the county asylum. A want is widely felt in Derbyshire for asylum accommodation for insane persons of the lower middle class, who are willing and able to pay a moderate sum, but whose means do not enable them to meet the charges of private asylums. Dr. Lindsay does not see how these requirements can be satisfied until an arrangement is made to provide separate accommodation for private patients sent to public pauper asylums, as recommended by the Commissioners in Lunacy in their evidence before the Select Committee of the House of Commons on the lunacy laws in 1877; or by some provision similar to that in Mr. Dillwyn's Lunacy Law Amendment Act, now before Parliament.

OBITUARY.

GEORGE ROLLESTON, M.D., F.R.C.P., F.R.S.,

PHYSICIAN TO THE RADCLIFFE INFIRMARY, OXFORD.

WE regret to record the death of Dr. George Rolleston, Physician to the Radcliffe Infirmary, and Linacre Professor of Physiology in the University of Oxford, which took place on June 16th. Dr. Rolleston had been for some time suffering from serious internal disease, and the week preceding his death he was brought home from Paris, in a condition which gave little hope of recovery. Dr. Rolleston was born in July, 1829, at Maltby, Yorkshire. He was educated at Gainsborough Grammar School, Sheffield Collegiate School, and Pembroke College, Oxford. He took a first class in classics in Michaelmas term 1850, and in the following year was elected to a fellowship at Pembroke College. After studying medicine at St. Bartholomew's Hospital, he graduated as M.B. Oxford in 1854. Subsequently, he proceeded to the degree of M.D. in 1857; became a member of the Royal College of Physicians in 1856, and a Fellow in 1859. In 1854, he became assistant-physician to the British Civil Hospital at Smyrna, during the Crimean war, and was afterwards assistant-physician to the Children's Hospital in London. He was appointed physician to the Radcliffe Infirmary, Oxford, in 1857; Lee's reader in anatomy at Christ Church, Oxford, in 1857; Linacre professor of physiology in 1859; Fellow of the Royal Society, and a Fellow of Merton College, in 1872. He was also a Fellow of the Linnean Society. In 1873, he delivered the Harveian Oration before the Royal College of Physicians. In 1875, he was appointed representative of the University of Oxford in the General Medical Council, in succession to Dr. Acland, who had been elected president. Dr. Rolleston was the author of a *Report on Smyrna*, and of *Forms of Animal Life*. He also delivered the

Address on Physiology at the annual meeting of the British Medical Association at Oxford, in 1868.

The death of Professor Rolleston has been the cause of profound pain and regret, not only to his numerous friends and admirers, but to the University and the profession at large. He has been for the last fifteen years a prominent figure among the professors of biological science in this country. As Linacre professor at Oxford, he has exercised a great influence on the preliminary education of a limited, but yet not unimportant, series of students, who have subsequently become students and doctors of medicine. No one could come under his influence without feeling the special charm of his varied knowledge, his personal enthusiasm for scientific pursuits, and his singleness of mind. His erudition was varied and extensive; he was, however, rather a zoologist than a physiologist. Nevertheless, his philosophic mind and his love of far-ranging study made him a teacher of valuable influence; while the purity and enthusiasm of his mind endeared him to his pupils, who felt that their whole character was elevated by contact with him.

HENRY DAY, M.D., F.R.C.P.,

PHYSICIAN TO THE STAFFORDSHIRE INFIRMARY.

We regret to announce the death of Dr. Henry Day of Eastgate House, Stafford. For many years, he was one of the leading physicians of the county, and was well known to most of the leading medical men of the day. Dr. Day received his professional education at Guy's Hospital and in Paris. He became a Licentiate of the Society of Apothecaries in 1835; a member of the Royal College of Surgeons of England in 1842; a Doctor of Medicine of the University of St. Andrews in 1858; an extra-licentiate of the Royal College of Physicians in 1856, a member in 1860, and a Fellow in 1870. He had held the offices of President of the St. Andrews Medical Graduates' Association, and of the Staffordshire Branch of the British Medical Association. For twenty years, he filled the post of physician to the Staffordshire General Infirmary, where he was foremost in introducing all the modern improvements in medical science. He was the author of *Historical Steps of Modern Medicine; A Treatise on Ozone; The Spinal Origin of Rheumatism; Brain-Lesions and their Consequences*, etc. His writings and contributions to the various medical papers at once proved him to be able, both as a scholar and as a physician. He died at the age of 67, after an illness of a few months' duration.

Murder of an Asylum Superintendent.—Dr. Gérard Marchant, director of the Lunatic Asylum at Toulouse, died on June 21st, in consequence of being shot with a pistol by an insane patient under his charge.

Bradford Vicinity.—For this district, Mr. Butterfield has again to report a satisfactorily low death-rate (20.9 per 1,000), which was 2.7 below the average of the past six years. The zymotic death-rate was also below the average in the first three quarters, but slightly above in the fourth quarter, a result which is attributed to the epidemic prevalence of scarlet fever and the persistent mortality from diarrhœa during October. In 1879, the number of deaths from this disease was 67, the lowest ever recorded in Bradford. Last year, the number of deaths rose to 278, which was 754 above the average of ten years. Referring to this excessive mortality, Mr. Butterfield, in a chapter of great interest, states that, of the infantile deaths from diarrhœa, about 80 per cent. were children who had been fed otherwise than from the breast. He attributes, as one of the primary causes of the diseases, the putrefactive change which milk rapidly undergoes in hot weather; whilst a close and confined atmosphere, especially when polluted with decomposing filth, is another powerful determining cause of the disease. Not less interesting is the account given of the outbreak of "woolsorters'-disease", which induced the Local Government Board to institute an inquiry into the whole subject by one of their medical inspectors. Several instances are given of the spread of scarlatina by schools, the most notable being the case of a Board school, where some of the children amused themselves by picking the shreds of epidermis from the desquamating skins of two of their companions. Whooping-cough was unusually prevalent throughout the year, and there was a smart outbreak of measles in the earlier months. Sanitary progress was not neglected during the year. One of Fryer's patent destructors was erected, and arrangements are to be made for the establishment of others: 1,938 ash-pits and privies were repaired and provided with suitable doors and covers, and 1,786 were removed from objectionable situations and constructed upon improved sites. The disinfecting apparatus (Ransome's) continues to be useful and efficient; the total number of articles disinfected last year being 3,051. In other respects, the sanitary work of the borough has been energetically carried out under the vigilant supervision of Mr. Butterfield.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, June 16th, 1881.

Lukhia, Jehangir Cursetji, Arlingford Road, Brixton.
Trapp, John Lest, Wellfield House, Bedford.

The following gentleman also on the same day passed the Primary Professional Examination.

Newsholme, Henry Wilkinson, University College.

King and Queen's College of Physicians in Ireland.—At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, June 6th, 7th, 8th, and 9th, the following candidates were successful.

For the Licence to practise Medicine and Midwifery.—Thomas Hobbs Crampton, London; Charles James Douglas, Belturbet, Co. Cavan; Robert James Fayle, Parsonstown, King's Co.; Michael Edward FitzGerald, Gort, Co. Limerick; Patrick Joseph Austin Kealy, Navan, Co. Meath; Daniel Francis Butler Reardon, Elton, Co. Limerick; James Steel Swain, Athlone.

For the Licence to practise Medicine.—Thomas Greatrex, Nottingham.

For the Licence to practise Midwifery.—Thomas Noonan, Kanturk, Co. Cork.

The following Licenciates in Medicine, having complied with the by-laws relating to Membership, have been duly enrolled Members of the College.

William Doyle, 1859, Surgeon Major (retired), Dublin; Sir William Carroll, 1860, Dunleary, Co. Dublin; Peter Aloysius Colles, 1877, Waterford; Alexander Samuel Faulkner, 1877, Surgeon Bombay Army.

University of Dublin.—School of Physic in Ireland.—At the Trinity Term Examination for the Degree of Bachelor of Medicine, held on Monday, June 13th and the three following days, the successful candidates passed in order of merit as under.

Louis T. Young; H. Gordon Hull; Thomas Myles and Augustus W. Wynne (equal); Francis J. Jencken; James M. Irwin; Thomas Donnelly; Augustus Nicksen; Donald St. J. Grant; Thomas J. Lowe; Reginald H. Moore; J. Allman Powell; Thomas W. Lewis; John W. Macpaill; Thomas Stanton; Charles Gaster and Henry B. Pope (equal); Thomas W. O'Hara Hamilton; Reginald T. Morley; William S. Elliott; Thomas A. Baldwin; James C. Stronge; Edward Colebrooke and Edward C. Natzle (equal); Dawson Henry; William C. Lucas; Alfred Maher; William H. MacCarthy.

Queen's University in Ireland.—At a meeting of the Senate, held on Monday, June 20th, in St. Patrick's Hall, Dublin Castle, the following degrees and diplomas were conferred by His Grace the Duke of Leinster, K.P., Chancellor of the University.

Degree of Doctor in Medicine.—Henry Harper, of Queen's College, Galway; Michael Lawless, Galway; Walter C. Johnston, Cork; Samuel F. Longbottom, Cork; Daniel Lynch, Cork; Joseph R. M'Donnell, Galway; Jeremiah M'Keown, Cork; James Minniece, Belfast; Gerald Mitchell, Cork; David T. Moneath, Belfast; David J. O'Mally, Galway; George H. Powell, Galway and Cork; John Redmond, Belfast; Alexander C. Robinson, Belfast; Robert L. Rutherford, Galway; David M. Saunders, Cork; William D. Sexton, Cork; James Simpson, Belfast; Henry Sinclair, Cork; John M. Trimble, Belfast; Charles H. Wheeler, Belfast.

Master in Surgery.—R. Alexander, M.D., Belfast; R. Campbell, M.D., Belfast; W. N. Davies, M.D., Belfast and Galway; J. Geraghty, M.D., Cork; J. Mahin, M.D., Galway; J. F. L. Meenan, M.D., Galway; J. A. Oakshott, M.D., Cork; J. B. White, M.D., Belfast; J. F. White, M.D., Galway; E. Hogan, M.D., Cork; J. Anderson, M.D., Belfast; D. Lynch, Cork; J. M'Kenna, Cork; J. Minniece, Belfast; G. Mitchell, Cork; G. H. Powell, Galway and Cork; D. M. Saunders, Cork; H. Sinclair, Cork; J. M. Trimble, Belfast; C. H. Wheeler, Belfast.

Diploma in Midwifery.—W. N. Davies, M.D., Belfast and Cork; J. A. Oakshott, M.D., Cork; J. B. White, M.D., Belfast; D. Lynch, Cork; J. M'Kenna, Cork; G. H. Powell, Galway and Cork; J. Redmond, Belfast; D. M. Saunders, Cork; H. Sinclair, Cork; J. M. Trimble, Belfast.

MEDICAL VACANCIES.

The following vacancies are announced:—

ASHTON-UNDER-LYNE DISTRICT INFIRMARY—House-Surgeon. Salary, £80 per annum. Applications by 25th June.

BOLTON INFIRMARY AND DISPENSARY—House-Surgeon. Salary, £120 per annum. Applications by 24th instant.

BOROUGH OF SALFORD, WILTON FEVER HOSPITAL, Cross Lane, Salford—Resident Medical Officer. Salary, £[illegible] per annum. Applications to Resident Medical Officer by 30th instant.

BOYLE UNION—Medical Officer for Ballyfarnan Dispensary District. Salary, £120 per annum, with £10 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 27th instant.

CHARING CROSS HOSPITAL MEDICAL SCHOOL—Teacher of Practical Physiology. Applications by July 13th.

CHELTENHAM GENERAL HOSPITAL—Matron Superintendent. Salary, £[illegible] per annum. Applications by July [illegible].

CHESTERFIELD FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION—Physician and Surgeon combined. Salary, £130 per annum. Applications by July 4th.

COTON HILL INSTITUTION FOR THE INSANE—Assistant Medical Officer. Salary, £120 per annum. Applications to Mr. Hewson, Coton Hill, Stafford.

CROYDON UNION—Medical Officer for No. 2 District. Salary, £30 per annum. Applications by June 29th.

DARLINGTON HOSPITAL—Assistant House-Surgeon. Salary, £100 per annum. Applications to Charles T. Anson, Esq., Darlington.

DEWSBURY AND DISTRICT GENERAL INFIRMARY AND DISPENSARY—House-Surgeon. Salary, £80 per annum.

EDMONTON UNION—Medical Officer for Coopers Lane District and Parish of Enfield. Salary, £15 12s. 6d. per annum.

FARRINGDON UNION—Medical Officer and Public Vaccinator for the Shrivenham District. Salary, £70 per annum. Applications by June 28th.

GLASGOW ROYAL INFIRMARY—Physician. Applications, by July 30th, to Henry Lamond, Secretary, 93, West Regent Street, Glasgow.

GLASGOW ROYAL INFIRMARY—House-Surgeon. Applications, by July 30th, to Henry Lamond, Secretary, 93, West Regent Street, Glasgow.

GLASGOW ROYAL INFIRMARY MEDICAL SCHOOL—Teacher of Chemistry, Anatomy, Physiology, Medicine, Materia Medica, Midwifery, Pathology, and Mental Diseases. Applications, by July 30th, to Henry Lamond, Secretary, 93, West Regent Street, Glasgow.

GREAT NORTHERN HOSPITAL, Caledonian Road, N.—Dental Surgeon. Applications by 30th instant.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST—Assistant Physician. Applications by 6th July.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST—Resident Clinical Assistant. Applications by 9th July.

KNIGHTON UNION—District Medical Officer and Medical Officer of Health combined. Salaries, £40 and £15 respectively. Applications by 7th July.

LAMBETH INFIRMARY, Pleasant Place, S.E.—Assistant Medical Officer and Dispenser. Applications by 31st June.

LIVERPOOL NORTHERN HOSPITAL—Assistant House-Surgeon. Salary, £70. Applications by 24th instant.

LUTON UNION—Medical Officer. Salary, £75 per annum. Applications by June 27th.

MENSTRY, IN THE PARISH OF LOGIE—Medical Officer. Salary, £50 per annum, and probably £20 from a society. Applications to Mr. W. Holdane, Inspector of Poor, Bridge of Allan, by 1st July.

MIDDLESEX HOSPITAL—Assistant Dental Surgeon. Applications by June 25th.

NEWTON HEATH DISTRICT, Lancaster—Medical Officer of Health. Applications to John Nield, Clerk to the Local Board, Town Hall, Newton Heath.

OBSTETRICAL SOCIETY—Librarian. Security required for £200. Salary, £100 per annum. Applications by June 30th.

OSWESTRY UNION—Medical Officer to the Llansilin District. Salary, £35 per annum. Applications by July 4th.

PENISTONE UNION—Public Vaccinator and Medical Officer of Health. Salary, £35 per annum.

QUEEN'S HOSPITAL, Birmingham—Surgeon. Applications by 29th June.

ROYAL COLLEGE OF SURGEONS OF ENGLAND—Four Examiners in Medicine and two Examiners in Midwifery. Applications by 29th instant.

ROYAL COLLEGE OF SURGEONS OF ENGLAND—Pathological Curator. Applications by July 4th.

SOCIETY OF APOTHECARIES, London—Twelve Examiners. Applications by July 1st.

ST. BARTHOLOMEW'S HOSPITAL—Two Casualty Physicians. Applications by July 8th.

ST. THOMAS'S HOSPITAL.—Assistant Physician. Applications by 25th instant.

ST. THOMAS'S UNION—Medical Officer. Salary, £60 per annum. Application by 7th July.

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, etc.—Second Assistant-Surgeon. Applications by July 1st.

STOCKTON-ON-TEES HOSPITAL AND DISPENSARY—House-Surgeon. Salary, £100 per annum. Applications by 5th August.

WHITCHURCH UNION, Hants—District Medical Officer of Health and Public Vaccinator for St. Mary Bourne District. Salary, £30 per annum. Applications by 30th June.

WILTS PAUPER LUNATIC ASYLUM—Medical Superintendent. Salary, £600 per annum. Applications by July 5th.

MEDICAL APPOINTMENTS.

BEVAN, William Francis, appointed Assistant Medical Officer to the Sheffield Union.

BOWLES, H. S., M.B., appointed Senior House-Surgeon of the Torbay Hospital and Provident Dispensary, *vice* G. W. H. Cumming, L.R.C.P., resigned.

CAMPBELL, John M., M.B., appointed Medical Officer to the Parochial Board of Old Kilpatrick, *vice* James Kilpatrick, L.R.C.P., resigned.

CARMICHAEL, J., L.R.C.P.Ed., appointed Physician to Anderson's College Dispensary, Glasgow.

CHANCE, W., M.R.C.S., appointed Assistant Surgeon to the Central London Ophthalmic Hospital, *vice* W. S. Payne, M.B.

CHEESMAN, J. W. S., L.R.C.P.Ed., appointed Assistant Medical Officer to the Metropolitan Asylum District, *vice* C. Mercier, M.B., resigned.

COOPER, F. Marriott, M.B., appointed Medical Superintendent to the Worcester County Asylum, *vice* James Strachan, M.D., deceased.

COUPER, J. W., L.R.C.S.E., appointed Medical Officer to the St. Cuthbert's District of the Edinburgh Parochial Board.

CRAWFORD, W., M.D., C.M.Edin., appointed House-Surgeon to the Croydon General Hospital, *vice* C. E. Newman, L.R.C.P.Lond., resigned.

GRUBBIN, G. F., M.R.C.S., appointed Junior House-Physician to the Westminster Hospital.

DODDS, W. J., M.D., appointed Medical Officer to the Birmingham Borough Asylum.

HAMIL, R. J., M.R.C.S., appointed Assistant Medical Officer to St. George's-in-the-East Infirmary.

HOPE, E. W., M.B., appointed Resident Medical Officer to the Netherfield Institution, *vice* W. R. Parker, M.R.C.S., resigned.

JOHNSTON, J. A., L.R.C.S.I., appointed Assistant Medical Superintendent for Monaghan District Lunatic Asylum, *vice* C. Norman, M.K.Q.C.P.I., resigned.

MEESON, Alfred, L.S.A., appointed Assistant Medical Officer to the Toxteth Park Union.

MIDDLETON, William Henry, L.R.C.S.I., appointed Visiting and Consulting Physician to the Mullingar District Lunatic Asylum, *vice* G. Stokes, M.D.

MORGAN, W. Lewis, M.A.Oxon., M.R.C.S., L.R.C.P.Lond., appointed Surgeon to the Radcliffe Infirmary, Oxford.

OLIVER, J., M.B., appointed House-Surgeon to the Durham County Hospital.

PRICE, W. H., M.R.C.S., appointed Medical Officer to the Corwen Union.

RAILTON, T. C., M.B., appointed Assistant Medical Officer to the Clinical Hospital, Manchester.

ROLER, A. C., M.R.C.S., appointed Honorary Surgeon to the Exeter Lying-in Charity, *vice* C. H. Roper, M.R.C.S., deceased.

RICHARDSON, J. H. H., M.R.C.S., appointed Medical Officer to the Wandsworth Provident Dispensary.

THOMSON, Alex., M.B., appointed Assistant Medical Officer to the Montrose Royal Lunatic Asylum, *vice* W. J. Dodds, M.D., resigned.

WHITE, T. G., L.K.Q.C.P.I., L.R.C.S.I., appointed Surgeon to the Colar Gold Mining District, Mysore, India.

WINSLOW, H. F., M.D., appointed Honorary Physician to the Western General Dispensary, *vice* M. Prickett, M.R.C.S.Eng., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

YOUNG.—At Follett House, Devonshire, on the 11th instant, the wife of David Young, M.D., Florence, of a daughter.

MARRIAGE.

COX—M'DOWELL.—On June 15th, at Christ Church, Claughton, Birkenhead, by the Rev. Canon Robson, Joshua J. Cox, M.B., F.R.C.S.Edin., of Eccles, near Manchester, to Evelina Louisa, elder daughter of Charles A. M'Dowell, of Sandridge House, Oxton.

DEATH.

SWINSON.—On the 21st instant, at Braithwaite Road, Sparkbrook, Birmingham, Henry Leonard, eldest and dearly loved son of Henry and Sarah Swinson, aged 21 years. R. I. P. Friends will please accept this intimation.

HEALTH OF FOREIGN TOWNS.—Trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities may be derived from the following statistics, supplied in the Registrar-General's last weekly return. In the three principal Indian cities, the annual death-rate averaged 34.9, and ranged from 28.4 in Calcutta, to 38.6 in Madras; cholera caused 43 deaths in Calcutta and small-pox 69 in Madras, while a large proportion of the deaths in each of the three cities was referred to "fevers". The rate in Alexandria was equal to 31.0, and only one fatal case of small-pox was noted. According to the most recent weekly returns, the average annual death-rate in nineteen European cities was equal to 29.8 per 1,000 of their aggregate population, showing the usual marked excess upon the average rate in twenty of the largest English towns, which did not exceed 19.5 during last week. The rate in St. Petersburg was so high as 65.7, and showed a further increase upon the rates in recent weeks, no fewer than 153 fatal cases of typhus and typhoid fevers being recorded. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate did not average more than 24.3, although the rate was equal to 30.9 in Stockholm, where the 100 deaths included 3 fatal cases of diphtheria. The Paris death-rate was equal to 27.5, and showed a further decline from the rates in recent weeks; typhoid fever, however, caused 17, small-pox 16, and diphtheria and croup 52 deaths during the week. Notwithstanding the somewhat fatal prevalence of measles, the death-rate in Brussels did not exceed 20.8, while in Geneva it was only 18.2. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the highest death-rate was 20.7 in Amsterdam, and the lowest (20.3) in the Hague. The Registrar-General's table includes seven German and Austrian cities, in which the death-rate averaged 28.5, and ranged from 19.4 in Dresden to 31.9 in Munich, and 34.8 in Buda-Pesth. Small-pox caused 18 deaths in Vienna and 6 in Buda-Pesth, while 23 deaths were referred to typhus in Buda-Pesth and 3 in Hamburg. The death-rate was equal to 26.2 in Turin and 22.8 in Venice, diphtheria being somewhat fatally prevalent in both these Italian cities. In four of the principal American cities, the death-rate, calculated upon the enumerated population in 1880, averaged 22.9, and ranged from 19.1 in Philadelphia, to 27.6 in New York. Small-pox caused 29 deaths in Philadelphia and 15 in New York.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th.; 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

SELF-SUPPORTING DISPENSARY.

M.B.—The scale of payments is certainly low. It would be wiser to charge a somewhat higher rate. In all such dispensaries it is usual to admit children at a reduced price. We presume that, in this instance, there are a strict "upward limit" and an entrance fee. These are points upon which "M.B." gives us no information, but they have an important bearing upon his question.

VACCINATION.

SIR,—I cannot help thinking that, in seeking far and wide for contrivances for successful vaccination, we are to some extent neglecting our more obvious way. When at all possible—and I think it is almost uniformly at least possible—vaccination should be done direct from the arm. Tubes, glasses, and points, are all more or less, as we might expect, subject to failure, and should be only for exceptional use. Obtained from even the highest accredited source, the lymph is often not what it ought to be. The "selection of the fittest" would serve as well in vaccination as it does in most other cases. There is everywhere no dearth of healthy pure-blooded children among the poor. It would be easy to select the best—a healthy child with fine pustules. A liberal and legally recognised pecuniary reward to the mother, with a nice certificate of the child's superiority in health and fitness, and some tenderness in the operation, would bring an ample number of poor mothers with their children for selection. The case approved and countersigned would be the best possible for arm-to-arm vaccination, and about twenty might be done from one such arm. Such a child seen by all would take away most of the unpopularity from the operation as it is now done; *i.e.*, from sources not seen. To legalise reward and certificate, and to discourage other sources, would, I am sure, save us from seeking, as we do, in a bewildered way for other sources and contrivances; and if effectual, as no doubt it would be, it would be cheaper also. When there comes to be a run upon calf-lymph, the source of which will be more or less out of sight, and the reward great, it is more than likely that this too, like most things now, may become of careless selection or factitious, and so vaccination will be still more discredited. I well recollect the early vaccination at Surrey Chapel was done as above recommended, and in no other way, and that the result was of the most satisfactory kind.—Your obedient servant.

W. RENDLE.

Treverbyn, Dartmouth Park, Forest Hill, S.E.

VACCINATION WITH CALF-LYMPH.

SIR,—Dr. Morton might have noticed that I expressly stated that I was speaking, not of the ordinary tube, but of that supplied by Dr. Renner. I prefer to make four places. He is, moreover, referring to human-lymph and I to calf-lymph; and the result of his last vaccination is all important. I am aware of the plan of diluting lymph with glycerine; but the results I obtained from some human-lymph lead me to conclude it needed no further tampering with on my part.—Yours truly,

A. TEEVAN

116, Netherwood Road, West Kensington Park, June 17th, 1881.

JUSTITIA had better communicate direct with Mr. Silverlock.

INQUIRER (Crieff).—None of the persons mentioned have a legal right to call themselves "Dr.", nor has any one the legal right to prefix the word "Dr." who is not an M.D. of an university; nevertheless, that title is often given in courtesy, and assumed in virtue of that custom by the licentiates and members of the various colleges and physicians, as well as to bachelors of medicine.

MEDICAL REFORM.

SIR,—In the list of subjects into which the Royal Commission are appointed to inquire, I fail to notice "Medical and Surgical Titles". It has always seemed to me a matter of secondary importance as to whether a man styles himself Dr. or Mr., for the former is very vague, and by the great majority of the public the words Dr. and Mr. are convertible terms. But I am of opinion that the man, who it may be was but yesterday a druggist, having got a licence from the Apothecaries' Hall, puts two or three plates on every outside door of his premises with the word "Surgeon" in bold characters on each, should be restrained from using the title of Surgeon. For the licence of the Apothecaries' Hall, no knowledge of surgery is required; and having obtained this licence, the holder thereof at once boldly proclaims himself to be exactly that which he is not, and it seems as if no one either would or could prevent him.—Yours, etc.,

ASSOCIATE.

CHLORIDES OF IRON.

SIR,—I do not see what good is to be gained by a prolongation of the discussion on the relative value of the iron chlorides. Mr. Masterman shows that he does not accept the dictum of such an authority as Dr. Bell, who originated the muriate of iron treatment.

I beg to solicit an opinion that may set the question at rest. I am myself fully persuaded that both a therapeutical and chemical difference does exist, and that tinctura ferri perchloridi is as widely separated from tinctura ferri muriatis (*Ed. Ph.*) as any two drugs need be. Mr. Masterman states that they are identical, both chemically and therapeutically. I will be glad to know which opinion is wrong.—Yours obediently.

WILLIAM DONOVAN.

Whitwick, June 14th, 1881.

CYMRO.—The subject is one on which we have no special information. There are a dozen of old and good life-offices, such as the Union; the Alliance; the Clerical and Medical, St. James's Square; and others; but we cannot assist in making a choice.

WHOOPING-COUGH.

MR. C. J. EVANS (Northampton) says that, in a somewhat large dispensary practice, he has found the best results attend the employment of belladonna and hydrocyanic acid, as in the subjoined prescription, especially during the spasmodic stage of the disease. He has not found it necessary to recommend any special form of diet. He prescribes: Potassæ nitratis gr. v; vini ipecacuan. ℥v; liquor ammoniæ acetatis ʒss; tincturæ belladonnæ ℥iv; acidi hydrocyanici diluti ℥ii; aquam ad ʒss. This is for a child of three years and upwards; one to two tablespoonsful under that age.

SIGMA asks: Can any of the members suggest a remedy for the scurfy state of head following ringworm?

AXILLARY HYPERIDROSIS.

SIR,—Will any of your readers kindly suggest some remedy for this unpleasant affection? The subject is a finely developed healthy man, twenty-nine years of age; and the complaint was first noticed after a visit of a few weeks' duration to Singapore about four years since. The sweating commences after breakfast, and is equally profuse in the winter as in the summer, whether sitting still or moving about. The sweating seems to cease towards the latter part of the day; as after changing his shirt, etc., before dinner, he finds the dry one then put on remains so for the rest of the evening, even if moderate exercise be taken. No medicine has been given internally; but the following local applications, in the form of ointments, have been severally tried without any lasting benefit: zinc, oleate of mercury, belladonna, salicylic acid.—I am, sir, yours faithfully,

A MEMBER BRITISH MEDICAL ASSOCIATION.

M.B. (Nottinghamshire) has evidently failed to notice that a work by Mr. Burdett on the Organisation of Cottage Hospitals is now in its second edition, and is published by Churchill and Co. It has been extensively advertised and noticed.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

ERRATUM.—In Dr. Howard's paper in last week's JOURNAL, at page 965, column i, lines 24 to 27, commencing with the words "from those encountered" should read as follows: "from those encountered by physicians in the actual treatment of the drowned, while they entirely miss the first facts in the problem respecting the best instruction for the treatment of the drowned for the use of the largest number of uneducated laymen".

WINE-BOTTLE IMPACTED IN RECTUM.

SIR,—In answer to the question put by "Ignoramus", in your issue of June 18th, I may state that a hole may readily be drilled through the bottom of a glass bottle by means of a diamond-pointed drill worked by the modified form of lathe commonly known as the "Dental Burring Engine", which may be used with the greatest delicacy, and without any force worth speaking of in the way of pressure. The same instrument, with a different point, has already been used for the removal of exostoses from the ear, where, of course, great care and precision are necessary. I should mention that the drill should be kept lubricated, from time to time, with oil of turpentine. An ordinary steel drill lubricated in this way, and worked by hand, is a common method employed for drilling holes in glass and china articles, which are worth repairing, for the purpose of uniting the fragments by means of a soft metal wire, which may then be fixed by riveting or by cementing. I should think that, by the means I suggest, a hole might be drilled through a thickness of a quarter of an inch of glass, in from fifteen to twenty minutes; but, of course, the fact of the bottle being in the bowel would greatly add to the difficulty.—I am, sir, yours truly, E. I. M. P.

Liverpool, June 18th, 1881.

SIR,—On reading the case reported by Mr. Stanton, the idea at once occurred to my mind that, if firmly impacted so as to resist the required pressure, a common German drill, with a well-tempered steel bit conical pointed, rather flattened, with four cutting edges, and dipped frequently in spirits of turpentine, would readily drill a hole in the bottom of the bottle. Of course, it would be more easily and quickly done with a diamond drill, which can be always obtained in a city or large town; and the hole could be afterwards enlarged, and a piece of stick with string attached, as suggested by Dr. Steel, could then be inserted. The hole once obtained, many methods of removing the bottle will occur to most minds.—I am, yours faithfully, J. C. S. JENNINGS.

LEMON-JUICE IN GOUT.

SIR,—I should wish to ask your correspondents as to their experience of the value of lemon-juice in acute gout. This remedy was in high reputation about twenty-five years ago. Is it found to arrest the acute pain attendant on the early stage of the complaint? Is it conjectured that the citrate of lithia is formed in the blood, and thus arrests the exciting cause of the malady?—I am, etc.,

MEDICO-CHIRURGICUS.

LE PETIT MAL DURING VACCINATION.

SIR,—In the *Medical Times and Gazette* of August 1871, page 183, Dr. J. Thompson Dickson recorded three cases in which slight attacks of "le petit mal" occurred during vaccination. Since the appearance of this paper no one, so far as I know, has alluded to the occasional occurrence of such attacks. During the last few months, I have vaccinated between three and four hundred patients, and of these six or seven have gone off into dead faints, in one attended with vomiting, but in no instance followed by convulsions. It would be interesting to know whether a similar experience has been met with by other observers.—I am, etc.,

RICHARD NEALE, M.D.Lond.

60, Boundary Road, S. Hampstead, N.W., June 10th, 1881.

CHOROID PLEXUSES.

SIR,—Mr. Egan is mistaken; I fell into no error in criticism. Dr. Moxon did state that such a mechanism as that of the choroid plexus in the fourth ventricle escaped observation; and at the end of his last lecture he made a qualifying statement to the effect that the occupation of the cornu of the fourth ventricle by the choroid plexus had not been mentioned. Ledwich describes it in its proper anatomical position—the position mentioned by Dr. Moxon. Dr. Moxon related the case of a Guy's man who, when he stated there was a choroid plexus in the fourth ventricle to an examiner at the London College, was told that he should know better, that the plexuses were in the lateral ventricles. This was his apology for saying so much on the subject of the "choroid plexus". And again, turn to his sweeping condemnation of all anatomical writers for their neglecting to describe ventricular and subarachnoid continuity, I venture to say that Ledwich has insisted upon this as fully in his teaching, and as forcibly in his writings, as Dr. Moxon.

I do not dispute the flowing and lively style of Dr. Moxon, but, after all his sarcasm, if I saw a man's respiratory or cardiac functions in danger of arrest through inhaling chloroform, or a person fainting from a minor operation, still I should be inclined to make him stand upon his head rather than his feet, and this notwithstanding our ambition to the contrary attitude. My confidence in the method is based upon direct experience, and nine surgeons out of ten will support this opinion. I am, sir, your obedient servant, JOHN LOWE.

Lichfield, May 23rd, 1881.

VACCINATING ECZEMATOUS CHILDREN.

SIR,—The old saying, "Nihil novum sub sole" is frequently verified; and "M.B.Edin." will perhaps not be surprised to hear that even acupressure and the antiseptic treatment of wounds are only revivals (more elaborate and scientific) of practices of two thousand years ago. Since I wrote in your pages eight months ago, I have received two letters from medical gentlemen, who have kindly told me where I could find the narration of one or two cases of chronic eczema which had been cured by vaccination; but I have had over twenty letters from medical men residing in various parts of the country, not only asking for more information, but also thanking me for having brought the subject to their notice. I am therefore perfectly satisfied that the practice of vaccination in eczema was not generally known previously to my letters, which involved at the time some little discussion; and, as I then stated, I could find no reference to this subject in any of the medical works I had at hand. I certainly did not spend eight months in the search, nor did I look into works printed seventy-two years back, or I might have made the same discovery "M.B.Edin." did. Personally, I do not care one jot whether I am the first to do, narrate, or revive any practice; all I want is, if possible, to do good to my patients, and occasionally, if I can, drop a kindly and useful hint to my professional brother.—Yours obediently, C. D. HILL DRURY

3, Bucklersbury, E.C., May 30th.

IODOFORM.

SIR,—I notice that Mr. Squire draws attention to the therapeutic value of iodoform as an application to all forms of ulcerations of the skin and some eruptions. In specific ulcerations of the skin, no doubt it is one of our most valuable applications, both in the hospital and out; but there is one drawback to its use, and one which I find others beside myself notice—that patients complain of the "intolerable smell" of it. It would be desirable to know in what vehicle this can be completely covered. It has been used with vaseline, lard, ether, and many of the strongest essential oils, to cover its odour; it even has been covered with collodion, but to no purpose. Mr. Squire would favour us greatly, and further its value as a drug, if, in his experience, he knows of any vehicle that will completely destroy the odour of iodoform, and will inform us.—I am, yours obediently,

16, Sackville Street, W., June 6th, 1881. JAMES STARTIN.

DR. FREDERICK SIMMS.—The desired information may be obtained from Mr. B. W. Bayley, Honorary Secretary, Battersea Provident Dispensary, 175, High Street Battersea, S.W.

WANT OF DOCTORS IN SHETLAND.

WE read that the Shetland Islands at present appear to be in a bad way for want of medical men: one of the resident doctors asserts as to three-fourths of the deaths that occur in the islands, that their causes are never certified. Excluding the burgh of Lerwick, there are only six medical men to administer to the wants of a population of 27,000, thus giving 4,500 people to each doctor. Dr. White, of Busta, has published an appeal upon the subject, urging that either by Government grant, or charity, funds should be provided to establish dispensaries in the places most distant from doctors, and to pay medical men for attending these places at least once a week. Dr. White says that although the death-rate was very low in the rural districts in the islands—being less than 13 annually per 1000 of population—it is almost inconceivable that amongst the 75 per cent of rural Shetlanders who die unattended by medical men there would not be many whose distress would be much increased by the reflection that they could not procure the aid which is so firmly relied upon by the sick and dying. A doctor's life in those northern regions is not one of ease or great emolument. Dr. White's own district comprises an area 25 miles long by 16 broad, in many places intersected by arms of the sea running into the land, and thus doubling the distance a doctor has to travel to a patient. In such circumstances it is not to be wondered at, that the case is often beyond medical aid before such assistance arrives. A considerable number of clergymen, however, have a knowledge of the healing art, and prescribe and supply remedies for simple maladies.

NOVICE.—Under the circumstances stated, we do not see that anything improper was done.

A PROVINCIAL FELLOW.—Yes. Mr. Reginald Harrison, of Liverpool, a candidate for a seat in the Council, is an old Bartholomew's man.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Joseph Coats, Glasgow; Dr. Brailey, London; Dr. F. Johnson, St. Leonard's-on-Sea; Mr. A. Seward, London; Mr. H. Lowndes, Liverpool; Dr. Creswell Baber, Brighton; Dr. R. Hamilton, Liverpool; Justitia; Mr. G. Eastes, London; M.B.; Dr. Joseph Rogers, London; Inquirer; Our Edinburgh Correspondent; Dr. W. E. Bessey, Montreal; M. B. F.; A Naval Medical Officer; Medicus; Mr. J. C. S. Jennings, Malmesbury; The Unfortunate Junior Partner; Mr. H. C. Calcraft, London; Dr. Duffey, Dublin; Mr. J. B. Kenny, Belturbet; Mr. H. R. Ker, Birmingham; Anxious Inquirer; Dr. F. R. Lee-Strathy, Harborne; Dr. S. Biggart, West Hartlepool; Facomnia; Dr. J. W. Cook, Manningtree; Novice; Dr. Smiles, Croydon; Dr. H. Gervis, London; Dr. Goyder, Bradford; Dr. A. W. Barclay, London; Dr. Louis Henry, Melbourne; Dr. John Thomson, Brisbane; Mr. W. W. Godfrey, Belfast; Dr. W. Talbot King, London; Dr. Fairlie Clarke, Southborough; Our Glasgow Correspondent; Dr. Leech, Manchester; M. B.; Our Aberdeen Correspondent; Dr. C. M. Moullin, Oxford; Mr. E. Robinson, Sandwich; Dr. T. F. Chavasse, Birmingham; Mr. T. L. Walford, Reading; Dr. Albert Westland, London; R. S. P. I.; Dr. C. E. Glascott, Manchester; Colonial Practitioner; Dr. B. Schwarzbach, Southsea; Dr. Humphry, Cambridge; Mr. Thomas Cooke, London; etc.

BOOKS, ETC., RECEIVED.

Lectures upon Diseases of the Rectum, and the Surgery of the Lower Bowel. By W. H. Van Buren, M.D., LL.D. London: H. K. Lewis, Gower Street. 1881.

The Hunterian Oration. By L. Holden. London: J. and A. Churchill. 1881.

Forty-Second Annual Report of the Registrar-General. London: Eyre and Spottiswoode. 1881.

Student's Guide to the Practice of Medicine. By M. Charteris, M.D. Third Edition. London: J. and A. Churchill, New Burlington Street. 1881.

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